

50-305

RESPONSE TO NUREG-0737 ITEM II.D.1

Docket # *50-305*

Control # *8403280048*

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

.3840	-917.	744.	132.	183.	1901.	-105.	-.0517	.0442	.0284	-.0750	-.0239	.0550	1289.
.3850	-915.	738.	130.	195.	1930.	-47.	-.0492	.0440	.0271	-.0735	-.0197	.0576	1308.
.3860	-905.	744.	126.	242.	1918.	10.	-.0458	.0436	.0254	-.0714	-.0159	.0594	1303.
.3870	-882.	749.	119.	311.	1867.	73.	-.0416	.0433	.0232	-.0690	-.0125	.0607	1277.
.3880	-843.	744.	111.	383.	1779.	151.	-.0367	.0429	.0207	-.0665	-.0093	.0618	1231.
.3890	-787.	724.	110.	442.	1659.	247.	-.0310	.0424	.0177	-.0640	-.0062	.0628	1169.
.3900	-715.	686.	114.	473.	1510.	359.	-.0249	.0419	.0144	-.0618	-.0030	.0641	1094.
.3910	-634.	622.	111.	468.	1334.	484.	-.0183	.0414	.0107	-.0599	.0002	.0658	1007.
.3920	-549.	545.	96.	430.	1131.	615.	-.0114	.0407	.0069	-.0582	.0036	.0682	915.
.3930	-460.	471.	71.	362.	906.	739.	-.0043	.0400	.0030	-.0568	.0070	.0713	825.
.3940	-375.	403.	36.	267.	666.	848.	.0027	.0392	-.0010	-.0555	.0105	.0750	749.
.3950	-300.	340.	-15.	149.	417.	937.	.0095	.0383	-.0048	-.0541	.0137	.0791	698.

ADLPIPE PAGE 1015

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.58.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	22	MEMBER	1	SEQUENCE	138	LOCATION	BEG	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3960	-239.	286.	-79.	19.	171.	1002.	.0158	.0372	-.0084	-.0528	.0169	.0837	685.		
.3970	-189.	248.	-149.	-115.	-58.	1046.	.0216	.0361	-.0115	-.0515	.0198	.0883	710.		
.3980	-149.	222.	-216.	-249.	-256.	1075.	.0264	.0349	-.0142	-.0502	.0227	.0927	764.		
.3990	-118.	201.	-275.	-377.	-410.	1096.	.0301	.0338	-.0163	-.0490	.0254	.0965	829.		
.4000	-96.	186.	-325.	-489.	-516.	1109.	.0327	.0327	-.0178	-.0481	.0278	.0995	888.		

MAXIMUM VALUE OF STRESS OCCURS AT

TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1110	504.	5647.	-251.	11979.	-707.	-8622.	.0660	-.0391	-.0404	-.1572	.0872	.1297	9960.		

SECTION	22	MEMBER	1	SEQUENCE	39	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.		
.0010	-3.	-3.	-5.	2.	-1.	-1.	-.0000	.0000	-.0000	-.0000	.0000	.0000	2.		
.0020	-14.	-7.	-29.	18.	-7.	-13.	-.0000	.0000	-.0001	-.0003	.0002	.0002	16.		
.0030	-30.	15.	-61.	67.	-18.	-47.	-.0001	.0000	-.0002	-.0009	.0005	.0006	57.		
.0040	-47.	77.	-95.	159.	-34.	-108.	-.0001	-.0000	-.0003	-.0020	.0011	.0013	132.		
.0050	-72.	157.	-143.	291.	-54.	-193.	-.0001	-.0001	-.0005	-.0038	.0019	.0023	238.		
.0060	-105.	246.	-206.	466.	-73.	-298.	-.0001	-.0002	-.0008	-.0062	.0027	.0036	376.		
.0070	-145.	352.	-287.	704.	-105.	-434.	-.0001	-.0003	-.0012	-.0096	.0040	.0055	562.		
.0080	-196.	497.	-395.	1038.	-172.	-635.	-.0001	-.0005	-.0019	-.0147	.0064	.0083	828.		
.0090	-239.	744.	-483.	1486.	-252.	-931.	.0002	-.0008	-.0027	-.0216	.0108	.0122	1197.		
.0100	-277.	1078.	-542.	2033.	-424.	-1307.	.0008	-.0013	-.0037	-.0302	.0173	.0169	1654.		
.0110	-327.	1398.	-597.	2630.	-511.	-1703.	.0019	-.0019	-.0049	-.0400	.0255	.0217	2148.		
.0120	-381.	1858.	-598.	3223.	-704.	-2056.	.0036	-.0027	-.0064	-.0507	.0347	.0261	2620.		
.0130	-412.	1862.	-448.	3754.	-720.	-2308.	.0061	-.0034	-.0080	-.0617	.0437	.0294	3010.		
.0140	-403.	1964.	-106.	4138.	-583.	-2374.	.0096	-.0040	-.0097	-.0720	.0510	.0304	3240.		
.0150	-354.	1892.	374.	4306.	-294.	-2164.	.0140	-.0044	-.0113	-.0800	.0553	.0283	3254.		
.0160	-242.	1648.	946.	4211.	103.	-1645.	.0192	-.0045	-.0128	-.0843	.0560	.0225	3048.		
.0170	-123.	1213.	1529.	3800.	565.	-886.	.0252	-.0041	-.0143	-.0838	.0544	.0131	2657.		
.0180	-136.	528.	1961.	3033.	1068.	-40.	.0317	-.0024	-.0159	-.0785	.0531	.0010	2168.		
.0190	-251.	-349.	2102.	2006.	1516.	719.	.0384	.0001	-.0181	-.0698	.0546	-.0119	1763.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.58.

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

.0090	-239.	744.	-483.	1486.	-282.	-931.	.0002	-.0008	-.0027	-.0216	.0108	.0122	1197.
.0100	-277.	1078.	-542.	2033.	-424.	-1307.	.0008	-.0013	-.0037	-.0302	.0173	.0169	1654.
.0110	-327.	1398.	-597.	2630.	-581.	-1703.	.0019	-.0019	-.0049	-.0400	.0255	.0217	2148.
.0120	-381.	1658.	-598.	3223.	-704.	-2056.	.0036	-.0027	-.0064	-.0507	.0347	.0261	2620.
.0130	-412.	1862.	-448.	3754.	-720.	-2308.	.0061	-.0034	-.0080	-.0617	.0437	.0294	3010.
.0140	-403.	1964.	-106.	4138.	-583.	-2374.	.0096	-.0040	-.0097	-.0720	.0510	.0304	3240.
.0150	-354.	1892.	374.	4306.	-294.	-2164.	.0140	-.0044	-.0113	-.0800	.0553	.0283	3254.
.0160	-242.	1648.	946.	4211.	103.	-1645.	.0192	-.0045	-.0128	-.0843	.0560	.0225	3048.
.0170	-123.	1213.	1529.	3800.	565.	-886.	.0252	-.0041	-.0143	-.0838	.0544	.0131	2657.
.0180	-136.	526.	1968.	3032.	1068.	-40.	.0317	-.0026	-.0159	-.0785	.0531	.0010	2168.
.0190	-355.	-349.	2102.	2006.	1516.	719.	.0384	.0001	-.0181	-.0698	.0546	-.0119	1763.

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ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.58.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	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)	
.0200	-837.	-1250.	1695.	1015.	1688.	1173.	.0451	.0042	-.0213	-.0610	.0530	-.0229	1545.	
.0210	-1296.	-1541.	1134.	331.	1470.	1173.	.0521	.0096	-.0252	-.0552	.0802	-.0300	1287.	
.0220	-1538.	-1130.	962.	-252.	1355.	913.	.0598	.0159	-.0287	-.0513	.0974	-.0349	1115.	
.0230	-1826.	-1249.	655.	-1129.	1511.	988.	.0674	.0230	-.0321	-.0460	.1062	-.0406	1435.	
.0240	-1712.	-1812.	517.	-2228.	1673.	1870.	.0741	.0311	-.0352	-.0381	.1008	-.0486	2262.	
.0250	-1323.	-2404.	869.	-3499.	1989.	3145.	.0801	.0396	-.0380	-.0278	.0867	-.0570	3443.	
.0260	-1594.	-3437.	1102.	-5100.	3034.	4006.	.0855	.0479	-.0413	-.0149	.0720	-.0633	4826.	
.0270	-1911.	-4190.	1229.	-6494.	4529.	4655.	.0891	.0544	-.0431	-.0007	.0463	-.0682	6191.	
.0280	-1104.	-4053.	1125.	-6944.	4733.	5943.	.0886	.0585	-.0412	.0142	.0076	-.0722	6938.	
.0290	-143.	-3936.	440.	-7114.	3704.	7065.	.0840	.0609	-.0374	.0314	-.0213	-.0726	7204.	
.0300	-438.	-4338.	-162.	-8143.	3798.	6199.	.0766	.0628	-.0342	.0472	-.0290	-.0658	7358.	
.0310	-248.	-4079.	-130.	-8980.	3605.	4797.	.0644	.0639	-.0290	.0560	-.0331	-.0547	7280.	
.0320	958.	-3787.	-707.	-8799.	1386.	4616.	.0457	.0633	-.0200	.0588	-.0446	-.0454	6763.	
.0330	1810.	-3916.	-1508.	-8593.	-925.	4401.	.0235	.0603	-.0083	.0605	-.0534	-.0401	6537.	
.0340	1716.	-3757.	-1156.	-9055.	-1366.	2836.	.0010	.0552	.0045	.0618	-.0529	-.0377	6462.	
.0350	1738.	-3458.	-471.	-9233.	-1699.	1632.	-.0236	.0489	.0178	.0601	-.0549	-.0392	6423.	
.0360	2442.	-3493.	-692.	-8328.	-3479.	2114.	-.0512	.0413	.0310	.0544	-.0669	-.0455	6248.	
.0370	2743.	-3129.	-1022.	-6877.	-4756.	2395.	-.0776	.0315	.0431	.0466	-.0765	-.0534	5863.	
.0380	1900.	-1697.	-786.	-5211.	-4120.	1153.	-.0994	.0186	.0538	.0387	-.0771	-.0598	4545.	
.0390	896.	19.	-1031.	-2778.	-3564.	154.	-.1181	.0037	.0637	.0309	-.0795	-.0637	3048.	
.0400	438.	1017.	-2165.	194.	-4416.	206.	-.1345	-.0114	.0710	.0214	-.0798	-.0614	2983.	
.0410	269.	2171.	-2298.	2722.	-4695.	-423.	-.1457	-.0256	.0746	.0087	-.0703	-.0486	3669.	
.0420	-15.	3488.	-1426.	4674.	-4113.	-1989.	-.1505	-.0391	.0748	-.0043	-.0502	-.0262	4405.	
.0430	-198.	3822.	-1383.	6522.	-4411.	-3016.	-.1503	-.0526	.0729	-.0129	-.0259	.0013	5683.	
.0440	175.	4045.	-1360.	8232.	-5141.	-3567.	-.1445	-.0663	.0699	-.0163	-.0049	.0313	6970.	
.0450	768.	4861.	-296.	9358.	-4807.	-4448.	-.1324	-.0794	.0654	-.0141	.0090	.0605	7699.	
.0460	1037.	4854.	518.	9753.	-3834.	-4990.	-.1165	-.0906	.0582	-.0039	.0119	.0836	7824.	
.0470	1317.	3812.	478.	9729.	-3761.	-4486.	-.0990	-.0994	.0488	.0137	.0040	.0971	7569.	
.0480	1677.	3343.	712.	9415.	-2708.	-3984.	-.0791	-.1063	.0387	.0353	-.0079	.1019	7129.	
.0490	1396.	3525.	1018.	8772.	-1120.	-4291.	-.0571	-.1111	.0284	.0582	-.0195	.0985	6625.	
.0500	684.	3445.	334.	8130.	192.	-4484.	-.0355	-.1132	.0182	.0795	-.0330	.0865	6260.	
.0510	517.	3435.	-618.	7578.	293.	-4037.	-.0159	-.1117	.0085	.0956	-.0464	.0677	5793.	
.0520	532.	3585.	-680.	6345.	621.	-7815.	.0028	-.1051	-.0012	.1062	-.0508	.0449	5008.	
.0530	-155.	2388.	-315.	3966.	1655.	-4024.	.0208	-.0951	-.0115	.1151	-.0451	.0186	3968.	
.0540	-752.	1545.	-102.	1256.	2507.	-7561.	.0373	-.0831	-.0207	.1246	-.0424	-.0123	3055.	
.0550	-520.	716.	233.	-967.	2596.	-2035.	.0519	-.0708	-.0275	.1354	-.0489	-.0462	2317.	
.0560	-415.	130.	563.	-3020.	2967.	-491.	.0658	-.0591	-.0336	.1495	-.0545	-.0790	2876.	
.0570	-1764.	-816.	492.	-5206.	4239.	390.	.0794	-.0493	-.0408	.1668	-.0518	-.1070	4533.	

ADLPIPE PAGE 1017

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.59.

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

.0460	1037.	4854.	18.	9753.	-1834.	-4990.	-.165	-.0906	.0582	-.0039	.0119	.0836	7824.
.0470	1317.	5312.	478.	9729.	-3361.	-4486.	-.990	-.0994	.0488	.0137	.0040	.0971	7569.
.0480	1677.	3343.	712.	9415.	-2708.	-3984.	-.9791	-.1063	.0387	.0353	-.0079	.1019	7129.
.0490	1396.	3525.	1018.	8772.	-1120.	-4291.	-.0571	-.1111	.0284	.0582	-.0195	.0985	6625.
.0500	684.	3441.	334.	8130.	193.	-4484.	-.0355	-.1132	.0182	.0795	-.0330	.0865	6260.
.0510	517.	3435.	-618.	7578.	393.	-4037.	-.0159	-.1113	.0085	.0956	-.0464	.0677	5793.
.0520	532.	3585.	-680.	6345.	623.	-3815.	.0028	-.1051	-.0012	.1062	-.0508	.0449	5008.
.0530	-155.	2888.	-315.	3966.	1655.	-4024.	.0208	-.0951	-.0115	.1151	-.0451	.0186	3968.
.0540	-792.	1545.	-102.	1256.	2507.	-3561.	.0373	-.0831	-.0207	.1246	-.0424	-.0123	3055.
.0550	-520.	718.	233.	-967.	2596.	-2035.	.0519	-.0708	-.0275	.1354	-.0489	-.0470	2317.
.0560	-415.	138.	563.	-3030.	2963.	-491.	.0658	-.0591	-.0336	.1495	-.0545	-.0790	2876.
.0570	-1364.	-816.	492.	-5206.	4239.	390.	.0794	-.0483	-.0408	.1668	-.0518	-.1070	4533.

ADLPIPE PAGE 1017 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.26.59.

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

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

SECTION	22	MEMBER	1	SEQUENCE	39	LOCATION	END	TYPE	RU					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.0580	-2220.	-1394.	174.	-6733.	5305.	1245.	.0912	-.0388	-.0482	.1833	-.0466	-.1275	5838.	
.0590	-2191.	-1137.	-358.	-7083.	5237.	2513.	.1003	-.0314	-.0542	.1966	-.0416	-.1388	6174.	
.0600	-2297.	-809.	-1237.	-6902.	4902.	3372.	.1076	-.0267	-.0590	.2078	-.0276	-.1401	6142.	
.0610	-3001.	-727.	-1910.	-6843.	5057.	3217.	.1137	-.0244	-.0627	.2159	.0009	-.1318	6132.	
.0620	-3128.	-543.	-1744.	-6727.	4874.	2922.	.1173	-.0238	-.0642	.2176	.0351	-.1164	5936.	
.0630	-2258.	-682.	-1094.	-6428.	3679.	3357.	.1167	-.0243	-.0636	.2126	.0564	-.0979	5481.	
.0640	-1448.	-1499.	-296.	-6301.	2516.	3885.	.1130	-.0261	-.0617	.2039	.0260	-.0795	5270.	
.0650	-1202.	-2156.	877.	-6263.	2290.	3709.	.1075	-.0302	-.0586	.1937	.1239	-.0633	5144.	
.0660	-985.	-2005.	1908.	-5529.	2161.	3342.	.0996	-.0372	-.0535	.1819	.1427	-.0517	4592.	
.0670	-763.	-1349.	1826.	-6373.	1339.	3230.	.0886	-.0468	-.0474	.1686	.1505	-.0452	3418.	
.0680	-1102.	-213.	932.	-1145.	611.	2512.	.0761	-.0582	-.0417	.1536	.1561	-.0407	1906.	
.0690	-1920.	1602.	118.	1533.	542.	692.	.0637	-.0703	-.0367	.1361	.1642	-.0352	1191.	
.0700	-2503.	3457.	-731.	4283.	216.	-1211.	.0512	-.0822	-.031.	.1155	.1596	-.0283	3004.	
.0710	-2522.	4706.	-1668.	6926.	-781.	-2463.	.0387	-.0928	-.0262	.0916	.1667	-.0201	4983.	
.0720	-2186.	5485.	-1752.	8850.	-1421.	-3602.	.0278	-.1011	-.0204	.0648	.1573	-.0094	6511.	
.0730	-1613.	5675.	-698.	9655.	-1311.	-4764.	.0191	-.1064	-.0150	.0374	.1430	.0041	7310.	
.0740	-658.	4889.	598.	9619.	-1320.	-5203.	.0115	-.1084	-.0101	.0131	.1211	.0185	7425.	
.0750	622.	3725.	1706.	9222.	-1640.	-4948.	.0047	-.1076	-.0056	-.0053	.0907	.0325	7144.	
.0760	1687.	3095.	2616.	8722.	-1588.	-4925.	-.0009	-.1048	-.0019	-.0162	.0571	.0462	6838.	
.0770	2095.	3023.	2674.	8366.	-1254.	-5390.	-.0056	-.1004	.0008	-.0194	.0258	.0589	6761.	
.0780	1999.	3345.	1452.	8458.	-1332.	-5911.	-.0107	-.0943	.0028	-.0166	-.0023	.0697	7013.	
.0790	1748.	4235.	-282.	8821.	-1712.	-6434.	-.0163	-.0861	.0047	-.0110	-.0264	.0781	7449.	
.0800	1416.	5217.	-1706.	8768.	-1866.	-6974.	-.0221	-.0752	.0069	-.0046	-.0455	.0833	7656.	
.0810	1071.	5290.	-2743.	7835.	-1957.	-6997.	-.0285	-.0613	.0098	.0018	-.0595	.0836	7202.	
.0820	1030.	4362.	-3102.	6025.	-2211.	-6114.	-.0355	-.0447	.0140	.0073	-.0705	.0777	5975.	
.0830	1374.	2923.	-2337.	3418.	-2251.	-4563.	-.0426	-.0262	.0198	.0115	-.0801	.0655	4131.	
.0840	1748.	902.	-949.	174.	-1916.	-2559.	-.0494	-.0070	.0263	.0161	-.0886	.0472	2158.	
.0850	1929.	-1544.	196.	-3138.	-1607.	-182.	-.0560	.0118	.0327	.0221	-.0943	.0241	2379.	
.0860	1948.	-3391.	945.	-5821.	-1425.	2099.	-.0623	.0292	.0382	.0291	-.0959	-.0007	4280.	
.0870	1644.	-4156.	1167.	-7563.	-1141.	3772.	-.0675	.0443	.0424	.0356	-.0932	-.0246	5748.	
.0880	855.	-4335.	391.	-8364.	-931.	4875.	-.0716	.0567	.0447	.0410	-.0861	-.0460	6556.	
.0890	-101.	-4092.	-1063.	-8373.	-1063.	5600.	-.0744	.0665	.0457	.0446	-.0746	-.0636	6827.	
.0900	-797.	-3420.	-2155.	-8088.	-1280.	5947.	-.0751	.0743	.0459	.0447	-.0593	-.0764	6821.	
.0910	-1140.	-3153.	-2485.	-8189.	-1312.	6185.	-.0737	.0811	.0452	.0411	-.0437	-.0848	6973.	
.0920	-1035.	-3963.	-2181.	-8906.	-1337.	6811.	-.0706	.0873	.0437	.0337	-.0326	-.0907	7611.	
.0930	-359.	-5286.	-1087.	-9954.	-1410.	7797.	-.0660	.0926	.0419	.0224	-.0278	-.0951	8576.	
.0940	457.	-6461.	621.	-11020.	-1193.	8588.	-.0595	.0962	.0396	.0082	-.0272	-.0986	9451.	
.0950	937.	-7423.	2025.	-11752.	-613.	8856.	-.0515	.0972	.0359	-.0067	-.0287	-.1018	9927.	

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2 SAFETY COLD FKW24F--2 PSV

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.0850	1929.	-1544.	196.	-3138.	-1607.	-182.	-560	.0118	.0327	.0222	-.0943	.0241	2379.
.0860	1948.	-3391.	945.	-5821.	-1425.	2099.	-.623	.0292	.0382	.0291	-.0959	-.0007	4280.
.0870	1644.	-4156.	1167.	-7563.	-1141.	3772.	-.0675	.0443	.0424	.0356	-.0932	-.0246	5748.
.0880	855.	-4335.	391.	-8364.	-931.	4875.	-.0716	.0567	.0447	.0410	-.0861	-.0460	6556.
.0890	-101.	-4092.	-1063.	-8373.	-1063.	5600.	-.0744	.0665	.0457	.0446	-.0746	-.0636	6827.
.0900	-797.	-3420.	-2155.	-8088.	-1280.	5947.	-.0751	.0743	.0459	.0447	-.0593	-.0764	6821.
.0910	-1140.	-3153.	-2485.	-8189.	-1312.	6185.	-.0737	.0811	.0452	.0411	-.0437	-.0848	6973.
.0920	-1035.	-3963.	-2181.	-8906.	-1337.	6811.	-.0706	.0873	.0437	.0337	-.0326	-.0907	7611.
.0930	-359.	-5286.	-1087.	-9954.	-1410.	7797.	-.0660	.0926	.0419	.0224	-.0278	-.0951	8576.
.0940	497.	-6461.	621.	-11020.	-1193.	8508.	-.0595	.0962	.0396	.0082	-.0272	-.0986	9451.
.0950	937.	-7423.	2029.	-11752.	-613.	8856.	-.0515	.0972	.0359	-.0067	-.0287	-.1018	9927.

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INTERNAL FORCES IN THE PIPING
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SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU								
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.0960	961.	-7692.	2535.	-11544.	-58.	8621.	-.0427	.0952	.0306	-.0218	-.0330	-.1049	9711.	
.0970	777.	-6585.	2269.	-10005.	309.	7801.	-.0334	.0898	.0239	-.0379	-.0398	-.1072	8554.	
.0980	97.	-4473.	1295.	-7439.	809.	6235.	-.0233	.0812	.0155	-.0544	-.0462	-.1079	6566.	
.0990	-1196.	-2179.	-231.	-4391.	1660.	4698.	-.0122	.0700	.0058	-.0714	-.0517	-.1065	4200.	
.1000	-2402.	126.	-1570.	-1150.	2637.	1940.	-.0003	.0570	-.0041	-.0901	-.0598	-.1019	2339.	
.1010	-2886.	2191.	-2091.	1936.	3488.	262.	.0122	.0431	-.0130	-.1110	-.0728	-.0933	2694.	
.1020	-2812.	3225.	-1789.	4281.	4307.	-870.	.0252	.0292	-.0209	-.1324	-.0871	-.0798	4135.	
.1030	-2434.	3081.	-738.	5634.	5198.	-1699.	.0382	.0158	-.0279	-.1521	-.0972	-.0611	5292.	
.1040	-1610.	2498.	957.	6361.	5877.	-2355.	.0507	.0029	-.0335	-.1688	-.1015	-.0374	6050.	
.1050	-457.	1892.	2583.	6940.	5959.	-2858.	.0614	-.0094	-.0376	-.1806	-.0995	-.0102	6459.	
.1060	512.	1379.	3421.	7581.	5466.	-3453.	.0697	-.0208	-.0405	-.1857	-.0885	.0187	6716.	
.1070	1037.	1415.	3518.	8353.	4721.	-4473.	.0751	-.0307	-.0424	-.1839	-.0572	.0474	7136.	
.1080	1099.	1982.	2816.	9302.	3622.	-5821.	.0772	-.0382	-.0437	-.1776	-.0346	.0746	7789.	
.1090	637.	2719.	1129.	10483.	1934.	-7356.	.0758	-.0421	-.0453	-.1715	.0126	.1004	8730.	
.1100	604.	4685.	396.	11660.	536.	-8555.	.0721	-.0426	-.0438	-.1659	.0536	.1197	9754.	
.1110	504.	5647.	-251.	11977.	-707.	-8627.	.0663	-.0391	-.0400	-.1566	.0872	.1292	9960.	
.1120	-20.	4581.	-1028.	10914.	-1606.	-7613.	.0589	-.0311	-.0358	-.1425	.1175	.1294	9035.	
.1130	-234.	3481.	-378.	8967.	-1771.	-6152.	.0515	-.0188	-.0307	-.1284	.1427	.1237	7427.	
.1140	41.	2524.	1199.	6616.	-1687.	-4131.	.0440	-.0032	-.0249	-.1163	.1600	.1141	5379.	
.1150	113.	513.	1850.	4022.	-1883.	-1505.	.0365	.0139	-.0198	-.1036	.1720	.1023	3161.	
.1160	-293.	-1215.	1781.	1747.	-1854.	614.	.0302	.0311	-.0157	-.0903	.1333	.0913	1766.	
.1170	-790.	-1053.	1864.	381.	-1451.	1700.	.0261	.0473	-.0123	-.0777	.1922	.0824	1528.	
.1180	-1250.	-564.	1557.	-620.	-810.	2631.	.0226	.0625	-.0096	-.0650	.1854	.0733	1902.	
.1190	-1557.	-1400.	178.	-1782.	-917.	4305.	.0185	.0767	-.0081	-.0498	.1554	.0627	3201.	
.1200	-1637.	-2277.	-758.	-3303.	-956.	5568.	.0154	.0896	-.0069	-.0332	.1428	.0527	4411.	
.1210	-1790.	-2634.	-789.	-5121.	-9.	5469.	.0137	.1007	-.0062	-.0198	.1197	.0448	5050.	
.1220	-1339.	-3185.	-993.	-6574.	68.	5627.	.0109	.1093	-.0040	-.0123	.0888	.0360	5833.	
.1230	-138.	-4217.	-1348.	-7735.	-857.	6358.	.0060	.1158	.0001	-.0139	.0488	.0260	6774.	
.1240	1140.	-4878.	-877.	-8911.	-1584.	6369.	.0005	.1203	.0048	-.0240	.0140	.0162	7460.	
.1250	1780.	-5279.	72.	-10127.	-1510.	5235.	-.0058	.1231	.0091	-.0395	-.0118	.0054	7751.	
.1260	2135.	-6036.	321.	-10850.	-1521.	4156.	-.0147	.1239	.0130	-.0594	-.0409	-.0088	7898.	
.1270	2963.	-6285.	-155.	-10305.	-2938.	3852.	-.0262	.1220	.0179	-.0839	-.0693	-.0241	7675.	
.1280	3276.	-5236.	-365.	-8999.	-3793.	2601.	-.0366	.1171	.0226	-.1118	-.0842	-.0360	6812.	
.1290	2441.	-3484.	-545.	-7285.	-3400.	226.	-.0448	.1092	.0261	-.1382	-.0849	-.0441	5421.	
.1300	1479.	-2078.	-1353.	-4995.	-3221.	-1349.	-.0522	.0997	.0290	-.1606	-.0862	-.0506	4108.	
.1310	1299.	-1069.	-1845.	-2534.	-3334.	-1462.	-.0586	.0897	.0315	-.1799	-.0966	-.0539	2990.	
.1320	1278.	-444.	-1231.	-691.	-2851.	-1058.	-.0615	.0799	.0331	-.1938	-.1027	-.0505	2102.	
.1330	456.	-721.	-39.	141.	-874.	-1034.	-.0602	.0706	.0324	-.2005	-.1007	-.0397	917.	

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INTERNAL FORCES IN THE PIPING
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.1230	-138.	-4217.	748.	-7715.	-857.	6358.	.0060	.1158	.0001	-.0139	.0488	.0260	6774.
.1240	1140.	-4878.	-877.	-8911.	-1584.	6369.	.0005	.1203	.0048	-.0240	.0140	.0162	7460.
.1250	1780.	-5279.	72.	-10127.	-1510.	5235.	-.0058	.1231	.0091	-.0395	-.0118	.0054	7751.
.1260	2135.	-6076.	721.	-10850.	-1521.	4156.	-.0147	.1259	.0130	-.0594	-.0409	-.0088	7898.
.1270	2963.	-6285.	-155.	-10305.	-2938.	3852.	-.0262	.1220	.0179	-.0839	-.0193	-.0241	7675.
.1280	3276.	-5236.	-365.	-8999.	-3793.	2601.	-.0366	.1171	.0226	-.1118	-.0842	-.0360	6812.
.1290	2441.	-3484.	-545.	-7285.	-3400.	226.	-.0448	.1092	.0261	-.1382	-.0849	-.0441	5421.
.1300	1479.	-2078.	-1353.	-4995.	-3221.	-1349.	-.0522	.0997	.0290	-.1606	-.0862	-.0506	4108.
.1310	1299.	-1069.	-1845.	-2534.	-3334.	-1462.	-.0586	.0897	.0315	-.1799	-.0966	-.0539	2990.
.1320	1278.	-444.	-1231.	-691.	-2051.	-1058.	-.0615	.0799	.0331	-.1938	-.1027	-.0505	2102.
.1330	456.	-721.	-39.	141.	-874.	-1034.	-.0602	.0706	.0324	-.2005	-.1007	-.0397	917.

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INTERNAL FORCES IN THE PIPING
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SECTION	22	MEMBER	1	SEQUENCE	39	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)		
.1340	-111.	-1250.	970.	1028.	864.	-429.	-.0566	.0614	.0312	-.2010	-.1003	-.0236	950.		
.1350	298.	-1295.	1750.	2454.	1399.	1045.	-.0520	.0528	.0307	-.1974	-.1041	-.0029	2031.		
.1360	416.	-1352.	2450.	3428.	2313.	1917.	-.0457	.0456	.0288	-.1902	-.1022	.0230	3073.		
.1370	-184.	-1581.	2893.	3761.	3650.	1881.	-.0384	.0406	.0253	-.1785	-.0907	.0511	3753.		
.1380	-554.	-1487.	2964.	4041.	4528.	1796.	-.0326	.0381	.0217	-.1648	-.0846	.0761	4266.		
.1390	-131.	-1049.	2571.	4505.	4176.	2332.	-.0297	.0378	.0196	-.1496	-.0900	.0936	4429.		
.1400	111.	-847.	1920.	4302.	3701.	2600.	-.0286	.0392	.0188	-.1314	-.0974	.1026	4207.		
.1410	-325.	-977.	1412.	3006.	4067.	1862.	-.0287	.0424	.0184	-.1114	-.1023	.1037	3632.		
.1420	-226.	-843.	963.	1593.	3566.	1332.	-.0317	.0470	.0199	-.0917	-.1100	.0961	2781.		
.1430	520.	-827.	263.	254.	1994.	1360.	-.0381	.0527	.0227	-.0748	-.1230	.0814	1636.		
.1440	1004.	-1177.	-539.	-1416.	425.	1051.	-.0457	.0586	.0256	-.0605	-.1301	.0635	1222.		
.1450	1015.	-1335.	-1015.	-3279.	-588.	-70.	-.0526	.0634	.0286	-.0483	-.1261	.0456	2246.		
.1460	1176.	-1176.	-1428.	-4712.	-1657.	-1148.	-.0592	.0665	.0321	-.0382	-.1202	.0281	3455.		
.1470	1799.	-1164.	-2201.	-5457.	-3602.	-1253.	-.0654	.0676	.0358	-.0279	-.1142	.0116	4487.		
.1480	2168.	-1524.	-2583.	-6307.	-4857.	-1248.	-.0693	.0668	.0382	-.0165	-.1033	-.0014	5431.		
.1490	2148.	-2001.	-2145.	-7402.	-5021.	-1410.	-.0696	.0643	.0389	-.0029	-.0340	-.0093	6103.		
.1500	2206.	-2585.	-1558.	-8117.	-5098.	-930.	-.0674	.0597	.0386	.0129	-.0628	-.0132	6491.		
.1510	2327.	-3233.	-1248.	-8168.	-5108.	216.	-.0631	.0531	.0371	.0293	-.0458	-.0133	6495.		
.1520	2220.	-3416.	-930.	-7577.	-4799.	1321.	-.0562	.0448	.0342	.0448	-.0251	-.0075	6111.		
.1530	1629.	-3055.	-383.	-6634.	-3716.	1735.	-.0466	.0354	.0293	.0571	.0023	.0054	5257.		
.1540	947.	-2449.	-157.	-5145.	-2869.	1999.	-.0361	.0254	.0229	.0658	.0342	.0236	4193.		
.1550	441.	-1639.	-352.	-3112.	-2595.	2279.	-.0253	.0149	.0156	.0711	.0666	.0449	3134.		
.1560	-146.	-588.	-459.	-1047.	-2006.	1960.	-.0139	.0042	.0078	.0729	.0975	.0677	2018.		
.1570	-705.	503.	-450.	890.	-1553.	1301.	-.0022	-.0066	.0002	.0725	.1287	.0900	1491.		
.1580	-1052.	1297.	-319.	2479.	-1213.	591.	.0093	-.0171	-.0069	.0697	.1533	.1091	1903.		
.1590	-1064.	1809.	22.	3699.	-848.	-43.	.0197	-.0269	-.0132	.0642	.1648	.1227	2558.		
.1600	-809.	2109.	387.	4719.	-720.	-548.	.0289	-.0360	-.0188	.0572	.1655	.1299	3239.		
.1610	-557.	2390.	706.	5407.	-639.	-1236.	.0372	-.0445	-.0238	.0499	.1606	.1309	3764.		
.1620	-537.	2502.	866.	5732.	-200.	-2420.	.0448	-.0525	-.0285	.0418	.1510	.1267	4196.		
.1630	-368.	2997.	715.	6309.	-217.	-3553.	.0510	-.0600	-.0319	.0330	.1363	.1171	4883.		
.1640	-126.	3727.	355.	7016.	-434.	-4576.	.0559	-.0665	-.0344	.0236	.1160	.1028	5654.		
.1650	-129.	4107.	-19.	7289.	-215.	-5626.	.0599	-.0712	-.0367	.0146	.0923	.0849	6208.		
.1660	-222.	4091.	-266.	7147.	112.	-6328.	.0630	-.0736	-.0384	.0070	.0675	.0646	6435.		
.1670	-192.	3880.	-130.	6660.	687.	-6541.	.0651	-.0736	-.0391	.0003	.0378	.0431	6309.		
.1680	122.	3461.	277.	5881.	1169.	-6053.	.0661	-.0713	-.0384	-.0033	.0053	.0214	5743.		
.1690	293.	2534.	662.	4622.	1868.	-5246.	.0659	-.0667	-.0371	-.0023	-.0250	.0017	4878.		
.1700	209.	1532.	955.	3191.	2654.	-4406.	.0646	-.0601	-.0356	.0029	-.0484	-.0135	4080.		
.1710	254.	1099.	1231.	2034.	2907.	-3423.	.0618	-.0520	-.0331	.0117	-.0624	-.0228	3323.		

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.1600	-105.	2169.	387.	4719.	-720.	-548.	.0289	-.0360	-.0188	.0572	.1555	.1299	3239.
.1610	-557.	2390.	706.	5407.	-639.	-1236.	.372	-.0445	-.0238	.0499	.1506	.1309	3764.
.1620	-537.	2502.	866.	5732.	-200.	-2420.	.0448	-.0525	-.0285	.0418	.1510	.1267	4196.
.1630	-368.	2997.	715.	6309.	-217.	-3553.	.0510	-.0600	-.0319	.0230	.1363	.1171	4883.
.1640	-126.	3727.	355.	7016.	-434.	-4576.	.0559	-.0665	-.0344	.0236	.1160	.1028	5654.
.1650	-129.	4107.	-19.	7289.	-215.	-5626.	.0599	-.0712	-.0367	.0146	.0923	.0849	6208.
.1660	-222.	4091.	-266.	7147.	112.	-6328.	.0630	-.0736	-.0384	.0070	.0675	.0646	6435.
.1670	-192.	3880.	-130.	6660.	687.	-6541.	.0651	-.0736	-.0391	.0003	.0378	.0431	6309.
.1680	122.	3461.	277.	5881.	1169.	-6053.	.0661	-.0713	-.0384	-.0033	.0053	.0214	5743.
.1690	293.	2534.	662.	4622.	1868.	-5246.	.0659	-.0667	-.0371	-.0023	-.0250	.0017	4878.
.1700	209.	1532.	955.	3191.	2654.	-4406.	.0646	-.0601	-.0356	.0029	-.0484	-.0135	4080.
.1710	254.	1099.	1271.	2034.	2907.	-3423.	.0618	-.0520	-.0331	.0117	-.0624	-.0228	3323.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.59.

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU								
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.1720	194.	772.	1236.	881.	3143.	-2583.	.0573	-.0429	-.0304	.0237	-.0598	-.0260	2806.	
.1730	-59.	376.	580.	-85.	2932.	-1756.	.0510	-.0333	-.0275	.0396	-.0676	-.0238	2304.	
.1740	-443.	389.	-266.	-718.	2506.	-1167.	.0432	-.0238	-.0239	.0569	-.0567	-.0167	1925.	
.1750	-730.	781.	-804.	-1211.	2140.	-753.	.0342	-.0147	-.0194	.0731	-.0422	-.0065	1734.	
.1760	-762.	756.	-1276.	-1786.	1407.	78.	.0236	-.0061	-.0137	.0883	-.0269	.0035	1533.	
.1770	-770.	39.	-1611.	-2672.	798.	1125.	.0118	.0015	-.0073	.1017	-.0136	.0109	2027.	
.1780	-587.	-652.	-1391.	-3617.	234.	2219.	-.0000	.0080	.0004	.1127	-.0011	.0143	2864.	
.1790	-284.	-1409.	-726.	-4670.	-92.	3262.	-.0140	.0130	.0090	.1198	.0075	.0125	3840.	
.1800	-1.	-2593.	-226.	-5726.	-411.	4403.	-.0280	.0165	.0178	.1224	.0099	.0049	4876.	
.1810	342.	-3493.	88.	-6339.	-1107.	5509.	-.0426	.0183	.0270	.1207	.0092	-.0080	5709.	
.1820	471.	-3683.	507.	-6633.	-1388.	5843.	-.0564	.0185	.0355	.1149	.0062	-.0244	6031.	
.1830	370.	-3656.	551.	-6683.	-1629.	5705.	-.0695	.0173	.0430	.1074	.0015	-.0435	6023.	
.1840	214.	-3686.	43.	-6484.	-2116.	5484.	-.0815	.0152	.0491	.0988	-.0075	-.0636	5891.	
.1850	216.	-3236.	-390.	-6020.	-2624.	4968.	-.0913	.0121	.0539	.0891	-.0203	-.0819	5550.	
.1860	304.	-2400.	-563.	-5483.	-3009.	4145.	-.0980	.0085	.0573	.0802	-.0335	-.0964	5057.	
.1870	205.	-2034.	-848.	-5214.	-2966.	3110.	-.1012	.0044	.0583	.0735	-.0489	-.1057	4554.	
.1880	360.	-1878.	-1179.	-4889.	-3103.	2339.	-.1012	.0000	.0575	.0687	-.0666	-.1086	4209.	
.1890	903.	-1386.	-1101.	-4397.	-3239.	1635.	-.0975	-.0046	.0551	.0646	-.0846	-.1035	3842.	
.1900	1351.	-929.	-888.	-3933.	-3018.	711.	-.0903	-.0097	.0505	.0619	-.0985	-.0904	3376.	
.1910	1537.	-711.	-1034.	-3317.	-2819.	-256.	-.0804	-.0155	.0439	.0614	-.1051	-.0707	2940.	
.1920	1708.	-143.	-1218.	-2308.	-2619.	-1268.	-.0683	-.0220	.0362	.0614	-.1062	-.0463	2504.	
.1930	1969.	894.	-1260.	-931.	-2469.	-2213.	-.0549	-.0294	.0281	.0614	-.1019	-.0198	2321.	
.1940	1950.	1655.	-1456.	435.	-2225.	-3004.	-.0408	-.0373	.0195	.0625	-.0909	.0054	2536.	
.1950	1618.	2086.	-1637.	1642.	-1740.	-3624.	-.0268	-.0454	.0109	.0642	-.0744	.0265	2927.	
.1960	1339.	2656.	-1401.	2825.	-1132.	-3935.	-.0135	-.0535	.0033	.0651	-.0561	.0412	3353.	
.1970	1111.	3072.	-960.	3898.	-559.	-3773.	-.0016	-.0611	-.0031	.0649	-.0379	.0480	3676.	
.1980	664.	2975.	-593.	4648.	82.	-3298.	.0088	-.0683	-.0085	.0642	-.0185	.0469	3842.	
.1990	73.	2844.	-70.	5152.	865.	-2823.	.0178	-.0746	-.0128	.0629	.0026	.0390	4003.	
.2000	-435.	2958.	596.	5583.	1540.	-2347.	.0255	-.0799	-.0161	.0608	.0238	.0261	4212.	
.2010	-915.	2890.	972.	5867.	1904.	-1763.	.0317	-.0837	-.0189	.0587	.0440	.0099	4324.	
.2020	-1461.	2631.	1070.	5903.	2127.	-1294.	.0369	-.0859	-.0216	.0572	.0636	-.0069	4318.	
.2030	-1938.	2658.	1220.	5782.	2351.	-1142.	.0421	-.0865	-.0243	.0565	.0818	-.0221	4277.	
.2040	-2219.	2834.	1278.	5554.	2401.	-1083.	.0474	-.0855	-.0269	.0578	.0958	-.0347	4143.	
.2050	-2326.	2702.	1018.	5093.	2209.	-897.	.0526	-.0831	-.0298	.0622	.1038	-.0443	3791.	
.2060	-2271.	2409.	746.	4325.	2017.	-738.	.0584	-.0792	-.0330	.0694	.1070	-.0501	3254.	
.2070	-2051.	2207.	686.	3332.	1945.	-718.	.0646	-.0742	-.0365	.0785	.1064	-.0521	2645.	
.2080	-1728.	1875.	539.	2246.	1821.	-649.	.0708	-.0684	-.0400	.0889	.1016	-.0512	1997.	
.2090	-1350.	1378.	173.	1194.	1582.	-459.	.0764	-.0622	-.0432	.0991	.0930	-.0490	1371.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.59.

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

.1990	77.	2844.	-70.	5152.	765.	-2823.	.0178	-.0746	-.0128	.0629	.0026	.0390	4003.
.2000	-435.	2958.	596.	5583.	1540.	-2347.	.0255	-.0799	-.0161	.0608	.0238	.0261	4212.
.2010	-915.	2890.	972.	5867.	1904.	-1763.	.0317	-.0837	-.0189	.0587	.0440	.0099	4324.
.2020	-1461.	2631.	1070.	5903.	2127.	-1294.	.0369	-.0859	-.0216	.0572	.0636	-.0069	4318.
.2030	-1938.	2658.	1220.	5782.	2351.	-1142.	.0421	-.0865	-.0243	.0565	.0818	-.0221	4277.
.2040	-2219.	2834.	1278.	5554.	2401.	-1083.	.0474	-.0855	-.0269	.0578	.0958	-.0347	4143.
.2050	-2326.	2702.	1018.	5093.	2209.	-897.	.0526	-.0831	-.0298	.0622	.1038	-.0443	3791.
.2060	-2271.	2409.	746.	4325.	2017.	-738.	.0584	-.0792	-.0330	.0694	.1070	-.0501	3254.
.2070	-2051.	2207.	686.	3332.	1945.	-718.	.0646	-.0742	-.0365	.0785	.1064	-.0521	2645.
.2080	-1728.	1875.	539.	2246.	1821.	-649.	.0708	-.0684	-.0400	.0889	.1016	-.0512	1997.
.2090	-1350.	1378.	177.	1194.	1582.	-459.	.0764	-.0622	-.0432	.0991	.0930	-.0490	1371.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.59.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	22	MEMBER	1	SEQUENCE	39	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2100	-956.	1074.	-117.	275.	1412.	-356.		.0810	-.0559	-.0458	.1074	.0827	-.0462	999.	
.2110	-645.	960.	-277.	-503.	1369.	-383.		.0843	-.0498	-.0475	.1125	.0727	-.0441	1016.	
.2120	-464.	718.	-499.	-1162.	1325.	-342.		.0854	-.0440	-.0483	.1141	.0530	-.0443	1210.	
.2130	-343.	419.	-688.	-1666.	1247.	-159.		.0839	-.0385	-.0479	.1119	.0531	-.0479	1407.	
.2140	-279.	283.	-641.	-2004.	1251.	54.		.0801	-.0339	-.0459	.1064	.0441	-.0549	1593.	
.2150	-372.	171.	-468.	-2236.	1376.	269.		.0742	-.0303	-.0424	.0985	.0367	-.0648	1779.	
.2160	-590.	-36.	-333.	-2344.	1514.	561.		.0661	-.0277	-.0378	.0892	.0302	-.0764	1918.	
.2170	-792.	-125.	-175.	-2223.	1584.	899.		.0565	-.0261	-.0323	.0789	.0243	-.0879	1937.	
.2180	-985.	-30.	16.	-1883.	1610.	1151.		.0459	-.0256	-.0262	.0684	.0200	-.0968	1841.	
.2190	-1242.	63.	109.	-1434.	1608.	1240.		.0350	-.0259	-.0201	.0587	.0184	-.1012	1675.	
.2200	-1457.	168.	103.	-889.	1511.	1187.		.0244	-.0269	-.0141	.0504	.0188	-.0995	1427.	
.2210	-1476.	404.	93.	-220.	1247.	1039.		.0146	-.0285	-.0084	.0437	.0199	-.0911	1104.	
.2220	-1332.	620.	85.	438.	866.	817.		.0058	-.0301	-.0032	.0389	.0214	-.0762	855.	
.2230	-1103.	626.	108.	898.	492.	529.		-.0017	-.0314	.0013	.0360	.0228	-.0558	777.	
.2240	-742.	509.	249.	1155.	155.	232.		-.0079	-.0319	.0050	.0346	.0228	-.0318	801.	
.2250	-234.	399.	458.	1322.	-187.	8.		-.0133	-.0317	.0083	.0339	.0192	-.0066	900.	
.2260	281.	282.	570.	1443.	-496.	-156.		-.0181	-.0307	.0111	.0336	.0119	.0173	1034.	
.2270	665.	210.	537.	1526.	-688.	-362.		-.0227	-.0288	.0135	.0331	.0018	.0379	1155.	
.2280	906.	318.	396.	1633.	-784.	-647.		-.0272	-.0262	.0157	.0315	-.0103	.0536	1296.	
.2290	1028.	583.	110.	1801.	-872.	-947.		-.0321	-.0229	.0178	.0281	-.0239	.0633	1492.	
.2300	1028.	871.	-323.	1975.	-966.	-1218.		-.0376	-.0189	.0199	.0228	-.0386	.0665	1694.	
.2310	938.	1132.	-758.	2070.	-1019.	-1462.		-.0435	-.0143	.0223	.0152	-.0533	.0634	1841.	
.2320	834.	1323.	-1042.	2019.	-1041.	-1634.		-.0495	-.0093	.0250	.0055	-.0673	.0549	1886.	
.2330	778.	1309.	-1135.	1757.	-1070.	-1638.		-.0555	-.0039	.0280	-.0058	-.0802	.0420	1772.	
.2340	799.	1013.	-1046.	1253.	-1111.	-1443.		-.0610	.0018	.0311	-.0175	-.0917	.0262	1490.	
.2350	889.	523.	-785.	561.	-1159.	-1103.		-.0658	.0076	.0341	-.0287	-.1005	.0091	1143.	
.2360	1004.	-33.	-434.	-210.	-1217.	-698.		-.0692	.0133	.0366	-.0384	-.1055	-.0073	956.	
.2370	1082.	-571.	-143.	-939.	-1290.	-287.		-.0711	.0185	.0382	-.0462	-.1061	-.0218	1093.	
.2380	1090.	-991.	-19.	-1500.	-1380.	85.		-.0711	.0233	.0389	-.0518	-.1026	-.0331	1375.	
.2390	1019.	-1206.	-64.	-1823.	-1475.	386.		-.0691	.0275	.0383	-.0554	-.0949	-.0404	1602.	
.2400	874.	-1261.	-213.	-1954.	-1528.	618.		-.0651	.0315	.0364	-.0574	-.0834	-.0434	1723.	
.2410	693.	-1283.	-380.	-1998.	-1505.	842.		-.0591	.0353	.0332	-.0584	-.0690	-.0423	1779.	
.2420	536.	-1347.	-470.	-2024.	-1413.	1127.		-.0514	.0391	.0291	-.0589	-.0531	-.0377	1829.	
.2430	433.	-1468.	-405.	-2073.	-1247.	1486.		-.0422	.0429	.0243	-.0593	-.0365	-.0307	1914.	
.2440	365.	-1671.	-175.	-2188.	-977.	1882.		-.0318	.0467	.0190	-.0600	-.0201	-.0220	2054.	
.2450	311.	-1951.	156.	-2355.	-627.	2284.		-.0209	.0504	.0133	-.0613	-.0046	-.0127	2251.	
.2460	265.	-2202.	497.	-2481.	-267.	2650.		-.0098	.0538	.0075	-.0632	.0096	-.0037	2453.	
.2470	181.	-2304.	765.	-2478.	79.	2887.		.0011	.0567	.0016	-.0658	.0221	.0045	2565.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.59.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.2370	1082.	-571.	-143.	-939.	-1290.	-287.	-.711	.0185	.0382	-.0462	-.1061	-.0218	1093.
.2380	1090.	-991.	-19.	-1500.	-1380.	85.	-.711	.0233	.0389	-.0518	-.1026	-.0331	1375.
.2390	1019.	-1206.	-64.	-1823.	-1475.	386.	-.0691	.0275	.0383	-.0554	-.0949	-.0404	1602.
.2400	874.	-1261.	-213.	-1954.	-1528.	610.	-.0651	.0315	.0364	-.0574	-.0834	-.0434	1723.
.2410	693.	-1283.	-380.	-1998.	-1505.	842.	-.0591	.0253	.0332	-.0584	-.0690	-.0423	1779.
.2420	536.	-1347.	-470.	-2024.	-1413.	1127.	-.0514	.0391	.0291	-.0589	-.0531	-.0377	1829.
.2430	433.	-1468.	-405.	-2073.	-1247.	1486.	-.0422	.0429	.0243	-.0593	-.0365	-.0307	1914.
.2440	365.	-1671.	-175.	-2188.	-777.	1882.	-.0318	.0467	.0190	-.0600	-.0201	-.0220	2054.
.2450	311.	-1951.	156.	-2355.	-627.	2284.	-.0209	.0504	.0133	-.0613	-.0046	-.0127	2251.
.2460	265.	-2202.	497.	-2481.	-267.	2650.	-.0098	.0538	.0075	-.0632	.0096	-.0037	2453.
.2470	181.	-2304.	765.	-2478.	79.	2887.	.0011	.0567	.0016	-.0658	.0221	.0045	2565.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.59.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	22	MEMBER	1	SEQUENCE	39	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)	
.2480	-5.	-2220.	876.	-2315.	438.	2908.		.0114	.0587	-.0043	-.0691	.0329	.0111	2523.	
.2490	-285.	-1983.	787.	-1971.	784.	2724.		.0208	.0599	-.0099	-.0732	.0412	.0160	2327.	
.2500	-578.	-1584.	565.	-1453.	1060.	2402.		.0293	.0602	-.0150	-.0785	.0466	.0192	2023.	
.2510	-835.	-1125.	341.	-872.	1297.	1985.		.0367	.0598	-.0195	-.0850	.0491	.0207	1703.	
.2520	-1043.	-775.	212.	-373.	1561.	1517.		.0431	.0589	-.0234	-.0926	.0488	.0209	1488.	
.2530	-1146.	-612.	240.	-10.	1829.	1086.		.0485	.0576	-.0265	-.1013	.0456	.0204	1433.	
.2540	-1079.	-594.	453.	245.	2044.	755.		.0528	.0562	-.0287	-.1111	.0396	.0198	1478.	
.2550	-888.	-686.	799.	408.	2215.	488.		.0561	.0548	-.0302	-.1213	.0319	.0197	1553.	
.2560	-677.	-838.	1162.	516.	2365.	205.		.0584	.0533	-.0311	-.1310	.0242	.0207	1637.	
.2570	-473.	-912.	1444.	672.	2444.	-125.		.0596	.0519	-.0314	-.1397	.0173	.0234	1710.	
.2580	-273.	-818.	1556.	961.	2388.	-487.		.0596	.0507	-.0313	-.1468	.0116	.0281	1766.	
.2590	-130.	-592.	1431.	1371.	2207.	-889.		.0582	.0497	-.0307	-.1520	.0079	.0348	1851.	
.2600	-74.	-260.	1116.	1852.	1941.	-1337.		.0556	.0490	-.0297	-.1553	.0067	.0433	2021.	
.2610	-46.	149.	739.	2345.	1604.	-1770.		.0517	.0488	-.0280	-.1570	.0080	.0532	2256.	
.2620	24.	504.	395.	2756.	1191.	-2069.		.0465	.0493	-.0255	-.1577	.0106	.0636	2458.	
.2630	152.	655.	155.	2986.	733.	-2159.		.0399	.0507	-.0222	-.1580	.0140	.0736	2532.	
.2640	330.	592.	105.	2992.	286.	-2050.		.0321	.0529	-.0180	-.1586	.0179	.0826	2452.	
.2650	538.	371.	254.	2802.	-119.	-1778.		.0231	.0560	-.0129	-.1598	.0220	.0896	2238.	
.2660	735.	30.	483.	2486.	-496.	-1366.		.0131	.0597	-.0073	-.1617	.0255	.0938	1941.	
.2670	871.	-342.	671.	2141.	-854.	-868.		.0022	.0637	-.0011	-.1641	.0279	.0948	1660.	
.2680	913.	-616.	776.	1836.	-1166.	-378.		-.0090	.0679	.0052	-.1667	.0291	.0923	1488.	
.2690	843.	-769.	769.	1576.	-1412.	56.		-.0204	.0721	.0115	-.1692	.0287	.0867	1426.	
.2700	678.	-874.	620.	1327.	-1603.	451.		-.0314	.0763	.0175	-.1711	.0262	.0781	1435.	
.2710	476.	-961.	396.	1052.	-1738.	825.		-.0417	.0803	.0231	-.1721	.0209	.0673	1478.	
.2720	306.	-1046.	209.	694.	-1794.	1174.		-.0507	.0842	.0281	-.1721	.0126	.0555	1519.	
.2730	214.	-1223.	105.	191.	-1775.	1514.		-.0581	.0880	.0324	-.1711	.0013	.0438	1578.	
.2740	224.	-1551.	75.	-469.	-1725.	1851.		-.0636	.0915	.0359	-.1689	-.0122	.0334	1735.	
.2750	347.	-1957.	127.	-1233.	-1663.	2132.		-.0672	.0948	.0383	-.1656	-.0270	.0253	2003.	
.2760	556.	-2352.	228.	-2025.	-1590.	2295.		-.0687	.0977	.0397	-.1612	-.0420	.0203	2325.	
.2770	800.	-2708.	284.	-2770.	-1531.	2327.		-.0683	.0998	.0399	-.1556	-.0564	.0186	2648.	
.2780	1049.	-2969.	246.	-3388.	-1501.	2237.		-.0683	.1012	.0392	-.1490	-.0695	.0199	2918.	
.2790	1268.	-3070.	136.	-3833.	-1489.	2026.		-.0628	.1017	.0375	-.1415	-.0808	.0235	3086.	
.2800	1413.	-3047.	-38.	-4110.	-1393.	1731.		-.0583	.1012	.0351	-.1332	-.0900	.0286	3149.	
.2810	1472.	-2967.	-249.	-4240.	-1264.	1431.		-.0531	.0999	.0322	-.1246	-.0970	.0340	3135.	
.2820	1481.	-2833.	-407.	-4242.	-1079.	1188.		-.0476	.0976	.0290	-.1163	-.1019	.0390	3057.	
.2830	1447.	-2671.	-463.	-4138.	-831.	1029.		-.0420	.0945	.0258	-.1087	-.1043	.0429	2928.	
.2840	1343.	-2543.	-441.	-3954.	-530.	956.		-.0365	.0905	.0227	-.1019	-.1036	.0453	2765.	
.2850	1173.	-2446.	-342.	-3691.	-201.	954.		-.0314	.0858	.0198	-.0963	-.0998	.0460	2573.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.26.59.

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

.2750	347.	-1957.	127.	-1233.	-1663.	2132.	-.0672	.0948	.0383	-.1656	-.0270	.0253	2003.
.2760	556.	-2352.	228.	-2025.	-1590.	2295.	-.0687	.0977	.0397	-.1612	-.0420	.0203	2325.
.2770	800.	-2708.	284.	-2770.	-1531.	2327.	-.0683	.0998	.0399	-.1556	-.0564	.0186	2648.
.2780	1049.	-2969.	246.	-3388.	-1501.	2237.	-.0663	.1012	.0392	-.1490	-.0695	.0199	2918.
.2790	1268.	-3070.	136.	-3833.	-1469.	2026.	-.0628	.1017	.0375	-.1415	-.0808	.0235	3086.
.2800	1413.	-3047.	-38.	-4110.	-1393.	1731.	-.0583	.1012	.0351	-.1332	-.0900	.0286	3149.
.2810	1472.	-2967.	-249.	-4240.	-1264.	1431.	-.0531	.0999	.0322	-.1246	-.0970	.0340	3135.
.2820	1481.	-2833.	-407.	-4242.	-1079.	1188.	-.0476	.0976	.0290	-.1163	-.1019	.0390	3057.
.2830	1447.	-2671.	-463.	-4138.	-831.	1029.	-.0420	.0945	.0258	-.1087	-.1043	.0429	2928.
.2840	1343.	-2543.	-441.	-3954.	-530.	956.	-.0365	.0905	.0227	-.1019	-.1036	.0453	2765.
.2850	1173.	-2446.	-342.	-3691.	-201.	954.	-.0314	.0858	.0198	-.0963	-.0998	.0460	2573.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKWOBF 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	22	MEMBER	1	SEQUENCE	30	LOCATION	END	TYPE	RU						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)		DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	PZ (DEG)	STRESS (PSI)	
.2860	976.	-2319.	-141.	-3345.	130.	1001.		-.0267	.0804	.0171	-.0919	-.0928	.0455	2355.	
.2870	761.	-2164.	109.	-2921.	436.	1078.		-.0225	.0743	.0148	-.0883	-.0331	.0438	2119.	
.2880	507.	-2000.	317.	-2425.	694.	1156.		-.0188	.0676	.0126	-.0850	-.0713	.0413	1870.	
.2890	231.	-1778.	469.	-1860.	897.	1192.		-.0155	.0604	.0106	-.0811	-.0580	.0383	1607.	
.2900	-26.	-1476.	586.	-1261.	1041.	1169.		-.0125	.0528	.0087	-.0763	-.0442	.0354	1355.	
.2910	-239.	-1160.	639.	-685.	1102.	1102.		-.0097	.0448	.0069	-.0701	-.0306	.0331	1147.	
.2920	-392.	-864.	608.	-162.	1060.	984.		-.0070	.0368	.0051	-.0623	-.0177	.0315	981.	
.2930	-467.	-555.	533.	295.	923.	783.		-.0043	.0287	.0033	-.0530	-.0055	.0311	840.	
.2940	-460.	-255.	443.	655.	701.	499.		-.0016	.0207	.0016	-.0424	.0059	.0318	729.	
.2950	-375.	-22.	335.	893.	396.	163.		.0012	.0131	-.0002	-.0310	.0162	.0335	667.	
.2960	-221.	160.	230.	1024.	30.	-202.		.0040	.0057	-.0019	-.0192	.0255	.0356	704.	
.2970	-27.	330.	153.	1077.	-346.	-589.		.0068	-.0011	-.0036	-.0074	.0334	.0376	860.	
.2980	158.	437.	89.	1059.	-686.	-966.		.0095	-.0076	-.0053	.0043	.0399	.0388	1071.	
.2990	303.	559.	24.	991.	-956.	-1290.		.0122	-.0135	-.0069	.0158	.0448	.0387	1272.	
.3000	397.	667.	-36.	922.	-1135.	-1541.		.0147	-.0192	-.0085	.0269	.0479	.0370	1432.	
.3010	415.	824.	-106.	895.	-1204.	-1729.		.0170	-.0245	-.0101	.0377	.0495	.0337	1543.	
.3020	338.	1002.	-212.	918.	-1167.	-1859.		.0193	-.0295	-.0116	.0482	.0502	.0293	1604.	
.3030	192.	1191.	-334.	983.	-1050.	-1934.		.0214	-.0342	-.0131	.0582	.0505	.0244	1625.	
.3040	20.	1402.	-437.	1089.	-889.	-1969.		.0234	-.0388	-.0145	.0678	.0509	.0200	1631.	
.3050	-156.	1609.	-516.	1223.	-715.	-1981.		.0253	-.0431	-.0159	.0768	.0520	.0168	1642.	
.3060	-318.	1770.	-568.	1354.	-550.	-1984.		.0271	-.0473	-.0171	.0855	.0538	.0152	1661.	
.3070	-429.	1877.	-564.	1455.	-414.	-1975.		.0287	-.0513	-.0181	.0941	.0564	.0157	1677.	
.3080	-465.	1927.	-493.	1512.	-323.	-1952.		.0302	-.0552	-.0189	.1026	.0595	.0180	1678.	
.3090	-446.	1912.	-395.	1522.	-273.	-1916.		.0314	-.0589	-.0194	.1112	.0624	.0218	1659.	
.3100	-397.	1858.	-300.	1504.	-247.	-1879.		.0323	-.0625	-.0197	.1201	.0649	.0263	1631.	
.3110	-332.	1813.	-221.	1484.	-236.	-1848.		.0327	-.0661	-.0197	.1289	.0664	.0306	1605.	
.3120	-276.	1795.	-184.	1479.	-228.	-1819.		.0325	-.0694	-.0193	.1372	.0664	.0339	1588.	
.3130	-259.	1802.	-205.	1501.	-205.	-1797.		.0316	-.0726	-.0186	.1446	.0647	.0354	1584.	
.3140	-287.	1849.	-267.	1552.	-145.	-1780.		.0300	-.0754	-.0176	.1506	.0611	.0344	1595.	
.3150	-347.	1922.	-340.	1623.	-46.	-1751.		.0277	-.0778	-.0163	.1546	.0553	.0306	1609.	
.3160	-424.	1981.	-399.	1682.	93.	-1685.		.0246	-.0796	-.0146	.1563	.0471	.0239	1606.	
.3170	-507.	1997.	-417.	1698.	275.	-1575.		.0209	-.0809	-.0125	.1558	.0368	.0145	1572.	
.3180	-575.	1967.	-381.	1657.	489.	-1426.		.0167	-.0816	-.0102	.1534	.0246	.0029	1510.	
.3190	-611.	1885.	-304.	1551.	705.	-1240.		.0121	-.0816	-.0077	.1495	.0109	-.0104	1421.	
.3200	-612.	1753.	-221.	1384.	891.	-1033.		.0073	-.0812	-.0051	.1449	-.0036	-.0244	1310.	
.3210	-579.	1608.	-153.	1170.	1023.	-841.		.0023	-.0803	-.0024	.1401	-.0181	-.0383	1191.	
.3220	-519.	1490.	-129.	937.	1080.	-701.		-.0027	-.0791	.0003	.1356	-.0315	-.0512	1074.	
.3230	-442.	1406.	-185.	708.	1038.	-624.		-.0076	-.0776	.0028	.1320	-.0432	-.0625	946.	

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S/RV PIPING KEWAUNEE GKWOBF 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

.3120	-276.	1795.	-184.	1479.	-285.	-1519.	.0125	-.0694	-.0193	.1372	.0684	.0339	1588.
.3130	-259.	1802.	-205.	1501.	-205.	-1797.	.0316	-.0726	-.0186	.1446	.0547	.0354	1584.
.3140	-287.	1849.	-267.	1552.	-145.	-1780.	.0300	-.0754	-.0176	.1506	.0511	.0344	1595.
.3150	-347.	1922.	-340.	1623.	-46.	-1751.	.0277	-.0778	-.0163	.1546	.0553	.0306	1609.
.3160	-424.	1981.	-399.	1682.	93.	-1685.	.0246	-.0796	-.0146	.1563	.0471	.0239	1606.
.3170	-507.	1997.	-417.	1698.	275.	-1575.	.0209	-.0809	-.0125	.1558	.0368	.0145	1572.
.3180	-575.	1967.	-381.	1657.	489.	-1426.	.0167	-.0816	-.0102	.1534	.0246	.0029	1510.
.3190	-611.	1885.	-304.	1551.	705.	-1240.	.0121	-.0816	-.0077	.1495	.0109	-.0104	1421.
.3200	-612.	1753.	-221.	1384.	891.	-1033.	.0073	-.0812	-.0051	.1449	-.0036	-.0244	1310.
.3210	-579.	1608.	-153.	1170.	1023.	-841.	.0023	-.0803	-.0024	.1401	-.0181	-.0383	1191.
.3220	-519.	1490.	-129.	937.	1080.	-701.	-.0027	-.0791	.0003	.1356	-.0315	-.0512	1074.
.3230	-442.	1406.	-185.	708.	1038.	-624.	-.0076	-.0776	.0028	.1320	-.0432	-.0625	946.

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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 PSVCONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITSINTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	22	MEMBER	1	SEQUENCE	39	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)		
.3240	-351.	1357.	-322.	491.	890.	-608.	-.0122	-.0760	.0051	.1293	-.0525	-.0716	798.		
.3250	-244.	1344.	-495.	283.	659.	-639.	-.0164	-.0743	.0072	.1276	-.0591	-.0785	648.		
.3260	-128.	1335.	-668.	69.	373.	-689.	-.0201	-.0725	.0090	.1268	-.0626	-.0831	530.		
.3270	-12.	1293.	-812.	-162.	67.	-713.	-.0233	-.0706	.0106	.1268	-.0633	-.0858	495.		
.3280	97.	1208.	-893.	-406.	-218.	-677.	-.0257	-.0689	.0120	.1275	-.0615	-.0871	552.		
.3290	185.	1082.	-899.	-650.	-443.	-559.	-.0273	-.0672	.0130	.1288	-.0578	-.0875	650.		
.3300	230.	927.	-839.	-873.	-581.	-355.	-.0282	-.0658	.0138	.1304	-.0524	-.0875	746.		
.3310	213.	770.	-736.	-1047.	-616.	-83.	-.0282	-.0647	.0141	.1322	-.0459	-.0873	820.		
.3320	127.	646.	-624.	-1136.	-551.	225.	-.0273	-.0640	.0140	.1341	-.0385	-.0871	865.		
.3330	-29.	578.	-539.	-1119.	-409.	536.	-.0256	-.0637	.0134	.1359	-.0306	-.0869	880.		
.3340	-238.	577.	-488.	-996.	-213.	811.	-.0231	-.0637	.0123	.1373	-.0223	-.0864	878.		
.3350	-469.	642.	-457.	-791.	13.	1020.	-.0198	-.0641	.0107	.1381	-.0138	-.0855	870.		
.3360	-688.	743.	-433.	-536.	241.	1148.	-.0158	-.0646	.0086	.1382	-.0055	-.0838	869.		
.3370	-866.	849.	-405.	-261.	444.	1193.	-.0111	-.0653	.0061	.1373	.0023	-.0814	876.		
.3380	-977.	946.	-350.	6.	610.	1147.	-.0059	-.0660	.0032	.1352	.0093	-.0780	876.		
.3390	-1011.	1036.	-260.	255.	737.	1007.	-.0002	-.0667	.0000	.1318	.0153	-.0738	858.		
.3400	-979.	1126.	-159.	495.	818.	775.	.0058	-.0673	-.0034	.1273	.0202	-.0690	830.		
.3410	-902.	1239.	-81.	755.	855.	453.	.0120	-.0679	-.0071	.1216	.0241	-.0638	827.		
.3420	-807.	1404.	-44.	1060.	857.	43.	.0183	-.0685	-.0108	.1149	.0270	-.0585	919.		
.3430	-717.	1629.	-59.	1420.	839.	-436.	.0244	-.0691	-.0146	.1073	.0293	-.0535	1150.		
.3440	-650.	1901.	-128.	1833.	809.	-951.	.0302	-.0697	-.0183	.0991	.0313	-.0491	1495.		
.3450	-612.	2201.	-229.	2288.	785.	-1459.	.0357	-.0702	-.0218	.0903	.0331	-.0456	1904.		
.3460	-600.	2495.	-325.	2752.	784.	-1917.	.0407	-.0706	-.0250	.0813	.0349	-.0431	2321.		
.3470	-607.	2730.	-379.	3182.	820.	-2274.	.0452	-.0709	-.0278	.0721	.0368	-.0417	2694.		
.3480	-621.	2868.	-360.	3542.	896.	-2492.	.0490	-.0709	-.0300	.0629	.0388	-.0415	2981.		
.3490	-635.	2899.	-256.	3815.	1011.	-2555.	.0522	-.0705	-.0317	.0538	.0411	-.0422	3169.		
.3500	-657.	2831.	-84.	3996.	1160.	-2474.	.0545	-.0696	-.0328	.0451	.0435	-.0439	3263.		
.3510	-693.	2683.	123.	4093.	1326.	-2271.	.0560	-.0681	-.0333	.0369	.0462	-.0461	3280.		
.3520	-743.	2491.	331.	4121.	1485.	-1977.	.0566	-.0659	-.0332	.0293	.0492	-.0487	3239.		
.3530	-809.	2287.	507.	4090.	1616.	-1629.	.0564	-.0631	-.0327	.0223	.0523	-.0514	3161.		
.3540	-896.	2087.	622.	4002.	1706.	-1263.	.0552	-.0593	-.0317	.0161	.0554	-.0539	3053.		
.3550	-995.	1897.	673.	3846.	1747.	-902.	.0533	-.0548	-.0304	.0106	.0582	-.0561	2912.		
.3560	-1083.	1714.	674.	3611.	1735.	-553.	.0506	-.0493	-.0287	.0058	.0604	-.0579	2726.		
.3570	-1144.	1520.	643.	3280.	1670.	-215.	.0473	-.0430	-.0268	.0016	.0614	-.0592	2486.		
.3580	-1171.	1301.	591.	2850.	1566.	105.	.0436	-.0360	-.0247	-.0020	.0610	-.0599	2193.		
.3590	-1163.	1053.	533.	2327.	1440.	400.	.0396	-.0285	-.0224	-.0051	.0588	-.0600	1864.		
.3600	-1113.	784.	476.	1733.	1300.	668.	.0354	-.0206	-.0200	-.0079	.0549	-.0595	1528.		
.3610	-1028.	502.	413.	1100.	1155.	907.	.0311	-.0126	-.0176	-.0102	.0490	-.0583	1237.		

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ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.59.

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

.3500	-657.	2871.	123.	4092.	1326.	-2271.	.0545	-.0696	-.0328	.0451	.0435	-.0439	3263.
.3510	-693.	2683.	123.	4092.	1326.	-2271.	.0560	-.0681	-.0333	.0369	.0462	-.0461	3280.
.3520	-743.	2491.	331.	4121.	1485.	-1977.	.0566	-.0659	-.0332	.0293	.0492	-.0487	3239.
.3530	-809.	2287.	507.	4090.	1616.	-1629.	.0564	-.0631	-.0327	.0223	.0523	-.0514	3161.
.3540	-896.	2087.	622.	4002.	1706.	-1263.	.0552	-.0593	-.0317	.0161	.0554	-.0539	3053.
.3550	-995.	1897.	673.	3846.	1747.	-902.	.0533	-.0548	-.0304	.0106	.0582	-.0561	2912.
.3560	-1083.	1714.	674.	3611.	1735.	-553.	.0506	-.0493	-.0287	.0058	.0504	-.0579	2726.
.3570	-1144.	1520.	643.	3280.	1670.	-215.	.0473	-.0430	-.0268	.0016	.0514	-.0592	2486.
.3580	-1171.	1301.	591.	2850.	1566.	105.	.0436	-.0360	-.0247	-.0020	.0510	-.0599	2193.
.3590	-1163.	1053.	533.	2327.	1440.	400.	.0396	-.0285	-.0224	-.0051	.0588	-.0600	1864.
.3600	-1113.	784.	476.	1733.	1300.	668.	.0354	-.0206	-.0200	-.0079	.0549	-.0595	1528.
.3610	-1028.	502.	413.	1100.	1155.	907.	.0311	-.0126	-.0176	-.0102	.0490	-.0583	1237.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.59.

S/RV PIPING KEWAUNEE GKW06F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	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)		
.3620	-92.	222.	336.	465.	1017.	1107.	.0268	-.0047	-.0151	-.0123	.0413	-.0566	1061.		
.3630	-803.	-42.	242.	-140.	900.	1259.	.0226	.0027	-.0126	-.0141	.0321	-.0542	1047.		
.3640	-679.	-286.	137.	-693.	805.	1368.	.0185	.0096	-.0101	-.0158	.0215	-.0513	1167.		
.3650	-547.	-517.	35.	-1184.	732.	1448.	.0144	.0158	-.0076	-.0174	.0101	-.0479	1354.		
.3660	-405.	-740.	-44.	-1611.	680.	1506.	.0103	.0212	-.0050	-.0191	-.0020	-.0440	1556.		
.3670	-254.	-958.	-87.	-1971.	646.	1545.	.0062	.0258	-.0024	-.0212	-.0142	-.0397	1743.		
.3680	-97.	-1172.	-92.	-2262.	616.	1588.	.0019	.0298	.0003	-.0237	-.0259	-.0350	1901.		
.3690	64.	-1375.	-63.	-2478.	575.	1573.	-.0026	.0330	.0032	-.0268	-.0366	-.0299	2016.		
.3700	222.	-1545.	-9.	-2612.	514.	1551.	-.0073	.0356	.0061	-.0305	-.0459	-.0245	2077.		
.3710	366.	-1666.	47.	-2652.	421.	1496.	-.0122	.0377	.0091	-.0348	-.0534	-.0187	2072.		
.3720	488.	-1726.	86.	-2596.	288.	1405.	-.0174	.0393	.0120	-.0395	-.0588	-.0125	1999.		
.3730	584.	-1727.	99.	-2450.	119.	1282.	-.0227	.0405	.0149	-.0446	-.0522	-.0062	1865.		
.3740	654.	-1667.	87.	-2230.	-80.	1134.	-.0280	.0415	.0177	-.0498	-.0535	.0003	1687.		
.3750	701.	-1561.	55.	-1957.	-299.	975.	-.0332	.0422	.0203	-.0549	-.0631	.0068	1488.		
.3760	735.	-1428.	11.	-1656.	-532.	821.	-.0381	.0428	.0227	-.0598	-.0613	.0133	1296.		
.3770	762.	-1286.	-29.	-1352.	-767.	682.	-.0426	.0433	.0249	-.0643	-.0583	.0198	1144.		
.3780	788.	-1154.	-59.	-1069.	-994.	560.	-.0464	.0438	.0266	-.0681	-.0543	.0260	1054.		
.3790	812.	-1042.	-82.	-818.	-1208.	457.	-.0496	.0441	.0280	-.0713	-.0496	.0320	1030.		
.3800	836.	-945.	-100.	-602.	-1405.	368.	-.0519	.0444	.0290	-.0737	-.0444	.0377	1059.		
.3810	863.	-862.	-112.	-425.	-1578.	290.	-.0533	.0445	.0296	-.0753	-.0391	.0430	1118.		
.3820	886.	-800.	-122.	-295.	-1722.	220.	-.0537	.0445	.0297	-.0761	-.0338	.0477	1187.		
.3830	903.	-764.	-130.	-215.	-1831.	156.	-.0532	.0444	.0294	-.0759	-.0288	.0518	1247.		
.3840	913.	-744.	-132.	-184.	-1901.	96.	-.0516	.0442	.0285	-.0751	-.0241	.0550	1289.		
.3850	915.	-738.	-130.	-196.	-1930.	38.	-.0491	.0440	.0273	-.0735	-.0198	.0576	1308.		
.3860	905.	-744.	-126.	-244.	-1918.	-19.	-.0457	.0436	.0255	-.0714	-.0161	.0594	1303.		
.3870	882.	-749.	-119.	-312.	-1867.	-82.	-.0415	.0433	.0234	-.0690	-.0127	.0607	1277.		
.3880	843.	-744.	-111.	-384.	-1779.	-159.	-.0365	.0429	.0208	-.0665	-.0095	.0618	1231.		
.3890	787.	-724.	-110.	-443.	-1659.	-255.	-.0309	.0424	.0178	-.0640	-.0063	.0628	1170.		
.3900	715.	-686.	-114.	-474.	-1510.	-366.	-.0247	.0419	.0145	-.0618	-.0031	.0641	1095.		
.3910	634.	-622.	-111.	-469.	-1334.	-491.	-.0181	.0414	.0109	-.0599	.0001	.0658	1009.		
.3920	549.	-545.	-96.	-430.	-1131.	-620.	-.0112	.0407	.0070	-.0583	.0035	.0682	917.		
.3930	460.	-471.	-71.	-362.	-906.	-744.	-.0042	.0400	.0031	-.0568	.0070	.0712	827.		
.3940	375.	-403.	-36.	-267.	-666.	-852.	.0028	.0392	-.0009	-.0555	.0104	.0749	751.		
.3950	300.	-340.	15.	-149.	-417.	-940.	.0097	.0383	-.0047	-.0541	.0137	.0791	700.		
.3960	239.	-286.	79.	-18.	-171.	-1004.	.0160	.0372	-.0083	-.0528	.0169	.0836	687.		
.3970	189.	-248.	149.	117.	58.	-1048.	.0217	.0361	-.0114	-.0515	.0198	.0882	712.		
.3980	149.	-222.	216.	251.	256.	-1077.	.0266	.0349	-.0141	-.0502	.0227	.0926	765.		
.3990	118.	-201.	275.	380.	410.	-1097.	.0303	.0338	-.0162	-.0490	.0254	.0964	830.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.59.

S/RV PIPING KEWAUNEE GKW06F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.3880	843.	-744.	-111.	-384.	-1779.	-159.	-.385	.0420	.0200	-.0665	-.0095	.0618	1231.
.3890	787.	-724.	-110.	-443.	-1659.	-255.	-.309	.0424	.0178	-.0640	-.0063	.0628	1170.
.3900	715.	-686.	-114.	-474.	-1510.	-366.	-.247	.0419	.0145	-.0618	-.0031	.0641	1095.
.3910	634.	-622.	-111.	-469.	-1334.	-491.	-.0181	.0414	.0109	-.0599	.0001	.0658	1009.
.3920	549.	-545.	-96.	-430.	-1131.	-620.	-.0112	.0407	.0370	-.0583	.0035	.0682	917.
.3930	460.	-471.	-71.	-362.	-906.	-744.	-.0042	.0400	.0331	-.0568	.0070	.0712	827.
.3940	375.	-403.	-36.	-267.	-666.	-852.	.0028	.0392	-.0009	-.0555	.0104	.0749	751.
.3950	300.	-340.	15.	-149.	-417.	-940.	.0097	.0383	-.0047	-.0541	.0137	.0791	700.
.3960	239.	-286.	79.	-18.	-171.	-1004.	.0160	.0372	-.0083	-.0528	.0169	.0836	687.
.3970	189.	-248.	149.	117.	58.	-1048.	.0217	.0361	-.0114	-.0515	.0198	.0882	712.
.3980	149.	-222.	216.	251.	256.	-1077.	.0266	.0349	-.0141	-.0502	.0227	.0926	765.
.3990	118.	-201.	275.	380.	410.	-1097.	.0303	.0338	-.0162	-.0490	.0254	.0964	830.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.59.

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

CONDITION 24
LOADS
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ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
TIME	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)						
.4000	96.	-186.	325.	492.	516.	-1110.	.0329	.0327	-.0177	-.0480	.0278	.0994	889.						

MAXIMUM VALUE OF STRESS OCCURS AT

TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.1110	504.	5647.	-251.	11977.	-707.	-8627.	.0663	-.0391	-.0400	-.1566	.0872	.1292	9960.

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
TIME	(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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
.0010	-3.	-3.	-5.	-0.	-1.	-0.	-.0000	.0000	-.0000	-.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	1.
.0020	-14.	-7.	-29.	4.	-6.	-6.	-.0000	.0000	-.0000	-.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	7.
.0030	-30.	15.	-61.	32.	-17.	-29.	-.0000	-.0000	-.0001	-.0005	.0004	.0003	.0003	.0003	.0003	.0003	.0003	.0003	32.
.0040	-47.	77.	-95.	94.	-34.	-75.	-.0000	-.0001	-.0001	-.0011	.0010	.0006	.0006	.0006	.0006	.0006	.0006	.0006	84.
.0050	-72.	157.	-143.	185.	-53.	-138.	.0000	-.0002	-.0002	-.0020	.0016	.0011	.0011	.0011	.0011	.0011	.0011	.0011	159.
.0060	-105.	246.	-206.	309.	-72.	-216.	.0001	-.0004	-.0003	-.0033	.0024	.0018	.0018	.0018	.0018	.0018	.0018	.0018	259.
.0070	-145.	352.	-287.	484.	-103.	-321.	.0002	-.0006	-.0004	-.0052	.0035	.0029	.0029	.0029	.0029	.0029	.0029	.0029	397.
.0080	-196.	497.	-395.	733.	-169.	-479.	.0004	-.0010	-.0005	-.0080	.0056	.0044	.0044	.0044	.0044	.0044	.0044	.0044	601.
.0090	-239.	744.	-483.	1086.	-277.	-726.	.0008	-.0015	-.0007	-.0119	.0095	.0064	.0064	.0064	.0064	.0064	.0064	.0064	900.
.0100	-277.	1078.	-542.	1537.	-421.	-1047.	.0015	-.0023	-.0008	-.0167	.0154	.0086	.0086	.0086	.0086	.0086	.0086	.0086	1285.
.0110	-327.	1398.	-597.	2043.	-582.	-1383.	.0027	-.0033	-.0010	-.0224	.0229	.0110	.0110	.0110	.0110	.0110	.0110	.0110	1709.
.0120	-381.	1658.	-598.	2586.	-714.	-1680.	.0044	-.0044	-.0013	-.0288	.0315	.0131	.0131	.0131	.0131	.0131	.0131	.0131	2134.
.0130	-412.	1862.	-448.	3157.	-753.	-1895.	.0068	-.0055	-.0017	-.0357	.0403	.0145	.0145	.0145	.0145	.0145	.0145	.0145	2533.
.0140	-403.	1964.	-106.	3703.	-649.	-1955.	.0101	-.0065	-.0022	-.0427	.0481	.0150	.0150	.0150	.0150	.0150	.0150	.0150	2856.
.0150	-354.	1892.	374.	4139.	-401.	-1778.	.0141	-.0072	-.0029	-.0487	.0534	.0139	.0139	.0139	.0139	.0139	.0139	.0139	3048.
.0160	-242.	1648.	946.	4395.	-43.	-1344.	.0188	-.0074	-.0039	-.0526	.0554	.0110	.0110	.0110	.0110	.0110	.0110	.0110	3098.
.0170	-123.	1213.	1529.	4377.	381.	-694.	.0240	-.0068	-.0052	-.0541	.0555	.0061	.0061	.0061	.0061	.0061	.0061	.0061	2998.
.0180	-136.	528.	1968.	3975.	836.	87.	.0294	-.0052	-.0071	-.0535	.0561	-.0005	-.0005	-.0005	-.0005	-.0005	-.0005	-.0005	2739.
.0190	-355.	-349.	2102.	3188.	1228.	871.	.0349	-.0021	-.0098	-.0519	.0594	-.0082	-.0082	-.0082	-.0082	-.0082	-.0082	-.0082	2376.
.0200	-837.	-1250.	1695.	2155.	1349.	1486.	.0402	.0023	-.0134	-.0508	.0685	-.0153	-.0153	-.0153	-.0153	-.0153	-.0153	-.0153	1985.
.0210	-1296.	-1541.	1134.	1230.	1101.	1698.	.0457	.0079	-.0173	-.0508	.0849	-.0212	-.0212	-.0212	-.0212	-.0212	-.0212	-.0212	1596.
.0220	-1538.	-1130.	962.	476.	958.	1611.	.0521	.0144	-.0206	-.0515	.1019	-.0271	-.0271	-.0271	-.0271	-.0271	-.0271	-.0271	1303.
.0230	-1826.	-1249.	655.	-540.	1090.	1825.	.0587	.0217	-.0241	-.0532	.1118	-.0317	-.0317	-.0317	-.0317	-.0317	-.0317	-.0317	1478.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.59.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.0130	-412.	1882.	-248.	3157.	-755.	-1895.	.0088	-.0055	-.0017	-.0357	.0403	.0145	2533.
.0140	-403.	1864.	-106.	3703.	-649.	-1955.	.1101	-.0065	-.0022	-.0427	.0481	.0150	2856.
.0150	-354.	1892.	374.	4139.	-401.	-1778.	.1141	-.0072	-.0029	-.0487	.0534	.0139	3048.
.0160	-242.	1648.	546.	4395.	-43.	-1344.	.0188	-.0074	-.0039	-.0526	.0554	.0110	3098.
.0170	-123.	1213.	1529.	4377.	381.	-694.	.0240	-.0068	-.0052	-.0541	.0555	.0061	2998.
.0180	-136.	528.	1968.	3975.	836.	87.	.0294	-.0052	-.0071	-.0535	.0561	-.0005	2739.
.0190	-355.	-349.	2102.	3188.	1228.	871.	.0349	-.0021	-.0098	-.0519	.0594	-.0082	2376.
.0200	-837.	-1250.	1695.	2155.	1349.	1486.	.0402	.0023	-.0134	-.0508	.0685	-.0153	1985.
.0210	-1296.	-1541.	1134.	1230.	1101.	1698.	.0457	.0079	-.0173	-.0508	.0849	-.0212	1596.
.0220	-1528.	-1130.	962.	476.	958.	1611.	.0521	.0144	-.0206	-.0515	.1019	-.0271	1303.
.0230	-1826.	-1249.	655.	-540.	1090.	1825.	.0587	.0217	-.0241	-.0532	.1118	-.0317	1478.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.59.

S/RV PIPING KEWAUNEE 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	22	MEMBER	2	SEQUENCE	809	LOCATION	END	TYPE	EL					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.0240	-1712.	-1812.	517.	-1604.	1288.	2588.	.0651	.0299	-.0277	-.0535	.1070	-.0338	2229.	
.0250	-1323.	-2404.	869.	-2574.	1642.	3595.	.0711	.0387	-.0315	-.0518	.0940	-.0343	3179.	
.0260	-1594.	-3437.	1102.	-3852.	2611.	4491.	.0766	.0471	-.0358	-.0501	.0842	-.0350	4359.	
.0270	-1911.	-4190.	1229.	-5033.	4031.	5230.	.0807	.0540	-.0390	-.0461	.0555	-.0360	5596.	
.0280	-1104.	-4053.	1125.	-5565.	4403.	6103.	.0818	.0586	-.0395	-.0350	.0274	-.0327	6309.	
.0290	-143.	-3936.	440.	-6121.	3630.	6728.	.0790	.0615	-.0382	-.0202	-.0064	-.0263	6601.	
.0300	-438.	-4338.	-162.	-7392.	3730.	5976.	.0723	.0637	-.0366	-.0127	-.0125	-.0248	6883.	
.0310	-248.	-4079.	-130.	-8261.	3570.	4501.	.0609	.0649	-.0322	-.0095	-.0158	-.0233	6783.	
.0320	958.	-3787.	-707.	-8443.	1645.	3711.	.0440	.0643	-.0240	-.0056	-.0369	-.0157	6315.	
.0330	1810.	-3916.	-1508.	-8637.	-417.	3030.	.0231	.0614	-.0130	-.0028	-.0559	-.0115	6176.	
.0340	1716.	-3757.	-1156.	-8943.	-913.	1532.	.0003	.0564	-.0001	-.0036	-.0562	-.0192	6146.	
.0350	1738.	-3458.	-471.	-8815.	-1314.	348.	-.0248	.0501	.0133	-.0049	-.0589	-.0287	6012.	
.0360	2442.	-3493.	-692.	-8021.	-2935.	453.	-.0521	.0426	.0264	-.0038	-.0797	-.0317	5765.	
.0370	2743.	-3129.	-1022.	-6815.	-4119.	613.	-.0787	.0328	.0385	-.0015	-.0961	-.0374	5383.	
.0380	1900.	-1697.	-786.	-5301.	-3671.	-33.	-.1017	.0203	.0494	.0022	-.0740	-.0512	4346.	
.0390	896.	19.	-1031.	-3329.	-3282.	-319.	-.1213	.0057	.0592	.0105	-.0746	-.0607	3159.	
.0400	438.	1017.	-2165.	-1151.	-4105.	80.	-.1373	-.0092	.0664	.0200	-.1002	-.0568	2874.	
.0410	269.	2171.	-2298.	1085.	-4402.	-338.	-.1477	-.0235	.0705	.0249	-.0728	-.0480	3064.	
.0420	-15.	3488.	-1426.	3245.	-3966.	-1615.	-.1516	-.0375	.0719	.0270	-.0700	-.0365	3621.	
.0430	-198.	3822.	-1383.	5051.	-4304.	-2510.	-.1496	-.0515	.0708	.0320	-.0472	-.0158	4782.	
.0440	175.	4045.	-1360.	6730.	-4965.	-3236.	-.1414	-.0656	.0679	.0413	-.0298	.0100	6044.	
.0450	768.	4861.	-296.	8262.	-4627.	-4346.	-.1270	-.0789	.0631	.0534	-.0141	.0317	7023.	
.0460	1037.	4854.	518.	9090.	-3688.	-5032.	-.1090	-.0900	.0548	.0677	-.0063	.0495	7431.	
.0470	1317.	3812.	478.	9247.	-3157.	-4785.	-.0895	-.0985	.0433	.0853	-.0122	.0653	7333.	
.0480	1677.	3343.	712.	9148.	-2458.	-4523.	-.0686	-.1047	.0308	.1049	-.0210	.0722	7075.	
.0490	1396.	3525.	1018.	8632.	-957.	-4651.	-.0468	-.1086	.0180	.1230	-.0248	.0661	6644.	
.0500	684.	3445.	334.	7642.	290.	-4485.	-.0263	-.1097	.0055	.1378	-.0317	.0532	5976.	
.0510	517.	3435.	-618.	6587.	557.	-3951.	-.0081	-.1070	-.0060	.1478	-.0441	.0378	5191.	
.0520	532.	3585.	-680.	5292.	797.	-3721.	.0082	-.1001	-.0165	.1493	-.0469	.0166	4394.	
.0530	-155.	2888.	-315.	3241.	1659.	-3639.	.0229	-.0896	-.0267	.1417	-.0355	-.0103	3470.	
.0540	-792.	1545.	-102.	904.	2365.	-2979.	.0358	-.0772	-.0358	.1323	-.0283	-.0372	2635.	
.0550	-520.	716.	233.	-982.	2472.	-1684.	.0475	-.0643	-.0430	.1278	-.0347	-.0610	2122.	
.0560	-415.	138.	563.	-2758.	2824.	-256.	.0586	-.0519	-.0500	.1275	-.0389	-.0834	2666.	
.0570	-1364.	-816.	492.	-4788.	3924.	1028.	.0691	-.0403	-.0581	.1287	-.0303	-.1043	4230.	
.0580	-2220.	-1394.	174.	-6371.	4858.	2276.	.0785	-.0301	-.0665	.1332	-.0205	-.1179	5614.	
.0590	-2191.	-1137.	-358.	-7053.	4852.	3556.	.0866	-.0221	-.0737	.1425	-.0165	-.1204	6248.	
.0600	-2297.	-809.	-1237.	-7401.	4588.	4506.	.0936	-.0169	-.0796	.1530	-.0048	-.1152	6609.	
.0610	-3001.	-727.	-1910.	-7715.	4678.	4732.	.0994	-.0145	-.0836	.1601	.0244	-.1066	6867.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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

CONDITION 24

LOADS

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

.0510	517.	3435.	-618.	6587.	557.	-3951.	-.081	-.1070	-.0060	.1478	-.0441	.0378	5191.
.0520	532.	3585.	-680.	5292.	797.	-3721.	.082	-.1001	-.0165	.1493	-.0469	.0166	4394.
.0530	-155.	2888.	-315.	3241.	1659.	-3639.	.0229	-.0896	-.0267	.1417	-.0355	-.0103	3470.
.0540	-792.	1545.	-102.	964.	2365.	-2979.	.0358	-.0772	-.0358	.1323	-.0283	-.0372	2635.
.0550	-520.	716.	233.	-982.	2472.	-1684.	.0475	-.0643	-.0430	.1278	-.0347	-.0610	2122.
.0560	-415.	138.	563.	-2758.	2324.	-256.	.0586	-.0519	-.0500	.1275	-.0389	-.0834	2666.
.0570	-1364.	-816.	492.	-4788.	3924.	1028.	.0691	-.0403	-.0581	.1287	-.0303	-.1043	4230.
.0580	-2220.	-1394.	174.	-6371.	4858.	2276.	.0785	-.0301	-.0665	.1332	-.0205	-.1179	5614.
.0590	-2191.	-1137.	-358.	-7053.	4852.	3556.	.0866	-.0221	-.0737	.1425	-.0165	-.1204	6248.
.0600	-2297.	-809.	-1237.	-7401.	4588.	4506.	.0936	-.0169	-.0796	.1530	-.0048	-.1152	6609.
.0610	-3061.	-727.	-1910.	-7715.	4678.	4732.	.0994	-.0145	-.0836	.1601	.0244	-.1066	6867.

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DIS/ADLPIPE

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2 SAFETY COLD FKM24F--2 PSV

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL								
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.0620	-3128.	-543.	-1744.	-7547.	4453.	4524.	.1032	-.0141	-.0847	.1631	.0578	-.0929	6647.	
.0630	-2358.	-682.	-1094.	-6876.	3358.	4483.	.1038	-.0152	-.0830	.1620	.0831	-.0722	5978.	
.0640	-1448.	-1499.	-296.	-6169.	2268.	4496.	.1014	-.0178	-.0796	.1567	.1069	-.0510	5368.	
.0650	-1202.	-2156.	877.	-5382.	1966.	4121.	.0965	-.0226	-.0747	.1496	.1336	-.0366	4757.	
.0660	-985.	-2005.	1908.	-4130.	1771.	3654.	.0890	-.0301	-.0682	.1452	.1515	-.0280	3904.	
.0670	-763.	-1349.	1826.	-2445.	1000.	3493.	.0785	-.0401	-.0613	.1452	.1548	-.0222	2952.	
.0680	-1102.	-213.	932.	-609.	300.	3074.	.0661	-.0516	-.0548	.1465	.1564	-.0217	2122.	
.0690	-1920.	1602.	118.	1287.	159.	1878.	.0533	-.0638	-.0488	.1460	.1643	-.0271	1538.	
.0700	-2503.	3457.	-731.	3228.	-190.	478.	.0407	-.0759	-.0425	.1431	.1583	-.0320	2204.	
.0710	-2522.	4706.	-1668.	5133.	-1093.	-632.	.0288	-.0869	-.0355	.1365	.1608	-.0318	3563.	
.0720	-2186.	5485.	-1752.	6862.	-1660.	-1868.	.0191	-.0961	-.0278	.1235	.1487	-.0292	4922.	
.0730	-1613.	5675.	-698.	8189.	-1549.	-3314.	.0121	-.1025	-.0199	.1041	.1355	-.0251	6045.	
.0740	-658.	4889.	598.	8993.	-1509.	-4342.	.0068	-.1057	-.0127	.0827	.1141	-.0158	6807.	
.0750	622.	3725.	1706.	9415.	-1699.	-4887.	.0029	-.1061	-.0067	.0645	.0825	-.0025	7241.	
.0760	1687.	3095.	2616.	9515.	-1537.	-5495.	.0003	-.1041	-.0023	.0521	.0498	.0090	7478.	
.0770	2095.	3023.	2674.	9201.	-1130.	-6184.	-.0019	-.1001	.0002	.0465	.0209	.0176	7511.	
.0780	1999.	3345.	1452.	8583.	-1099.	-6621.	-.0049	-.0941	.0012	.0475	-.0068	.0252	7344.	
.0790	1748.	4235.	-282.	7853.	-1345.	-6918.	-.0087	-.0858	.0018	.0521	-.0321	.0310	7112.	
.0800	1416.	5217.	-1706.	6856.	-1414.	-7178.	-.0134	-.0747	.0028	.0549	-.0511	.0336	6758.	
.0810	1071.	5290.	-2743.	5358.	-1462.	-7010.	-.0192	-.0607	.0050	.0525	-.0650	.0348	6029.	
.0820	1030.	4362.	-3102.	3538.	-1687.	-6203.	-.0261	-.0442	.0090	.0447	-.0769	.0355	4946.	
.0830	1374.	2923.	-2337.	1614.	-1741.	-4985.	-.0335	-.0260	.0151	.0321	-.0870	.0335	3722.	
.0840	1748.	902.	-949.	-503.	-1479.	-3391.	-.0412	-.0070	.0223	.0165	-.0942	.0281	2517.	
.0850	1929.	-1544.	196.	-2736.	-1255.	-1367.	-.0493	.0116	.0292	.0017	-.0993	.0208	2228.	
.0860	1948.	-3391.	945.	-4665.	-1148.	711.	-.0574	.0290	.0351	-.0088	-.1010	.0116	3274.	
.0870	1644.	-4156.	1167.	-6141.	-946.	2465.	-.0647	.0443	.0393	-.0146	-.0977	-.0003	4506.	
.0880	855.	-4335.	391.	-7320.	-807.	3967.	-.0712	.0571	.0415	-.0167	-.0904	-.0126	5638.	
.0890	-101.	-4092.	-1063.	-8147.	-971.	5224.	-.0761	.0673	.0423	-.0165	-.0803	-.0231	6556.	
.0900	-797.	-3420.	-2155.	-8570.	-1208.	6011.	-.0787	.0755	.0426	-.0168	-.0666	-.0318	7103.	
.0910	-1140.	-3153.	-2485.	-8898.	-1272.	6459.	-.0787	.0822	.0427	-.0220	-.0514	-.0378	7460.	
.0920	-1035.	-3963.	-2181.	-9297.	-1308.	6945.	-.0765	.0880	.0426	-.0337	-.0406	-.0396	7872.	
.0930	-359.	-5286.	-1087.	-9510.	-1365.	7433.	-.0721	.0927	.0426	-.0499	-.0365	-.0387	8188.	
.0940	497.	-6461.	621.	-9443.	-1162.	7647.	-.0658	.0955	.0423	-.0679	-.0350	-.0387	8228.	
.0950	937.	-7423.	2025.	-9246.	-645.	7581.	-.0581	.0958	.0406	-.0851	-.0338	-.0416	8071.	
.0960	961.	-7692.	2535.	-8715.	-138.	7304.	-.0496	.0933	.0369	-.0978	-.0356	-.0470	7665.	
.0970	777.	-6585.	2269.	-7530.	222.	6698.	-.0407	.0877	.0312	-.1038	-.0406	-.0549	6795.	
.0980	97.	-4473.	1295.	-5889.	692.	5715.	-.0311	.0792	.0236	-.1048	-.0446	-.0655	5551.	
.0990	-1196.	-2179.	-231.	-4093.	1453.	4504.	-.0206	.0681	.0144	-.1041	-.0458	-.0770	4218.	

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2 SAFETY COLD FKM24F--2 PSV

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

.0890	-101.	-4092.	1063.	-8147.	-971.	-4092.	5224.	-.761	.0673	.0423	-.0165	-.0803	-.0231	6556.
.0900	-797.	-3420.	-2155.	-8570.	-1208.	6011.	-.787	.0755	.0426	-.0168	-.0566	-.0318	7103.	
.0910	-1140.	-3153.	-2485.	-8898.	-1272.	6459.	-.787	.0822	.0427	-.0220	-.0514	-.0378	7460.	
.0920	-1035.	-3963.	-2181.	-9297.	-1308.	6945.	-.0765	.0880	.0426	-.0337	-.0406	-.0396	7872.	
.0930	-359.	-5286.	-1087.	-9510.	-1365.	7433.	-.0721	.0927	.0426	-.0499	-.0365	-.0387	8188.	
.0940	497.	-6461.	621.	-9443.	-1162.	7647.	-.0658	.0955	.0423	-.0679	-.0350	-.0387	8228.	
.0950	937.	-7423.	2025.	-9246.	-645.	7581.	-.0581	.0958	.0406	-.0851	-.0338	-.0416	8071.	
.0960	961.	-7692.	2535.	-8715.	-138.	7304.	-.0496	.0933	.0369	-.0978	-.0356	-.0470	7665.	
.0970	777.	-6535.	2269.	-7530.	222.	6698.	-.0407	.0877	.0312	-.1038	-.0406	-.0549	6795.	
.0980	97.	-4473.	1295.	-5829.	692.	5715.	-.0311	.0792	.0236	-.1048	-.0446	-.0655	5551.	
.0990	-1196.	-2179.	-231.	-4093.	1453.	4504.	-.0206	.0681	.0144	-.1041	-.0458	-.0770	4218.	

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

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

SECTION	22	MEMBER	2	SEQUENCE	809	LOCATION	END	TYPE	EL						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1000	-2402.	126.	-1570.	-2007.	2338.	3227.	-.0089	.0552	-.0152	-.1033	-.0492	-.0858	3008.		
.1010	-2886.	2191.	-2091.	404.	3150.	2022.	.0043	.0410	-.0028	-.1042	-.0583	-.0886	2538.		
.1020	-2812.	3225.	-1739.	2709.	3952.	959.	.0187	.0266	-.0095	-.1088	-.0688	-.0841	3294.		
.1030	-2434.	3081.	-738.	4647.	4805.	-85.	.0339	.0123	-.0149	-.1168	-.0747	-.0729	4506.		
.1040	-1610.	2498.	957.	6387.	5466.	-1239.	.0488	-.0015	-.0190	-.1247	-.0756	-.0563	5728.		
.1050	-457.	1892.	2583.	7944.	5600.	-2417.	.0623	-.0147	-.0219	-.1287	-.0728	-.0352	6751.		
.1060	512.	1379.	3421.	9129.	5206.	-3580.	.0731	-.0268	-.0242	-.1268	-.0636	-.0123	7483.		
.1070	1037.	1415.	3518.	9946.	4553.	-4875.	.0806	-.0370	-.0262	-.1187	-.0451	-.0089	8072.		
.1080	1099.	1982.	2816.	10413.	3539.	-6196.	.0841	-.0445	-.0279	-.1064	-.0168	.0276	8509.		
.1090	637.	2719.	1129.	10556.	1939.	-7408.	.0833	-.0483	-.0298	-.0945	.0234	.0452	8791.		
.1100	604.	4685.	396.	10965.	611.	-8384.	.0798	-.0486	-.0286	-.0819	.0583	.0578	9313.		
.1110	504.	5647.	-251.	10754.	-583.	-8302.	.0739	-.0449	-.0254	-.0715	.0860	.0683	9166.		
.1120	-20.	4581.	-1028.	9485.	-1502.	-7122.	.0658	-.0366	-.0218	-.0660	.1115	.0772	8059.		
.1130	-234.	3481.	-378.	8095.	-1776.	-5663.	.0573	-.0242	-.0170	-.0643	.1353	.0822	6766.		
.1140	41.	2524.	1199.	6765.	-1805.	-3888.	.0489	-.0086	-.0112	-.0659	.1519	.0862	5398.		
.1150	113.	513.	1850.	4905.	-2055.	-1511.	.0406	.0085	-.0062	-.0700	.1618	.0925	3726.		
.1160	-293.	-1215.	1781.	2926.	-2097.	642.	.0335	.0257	-.0025	-.0729	.1722	.0968	2465.		
.1170	-790.	-1053.	1864.	1573.	-1799.	2009.	.0284	.0423	.0004	-.0704	.1824	.0964	2104.		
.1180	-1250.	-564.	1557.	315.	-1215.	3235.	.0244	.0579	.0018	-.0663	.1782	.0944	2339.		
.1190	-1557.	-1400.	178.	-1418.	-1236.	4984.	.0206	.0725	.0017	-.0622	.1571	.0961	3591.		
.1200	-1637.	-2277.	-758.	-3266.	-1192.	6197.	.0178	.0858	.0011	-.0583	.1342	.0952	4790.		
.1210	-1790.	-2634.	-789.	-5031.	-272.	6142.	.0159	.0972	.0006	-.0583	.1165	.0864	5355.		
.1220	-1339.	-3185.	-993.	-6485.	-86.	6004.	.0134	.1061	.0019	-.0614	.0868	.0780	5957.		
.1230	-138.	-4217.	-1348.	-7636.	-742.	5990.	.0096	.1123	.0056	-.0712	.0432	.0715	6561.		
.1240	1140.	-4878.	-877.	-8435.	-1272.	5253.	.0045	.1164	.0111	-.0881	.0061	.0600	6753.		
.1250	1780.	-5279.	72.	-9070.	-1174.	3738.	-.0024	.1187	.0171	-.1099	-.0177	.0401	6659.		
.1260	2135.	-6036.	321.	-9514.	-1142.	2391.	-.0122	.1190	.0229	-.1339	-.0455	.0178	6657.		
.1270	2963.	-6285.	-155.	-9174.	-2350.	1622.	-.0240	.1166	.0295	-.1545	-.0799	-.0002	6476.		
.1280	3276.	-5236.	-365.	-8181.	-3122.	314.	-.0355	.1112	.0364	-.1732	-.0983	-.0205	5906.		
.1290	2441.	-3484.	-545.	-6902.	-2972.	-1433.	-.0456	.1031	.0422	-.1882	-.0963	-.0436	5130.		
.1300	1479.	-2078.	-1353.	-5311.	-2794.	-2351.	-.0543	.0934	.0466	-.1963	-.0968	-.0593	4344.		
.1310	1299.	-1069.	-1845.	-3307.	-2890.	-2263.	-.0607	.0832	.0501	-.1993	-.1088	-.0632	3330.		
.1320	1278.	-444.	-1231.	-1259.	-2475.	-1782.	-.0629	.0731	.0523	-.1993	-.1139	-.0577	2224.		
.1330	456.	-721.	-39.	259.	-782.	-1351.	-.0608	.0634	.0523	-.1986	-.1037	-.0472	1067.		
.1340	-111.	-1250.	970.	1784.	741.	-501.	-.0555	.0541	.0511	-.1914	-.0967	-.0277	1345.		
.1350	298.	-1295.	1750.	3633.	1273.	752.	-.0479	.0452	.0495	-.1765	-.0998	.0016	2644.		
.1360	416.	-1352.	2450.	4988.	2137.	1555.	-.0386	.0379	.0466	-.1615	-.0949	.0322	3805.		
.1370	-184.	-1561.	2893.	5596.	3311.	1815.	-.0288	.0328	.0421	-.1471	-.0776	.0599	4551.		

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

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

.1270	2963.	-6285.	-155.	-9174.	-2350.	1622.	-0.0240	.1166	.0295	-0.1545	-0.0799	-0.0002	6476.
.1280	3276.	-5236.	-365.	-8181.	-3122.	314.	-0.0555	.1112	.0364	-0.1732	-0.0983	-0.0205	5906.
.1290	2441.	-3484.	-545.	-6902.	-2872.	-1433.	-0.0456	.1031	.0422	-0.1882	-0.0763	-0.0436	5130.
.1300	1479.	-2078.	-1753.	-5311.	-2794.	-2351.	-0.0543	.0934	.0466	-0.1963	-0.0968	-0.0593	4344.
.1310	1299.	-1069.	-1845.	-3307.	-2890.	-2263.	-0.0607	.0832	.0501	-0.1993	-0.1088	-0.0632	3330.
.1320	1278.	-444.	-1231.	-1259.	-2475.	-1782.	-0.0629	.0731	.0523	-0.1993	-0.1139	-0.0577	2224.
.1330	456.	-721.	-39.	259.	-782.	-1351.	-0.0608	.0634	.0523	-0.1986	-0.1037	-0.0472	1067.
.1340	-111.	-1250.	970.	1784.	741.	-501.	-0.0555	.0541	.0511	-0.1914	-0.0967	-0.0277	1345.
.1350	298.	-1295.	1750.	3633.	1273.	752.	-0.0479	.0452	.0495	-0.1765	-0.0998	.0016	2644.
.1360	416.	-1352.	2450.	4988.	2137.	1555.	-0.0386	.0379	.0466	-0.1615	-0.0949	.0322	3805.
.1370	-184.	-1561.	2893.	5596.	3311.	1815.	-0.0288	.0328	.0421	-0.1471	-0.0776	.0599	4551.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.26.59.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL								
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.1380	-554.	-1487.	2964.	5900.	4110.	1935.	-0.0207	.0304	.0370	-0.1317	-0.0576	.0842	5019.	
.1390	-131.	-1049.	2571.	6071.	3882.	2292.	-0.0153	.0303	.0329	-0.1141	-0.0750	.1048	5096.	
.1400	111.	-847.	1920.	5484.	3521.	2452.	-0.0128	.0322	.0299	-0.0986	-0.0844	.1158	4693.	
.1410	-325.	-977.	1412.	3943.	3856.	1932.	-0.0129	.0360	.0278	-0.0869	-0.0864	.1126	3939.	
.1420	-226.	-843.	968.	2269.	3421.	1364.	-0.0166	.0414	.0274	-0.0799	-0.0952	.1020	2916.	
.1430	520.	-827.	263.	553.	2067.	998.	-0.0238	.0478	.0284	-0.0733	-0.1144	.0878	1591.	
.1440	1004.	-1177.	-539.	-1474.	676.	395.	-0.0330	.0543	.0300	-0.0715	-0.1275	.0685	1125.	
.1450	1015.	-1335.	-1015.	-3559.	-286.	-748.	-0.0424	.0598	.0324	-0.0729	-0.1264	.0441	2459.	
.1460	1176.	-1176.	-1428.	-5243.	-1281.	-1895.	-0.0514	.0635	.0354	-0.0732	-0.1238	.0202	3855.	
.1470	1799.	-1164.	-2201.	-6399.	-3024.	-2329.	-0.0594	.0652	.0381	-0.0689	-0.1260	.0036	5022.	
.1480	2168.	-1524.	-2183.	-7383.	-4167.	-2558.	-0.0650	.0650	.0397	-0.0635	-0.1204	.0089	5969.	
.1490	2148.	-2001.	-2545.	-8153.	-4381.	-2759.	-0.0670	.0630	.0398	-0.0566	-0.1014	-0.0176	6510.	
.1500	2206.	-2585.	-1558.	-8444.	-4509.	-2371.	-0.0658	.0589	.0385	-0.0446	-0.0808	-0.0183	6647.	
.1510	2327.	-3233.	-1248.	-8206.	-4528.	-1357.	-0.0618	.0529	.0356	-0.0278	-0.0648	-0.0108	6383.	
.1520	2220.	-3416.	-930.	-7411.	-4273.	-214.	-0.0547	.0451	.0312	-0.0078	-0.0441	.0023	5768.	
.1530	1629.	-3055.	-383.	-6248.	-3361.	551.	-0.0449	.0360	.0253	.0116	-0.0128	.0180	4796.	
.1540	947.	-2449.	-157.	-4755.	-2670.	1240.	-0.0336	.0262	.0181	.0306	.0218	.0385	3770.	
.1550	441.	-1639.	-352.	-2982.	-2473.	1874.	-0.0217	.0159	.0102	.0495	.0540	.0622	2901.	
.1560	-146.	-588.	-459.	-1178.	-1986.	1976.	-0.0093	.0053	.0020	.0653	.0867	.0833	2048.	
.1570	-705.	503.	-456.	551.	-1641.	1727.	.0034	-0.0056	-0.0055	.0781	.1194	.1016	1648.	
.1580	-1052.	1297.	-319.	2060.	-1383.	1285.	.0156	-0.0162	-0.0123	.0865	.1452	.1160	1883.	
.1590	-1064.	1809.	22.	3361.	-1056.	710.	.0268	-0.0263	-0.0183	.0902	.1584	.1248	2423.	
.1600	-809.	2169.	387.	4506.	-917.	109.	.0365	-0.0355	-0.0235	.0912	.1596	.1277	3100.	
.1610	-557.	2390.	706.	5320.	-820.	-690.	.0449	-0.0441	-0.0280	.0896	.1555	.1234	3658.	
.1620	-537.	2502.	866.	5708.	-394.	-1873.	.0518	-0.0521	-0.0320	.0841	.1488	.1105	4058.	
.1630	-368.	2997.	715.	6109.	-363.	-3044.	.0571	-0.0595	-0.0350	.0791	.1349	.0928	4607.	
.1640	-126.	3727.	355.	6485.	-495.	-4119.	.0609	-0.0658	-0.0372	.0741	.1143	.0713	5189.	
.1650	-129.	4107.	-19.	6486.	-238.	-5127.	.0635	-0.0703	-0.0392	.0663	.0926	.0461	5575.	
.1660	-222.	4091.	-266.	6216.	98.	-5781.	.0650	-0.0726	-0.0404	.0571	.0700	.0209	5722.	
.1670	-192.	3880.	-130.	5842.	664.	-6033.	.0657	-0.0725	-0.0408	.0472	.0435	-0.0026	5678.	
.1680	122.	3461.	277.	5359.	1164.	-5755.	.0657	-0.0700	-0.0401	.0387	.0133	-0.0219	5359.	
.1690	293.	2534.	662.	4484.	1855.	-5136.	.0648	-0.0653	-0.0390	.0313	-0.0138	-0.0370	4763.	
.1700	209.	1532.	955.	3402.	2594.	-4356.	.0630	-0.0586	-0.0379	.0267	-0.0336	-0.0468	4115.	
.1710	254.	1099.	1231.	2475.	2827.	-3443.	.0600	-0.0503	-0.0363	.0277	-0.0468	-0.0495	3435.	
.1720	194.	772.	1236.	1387.	3051.	-2604.	.0557	-0.0409	-0.0347	.0313	-0.0532	-0.0468	2861.	
.1730	-59.	376.	580.	150.	2860.	-1685.	.0499	-0.0310	-0.0331	.0390	-0.0522	-0.0381	2240.	
.1740	-443.	389.	-266.	-935.	2448.	-892.	.0428	-0.0212	-0.0310	.0501	-0.0435	-0.0257	1866.	
.1750	-730.	781.	-804.	-1788.	2084.	-284.	.0345	-0.0117	-0.0279	.0616	-0.0309	-0.0116	1861.	

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DIS/ADLPIPE

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18.26.59.

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

CONDITION 24

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ENGLISH UNITS

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

.1650	-129.	4107.	-19.	6486.	-238.	-5127.	.0635	-.0703	-.0392	.0663	.0926	.0461	5575.
.1660	-222.	4091.	-266.	6216.	98.	-5781.	.0650	-.0726	-.0404	.0571	.0700	.0209	5722.
.1670	-192.	3880.	-130.	5842.	664.	-6033.	.0657	-.0725	-.0408	.0472	.0435	-.0026	5678.
.1680	122.	3461.	277.	5359.	1164.	-5755.	.0657	-.0700	-.0401	.0387	.0133	-.0219	5359.
.1690	293.	2534.	662.	4484.	1855.	-5136.	.0648	-.0657	-.0390	.0313	-.0138	-.0370	4763.
.1700	209.	1532.	955.	3402.	2594.	-4356.	.0630	-.0586	-.0379	.0267	-.0336	-.0468	4115.
.1710	254.	1099.	1231.	2475.	2827.	-3443.	.0600	-.0503	-.0363	.0277	-.0468	-.0495	3435.
.1720	194.	772.	1236.	1387.	3051.	-2604.	.0557	-.0409	-.0347	.0313	-.0532	-.0468	2861.
.1730	-59.	376.	580.	150.	2860.	-1685.	.0499	-.0310	-.0331	.0390	-.0522	-.0381	2240.
.1740	-447.	389.	-266.	-979.	2448.	-892.	.0428	-.0212	-.0310	.0501	-.0435	-.0257	1866.
.1750	-730.	781.	-804.	-1788.	2084.	-284.	.0345	-.0117	-.0279	.0616	-.0309	-.0116	1861.

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ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL								STRESS
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	(PSI)	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)		
.1760	-762.	756.	-1276.	-2609.	1393.	562.	.0249	-.0030	-.0234	.0718	-.0194	.0050	2029.	
.1770	-770.	39.	-1611.	-3534.	818.	1538.	.0138	.0047	-.0178	.0786	-.0094	.0202	2655.	
.1780	-587.	-652.	-1391.	-4228.	267.	2462.	.0016	.0112	-.0108	.0836	-.0001	.0312	3303.	
.1790	-284.	-1409.	-726.	-4783.	-71.	3265.	-.0116	.0163	-.0024	.0848	.0065	.0363	3904.	
.1800	-1.	-2593.	-226.	-5345.	-388.	4132.	-.0261	.0197	.0066	.0813	.0069	.0361	4561.	
.1810	342.	-3493.	88.	-5618.	-1050.	4961.	-.0415	.0214	.0161	.0763	.0023	.0307	5101.	
.1820	471.	-3683.	507.	-5653.	-1351.	5207.	-.0569	.0217	.0254	.0694	-.0022	.0166	5260.	
.1830	370.	-3656.	551.	-5685.	-1615.	5125.	-.0719	.0206	.0336	.0618	-.0081	-.0031	5273.	
.1840	214.	-3686.	43.	-5749.	-2079.	4964.	-.0858	.0186	.0403	.0539	-.0192	-.0241	5308.	
.1850	216.	-3236.	-390.	-5602.	-2541.	4515.	-.0973	.0158	.0457	.0467	-.0341	-.0454	5143.	
.1860	304.	-2400.	-563.	-5318.	-2891.	3733.	-.1053	.0122	.0495	.0414	-.0486	-.0652	4793.	
.1870	205.	-2034.	-848.	-5271.	-2837.	2788.	-.1093	.0083	.0508	.0360	-.0630	-.0815	4451.	
.1880	360.	-1878.	-1179.	-5151.	-2910.	1951.	-.1091	.0039	.0500	.0330	-.0806	-.0899	4199.	
.1890	903.	-1386.	-1101.	-4713.	-2950.	1011.	-.1044	-.0008	.0474	.0326	-.0986	-.0906	3809.	
.1900	1351.	-929.	-888.	-4224.	-2664.	-103.	-.0956	-.0061	.0427	.0336	-.1107	-.0849	3367.	
.1910	1537.	-711.	-1034.	-3728.	-2414.	-1146.	-.0836	-.0121	.0358	.0373	-.1155	-.0724	3092.	
.1920	1708.	-143.	-1218.	-2927.	-2162.	-2189.	-.0692	-.0189	.0277	.0440	-.1152	-.0556	2862.	
.1930	1969.	894.	-1260.	-1772.	-1956.	-3164.	-.0534	-.0264	.0191	.0535	-.1098	-.0362	2777.	
.1940	1950.	1655.	-1456.	-656.	-1696.	-3864.	-.0373	-.0345	.0102	.0637	-.0975	-.0167	2879.	
.1950	1618.	2086.	-1637.	371.	-1256.	-4264.	-.0220	-.0427	.0013	.0734	-.0789	.0002	3006.	
.1960	1339.	2656.	-1401.	1569.	-727.	-4367.	-.0080	-.0507	-.0064	.0828	-.0582	.0126	3166.	
.1970	1111.	3072.	-960.	2795.	-244.	-4040.	.0039	-.0583	-.0128	.0906	-.0381	.0204	3316.	
.1980	664.	2975.	-593.	3759.	272.	-3339.	.0134	-.0654	-.0179	.0956	-.0168	.0226	3394.	
.1990	73.	2844.	-70.	4566.	887.	-2564.	.0208	-.0715	-.0217	.0986	.0069	.0183	3580.	
.2000	-435.	2958.	596.	5328.	1394.	-1806.	.0263	-.0766	-.0244	.1005	.0302	.0089	3907.	
.2010	-915.	2890.	972.	5825.	1625.	-975.	.0300	-.0801	-.0265	.1009	.0511	-.0027	4129.	
.2020	-1461.	2631.	1070.	5962.	1732.	-243.	.0327	-.0820	-.0287	.0997	.0709	-.0155	4188.	
.2030	-1938.	2658.	1220.	5915.	1849.	165.	.0355	-.0824	-.0308	.0982	.0898	-.0289	4179.	
.2040	-2219.	2834.	1278.	5685.	1838.	391.	.0388	-.0812	-.0332	.0979	.1038	-.0405	4036.	
.2050	-2326.	2702.	1018.	5112.	1653.	620.	.0428	-.0784	-.0362	.0985	.1110	-.0484	3645.	
.2060	-2271.	2409.	746.	4255.	1500.	719.	.0478	-.0743	-.0399	.0998	.1136	-.0529	3079.	
.2070	-2051.	2207.	686.	3270.	1477.	601.	.0539	-.0691	-.0440	.1019	.1132	-.0549	2452.	
.2080	-1728.	1875.	539.	2169.	1431.	464.	.0605	-.0631	-.0483	.1044	.1086	-.0539	1779.	
.2090	-1350.	1378.	173.	1020.	1303.	401.	.0667	-.0568	-.0525	.1067	.0795	-.0508	1148.	
.2100	-956.	1074.	-117.	5.	1240.	264.	.0721	-.0505	-.0559	.1080	.0891	-.0478	854.	
.2110	-645.	960.	-277.	-835.	1274.	60.	.0761	-.0443	-.0581	.1073	.0795	-.0463	1027.	
.2120	-464.	718.	-499.	-1565.	1287.	-20.	.0775	-.0386	-.0591	.1038	.0700	-.0464	1366.	
.2130	-347.	419.	-688.	-2112.	1253.	67.	.0762	-.0333	-.0584	.0978	.0600	-.0488	1656.	

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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

.2020	-1481.	2631.	1070.	5962.	1732.	-243.	.0327	-.0820	-.0287	.0997	.0709	-.0155	4188.
.2030	-1938.	2658.	1220.	5915.	1840.	165.	.0355	-.0824	-.0308	.0982	.0898	-.0289	4179.
.2040	-2219.	2834.	1278.	5685.	1838.	391.	.0388	-.0812	-.0332	.0979	.1038	-.0405	4036.
.2050	-2326.	2702.	1018.	5112.	1653.	620.	.0428	-.0784	-.0362	.0985	.1110	-.0484	3645.
.2060	-2271.	2409.	746.	4255.	1500.	719.	.0478	-.0743	-.0399	.0998	.1136	-.0529	3079.
.2070	-2051.	2207.	686.	3270.	1477.	601.	.0530	-.0691	-.0440	.1019	.1132	-.0549	2452.
.2080	-1728.	1875.	539.	2169.	1431.	464.	.0605	-.0631	-.0483	.1044	.1086	-.0539	1779.
.2090	-1350.	1378.	173.	1020.	1303.	401.	.0667	-.0568	-.0525	.1067	.0995	-.0508	1148.
.2100	-956.	1074.	-117.	5.	1240.	264.	.0721	-.0505	-.0559	.1080	.0891	-.0478	854.
.2110	-645.	960.	-277.	-835.	1274.	60.	.0761	-.0443	-.0581	.1073	.0795	-.0463	1027.
.2120	-464.	718.	-499.	-1565.	1287.	-20.	.0775	-.0386	-.0591	.1038	.0700	-.0464	1366.
.2130	-343.	419.	-688.	-2112.	1253.	67.	.0762	-.0333	-.0584	.0978	.0500	-.0488	1656.

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ADLPIPE STRESS ANALYSIS

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
22	2	809					.2140	-279.	283.	-641.	-2399.	1265.	232.	.0721	-.0288	-.0559	.0900	.0511	-.0545	1834.
							.2150	-372.	171.	-468.	-2517.	1353.	485.	.0654	-.0253	-.0516	.0807	.0440	-.0628	1954.
							.2160	-590.	-36.	-333.	-2513.	1435.	870.	.0564	-.0229	-.0460	.0709	.0378	-.0722	2037.
							.2170	-792.	-125.	-175.	-2292.	1450.	1305.	.0458	-.0215	-.0395	.0617	.0317	-.0810	2029.
							.2180	-985.	-30.	16.	-1869.	1418.	1670.	.0345	-.0212	-.0325	.0538	.0270	-.0880	1941.
							.2190	-1242.	63.	109.	-1388.	1256.	1906.	.0232	-.0217	-.0255	.0475	.0249	-.0913	1833.
							.2200	-1457.	168.	103.	-866.	1219.	1977.	.0128	-.0230	-.0189	.0431	.0245	-.0895	1671.
							.2210	-1476.	404.	93.	-249.	953.	1864.	.0038	-.0249	-.0127	.0412	.0242	-.0820	1421.
							.2220	-1332.	620.	85.	364.	600.	1589.	-.0034	-.0269	-.0072	.0412	.0238	-.0686	1171.
							.2230	-1103.	626.	108.	835.	267.	1180.	-.0087	-.0285	-.0026	.0420	.0236	-.0505	991.
							.2240	-742.	509.	249.	1189.	-14.	679.	-.0124	-.0296	.0013	.0430	.0222	-.0291	923.
							.2250	-234.	399.	458.	1488.	-280.	174.	-.0148	-.0299	.0045	.0442	.0174	-.0062	1027.
							.2260	281.	282.	570.	1691.	-502.	-275.	-.0167	-.0294	.0071	.0452	.0089	.0158	1203.
							.2270	665.	210.	537.	1770.	-616.	-693.	-.0185	-.0280	.0093	.0454	-.0017	.0344	1347.
							.2280	906.	318.	396.	1781.	-650.	-1095.	-.0209	-.0257	.0113	.0444	-.0138	.0478	1476.
							.2290	1028.	583.	110.	1747.	-685.	-1431.	-.0243	-.0227	.0134	.0417	-.0275	.0553	1591.
							.2300	1028.	871.	-323.	1636.	-733.	-1672.	-.0290	-.0189	.0157	.0366	-.0423	.0568	1652.
							.2310	938.	1132.	-758.	1449.	-759.	-1841.	-.0347	-.0145	.0185	.0288	-.0570	.0523	1660.
							.2320	834.	1323.	-1042.	1211.	-771.	-1937.	-.0412	-.0097	.0220	.0181	-.0709	.0429	1625.
							.2330	778.	1309.	-1135.	902.	-800.	-1914.	-.0480	-.0045	.0261	.0048	-.0839	.0302	1525.
							.2340	799.	1013.	-1046.	502.	-847.	-1760.	-.0548	.0010	.0305	-.0102	-.0955	.0157	1360.
							.2350	889.	523.	-785.	44.	-905.	-1520.	-.0609	.0065	.0347	-.0256	-.1046	.0009	1193.
							.2360	1004.	-33.	-474.	-434.	-978.	-1234.	-.0658	.0119	.0385	-.0400	-.1098	-.0130	1101.
							.2370	1082.	-571.	-143.	-904.	-1066.	-921.	-.0691	.0170	.0413	-.0522	-.1109	-.0247	1128.
							.2380	1090.	-991.	-19.	-1319.	-1168.	-597.	-.0703	.0216	.0428	-.0614	-.1080	-.0334	1254.
							.2390	1019.	-1206.	-64.	-1624.	-1272.	-281.	-.0694	.0258	.0429	-.0674	-.1008	-.0384	1403.
							.2400	874.	-1261.	-213.	-1823.	-1337.	22.	-.0661	.0296	.0415	-.0707	-.0897	-.0394	1524.
							.2410	693.	-1283.	-380.	-1952.	-1331.	340.	-.0604	.0333	.0388	-.0724	-.0754	-.0364	1609.
							.2420	536.	-1347.	-470.	-2013.	-1260.	702.	-.0527	.0370	.0352	-.0733	-.0594	-.0297	1669.
							.2430	433.	-1468.	-405.	-2005.	-1121.	1102.	-.0433	.0406	.0308	-.0740	-.0424	-.0201	1717.
							.2440	365.	-1671.	-175.	-1958.	-889.	1513.	-.0326	.0441	.0260	-.0752	-.0251	-.0089	1772.
							.2450	311.	-1951.	156.	-1896.	-583.	1914.	-.0211	.0475	.0209	-.0771	-.0083	.0029	1858.
							.2460	265.	-2202.	497.	-1792.	-268.	2279.	-.0095	.0505	.0156	-.0794	.0072	.0142	1962.
							.2470	181.	-2304.	765.	-1628.	34.	2549.	.0018	.0531	.0104	-.0816	.0210	.0238	2039.
							.2480	-5.	-2226.	876.	-1420.	346.	2678.	.0123	.0549	.0051	-.0837	.0333	.0307	2056.
							.2490	-285.	-1983.	787.	-1170.	647.	2668.	.0219	.0559	.0000	-.0858	.0431	.0345	2011.
							.2500	-578.	-1584.	565.	-848.	889.	2542.	.0303	.0561	-.0046	-.0881	.0498	.0358	1903.
							.2510	-835.	-1125.	341.	-474.	1100.	2309.	.0375	.0555	-.0085	-.0911	.0534	.0347	1754.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.59.

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

CONDITION 24

LOADS

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ENGLISH UNITS

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

.2410	693.	-1263.	380.	-1952.	-1331.	340.	-.604	.0333	.0388	-.0724	-.0754	-.0364	1609.
.2420	536.	-1347.	-470.	-2013.	-1260.	702.	-.0527	.0370	.0352	-.0733	-.0594	-.0297	1669.
.2430	433.	-1468.	-405.	-2005.	-1121.	1102.	-.433	.0406	.0308	-.0740	-.0424	-.0201	1717.
.2440	365.	-1671.	-175.	-1958.	-189.	1513.	-.0326	.0441	.0060	-.0752	-.0251	-.0089	1772.
.2450	311.	-1951.	156.	-1896.	-503.	1914.	-.0211	.0475	.0209	-.0771	-.0383	.0029	1858.
.2460	265.	-2202.	497.	-1792.	-268.	2279.	-.0095	.0505	.0156	-.0794	.0072	.0142	1962.
.2470	181.	-2304.	765.	-1628.	34.	2549.	.0018	.0531	.0104	-.0816	.0210	.0238	2039.
.2480	-5.	-2226.	876.	-1420.	346.	2678.	.0123	.0549	.0051	-.0837	.0333	.0307	2056.
.2490	-285.	-1983.	787.	-1170.	647.	2668.	.0219	.0559	.0000	-.0858	.0431	.0345	2011.
.2500	-578.	-1584.	565.	-848.	889.	2542.	.0303	.0561	-.0046	-.0881	.0498	.0358	1903.
.2510	-835.	-1125.	341.	-474.	1100.	2309.	.0375	.0555	-.0085	-.0911	.0534	.0347	1754.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.59.

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

CONDITION 24

LOADS

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PRESSURE

ENGLISH UNITS

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

SECTION	22	MEMBER	2	SEQUENCE	809	LOCATION	END	TYPE	EL					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2520	-1043.	-775.	212.	-111.	1337.	1989.	.0438	.0544	-.0117	-.0956	.0544	.0319	1617.	
.2530	-1146.	-612.	240.	235.	1582.	1629.	.0490	.0529	-.0140	-.1018	.0526	.0284	1539.	
.2540	-1079.	-594.	453.	600.	1788.	1265.	.0534	.0513	-.0154	-.1093	.0478	.0251	1531.	
.2550	-888.	-686.	799.	964.	1960.	887.	.0569	.0495	-.0160	-.1176	.0411	.0225	1589.	
.2560	-677.	-838.	1162.	1293.	2112.	476.	.0595	.0477	-.0159	-.1257	.0343	.0210	1700.	
.2570	-473.	-912.	1444.	1614.	2201.	31.	.0611	.0459	-.0155	-.1326	.0280	.0210	1840.	
.2580	-273.	-818.	1556.	1944.	2172.	-428.	.0617	.0444	-.0148	-.1374	.0223	.0228	1986.	
.2590	-130.	-592.	1431.	2244.	2032.	-882.	.0611	.0431	-.0140	-.1399	.0180	.0265	2125.	
.2600	-74.	-260.	1116.	2494.	1810.	-1326.	.0593	.0423	-.0128	-.1402	.0159	.0321	2261.	
.2610	-46.	149.	739.	2708.	1518.	-1730.	.0564	.0420	-.0112	-.1391	.0158	.0392	2395.	
.2620	24.	504.	395.	2868.	1154.	-2029.	.0521	.0423	-.0087	-.1374	.0167	.0478	2493.	
.2630	152.	655.	155.	2942.	746.	-2171.	.0466	.0435	-.0054	-.1364	.0180	.0574	2515.	
.2640	330.	592.	105.	2934.	339.	-2163.	.0397	.0455	-.0011	-.1368	.0198	.0671	2467.	
.2650	538.	371.	254.	2865.	-41.	-2025.	.0315	.0483	.0042	-.1389	.0219	.0759	2365.	
.2660	735.	30.	483.	2737.	-404.	-1752.	.0220	.0517	.0103	-.1423	.0234	.0828	2207.	
.2670	871.	-342.	671.	2563.	-756.	-1366.	.0115	.0555	.0168	-.1466	.0239	.0872	2023.	
.2680	913.	-616.	776.	2366.	-1071.	-927.	.0001	.0595	.0236	-.1510	.0233	.0883	1859.	
.2690	843.	-769.	769.	2132.	-1329.	-472.	-.0117	.0637	.0303	-.1553	.0215	.0860	1723.	
.2700	678.	-874.	620.	1825.	-1537.	-0.	-.0234	.0678	.0365	-.1592	.0177	.0807	1608.	
.2710	476.	-961.	396.	1448.	-1688.	472.	-.0344	.0720	.0421	-.1626	.0115	.0730	1532.	
.2720	306.	-1046.	209.	1007.	-1757.	902.	-.0443	.0760	.0471	-.1656	.0027	.0641	1494.	
.2730	214.	-1223.	105.	483.	-1745.	1272.	-.0524	.0799	.0513	-.1684	-.0085	.0549	1491.	
.2740	224.	-1551.	75.	-130.	-1689.	1569.	-.0584	.0837	.0544	-.1710	-.0218	.0468	1557.	
.2750	347.	-1957.	127.	-788.	-1610.	1743.	-.0622	.0871	.0564	-.1730	-.0361	.0405	1685.	
.2760	556.	-2352.	228.	-1450.	-1507.	1754.	-.0636	.0900	.0573	-.1739	-.0504	.0362	1840.	
.2770	800.	-2708.	284.	-2096.	-1406.	1619.	-.0628	.0923	.0570	-.1734	-.0640	.0343	2021.	
.2780	1049.	-2969.	246.	-2684.	-1325.	1370.	-.0601	.0938	.0554	-.1712	-.0765	.0345	2219.	
.2790	1268.	-3070.	136.	-3168.	-1238.	1032.	-.0559	.0944	.0529	-.1669	-.0870	.0363	2396.	
.2800	1413.	-3047.	-38.	-3542.	-1116.	663.	-.0506	.0942	.0494	-.1610	-.0954	.0391	2543.	
.2810	1472.	-2967.	-249.	-3799.	-954.	339.	-.0446	.0930	.0454	-.1538	-.1014	.0423	2650.	
.2820	1481.	-2833.	-407.	-3911.	-751.	106.	-.0385	.0910	.0412	-.1459	-.1050	.0454	2685.	
.2830	1447.	-2671.	-463.	-3868.	-504.	-18.	-.0324	.0881	.0371	-.1378	-.1061	.0481	2629.	
.2840	1343.	-2543.	-441.	-3696.	-225.	-23.	-.0268	.0845	.0332	-.1299	-.1042	.0499	2496.	
.2850	1173.	-2446.	-342.	-3400.	61.	76.	-.0218	.0800	.0297	-.1224	-.0990	.0507	2293.	
.2860	976.	-2319.	-141.	-2972.	333.	240.	-.0175	.0749	.0266	-.1153	-.0908	.0505	2022.	
.2870	761.	-2164.	109.	-2446.	571.	448.	-.0139	.0690	.0240	-.1085	-.0801	.0495	1720.	
.2880	507.	-2000.	317.	-1870.	758.	677.	-.0110	.0627	.0215	-.1013	-.0676	.0476	1435.	
.2890	231.	-1778.	469.	-1267.	893.	883.	-.0086	.0558	.0191	-.0933	-.0539	.0452	1203.	

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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

.2780	1049.	-2969.	246.	-2684.	-1325.	1370.	-.0601	.0938	.0554	-.1712	-.0765	.0345	2219.
.2790	1268.	-7070.	136.	-3168.	-1238.	1032.	-.0559	.0944	.0529	-.1669	-.0870	.0363	2396.
.2800	1413.	-3047.	-38.	-3542.	-1116.	663.	-.0506	.0942	.0494	-.1610	-.0954	.0391	2543.
.2810	1472.	-2967.	-249.	-3799.	-954.	339.	-.0446	.0930	.0454	-.1538	-.1014	.0423	2650.
.2820	1481.	-2833.	-407.	-3911.	-751.	106.	-.0385	.0910	.0412	-.1459	-.1050	.0454	2685.
.2830	1447.	-2671.	-463.	-3868.	-504.	-18.	-.0324	.0881	.0371	-.1378	-.1061	.0481	2629.
.2840	1343.	-2543.	-441.	-3696.	-225.	-23.	-.0268	.0845	.0332	-.1299	-.1042	.0499	2496.
.2850	1173.	-2446.	-342.	-3400.	61.	76.	-.0218	.0800	.0297	-.1224	-.0990	.0507	2293.
.2860	976.	-2319.	-141.	-2972.	333.	240.	-.0175	.0749	.0266	-.1153	-.0908	.0505	2022.
.2870	761.	-2164.	109.	-2446.	571.	448.	-.0139	.0690	.0240	-.1085	-.0801	.0495	1720.
.2880	507.	-2000.	317.	-1870.	758.	677.	-.0110	.0627	.0215	-.1013	-.0576	.0476	1435.
.2890	231.	-1778.	469.	-1267.	893.	883.	-.0086	.0558	.0191	-.0933	-.0539	.0452	1203.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKWOBF 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	22	MEMBER	2	SEQUENCE	809	LOCATION	END	TYPE	EL						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2900	-26.	-1476.	586.	-665.	975.	1028.	-.0065	.0485	.0168	-.0842	-.0399	.0425	1055.		
.2910	-239.	-1160.	639.	-123.	989.	1107.	-.0045	.0410	.0144	-.0740	-.0263	.0400	1004.		
.2920	-392.	-864.	608.	327.	921.	1101.	-.0026	.0334	.0118	-.0626	-.0138	.0379	992.		
.2930	-467.	-555.	533.	685.	777.	973.	-.0005	.0258	.0091	-.0502	-.0024	.0364	958.		
.2940	-460.	-255.	443.	939.	566.	716.	.0018	.0184	.0062	-.0371	.0080	.0353	882.		
.2950	-375.	-22.	335.	1074.	289.	359.	.0043	.0112	.0033	-.0241	.0172	.0348	788.		
.2960	-221.	160.	230.	1115.	-36.	-68.	.0069	.0044	.0004	-.0115	.0251	.0344	753.		
.2970	-27.	330.	153.	1094.	-368.	-540.	.0095	-.0020	-.0025	.0008	.0317	.0337	859.		
.2980	158.	467.	89.	1017.	-665.	-1001.	.0120	-.0079	-.0054	.0124	.0370	.0323	1061.		
.2990	303.	559.	24.	895.	-900.	-1391.	.0143	-.0134	-.0082	.0234	.0410	.0300	1270.		
.3000	397.	667.	-36.	774.	-1055.	-1682.	.0164	-.0185	-.0109	.0340	.0436	.0265	1436.		
.3010	415.	824.	-106.	680.	-1113.	-1863.	.0183	-.0233	-.0136	.0445	.0451	.0220	1533.		
.3020	338.	1002.	-212.	612.	-1079.	-1933.	.0200	-.0278	-.0163	.0548	.0460	.0169	1549.		
.3030	192.	1191.	-334.	576.	-978.	-1911.	.0215	-.0320	-.0189	.0650	.0469	.0118	1498.		
.3040	20.	1402.	-437.	587.	-839.	-1833.	.0229	-.0360	-.0214	.0749	.0480	.0074	1415.		
.3050	-156.	1609.	-516.	639.	-691.	-1730.	.0244	-.0399	-.0238	.0845	.0497	.0042	1327.		
.3060	-318.	1770.	-568.	711.	-551.	-1629.	.0259	-.0437	-.0260	.0940	.0522	.0029	1254.		
.3070	-429.	1877.	-564.	794.	-438.	-1551.	.0274	-.0473	-.0279	.1031	.0554	.0035	1211.		
.3080	-465.	1927.	-493.	878.	-361.	-1503.	.0291	-.0509	-.0296	.1121	.0587	.0060	1198.		
.3090	-446.	1912.	-395.	944.	-317.	-1479.	.0306	-.0544	-.0311	.1210	.0619	.0099	1202.		
.3100	-397.	1858.	-300.	986.	-293.	-1474.	.0319	-.0577	-.0322	.1299	.0645	.0145	1212.		
.3110	-332.	1813.	-221.	1016.	-277.	-1482.	.0327	-.0610	-.0331	.1387	.0660	.0189	1225.		
.3120	-276.	1795.	-184.	1036.	-262.	-1485.	.0329	-.0641	-.0337	.1471	.0661	.0223	1233.		
.3130	-259.	1802.	-205.	1044.	-233.	-1471.	.0322	-.0670	-.0339	.1546	.0645	.0238	1226.		
.3140	-287.	1849.	-267.	1054.	-172.	-1434.	.0307	-.0695	-.0336	.1608	.0611	.0230	1205.		
.3150	-347.	1922.	-340.	1072.	-77.	-1365.	.0281	-.0716	-.0329	.1650	.0557	.0194	1171.		
.3160	-424.	1981.	-399.	1088.	53.	-1252.	.0247	-.0733	-.0316	.1670	.0481	.0132	1118.		
.3170	-507.	1997.	-417.	1091.	221.	-1097.	.0204	-.0744	-.0297	.1664	.0385	.0046	1054.		
.3180	-575.	1967.	-381.	1075.	418.	-915.	.0154	-.0749	-.0274	.1636	.0272	-.0061	992.		
.3190	-611.	1885.	-304.	1026.	619.	-718.	.0099	-.0749	-.0247	.1591	.0143	-.0182	942.		
.3200	-612.	1753.	-221.	929.	796.	-524.	.0041	-.0744	-.0217	.1533	.0006	-.0309	897.		
.3210	-579.	1608.	-153.	779.	927.	-366.	-.0018	-.0735	-.0187	.1471	-.0133	-.0437	853.		
.3220	-519.	1490.	-129.	581.	994.	-269.	-.0076	-.0722	-.0158	.1410	-.0265	-.0557	797.		
.3230	-442.	1406.	-185.	338.	972.	-242.	-.0132	-.0707	-.0130	.1356	-.0383	-.0666	713.		
.3240	-351.	1357.	-322.	59.	856.	-279.	-.0184	-.0690	-.0106	.1312	-.0481	-.0756	608.		
.3250	-244.	1344.	-495.	-239.	664.	-369.	-.0231	-.0672	-.0084	.1278	-.0555	-.0826	537.		
.3260	-128.	1335.	-668.	-543.	418.	-481.	-.0272	-.0654	-.0064	.1253	-.0601	-.0875	564.		
.3270	-12.	1293.	-812.	-842.	149.	-571.	-.0305	-.0636	-.0048	.1235	-.0620	-.0903	693.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.00.

S/RV PIPING KEWAUNEE 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

.3170	-507.	1997.	-417.	1091.	221.	-1097.	.204	-.0744	-.0297	.1664	.0385	-.0046	1054.
.3180	-575.	1967.	-381.	1075.	418.	-915.	.154	-.0749	-.0274	.1636	.0272	-.0061	992.
.3190	-611.	1885.	-304.	1026.	619.	-718.	.0099	-.0749	-.0247	.1591	.0143	-.0182	942.
.3200	-612.	1753.	-221.	929.	796.	-524.	.0041	-.0744	-.0217	.1533	.0006	-.0309	897.
.3210	-579.	1608.	-153.	779.	927.	-366.	-.0018	-.0735	-.0187	.1471	-.0133	-.0437	853.
.3220	-519.	1490.	-129.	581.	994.	-269.	-.0076	-.0722	-.0158	.1410	-.0265	-.0557	797.
.3230	-442.	1406.	-185.	338.	972.	-242.	-.0132	-.0707	-.0130	.1356	-.0383	-.0666	713.
.3240	-351.	1357.	-322.	59.	856.	-279.	-.0184	-.0690	-.0106	.1312	-.0481	-.0756	608.
.3250	-244.	1344.	-495.	-239.	664.	-369.	-.0231	-.0672	-.0084	.1278	-.0555	-.0826	537.
.3260	-128.	1335.	-668.	-543.	418.	-481.	-.0272	-.0654	-.0064	.1253	-.0601	-.0875	564.
.3270	-12.	1293.	-812.	-842.	149.	-571.	-.0305	-.0636	-.0048	.1235	-.0620	-.0903	693.

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2 SAFETY COLD FKW24F--2 PSV

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL										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)				
.3280	97.	1208.	-893.	-1113.	-106.	-612.	-.0331	-.0618	-.0034	.1225	-.0514	-.0913				856.
.3290	185.	1082.	-899.	-1335.	-313.	-543.	-.0349	-.0602	-.0023	.1221	-.0587	-.0909				994.
.3300	230.	927.	-839.	-1497.	-448.	-380.	-.0358	-.0588	-.0016	.1223	-.0541	-.0894				1084.
.3310	213.	770.	-736.	-1585.	-497.	-116.	-.0360	-.0577	-.0012	.1231	-.0479	-.0873				1123.
.3320	127.	646.	-624.	-1592.	-461.	226.	-.0353	-.0569	-.0013	.1246	-.0405	-.0849				1127.
.3330	-29.	578.	-539.	-1516.	-358.	612.	-.0338	-.0565	-.0020	.1265	-.0323	-.0823				1128.
.3340	-238.	577.	-488.	-1367.	-208.	998.	-.0315	-.0565	-.0031	.1288	-.0235	-.0798				1149.
.3350	-469.	642.	-457.	-1157.	-29.	1336.	-.0284	-.0568	-.0047	.1310	-.0144	-.0772				1192.
.3360	-688.	743.	-433.	-909.	154.	1591.	-.0245	-.0574	-.0066	.1327	-.0054	-.0745				1240.
.3370	-866.	849.	-405.	-640.	319.	1741.	-.0199	-.0581	-.0090	.1336	.0031	-.0716				1268.
.3380	-977.	946.	-350.	-362.	458.	1764.	-.0146	-.0589	-.0116	.1335	.0108	-.0685				1252.
.3390	-1011.	1036.	-260.	-83.	569.	1651.	-.0088	-.0598	-.0144	.1320	.0173	-.0653				1179.
.3400	-979.	1126.	-159.	193.	646.	1412.	-.0025	-.0606	-.0173	.1293	.0227	-.0622				1055.
.3410	-902.	1239.	-81.	473.	689.	1062.	.0040	-.0615	-.0203	.1257	.0269	-.0595				911.
.3420	-807.	1404.	-44.	766.	706.	619.	.0105	-.0624	-.0233	.1213	.0301	-.0573				817.
.3430	-717.	1629.	-59.	1074.	706.	115.	.0169	-.0632	-.0264	.1163	.0326	-.0558				870.
.3440	-650.	1901.	-128.	1399.	657.	-406.	.0230	-.0641	-.0293	.1109	.0348	-.0550				1088.
.3450	-612.	2201.	-229.	1741.	691.	-904.	.0286	-.0649	-.0320	.1052	.0367	-.0550				1402.
.3460	-600.	2495.	-325.	2098.	702.	-1337.	.0336	-.0656	-.0343	.0992	.0387	-.0557				1742.
.3470	-607.	2730.	-379.	2454.	742.	-1666.	.0380	-.0661	-.0362	.0930	.0409	-.0569				2061.
.3480	-621.	2868.	-360.	2798.	814.	-1862.	.0417	-.0664	-.0375	.0863	.0434	-.0582				2331.
.3490	-635.	2899.	-256.	3119.	916.	-1914.	.0446	-.0663	-.0382	.0794	.0460	-.0595				2543.
.3500	-657.	2831.	-84.	3405.	1042.	-1829.	.0467	-.0657	-.0383	.0723	.0490	-.0608				2698.
.3510	-693.	2683.	123.	3641.	1179.	-1623.	.0479	-.0645	-.0378	.0651	.0522	-.0618				2802.
.3520	-743.	2491.	331.	3816.	1307.	-1322.	.0482	-.0626	-.0369	.0581	.0555	-.0624				2861.
.3530	-809.	2287.	507.	3918.	1407.	-960.	.0476	-.0600	-.0354	.0512	.0588	-.0627				2879.
.3540	-896.	2087.	622.	3929.	1468.	-569.	.0462	-.0565	-.0337	.0445	.0620	-.0627				2853.
.3550	-995.	1897.	673.	3837.	1485.	-176.	.0440	-.0522	-.0316	.0380	.0648	-.0623				2776.
.3560	-1083.	1714.	674.	3637.	1455.	202.	.0412	-.0470	-.0293	.0315	.0666	-.0615				2644.
.3570	-1144.	1520.	643.	3328.	1382.	551.	.0379	-.0410	-.0268	.0249	.0671	-.0602				2457.
.3580	-1171.	1301.	591.	2912.	1278.	863.	.0343	-.0342	-.0241	.0182	.0661	-.0585				2221.
.3590	-1163.	1053.	533.	2406.	1159.	1127.	.0304	-.0269	-.0213	.0113	.0634	-.0565				1954.
.3600	-1113.	784.	476.	1834.	1035.	1340.	.0266	-.0193	-.0185	.0043	.0589	-.0540				1683.
.3610	-1028.	502.	413.	1222.	913.	1505.	.0228	-.0116	-.0157	-.0026	.0524	-.0512				1444.
.3620	-920.	222.	336.	601.	804.	1618.	.0191	-.0040	-.0129	-.0092	.0443	-.0481				1283.
.3630	-803.	-42.	242.	-3.	719.	1680.	.0156	.0032	-.0102	-.0154	.0348	-.0447				1232.
.3640	-679.	-286.	137.	-565.	659.	1699.	.0123	.0098	-.0076	-.0210	.0241	-.0412				1286.
.3650	-547.	-517.	35.	-1066.	622.	1684.	.0091	.0157	-.0049	-.0263	.0125	-.0373				1407.

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INTERNAL FORCES IN THE PIPING
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.3540	-895.	1897.	673.	3827.	1485.	-176.	.0440	-.0522	-.0316	.0380	.0548	-.0623	2776.
.3550	-1083.	1714.	674.	3637.	1455.	202.	.0412	-.0470	-.0293	.0315	.0566	-.0615	2644.
.3570	-1144.	1520.	643.	3328.	1382.	551.	.0379	-.0410	-.0268	.0249	.0671	-.0602	2457.
.3580	-1171.	1301.	591.	2912.	1278.	863.	.0343	-.0347	-.0241	.0182	.0561	-.0585	2221.
.3590	-1163.	1053.	533.	2406.	1159.	1127.	.0304	-.0269	-.0213	.0113	.0534	-.0565	1954.
.3600	-1113.	784.	476.	1834.	1039.	1240.	.0266	-.0193	-.0185	.0043	.0589	-.0540	1683.
.3610	-1028.	502.	413.	1222.	913.	1505.	.0228	-.0116	-.0157	-.0026	.0524	-.0512	1444.
.3620	-920.	222.	336.	601.	804.	1618.	.0191	-.0040	-.0129	-.0092	.0443	-.0481	1283.
.3630	-803.	-42.	242.	-3.	719.	1680.	.0156	.0032	-.0102	-.0154	.0348	-.0447	1232.
.3640	-679.	-286.	137.	-565.	659.	1699.	.0123	.0098	-.0076	-.0210	.0241	-.0412	1286.
.3650	-547.	-517.	35.	-1066.	622.	1684.	.0091	.0157	-.0049	-.0263	.0125	-.0373	1407.

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL							STRESS
TIME	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)	
.3660	-405.	-740.	-44.	-1491.	607.	1643.	.0060	.0209	-.0023	-.0311	.0005	-.0333	1551.
.3670	-254.	-958.	-87.	-1832.	606.	1579.	.0028	.0253	.0005	-.0357	-.0116	-.0289	1681.
.3680	-97.	-1172.	-92.	-2084.	607.	1497.	-.0004	.0289	.0033	-.0402	-.0233	-.0244	1777.
.3690	64.	-1375.	-63.	-2246.	594.	1395.	-.0039	.0319	.0064	-.0447	-.0340	-.0195	1827.
.3700	222.	-1545.	-9.	-2318.	557.	1272.	-.0076	.0342	.0095	-.0491	-.0434	-.0145	1822.
.3710	366.	-1666.	47.	-2305.	486.	1127.	-.0116	.0360	.0128	-.0534	-.0512	-.0093	1760.
.3720	488.	-1728.	86.	-2216.	374.	965.	-.0159	.0373	.0162	-.0576	-.0572	-.0039	1649.
.3730	584.	-1727.	99.	-2064.	221.	791.	-.0203	.0382	.0195	-.0615	-.0512	.0015	1497.
.3740	654.	-1667.	87.	-1862.	38.	612.	-.0249	.0389	.0227	-.0650	-.0535	.0070	1321.
.3750	701.	-1561.	55.	-1627.	-170.	440.	-.0294	.0394	.0258	-.0681	-.0541	.0125	1142.
.3760	735.	-1428.	11.	-1374.	-391.	282.	-.0337	.0397	.0286	-.0709	-.0533	.0180	982.
.3770	762.	-1286.	-29.	-1119.	-616.	143.	-.0376	.0400	.0312	-.0732	-.0514	.0236	866.
.3780	788.	-1154.	-59.	-878.	-835.	22.	-.0410	.0402	.0334	-.0750	-.0585	.0291	817.
.3790	812.	-1042.	-82.	-661.	-1043.	-83.	-.0437	.0403	.0351	-.0764	-.0549	.0346	834.
.3800	836.	-945.	-100.	-472.	-1233.	-175.	-.0455	.0404	.0364	-.0772	-.0507	.0397	898.
.3810	863.	-862.	-112.	-318.	-1399.	-258.	-.0466	.0404	.0372	-.0775	-.0462	.0445	983.
.3820	886.	-800.	-122.	-205.	-1538.	-334.	-.0467	.0403	.0374	-.0772	-.0416	.0488	1070.
.3830	903.	-764.	-130.	-137.	-1643.	-403.	-.0459	.0401	.0371	-.0765	-.0370	.0525	1144.
.3840	913.	-744.	-132.	-110.	-1711.	-466.	-.0442	.0399	.0363	-.0754	-.0326	.0554	1198.
.3850	915.	-738.	-130.	-123.	-1739.	-524.	-.0416	.0397	.0349	-.0739	-.0284	.0576	1227.
.3860	905.	-744.	-126.	-167.	-1730.	-576.	-.0382	.0394	.0331	-.0721	-.0245	.0590	1234.
.3870	882.	-749.	-119.	-231.	-1684.	-628.	-.0340	.0391	.0307	-.0702	-.0208	.0599	1221.
.3880	843.	-744.	-111.	-300.	-1605.	-685.	-.0291	.0387	.0280	-.0682	-.0171	.0604	1193.
.3890	787.	-724.	-110.	-362.	-1495.	-748.	-.0235	.0384	.0248	-.0662	-.0133	.0608	1153.
.3900	715.	-686.	-114.	-402.	-1360.	-817.	-.0174	.0379	.0213	-.0643	-.0094	.0614	1103.
.3910	634.	-622.	-111.	-408.	-1200.	-892.	-.0108	.0374	.0176	-.0624	-.0052	.0623	1045.
.3920	549.	-545.	-96.	-376.	-1015.	-968.	-.0039	.0369	.0137	-.0606	-.0008	.0638	979.
.3930	460.	-471.	-71.	-309.	-810.	-1037.	.0033	.0362	.0096	-.0587	.0037	.0660	911.
.3940	375.	-403.	-36.	-209.	-590.	-1093.	.0105	.0354	.0056	-.0568	.0083	.0688	849.
.3950	300.	-340.	15.	-76.	-361.	-1135.	.0176	.0344	.0017	-.0546	.0128	.0723	804.
.3960	239.	-286.	79.	79.	-133.	-1161.	.0243	.0334	-.0020	-.0523	.0170	.0763	789.
.3970	189.	-248.	149.	244.	79.	-1174.	.0303	.0322	-.0053	-.0500	.0210	.0805	810.
.3980	149.	-222.	216.	408.	262.	-1179.	.0355	.0310	-.0081	-.0477	.0248	.0846	859.
.3990	118.	-201.	275.	565.	404.	-1181.	.0395	.0299	-.0103	-.0456	.0281	.0882	923.
.4000	96.	-186.	325.	700.	500.	-1180.	.0423	.0288	-.0118	-.0437	.0309	.0910	984.

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FORCES AND MOMENTS ACT ON THE PIPING

.3920	549.	-545.	-96.	-378.	-1015.	-968.	-.039	.0369	.0137	-.0606	-.0008	.0638	979.
.3930	460.	-471.	-71.	-309.	-810.	-1037.	.0033	.0362	.0096	-.0587	.0037	.0660	911.
.3940	375.	-403.	-36.	-209.	-590.	-1093.	.0105	.0354	.0056	-.0568	.0083	.0688	849.
.3950	300.	-340.	15.	-76.	-361.	-1135.	.0176	.0344	.0017	-.0546	.0128	.0723	804.
.3960	239.	-286.	79.	79.	-133.	-1161.	.0243	.0334	-.0020	-.0523	.0170	.0763	789.
.3970	189.	-248.	149.	244.	79.	-1174.	.0303	.0322	-.0053	-.0500	.0210	.0805	810.
.3980	149.	-222.	216.	408.	262.	-1179.	.0355	.0310	-.0081	-.0477	.0248	.0846	859.
.3990	118.	-201.	275.	565.	404.	-1181.	.0395	.0299	-.0103	-.0456	.0281	.0882	923.
.4000	96.	-186.	325.	700.	500.	-1180.	.0423	.0288	-.0118	-.0437	.0309	.0910	984.

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

MAXIMUM VALUE OF STRESS OCCURS AT

TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.1100	604.	4685.	396.	10965.	611.	-8384.	.0798	-.0486	-.0286	-.0819	.0583	.0578	9313.

SECTION 23	MEMBER 1	SEQUENCE 809	LOCATION BEG	TYPE EL	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.
.0010	1.	3.	2.	0.	1.	0.	-.0000	.0000	-.0000	.0000	1.
.0020	5.	12.	13.	-4.	6.	6.	-.0000	.0000	-.0000	.0001	7.
.0030	12.	-4.	30.	-32.	17.	29.	-.0000	-.0000	-.0001	.0005	32.
.0040	23.	-61.	56.	-94.	34.	75.	-.0000	-.0001	-.0001	-.0011	84.
.0050	40.	-139.	94.	-185.	53.	138.	.0000	-.0002	-.0002	-.0020	159.
.0060	62.	-225.	139.	-309.	72.	216.	.0001	-.0004	-.0003	-.0033	259.
.0070	79.	-322.	188.	-484.	103.	321.	.0002	-.0006	-.0004	-.0052	397.
.0080	93.	-448.	248.	-733.	169.	479.	.0004	-.0010	-.0005	-.0080	601.
.0090	105.	-681.	310.	-1086.	277.	726.	.0008	-.0015	-.0007	-.0119	900.
.0100	124.	-1017.	375.	-1537.	421.	1047.	.0015	-.0023	-.0008	-.0167	1285.
.0110	152.	-1355.	437.	-2043.	582.	1383.	.0027	-.0033	-.0010	-.0224	1709.
.0120	182.	-1638.	441.	-2586.	714.	1680.	.0044	-.0044	-.0013	-.0288	2134.
.0130	211.	-1862.	317.	-3157.	753.	1895.	.0068	-.0055	-.0017	-.0357	2533.
.0140	239.	-1994.	49.	-3703.	649.	1955.	.0101	-.0065	-.0022	-.0427	2856.
.0150	252.	-1971.	-316.	-4139.	401.	1778.	.0141	-.0072	-.0029	-.0487	3048.
.0160	219.	-1799.	-735.	-4395.	43.	1344.	.0188	-.0074	-.0039	-.0526	3098.
.0170	179.	-1438.	-1173.	-4377.	-381.	694.	.0240	-.0068	-.0052	-.0541	2998.
.0180	245.	-802.	-1571.	-3975.	-836.	-87.	.0294	-.0052	-.0071	-.0535	2739.
.0190	459.	73.	-1823.	-3188.	-1228.	-871.	.0349	-.0021	-.0098	-.0519	2376.
.0200	804.	1042.	-1748.	-2155.	-1349.	-1486.	.0402	.0023	-.0134	-.0508	1985.
.0210	1131.	1408.	-1417.	-1230.	-1101.	-1698.	.0457	.0079	-.0173	-.0508	1596.
.0220	1481.	984.	-1119.	-476.	-958.	-1611.	.0521	.0144	-.0206	-.0515	1303.
.0230	1870.	1080.	-782.	540.	-1090.	-1825.	.0587	.0217	-.0241	-.0532	1478.
.0240	1758.	1694.	-605.	1604.	-1288.	-2588.	.0651	.0299	-.0277	-.0535	2229.
.0250	1394.	2456.	-884.	2574.	-1642.	-3595.	.0711	.0387	-.0315	-.0518	3179.
.0260	1790.	3743.	-1454.	3852.	-2611.	-4491.	.0766	.0471	-.0358	-.0501	4359.
.0270	2440.	4613.	-1855.	5033.	-4031.	-5230.	.0807	.0540	-.0390	-.0461	5596.
.0280	1845.	4347.	-1597.	5565.	-4403.	-6103.	.0818	.0586	-.0395	-.0350	6309.
.0290	811.	4050.	-389.	6121.	-3630.	-6728.	.0790	.0615	-.0382	-.0202	6601.
.0300	1261.	4480.	-194.	7392.	-3730.	-5976.	.0723	.0637	-.0366	-.0127	6883.
.0310	1336.	4383.	-404.	8261.	-3570.	-4501.	.0609	.0649	-.0322	-.0095	6783.
.0320	-183.	4213.	340.	8443.	-1645.	-3711.	.0440	.0643	-.0240	-.0056	6315.

.0330	-1487.	4288.	1295.	8637.	417.	-3030.	.0031	.0614	-.0130	-.0028	-.0559	-.0115	6176.
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.0180	245.	-802.	-1571.	-3975.	-836.	-87.	.0294	-.0052	-.0071	-.0535	.0561	-.0005	2739.
.0190	459.	73.	-1823.	-3188.	-1228.	-871.	.0349	-.0021	-.0098	-.0519	.0594	-.0082	2376.
.0200	804.	1042.	-1748.	-2155.	-1349.	-1486.	.0402	.0023	-.0134	-.0508	.0685	-.0153	1985.
.0210	1131.	1408.	-1417.	-1230.	-1101.	-1698.	.0457	.0079	-.0173	-.0508	.0849	-.0212	1596.
.0220	1481.	984.	-1119.	-476.	-958.	-1611.	.0521	.0144	-.0206	-.0515	.1019	-.0271	1303.
.0230	1870.	1080.	-787.	540.	-1090.	-1825.	.0587	.0217	-.0241	-.0532	.1118	-.0317	1478.
.0240	1758.	1694.	-605.	1604.	-1288.	-2588.	.0651	.0299	-.0277	-.0535	.1070	-.0338	2229.
.0250	1394.	2456.	-884.	2574.	-1642.	-3595.	.0711	.0387	-.0315	-.0518	.0940	-.0343	3179.
.0260	1790.	3743.	-1454.	3852.	-2611.	-4491.	.0766	.0471	-.0358	-.0501	.0842	-.0350	4359.
.0270	2440.	4613.	-1855.	5033.	-4031.	-5230.	.0807	.0540	-.0390	-.0461	.0655	-.0360	5596.
.0280	1845.	4347.	-1397.	5565.	-4403.	-6103.	.0818	.0586	-.0395	-.0350	.0274	-.0327	6309.
.0290	811.	4050.	-389.	6121.	-3630.	-6728.	.0790	.0615	-.0382	-.0202	-.0064	-.0263	6601.
.0300	1261.	4480.	-194.	7392.	-3730.	-5976.	.0723	.0637	-.0366	-.0127	-.0125	-.0248	6883.
.0310	1336.	4383.	-404.	8261.	-3570.	-4501.	.0609	.0649	-.0322	-.0095	-.0158	-.0233	6783.
.0320	-183.	4213.	340.	8443.	-1645.	-3711.	.0440	.0643	-.0240	-.0056	-.0369	-.0157	6315.

.0330	-1487.	4288.	1295.	8637.	417.	-3030.	.0231	.0614	-.0130	-.0028	-.0559	-.0115	6176.
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ADLPIPE PAGE 103P

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.00.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
23	.0340	-1279.	3972.	1105.	8943.	913.	-1532.	.0003	.0564	-.0001	-.0036	-.0562	-.0192	6146.
	.0350	-1228.	3663.	592.	8815.	1314.	-348.	-.0248	.0501	.0133	-.0049	-.0589	-.0287	6012.
	.0360	-2530.	3892.	891.	8021.	2935.	-453.	-.0521	.0426	.0264	-.0038	-.0797	-.0317	5765.
	.0370	-3397.	3666.	1266.	6815.	4119.	-613.	-.0787	.0328	.0385	-.0015	-.0961	-.0374	5383.
	.0380	-2500.	2087.	1158.	5301.	3671.	33.	-.1017	.0203	.0494	.0022	-.0940	-.0512	4346.
	.0390	-1457.	52.	1577.	3329.	3282.	319.	-.1213	.0057	.0592	.0105	-.0946	-.0607	3159.
	.0400	-1458.	-1126.	2677.	1151.	4105.	-80.	-.1373	-.0092	.0664	.0200	-.1002	-.0568	2874.
	.0410	-1470.	-2240.	2767.	-1085.	4402.	338.	-.1477	-.0235	.0705	.0249	-.0928	-.0480	3064.
	.0420	-1011.	-3446.	1855.	-3245.	3966.	1615.	-.1516	-.0375	.0719	.0270	-.0700	-.0365	3621.
	.0430	-966.	-3755.	1554.	-5051.	4304.	2510.	-.1496	-.0515	.0708	.0320	-.0472	-.0158	4782.
	.0440	-1379.	-4151.	1567.	-6730.	4965.	3236.	-.1414	-.0656	.0679	.0413	-.0298	.0100	6044.
	.0450	-1455.	-5233.	886.	-8262.	4627.	4346.	-.1270	-.0789	.0631	.0534	-.0141	.0317	7023.
	.0460	-1296.	-5333.	25.	-9090.	3688.	5032.	-.1090	-.0900	.0548	.0677	-.0063	.0495	7431.
	.0470	-1628.	-4219.	-369.	-9247.	3157.	4785.	-.0895	-.0985	.0433	.0853	-.0122	.0653	7333.
	.0480	-1898.	-3718.	-754.	-9148.	2458.	4523.	-.0686	-.1047	.0308	.1049	-.0210	.0722	7075.
	.0490	-1180.	-4026.	-1086.	-8632.	957.	4661.	-.0468	-.1086	.0180	.1230	-.0248	.0661	6644.
	.0500	-260.	-4131.	-595.	-7642.	-290.	4485.	-.0263	-.1097	.0055	.1378	-.0317	.0532	5976.
	.0510	-206.	-4214.	364.	-6587.	-557.	3951.	-.0081	-.1070	-.0060	.1478	-.0441	.0378	5191.
	.0520	-249.	-4261.	617.	-5292.	-797.	3721.	.0082	-.1001	-.0165	.1493	-.0469	.0166	4394.
	.0530	479.	-3277.	109.	-3241.	-1659.	3639.	.0229	-.0896	-.0267	.1417	-.0355	-.0103	3470.
	.0540	1011.	-1635.	-303.	-904.	-2365.	2979.	.0358	-.0772	-.0358	.1323	-.0283	-.0372	2635.
	.0550	607.	-651.	-324.	982.	-2472.	1684.	.0475	-.0643	-.0430	.1278	-.0347	-.0610	2122.
	.0560	507.	-10.	-312.	2758.	-2824.	256.	.0586	-.0519	-.0500	.1275	-.0389	-.0834	2666.
	.0570	1549.	1050.	-446.	4788.	-3924.	-1028.	.0691	-.0403	-.0581	.1287	-.0303	-.1043	4230.
	.0580	2463.	1786.	-411.	6371.	-4858.	-2276.	.0785	-.0301	-.0665	.1332	-.0205	-.1179	5614.
	.0590	2391.	1643.	146.	7053.	-4852.	-3556.	.0866	-.0221	-.0737	.1425	-.0165	-.1204	6248.
	.0600	2476.	1308.	951.	7401.	-4588.	-4506.	.0936	-.0169	-.0796	.1530	-.0048	-.1152	6609.
	.0610	3356.	1108.	1367.	7715.	-4678.	-4732.	.0994	-.0145	-.0836	.1601	.0244	-.1066	6867.
	.0620	3728.	797.	1241.	7547.	-4453.	-4524.	.1032	-.0141	-.0847	.1631	.0578	-.0929	6647.
	.0630	2839.	941.	850.	6876.	-3358.	-4483.	.1038	-.0152	-.0830	.1620	.0831	-.0722	5978.
	.0640	1867.	1897.	87.	6169.	-2268.	-4496.	.1014	-.0178	-.0796	.1567	.1069	-.0510	5368.
	.0650	1681.	2658.	-1124.	5392.	-1966.	-4121.	.0965	-.0226	-.0747	.1496	.1336	-.0366	4757.
	.0660	1579.	2458.	-1963.	4130.	-1771.	-3654.	.0890	-.0301	-.0682	.1452	.1515	-.0280	3904.
	.0670	1148.	1655.	-1689.	2445.	-1000.	-3493.	.0785	-.0401	-.0613	.1452	.1548	-.0222	2952.
	.0680	1172.	365.	-855.	609.	-300.	-3074.	.0661	-.0516	-.0548	.1465	.1564	-.0217	2122.
	.0690	1908.	-1597.	-192.	-1287.	-159.	-1878.	.0533	-.0638	-.0488	.1460	.1543	-.0271	1538.
	.0700	2396.	-3612.	558.	-3228.	190.	-478.	.0407	-.0759	-.0425	.1431	.1683	-.0320	2204.
	.0710	2128.	-5032.	1463.	-5133.	1093.	632.	.0288	-.0869	-.0355	.1365	.1608	-.0318	3563.

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

CONDITION 24
LOADS
SHOCK
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ENGLISH UNITS

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

.0610	3356.	1108.	1367.	7715.	-4678.	-4732.	.0994	-.0145	-.0836	.1601	.0244	-.1066	6867.
.0620	3728.	797.	1241.	7547.	-4453.	-4524.	.1032	-.0141	-.0847	.1631	.0578	-.0929	6647.
.0630	2839.	941.	850.	6876.	-3358.	-4483.	.1038	-.0152	-.0830	.1620	.0831	-.0722	5978.
.0640	1867.	1897.	87.	6169.	-2268.	-4496.	.1014	-.0178	-.0796	.1567	.1069	-.0510	5368.
.0650	1681.	2658.	-1124.	5392.	-1966.	-4121.	.0965	-.0226	-.0747	.1496	.1336	-.0366	4757.
.0660	1579.	2458.	-1263.	4130.	-1771.	-3654.	.0890	-.0301	-.0682	.1452	.1515	-.0280	3904.
.0670	1148.	1655.	-1689.	2445.	-1000.	-3493.	.0785	-.0401	-.0613	.1452	.1548	-.0222	2952.
.0680	1172.	365.	-855.	609.	-300.	-3074.	.0661	-.0516	-.0548	.1465	.1564	-.0217	2122.
.0690	1908.	-1597.	-192.	-1287.	-159.	-1878.	.0533	-.0638	-.0488	.1460	.1543	-.0271	1538.
.0700	2396.	-3612.	558.	-3228.	190.	-478.	.0407	-.0759	-.0425	.1431	.1583	-.0320	2204.
.0710	2128.	-5032.	1463.	-5133.	1093.	632.	.0288	-.0869	-.0355	.1365	.1508	-.0318	3563.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.27.00.

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

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	EL								STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	HX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	(PSI)	
.0720	1682.	-5971.	1657.	-6862.	1660.	1668.	.0191	-.0961	-.0278	.1235	.1487	-.0292	4922.	
.0730	1287.	-6246.	795.	-8189.	1549.	3314.	.0121	-.1025	-.0199	.1041	.1355	-.0251	6045.	
.0740	426.	-5422.	-394.	-8993.	1509.	4342.	.0068	-.1057	-.0127	.0827	.1141	-.0158	6807.	
.0750	-870.	-4151.	-1420.	-9415.	1699.	4887.	.0029	-.1061	-.0067	.0645	.0825	-.0025	7241.	
.0760	-1778.	-3452.	-2224.	-9515.	1537.	5495.	.0003	-.1041	-.0023	.0521	.0498	.0090	7478.	
.0770	-1959.	-3388.	-2334.	-9201.	1130.	6184.	-.0019	-.1001	.0002	.0465	.0209	.0176	7511.	
.0780	-1826.	-3775.	-1347.	-8583.	1099.	6621.	-.0049	-.0941	.0012	.0475	-.0068	.0252	7344.	
.0790	-1604.	-4747.	207.	-7853.	1345.	6918.	-.0087	-.0858	.0018	.0521	-.0321	.0310	7112.	
.0800	-1206.	-5769.	1539.	-6856.	1414.	7178.	-.0134	-.0747	.0028	.0549	-.0511	.0336	6758.	
.0810	-866.	-5778.	2416.	-5358.	1462.	7010.	-.0192	-.0607	.0050	.0525	-.0550	.0348	6029.	
.0820	-940.	-4696.	2687.	-3538.	1687.	6203.	-.0261	-.0442	.0090	.0447	-.0769	.0355	4946.	
.0830	-1309.	-3077.	2113.	-1614.	1741.	4285.	-.0335	-.0260	.0151	.0321	-.0870	.0335	3722.	
.0840	-1655.	-880.	995.	503.	1479.	3391.	-.0412	-.0070	.0223	.0165	-.0942	.0281	2517.	
.0850	-1932.	1746.	-20.	2736.	1255.	1367.	-.0493	.0116	.0292	.0017	-.0993	.0208	2228.	
.0860	-2069.	3754.	-664.	4665.	1148.	-711.	-.0574	.0290	.0351	-.0088	-.1010	.0116	3274.	
.0870	-1798.	4615.	-798.	6141.	946.	-2465.	-.0647	.0443	.0393	-.0146	-.0977	-.0003	4506.	
.0880	-1108.	4799.	-134.	7320.	807.	-3967.	-.0712	.0571	.0415	-.0167	-.0904	-.0126	5638.	
.0890	-332.	4471.	1125.	8147.	971.	-5224.	-.0761	.0673	.0423	-.0165	-.0803	-.0231	6556.	
.0900	317.	3666.	2185.	8570.	1208.	-6011.	-.0787	.0755	.0426	-.0168	-.0566	-.0318	7103.	
.0910	738.	3315.	2533.	8898.	1272.	-6459.	-.0787	.0822	.0427	-.0220	-.0514	-.0378	7460.	
.0920	649.	4161.	2174.	9297.	1308.	-6945.	-.0765	.0880	.0426	-.0337	-.0406	-.0396	7872.	
.0930	-25.	5603.	1152.	9510.	1365.	-7433.	-.0721	.0927	.0426	-.0499	-.0365	-.0387	8188.	
.0940	-763.	6900.	-328.	9443.	1162.	-7647.	-.0658	.0955	.0423	-.0679	-.0350	-.0387	8228.	
.0950	-1070.	7947.	-1628.	9246.	645.	-7581.	-.0581	.0958	.0406	-.0851	-.0338	-.0416	8071.	
.0960	-1063.	8253.	-2166.	8715.	138.	-7304.	-.0496	.0933	.0369	-.0978	-.0356	-.0470	7665.	
.0970	-899.	7127.	-1874.	7530.	-222.	-6698.	-.0407	.0877	.0312	-.1038	-.0406	-.0549	6795.	
.0980	-264.	4948.	-965.	5889.	-692.	-5715.	-.0311	.0792	.0236	-.1048	-.0446	-.0655	5551.	
.0990	947.	2550.	252.	4093.	-1453.	-4504.	-.0206	.0681	.0144	-.1041	-.0458	-.0770	4218.	
.1000	2110.	104.	1330.	2007.	-2338.	-3227.	-.0089	.0552	.0052	-.1033	-.0492	-.0858	3008.	
.1010	2639.	-2110.	1847.	-404.	-3150.	-2022.	.0043	.0410	-.0028	-.1042	-.0583	-.0886	2538.	
.1020	2654.	-3245.	1571.	-2709.	-3952.	-959.	.0187	.0266	-.0095	-.1088	-.0588	-.0841	3294.	
.1030	2424.	-3143.	454.	-4647.	-4805.	85.	.0339	.0123	-.0149	-.1168	-.0747	-.0729	4506.	
.1040	1847.	-2595.	-1198.	-6387.	-5466.	1239.	.0488	-.0015	-.0190	-.1247	-.0756	-.0563	5728.	
.1050	922.	-2065.	-2689.	-7944.	-5600.	2417.	.0623	-.0147	-.0219	-.1287	-.0728	-.0352	6751.	
.1060	77.	-1682.	-3503.	-9129.	-5206.	3580.	.0731	-.0268	-.0242	-.1268	-.0636	-.0123	7483.	
.1070	-327.	-1893.	-3653.	-9946.	-4553.	4875.	.0806	-.0370	-.0262	-.1187	-.0451	.0089	8072.	
.1080	-377.	-2598.	-3126.	-10413.	-3539.	6176.	.0841	-.0445	-.0279	-.1064	-.0168	.0276	8509.	
.1090	-212.	-3337.	-1892.	-10556.	-1939.	7408.	.0833	-.0483	-.0298	-.0945	.0234	.0452	8791.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.00.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.0990	947.	2550.	252.	4093.	-1453.	-4504.	-.0206	.0681	.0144	-.1041	-.0458	-.0770	4218.
.1000	2110.	104.	1330.	2007.	-2338.	-3227.	-.0089	.0552	.0052	-.1033	-.0492	-.0858	3008.
.1010	2639.	-2110.	1847.	-404.	-3150.	-2022.	.0043	.0410	-.0028	-.1042	-.0583	-.0886	2538.
.1020	2654.	-3245.	1571.	-2709.	-3952.	-959.	.0187	.0266	-.0095	-.1088	-.0588	-.0841	3294.
.1030	2424.	-3143.	454.	-4647.	-4805.	85.	.0339	.0123	-.0149	-.1168	-.0747	-.0729	4506.
.1040	1847.	-2595.	-1198.	-6387.	-5466.	1239.	.0488	-.0015	-.0190	-.1247	-.0756	-.0563	5728.
.1050	922.	-2065.	-2689.	-7944.	-5600.	2417.	.0623	-.0147	-.0219	-.1287	-.0728	-.0352	6751.
.1060	77.	-1682.	-3503.	-9129.	-5206.	3580.	.0731	-.0268	-.0242	-.1268	-.0636	-.0123	7483.
.1070	-327.	-1893.	-2653.	-9946.	-4553.	4875.	.0806	-.0370	-.0262	-.1187	-.0451	-.0089	8072.
.1080	-377.	-2598.	-3126.	-10413.	-3539.	6196.	.0841	-.0445	-.0279	-.1064	-.0168	.0276	8509.
.1090	-212.	-3337.	-1892.	-10556.	-1939.	7408.	.0833	-.0483	-.0298	-.0945	.0234	.0452	8791.

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DIS/ADLPIPE

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

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

SECTION	23	MEMBER	1	SEQUENCE	809	LOCATION	BEG	TYPE	EL						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.1100	-142.	-5396.	-879.	-10965.	-611.	8384.		.0798	-.0486	-.0286	-.0819	.0583	.0578	9313.	
.1110	-93.	-6474.	88.	-10754.	583.	8302.		.0739	-.0449	-.0254	-.0715	.0860	.0683	9166.	
.1120	100.	-5369.	685.	-9485.	1502.	7122.		.0658	-.0366	-.0218	-.0660	.1115	.0772	8059.	
.1130	204.	-4068.	76.	-8095.	1776.	5663.		.0573	-.0242	-.0170	-.0643	.1353	.0822	6766.	
.1140	-39.	-2830.	-1122.	-6765.	1805.	3888.		.0489	-.0086	-.0112	-.0659	.1519	.0862	5398.	
.1150	-338.	-550.	-1674.	-4905.	2055.	1511.		.0406	.0085	-.0062	-.0700	.1618	.0925	3726.	
.1160	-98.	1338.	-1688.	-2926.	2097.	-642.		.0335	.0257	-.0025	-.0729	.1722	.0968	2465.	
.1170	590.	1200.	-1576.	-1573.	1799.	-2009.		.0284	.0423	.0004	-.0704	.1824	.0964	2104.	
.1180	1278.	698.	-1107.	-315.	1215.	-3235.		.0244	.0579	.0018	-.0663	.1782	.0944	2339.	
.1190	1383.	1607.	38.	1418.	1236.	-4984.		.0206	.0725	.0017	-.0622	.1571	.0961	3591.	
.1200	1397.	2613.	711.	3266.	1192.	-6197.		.0178	.0858	.0011	-.0583	.1342	.0952	4790.	
.1210	1899.	3094.	451.	5031.	272.	-6142.		.0159	.0972	.0006	-.0583	.1165	.0864	5355.	
.1220	1608.	3659.	526.	6485.	86.	-6004.		.0134	.1061	.0019	-.0614	.0868	.0780	5957.	
.1230	342.	4605.	1028.	7636.	742.	-5990.		.0096	.1123	.0056	-.0712	.0432	.0715	6561.	
.1240	-808.	5184.	917.	8435.	1272.	-5253.		.0045	.1164	.0111	-.0881	.0061	.0600	6753.	
.1250	-1209.	5620.	66.	9070.	1174.	-3738.		-.0024	.1187	.0171	-.1099	-.0177	.0401	6659.	
.1260	-1688.	6520.	-460.	9514.	1142.	-2391.		-.0122	.1190	.0229	-.1339	-.0455	.0178	6657.	
.1270	-3045.	6862.	19.	9174.	2350.	-1622.		-.0240	.1166	.0295	-.1545	-.0799	-.0002	6476.	
.1280	-3568.	5751.	517.	8181.	3122.	-314.		-.0355	.1112	.0364	-.1732	-.0983	-.0205	5906.	
.1290	-2638.	3798.	823.	6902.	2872.	1433.		-.0456	.1031	.0422	-.1882	-.0963	-.0436	5130.	
.1300	-1882.	2178.	1541.	5311.	2794.	2351.		-.0543	.0934	.0466	-.1963	-.0968	-.0593	4344.	
.1310	-2046.	1039.	2113.	3307.	2890.	2263.		-.0607	.0832	.0501	-.1993	-.1088	-.0632	3330.	
.1320	-2104.	383.	1696.	1259.	2475.	1782.		-.0629	.0731	.0523	-.1993	-.1139	-.0577	2224.	
.1330	-1043.	688.	293.	-259.	782.	1351.		-.0608	.0634	.0523	-.1986	-.1037	-.0472	1067.	
.1340	-309.	1168.	-934.	-1784.	-741.	501.		-.0555	.0541	.0511	-.1914	-.0967	-.0277	1345.	
.1350	-671.	1044.	-1504.	-3633.	-1273.	-752.		-.0479	.0452	.0495	-.1765	-.0998	.0016	2644.	
.1360	-528.	933.	-2091.	-4988.	-2137.	-1555.		-.0386	.0379	.0466	-.1615	-.0949	.0322	3805.	
.1370	455.	1078.	-2772.	-5596.	-3311.	-1815.		-.0288	.0328	.0421	-.1471	-.0776	.0599	4551.	
.1380	1078.	1049.	-3112.	-5900.	-4110.	-1935.		-.0207	.0304	.0370	-.1317	-.0676	.0842	5019.	
.1390	629.	675.	-2707.	-6071.	-3882.	-2292.		-.0153	.0303	.0329	-.1141	-.0750	.1048	5096.	
.1400	358.	503.	-2041.	-5484.	-3521.	-2452.		-.0128	.0322	.0299	-.0986	-.0844	.1158	4693.	
.1410	988.	668.	-1703.	-3943.	-3856.	-1932.		-.0129	.0360	.0278	-.0889	-.0864	.1126	3939.	
.1420	919.	617.	-1207.	-2269.	-3421.	-1364.		-.0166	.0414	.0274	-.0799	-.0952	.1020	2916.	
.1430	-136.	782.	-360.	-553.	-2067.	-998.		-.0238	.0478	.0284	-.0733	-.1144	.0878	1591.	
.1440	-969.	1353.	437.	1474.	-676.	-395.		-.0330	.0543	.0300	-.0715	-.1275	.0685	1125.	
.1450	-1077.	1653.	908.	3559.	286.	748.		-.0424	.0598	.0324	-.0729	-.1264	.0441	2459.	
.1460	-1288.	1528.	1453.	5243.	1281.	1895.		-.0514	.0635	.0354	-.0732	-.1238	.0202	3855.	
.1470	-2248.	1500.	2420.	6399.	3024.	2329.		-.0594	.0652	.0381	-.0689	-.1260	.0036	5022.	

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.1370	455.	1078.	-2772.	-5596.	-3311.	-1815.	-.0288	.0328	.0421	-.1471	-.0776	.0599	4551.
.1380	1078.	1049.	-3112.	-5900.	-4110.	-1935.	-.0207	.0304	.0370	-.1317	-.0676	.0842	5019.
.1390	629.	675.	-2707.	-6071.	-3882.	-2292.	-.0153	.0303	.0329	-.1141	-.0750	.1048	5096.
.1400	358.	503.	-2041.	-5484.	-3521.	-2452.	-.0128	.0322	.0299	-.0986	-.0844	.1158	4693.
.1410	988.	668.	-1703.	-3943.	-3856.	-1932.	-.0129	.0360	.0278	-.0889	-.0864	.1126	3939.
.1420	919.	617.	-1207.	-2269.	-3421.	-1364.	-.0166	.0414	.0274	-.0799	-.0952	.1020	2916.
.1430	-136.	782.	-360.	-553.	-2067.	-998.	-.0238	.0478	.0284	-.0733	-.1144	.0878	1591.
.1440	-969.	1353.	437.	1474.	-676.	-395.	-.0330	.0543	.0300	-.0715	-.1275	.0685	1125.
.1450	-1077.	1653.	908.	3559.	286.	748.	-.0424	.0598	.0324	-.0729	-.1264	.0441	2459.
.1460	-1288.	1528.	1453.	5243.	1281.	7895.	-.0514	.0635	.0354	-.0732	-.1238	.0202	3855.
.1470	-2248.	1500.	2420.	6399.	3024.	7329.	-.0594	.0652	.0381	-.0689	-.1260	.0036	5022.

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SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	EL	DX	DY	DZ	RX	RY	RZ	STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.1480	-2832.	1863.	2860.	7383.	4167.	2558.	-.0650	.0650	.0397	-.0635	-.1204	-.0089	5969.
.1490	-2721.	2363.	2425.	8153.	4381.	2759.	-.0670	.0630	.0398	-.0566	-.1014	-.0176	6510.
.1500	-2721.	2954.	1856.	8444.	4509.	2371.	-.0658	.0589	.0385	-.0446	-.0808	-.0183	6647.
.1510	-2898.	3565.	1516.	8206.	4528.	1357.	-.0618	.0529	.0356	-.0278	-.0648	-.0108	6383.
.1520	-2762.	3656.	1206.	7411.	4273.	214.	-.0547	.0451	.0312	-.0078	-.0441	.0023	5768.
.1530	-1900.	3199.	645.	6248.	3361.	-551.	-.0449	.0360	.0253	.0116	-.0128	.0180	4796.
.1540	-1051.	2543.	336.	4755.	2670.	-1240.	-.0336	.0262	.0181	.0306	.0218	.0385	3770.
.1550	-572.	1714.	417.	2982.	2473.	-1874.	-.0217	.0159	.0102	.0495	.0540	.0622	2901.
.1560	90.	632.	391.	1178.	1986.	-1976.	-.0093	.0053	.0020	.0653	.0867	.0833	2048.
.1570	765.	-530.	324.	-551.	1641.	-1727.	.0034	-.0056	-.0055	.0781	.1194	.1016	1648.
.1580	1223.	-1403.	181.	-2060.	1383.	-1285.	.0156	-.0162	-.0123	.0865	.1452	.1160	1883.
.1590	1325.	-1951.	-136.	-3361.	1056.	-710.	.0268	-.0263	-.0183	.0902	.1584	.1248	2423.
.1600	1058.	-2284.	-486.	-4506.	917.	-109.	.0365	-.0355	-.0235	.0912	.1596	.1277	3100.
.1610	781.	-2473.	-821.	-5320.	820.	690.	.0449	-.0441	-.0280	.0896	.1555	.1234	3658.
.1620	823.	-2599.	-1081.	-5708.	394.	1873.	.0518	-.0521	-.0320	.0841	.1488	.1105	4058.
.1630	645.	-3185.	-887.	-6109.	363.	3044.	.0571	-.0595	-.0350	.0791	.1349	.0928	4607.
.1640	343.	-4041.	-414.	-6485.	495.	4119.	.0609	-.0658	-.0372	.0741	.1143	.0713	5189.
.1650	323.	-4514.	-69.	-6486.	238.	5127.	.0635	-.0703	-.0392	.0663	.0926	.0461	5575.
.1660	363.	-4533.	89.	-6216.	-98.	5781.	.0650	-.0726	-.0404	.0571	.0700	.0209	5722.
.1670	333.	-4311.	-56.	-5842.	-664.	6033.	.0657	-.0725	-.0408	.0472	.0435	-.0026	5678.
.1680	28.	-3876.	-318.	-5359.	-1164.	5755.	.0657	-.0700	-.0401	.0387	.0133	-.0219	5359.
.1690	-122.	-2915.	-667.	-4484.	-1855.	5136.	.0648	-.0653	-.0390	.0313	-.0138	-.0370	4763.
.1700	-3.	-1836.	-1036.	-3402.	-2594.	4356.	.0630	-.0586	-.0379	.0267	-.0336	-.0468	4115.
.1710	-18.	-1312.	-1214.	-2475.	-2827.	3443.	.0600	-.0503	-.0363	.0277	-.0468	-.0495	3435.
.1720	110.	-884.	-1170.	-1387.	-3051.	2604.	.0557	-.0409	-.0347	.0313	-.0532	-.0468	2861.
.1730	299.	-391.	-639.	-150.	-2860.	1685.	.0499	-.0310	-.0331	.0390	-.0522	-.0381	2240.
.1740	633.	-325.	56.	935.	-2448.	892.	.0428	-.0212	-.0310	.0501	-.0435	-.0257	1866.
.1750	1005.	-663.	584.	1788.	-2084.	284.	.0345	-.0117	-.0279	.0616	-.0309	-.0116	1861.
.1760	1035.	-599.	1105.	2609.	-1393.	-562.	.0249	-.0030	-.0234	.0718	-.0194	.0050	2029.
.1770	980.	175.	1359.	3534.	-818.	-1538.	.0138	.0047	-.0178	.0786	-.0094	.0202	2655.
.1780	782.	914.	1160.	4228.	-267.	-2462.	.0016	.0112	-.0108	.0836	-.0001	.0312	3303.
.1790	534.	1697.	602.	4783.	71.	-3265.	-.0116	.0163	-.0024	.0848	.0065	.0363	3904.
.1800	195.	2890.	143.	5345.	388.	-4132.	-.0261	.0197	.0066	.0813	.0069	.0361	4561.
.1810	-329.	3769.	-42.	5618.	1050.	-4961.	-.0415	.0214	.0161	.0763	.0023	.0307	5101.
.1820	-515.	3913.	-287.	5653.	1351.	-5207.	-.0569	.0217	.0254	.0694	-.0022	.0166	5260.
.1830	-527.	3837.	-265.	5685.	1615.	-5125.	-.0719	.0206	.0336	.0618	-.0081	-.0031	5273.
.1840	-637.	3838.	189.	5749.	2079.	-4964.	-.0858	.0186	.0403	.0539	-.0192	-.0241	5308.
.1850	-844.	3358.	695.	5602.	2541.	-4515.	-.0973	.0158	.0457	.0467	-.0341	-.0454	5143.

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.1750	1005.	-663.	584.	1788.	-2084.	284.	.0345	-.0117	-.0279	.0616	-.0309	-.0116	1861.
.1760	1035.	-599.	1105.	2609.	-1393.	-562.	.0249	-.0030	-.0234	.0718	-.0194	-.0050	2029.
.1770	980.	175.	1359.	3534.	-818.	-1538.	.0138	.0047	-.0178	.0786	-.0094	.0202	2655.
.1780	782.	914.	1160.	4220.	-267.	-2462.	.0016	.0112	-.0108	.0836	-.0001	.0312	3303.
.1790	534.	1697.	602.	4783.	71.	-3265.	-.0116	.0163	-.0024	.0848	.0065	.0363	3904.
.1800	195.	2890.	143.	5345.	788.	-4132.	-.0261	.0197	.0066	.0813	.0069	.0361	4561.
.1810	-329.	3769.	-42.	5618.	1050.	-4961.	-.0415	.0214	.0161	.0763	.0023	.0307	5101.
.1820	-515.	3913.	-287.	5653.	1351.	-5207.	-.0569	.0217	.0254	.0694	-.0022	.0166	5260.
.1830	-527.	3837.	-265.	5685.	1615.	-5125.	-.0719	.0206	.0336	.0618	-.0081	-.0031	5273.
.1840	-637.	3838.	189.	5749.	2079.	-4964.	-.0858	.0186	.0403	.0539	-.0192	-.0241	5308.
.1850	-844.	3358.	695.	5602.	2541.	-4515.	-.0973	.0158	.0457	.0467	-.0341	-.0454	5143.

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SECTION	MEMBER	SEQUENCE	LOCATION	TYPE	EL	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
23	1	809	BEG			.1860	-1012.	2481.	1047.	5318.	2891.	-3733.	-.1053	.0122	.0495	.0414	-.0486	-.0652	4793.
						.1870	-958.	2098.	1275.	5271.	2837.	-2788.	-.1093	.0083	.0508	.0360	-.0530	-.0815	4451.
						.1880	-1197.	1951.	1520.	5151.	2910.	-1951.	-.1091	.0039	.0500	.0330	-.0806	-.0899	4199.
						.1890	-1680.	1478.	1535.	4713.	2950.	-1011.	-.1044	-.0008	.0474	.0326	-.0986	-.0906	3809.
						.1900	-1938.	1053.	1337.	4224.	2664.	103.	-.0956	-.0061	.0427	.0336	-.1107	-.0849	3367.
						.1910	-1998.	865.	1287.	3728.	2414.	1146.	-.0826	-.0121	.0358	.0373	-.1155	-.0724	3092.
						.1920	-2006.	292.	1317.	2927.	2162.	2189.	-.0692	-.0189	.0277	.0440	-.1152	-.0556	2862.
						.1930	-2036.	-798.	1377.	1772.	1956.	3164.	-.0534	-.0264	.0191	.0535	-.1098	-.0362	2777.
						.1940	-1842.	-1626.	1483.	656.	1696.	3864.	-.0373	-.0345	.0102	.0637	-.0975	-.0167	2879.
						.1950	-1387.	-2108.	1456.	-371.	1256.	4264.	-.0220	-.0427	.0013	.0734	-.0789	.0002	3006.
						.1960	-973.	-2720.	1159.	-1569.	727.	4367.	-.0080	-.0507	-.0064	.0828	-.0582	.0126	3166.
						.1970	-686.	-3175.	761.	-2795.	244.	4040.	.0039	-.0583	-.0128	.0906	-.0381	.0204	3316.
						.1980	-283.	-3120.	364.	-3759.	-272.	3339.	.0134	-.0654	-.0179	.0956	-.0168	.0226	3394.
						.1990	281.	-3048.	-143.	-4566.	-887.	2564.	.0208	-.0715	-.0217	.0986	.0069	.0183	3580.
						.2000	768.	-3225.	-668.	-5328.	-1394.	1806.	.0263	-.0766	-.0244	.1005	.0302	.0089	3907.
						.2010	1102.	-3187.	-958.	-5825.	-1625.	975.	.0300	-.0801	-.0265	.1009	.0511	-.0027	4129.
						.2020	1452.	-2924.	-1069.	-5962.	-1732.	243.	.0327	-.0820	-.0287	.0997	.0709	-.0155	4188.
						.2030	1846.	-2942.	-1172.	-5915.	-1849.	-165.	.0355	-.0824	-.0308	.0982	.0598	-.0289	4179.
						.2040	2094.	-3114.	-1143.	-5685.	-1838.	-391.	.0388	-.0812	-.0332	.0979	.1038	-.0405	4036.
						.2050	2123.	-2963.	-888.	-5112.	-1653.	-620.	.0428	-.0784	-.0362	.0985	.1110	-.0434	3645.
						.2060	2056.	-2627.	-662.	-4255.	-1500.	-719.	.0478	-.0743	-.0399	.0998	.1136	-.0529	3079.
						.2070	1961.	-2358.	-623.	-3270.	-1477.	-601.	.0539	-.0691	-.0440	.1019	.1132	-.0549	2452.
						.2080	1768.	-1945.	-550.	-2169.	-1431.	-464.	.0605	-.0631	-.0483	.1044	.1086	-.0539	1779.
						.2090	1473.	-1381.	-317.	-1020.	-1303.	-401.	.0667	-.0568	-.0525	.1067	.0995	-.0508	1148.
						.2100	1216.	-1046.	-91.	-5.	-1240.	-264.	.0721	-.0505	-.0559	.1080	.0891	-.0478	854.
						.2110	1081.	-912.	51.	835.	-1274.	-60.	.0761	-.0443	-.0581	.1073	.0795	-.0463	1027.
						.2120	984.	-632.	202.	1565.	-1287.	20.	.0775	-.0386	-.0591	.1038	.0700	-.0464	1366.
						.2130	847.	-280.	326.	2112.	-1253.	-67.	.0762	-.0333	-.0584	.0978	.0500	-.0488	1656.
						.2140	753.	-105.	314.	2399.	-1265.	-232.	.0721	-.0288	-.0559	.0900	.0511	-.0545	1834.
						.2150	798.	22.	212.	2517.	-1353.	-485.	.0654	-.0253	-.0516	.0807	.0440	-.0628	1954.
						.2160	900.	228.	132.	2513.	-1435.	-870.	.0564	-.0229	-.0460	.0709	.0378	-.0722	2037.
						.2170	948.	308.	65.	2292.	-1450.	-1305.	.0458	-.0215	-.0395	.0617	.0317	-.0810	2029.
						.2180	988.	200.	-14.	1869.	-1418.	-1670.	.0345	-.0212	-.0325	.0538	.0270	-.0880	1941.
						.2190	1101.	85.	-57.	1388.	-1356.	-1906.	.0232	-.0217	-.0255	.0475	.0249	-.0913	1833.
						.2200	1201.	-64.	-33.	866.	-1219.	-1977.	.0128	-.0230	-.0189	.0431	.0245	-.0895	1671.
						.2210	1157.	-372.	32.	249.	-953.	-1864.	.0038	-.0249	-.0127	.0412	.0242	-.0820	1421.
						.2220	994.	-666.	80.	-364.	-600.	-1589.	-.0034	-.0269	-.0072	.0412	.0238	-.0686	1171.
						.2230	790.	-733.	35.	-835.	-267.	-1180.	-.0087	-.0285	-.0026	.0420	.0236	-.0505	991.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.01.

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

.2130	847.	-280.	326.	2112.	-1253.	-67.	.0762	-.0333	-.0584	.0978	.0600	-.0488	1656.
.2140	753.	-105.	314.	2399.	-1265.	-232.	.0721	-.0288	-.0559	.0900	.0511	-.0545	1834.
.2150	798.	22.	212.	2517.	-1353.	-485.	.0654	-.0253	-.0516	.0807	.0440	-.0628	1954.
.2160	900.	228.	132.	2513.	-1435.	-870.	.0564	-.0229	-.0460	.0709	.0378	-.0722	2037.
.2170	948.	308.	65.	2292.	-1450.	-1305.	.0458	-.0215	-.0395	.0617	.0317	-.0810	2029.
.2180	988.	200.	-14.	1869.	-1418.	-1670.	.0345	-.0212	-.0325	.0538	.0270	-.0880	1941.
.2190	1101.	85.	-57.	1388.	-1356.	-1906.	.0232	-.0217	-.0255	.0475	.0249	-.0913	1833.
.2200	1201.	-64.	-33.	866.	-1219.	-1977.	.0128	-.0230	-.0189	.0431	.0245	-.0895	1671.
.2210	1157.	-372.	32.	249.	-953.	-1864.	.0038	-.0249	-.0127	.0412	.0242	-.0820	1421.
.2220	994.	-666.	80.	-364.	-600.	-1589.	-.0034	-.0269	-.0072	.0412	.0238	-.0686	1171.
.2230	790.	-733.	35.	-835.	-267.	-1180.	-.0087	-.0285	-.0026	.0420	.0236	-.0505	991.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.01.

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	23	MEMBER	1	SEQUENCE	809	LOCATION	BEG	TYPE	EL						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2240	513.	-651.	-138.	-1189.	14.	-679.	-.0124	-.0296	.0013	.0430	.0222	-.0291	923.		
.2250	119.	-554.	-351.	-1488.	280.	-174.	-.0148	-.0299	.0045	.0442	.0174	-.0062	1027.		
.2260	-290.	-436.	-486.	-1691.	502.	275.	-.0167	-.0294	.0071	.0452	.0089	.0158	1203.		
.2270	-575.	-361.	-506.	-1770.	616.	693.	-.0185	-.0280	.0093	.0454	-.0017	.0344	1347.		
.2280	-724.	-466.	-404.	-1781.	650.	1095.	-.0209	-.0257	.0113	.0444	-.0138	.0478	1476.		
.2290	-800.	-720.	-149.	-1747.	685.	1431.	-.0243	-.0227	.0134	.0417	-.0275	.0553	1591.		
.2300	-823.	-985.	234.	-1636.	733.	1672.	-.0290	-.0189	.0157	.0366	-.0423	.0568	1652.		
.2310	-792.	-1222.	628.	-1449.	759.	1841.	-.0347	-.0145	.0185	.0288	-.0570	.0523	1660.		
.2320	-753.	-1394.	924.	-1211.	771.	1937.	-.0412	-.0097	.0220	.0181	-.0709	.0429	1625.		
.2330	-781.	-1361.	1074.	-902.	800.	1914.	-.0480	-.0045	.0261	.0048	-.0839	.0302	1525.		
.2340	-906.	-1035.	1055.	-502.	847.	1760.	-.0548	.0010	.0305	-.0102	-.0955	.0157	1360.		
.2350	-1100.	-504.	870.	-44.	905.	1520.	-.0609	.0065	.0347	-.0256	-.1046	.0009	1193.		
.2360	-1297.	93.	597.	434.	978.	1234.	-.0658	.0119	.0385	-.0400	-.1098	-.0130	1101.		
.2370	-1439.	653.	370.	904.	1066.	921.	-.0691	.0170	.0413	-.0522	-.1109	-.0247	1128.		
.2380	-1495.	1068.	282.	1319.	1168.	597.	-.0703	.0216	.0428	-.0614	-.1080	-.0334	1254.		
.2390	-1450.	1261.	335.	1624.	1272.	281.	-.0694	.0258	.0429	-.0674	-.1008	-.0384	1403.		
.2400	-1299.	1290.	457.	1823.	1337.	-22.	-.0661	.0296	.0415	-.0707	-.0897	-.0394	1524.		
.2410	-1081.	1294.	568.	1952.	1331.	-340.	-.0604	.0333	.0388	-.0724	-.0754	-.0364	1609.		
.2420	-866.	1351.	599.	2013.	1260.	-702.	-.0527	.0370	.0352	-.0733	-.0594	-.0297	1669.		
.2430	-684.	1476.	494.	2005.	1121.	-1102.	-.0433	.0406	.0308	-.0740	-.0424	-.0201	1717.		
.2440	-515.	1696.	236.	1958.	889.	-1513.	-.0326	.0441	.0260	-.0752	-.0251	-.0089	1772.		
.2450	-353.	2005.	-121.	1896.	583.	-1914.	-.0211	.0475	.0209	-.0771	-.0083	.0029	1858.		
.2460	-214.	2294.	-479.	1792.	268.	-2279.	-.0095	.0505	.0156	-.0794	.0072	.0142	1962.		
.2470	-56.	2431.	-757.	1628.	-34.	-2549.	.0018	.0531	.0104	-.0816	.0210	.0238	2039.		
.2480	183.	2376.	-897.	1420.	-346.	-2678.	.0123	.0549	.0051	-.0837	.0333	.0307	2056.		
.2490	488.	2137.	-861.	1170.	-647.	-2668.	.0219	.0559	.0000	-.0858	.0431	.0345	2011.		
.2500	777.	1721.	-682.	848.	-889.	-2542.	.0303	.0561	-.0046	-.0881	.0498	.0358	1903.		
.2510	1021.	1230.	-479.	474.	-1100.	-2309.	.0375	.0555	-.0085	-.0911	.0534	.0347	1754.		
.2520	1219.	845.	-373.	111.	-1337.	-1989.	.0438	.0544	-.0117	-.0956	.0544	.0319	1617.		
.2530	1311.	656.	-419.	-235.	-1582.	-1629.	.0490	.0529	-.0140	-.1018	.0526	.0284	1539.		
.2540	1235.	620.	-614.	-600.	-1788.	-1265.	.0534	.0513	-.0154	-.1093	.0478	.0251	1531.		
.2550	1046.	696.	-914.	-964.	-1960.	-887.	.0569	.0495	-.0160	-.1176	.0411	.0225	1589.		
.2560	850.	830.	-1238.	-1293.	-2112.	-476.	.0595	.0477	-.0159	-.1257	.0343	.0210	1700.		
.2570	669.	882.	-1491.	-1614.	-2201.	-31.	.0611	.0459	-.0155	-.1326	.0280	.0210	1840.		
.2580	489.	768.	-1581.	-1944.	-2172.	428.	.0617	.0444	-.0148	-.1374	.0223	.0228	1986.		
.2590	352.	523.	-1471.	-2244.	-2032.	882.	.0611	.0431	-.0140	-.1399	.0180	.0265	2125.		
.2600	298.	170.	-1207.	-2494.	-1810.	1326.	.0593	.0423	-.0128	-.1402	.0159	.0321	2261.		
.2610	285.	-269.	-873.	-2708.	-1518.	1730.	.0564	.0420	-.0112	-.1391	.0158	.0392	2395.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.01.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.2510	1021.	1230.	-479.	474.	-1100.	-2309.	.0375	.0555	-.0085	-.0911	.0534	.0347	1754.
.2520	1219.	845.	-373.	111.	-1337.	-1989.	.0438	.0544	-.0117	-.0956	.0544	.0319	1617.
.2530	1311.	656.	-419.	-235.	-1582.	-1629.	.0490	.0529	-.0140	-.1018	.0526	.0284	1539.
.2540	1235.	620.	-614.	-600.	-1788.	-1265.	.0534	.0512	-.0154	-.1093	.0478	.0251	1531.
.2550	1046.	690.	-914.	-964.	-1960.	-887.	.0569	.0495	-.0160	-.1176	.0411	.0225	1589.
.2560	850.	830.	-1238.	-1293.	-2112.	-476.	.0595	.0477	-.0159	-.1257	.0343	.0210	1700.
.2570	669.	882.	-1491.	-1614.	-2201.	-31.	.0611	.0459	-.0155	-.1326	.0280	.0210	1840.
.2580	489.	768.	-1581.	-1944.	-2172.	428.	.0617	.0444	-.0148	-.1374	.0223	.0228	1986.
.2590	352.	523.	-1471.	-2244.	-2032.	882.	.0611	.0431	-.0140	-.1399	.0180	.0265	2125.
.2600	298.	170.	-1207.	-2494.	-1810.	1326.	.0593	.0423	-.0128	-.1402	.0159	.0321	2261.
.2610	285.	-269.	-873.	-2708.	-1518.	1730.	.0564	.0420	-.0112	-.1391	.0158	.0392	2395.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.01.

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	23	MEMBER	1	SEQUENCE	809	LOCATION	BEG	TYPE	EL						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	PX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2620	231.	-652.	-551.	-2868.	-1154.	2029.	.0521	.0423	-.0087	-.1374	.0167	.0478	2493.		
.2630	104.	-813.	-326.	-2942.	-746.	2171.	.0466	.0435	-.0054	-.1364	.0180	.0574	2515.		
.2640	-77.	-736.	-276.	-2934.	-339.	2163.	.0397	.0455	-.0011	-.1368	.0198	.0671	2467.		
.2650	-290.	-483.	-394.	-2865.	41.	2025.	.0315	.0483	.0042	-.1389	.0219	.0759	2365.		
.2660	-512.	-106.	-574.	-2737.	404.	1752.	.0220	.0517	.0103	-.1423	.0234	.0828	2207.		
.2670	-704.	296.	-708.	-2563.	756.	1366.	.0115	.0555	.0168	-.1466	.0239	.0872	2023.		
.2680	-816.	592.	-752.	-2366.	1071.	927.	.0001	.0595	.0236	-.1510	.0233	.0883	1859.		
.2690	-829.	760.	-690.	-2132.	1329.	472.	-.0117	.0637	.0303	-.1553	.0215	.0860	1723.		
.2700	-769.	878.	-514.	-1825.	1537.	0.	-.0234	.0678	.0365	-.1592	.0177	.0807	1608.		
.2710	-683.	973.	-274.	-1448.	1688.	-472.	-.0344	.0720	.0421	-.1626	.0115	.0730	1532.		
.2720	-606.	1064.	-59.	-1007.	1757.	-902.	-.0443	.0760	.0471	-.1656	.0027	.0641	1494.		
.2730	-578.	1251.	79.	-483.	1745.	-1272.	-.0524	.0799	.0513	-.1684	-.0085	.0549	1491.		
.2740	-534.	1602.	128.	130.	1689.	-1569.	-.0584	.0837	.0544	-.1710	-.0218	.0468	1557.		
.2750	-774.	2040.	88.	788.	1610.	-1743.	-.0622	.0871	.0564	-.1730	-.0361	.0405	1685.		
.2760	-958.	2467.	-4.	1450.	1507.	-1754.	-.0636	.0900	.0573	-.1739	-.0504	.0362	1840.		
.2770	-1153.	2847.	-65.	2096.	1406.	-1619.	-.0628	.0923	.0570	-.1734	-.0540	.0343	2021.		
.2780	-1335.	3123.	-50.	2684.	1325.	-1370.	-.0601	.0938	.0554	-.1712	-.0765	.0345	2219.		
.2790	-1475.	3231.	30.	3168.	1238.	-1032.	-.0559	.0944	.0529	-.1669	-.0870	.0363	2396.		
.2800	-1538.	3209.	151.	3542.	1116.	-663.	-.0506	.0942	.0494	-.1610	-.0754	.0391	2543.		
.2810	-1526.	3127.	291.	3799.	954.	-339.	-.0446	.0930	.0454	-.1538	-.1014	.0423	2650.		
.2820	-1468.	2939.	398.	3911.	751.	-106.	-.0385	.0910	.0412	-.1459	-.1050	.0454	2685.		
.2830	-1373.	2820.	428.	3888.	504.	18.	-.0324	.0881	.0371	-.1378	-.1061	.0481	2629.		
.2840	-1232.	2686.	380.	3696.	225.	23.	-.0268	.0845	.0332	-.1299	-.1042	.0499	2496.		
.2850	-1049.	2581.	258.	3400.	-61.	-76.	-.0218	.0800	.0297	-.1224	-.0990	.0507	2293.		
.2860	-847.	2441.	70.	2972.	-333.	-240.	-.0175	.0749	.0266	-.1153	-.0908	.0505	2022.		
.2870	-636.	2273.	-145.	2446.	-571.	-448.	-.0139	.0690	.0240	-.1085	-.0801	.0495	1720.		
.2880	-411.	2095.	-332.	1870.	-758.	-677.	-.0110	.0627	.0215	-.1013	-.0676	.0476	1435.		
.2890	-175.	1855.	-475.	1267.	-893.	-883.	-.0086	.0558	.0191	-.0933	-.0539	.0452	1203.		
.2900	52.	1527.	-571.	665.	-975.	-1028.	-.0065	.0485	.0168	-.0842	-.0399	.0425	1055.		
.2910	241.	1184.	-604.	123.	-989.	-1107.	-.0045	.0410	.0144	-.0740	-.0263	.0400	1004.		
.2920	370.	863.	-573.	-327.	-921.	-1101.	-.0026	.0334	.0118	-.0626	-.0138	.0379	992.		
.2930	432.	533.	-509.	-685.	-777.	-973.	-.0005	.0258	.0091	-.0502	-.0024	.0364	958.		
.2940	426.	214.	-430.	-939.	-566.	-716.	.0018	.0184	.0062	-.0371	.0080	.0353	882.		
.2950	353.	-38.	-333.	-1074.	-289.	-359.	.0043	.0112	.0033	-.0241	.0172	.0348	788.		
.2960	216.	-234.	-232.	-1115.	36.	68.	.0069	.0044	.0004	-.0115	.0251	.0344	753.		
.2970	43.	-411.	-153.	-1094.	368.	540.	.0095	-.0020	-.0025	.0008	.0317	.0337	859.		
.2980	-126.	-545.	-93.	-1017.	665.	1001.	.0120	-.0079	-.0054	.0124	.0370	.0323	1061.		
.2990	-264.	-628.	-35.	-895.	900.	1391.	.0143	-.0134	-.0082	.0234	.0410	.0300	1270.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.01.

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

.2890	-175.	1855.	-475.	1267.	-893.	-883.	-.0086	.0558	.0191	-.0933	-.0539	.0452	1203.
.2900	52.	1527.	-571.	665.	-975.	-1028.	-.0065	.0485	.0168	-.0842	-.0399	.0425	1055.
.2910	241.	1184.	-604.	123.	-989.	-1107.	-.0045	.0410	.0144	-.0740	-.0263	.0400	1004.
.2920	370.	863.	-573.	-327.	-921.	-1101.	-.0026	.0334	.0118	-.0626	-.0138	.0379	992.
.2930	432.	533.	-509.	-685.	-777.	-973.	-.0005	.0258	.0091	-.0502	-.0024	.0364	958.
.2940	426.	214.	-430.	-979.	-566.	-716.	.0018	.0184	.0062	-.0371	.0080	.0353	882.
.2950	353.	-38.	-333.	-1074.	-289.	-359.	.0043	.0112	.0033	-.0241	.0172	.0348	788.
.2960	216.	-234.	-232.	-1115.	36.	68.	.0069	.0044	.0004	-.0115	.0251	.0344	753.
.2970	43.	-411.	-153.	-1094.	368.	540.	.0095	-.0020	-.0025	.0008	.0317	.0337	859.
.2980	-126.	-545.	-97.	-1017.	665.	1001.	.0120	-.0079	-.0054	.0124	.0370	.0323	1061.
.2990	-264.	-628.	-35.	-895.	900.	1391.	.0143	-.0134	-.0082	.0234	.0410	.0300	1270.

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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	23	MEMBER	1	SEQUENCE	809	LOCATION	BEG	TYPE	EL						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3000	-353.	-726.	29.	-774.	1055.	1682.	.0164	-.0185	-.0109	.0340	.0436	.0265	1436.		
.3010	-372.	-876.	100.	-680.	1113.	1863.	.0183	-.0233	-.0136	.0445	.0451	.0220	1533.		
.3020	-307.	-1046.	208.	-612.	1079.	1933.	.0200	-.0278	-.0163	.0548	.0460	.0169	1549.		
.3030	-178.	-1226.	316.	-576.	978.	1911.	.0215	-.0320	-.0189	.0650	.0469	.0118	1498.		
.3040	-20.	-1429.	413.	-587.	839.	1833.	.0229	-.0360	-.0214	.0749	.0480	.0074	1415.		
.3050	147.	-1630.	488.	-639.	691.	1730.	.0244	-.0399	-.0238	.0845	.0497	.0042	1327.		
.3060	303.	-1788.	529.	-711.	551.	1629.	.0259	-.0437	-.0260	.0940	.0522	.0029	1254.		
.3070	421.	-1893.	518.	-794.	438.	1551.	.0274	-.0473	-.0279	.1031	.0554	.0035	1211.		
.3080	480.	-1942.	452.	-878.	361.	1503.	.0291	-.0509	-.0296	.1121	.0587	.0060	1198.		
.3090	491.	-1927.	354.	-944.	317.	1479.	.0306	-.0544	-.0311	.1210	.0619	.0099	1202.		
.3100	475.	-1875.	249.	-986.	293.	1474.	.0319	-.0577	-.0322	.1299	.0645	.0145	1212.		
.3110	447.	-1839.	162.	-1016.	277.	1482.	.0327	-.0610	-.0331	.1387	.0660	.0189	1225.		
.3120	426.	-1835.	120.	-1036.	262.	1485.	.0329	-.0641	-.0337	.1471	.0661	.0223	1233.		
.3130	431.	-1860.	130.	-1044.	233.	1471.	.0332	-.0670	-.0339	.1546	.0645	.0238	1226.		
.3140	467.	-1923.	177.	-1054.	172.	1434.	.0307	-.0695	-.0336	.1608	.0611	.0230	1205.		
.3150	523.	-2010.	240.	-1072.	77.	1365.	.0281	-.0716	-.0329	.1650	.0557	.0194	1171.		
.3160	583.	-2079.	299.	-1088.	-53.	1252.	.0247	-.0733	-.0316	.1670	.0481	.0132	1118.		
.3170	638.	-2100.	328.	-1091.	-221.	1097.	.0204	-.0744	-.0297	.1664	.0385	.0046	1054.		
.3180	675.	-2067.	313.	-1075.	-418.	915.	.0154	-.0749	-.0274	.1636	.0272	-.0061	992.		
.3190	678.	-1976.	262.	-1026.	-619.	718.	.0099	-.0749	-.0247	.1591	.0143	-.0182	942.		
.3200	641.	-1831.	204.	-929.	-796.	524.	.0041	-.0744	-.0217	.1533	.0006	-.0309	897.		
.3210	574.	-1671.	164.	-779.	-927.	366.	-.0018	-.0735	-.0187	.1471	-.0133	-.0437	853.		
.3220	487.	-1538.	166.	-581.	-994.	269.	-.0076	-.0722	-.0158	.1410	-.0265	-.0557	797.		
.3230	383.	-1440.	235.	-338.	-972.	242.	-.0132	-.0707	-.0130	.1356	-.0383	-.0666	713.		
.3240	264.	-1379.	372.	-59.	-856.	279.	-.0184	-.0690	-.0106	.1312	-.0481	-.0756	608.		
.3250	137.	-1356.	546.	239.	-664.	369.	-.0231	-.0672	-.0084	.1278	-.0555	-.0826	537.		
.3260	7.	-1338.	721.	543.	-418.	481.	-.0272	-.0654	-.0064	.1253	-.0601	-.0875	564.		
.3270	-121.	-1283.	865.	842.	-149.	571.	-.0305	-.0636	-.0048	.1235	-.0620	-.0903	693.		
.3280	-239.	-1182.	948.	1113.	106.	602.	-.0331	-.0618	-.0034	.1225	-.0614	-.0913	856.		
.3290	-331.	-1041.	961.	1335.	313.	543.	-.0349	-.0602	-.0023	.1221	-.0587	-.0909	994.		
.3300	-376.	-873.	914.	1497.	448.	380.	-.0358	-.0588	-.0016	.1223	-.0541	-.0894	1084.		
.3310	-357.	-708.	826.	1585.	497.	116.	-.0360	-.0577	-.0012	.1231	-.0479	-.0873	1123.		
.3320	-268.	-578.	723.	1592.	461.	-226.	-.0353	-.0569	-.0013	.1246	-.0405	-.0849	1127.		
.3330	-114.	-509.	636.	1516.	358.	-612.	-.0338	-.0565	-.0020	.1265	-.0323	-.0823	1128.		
.3340	92.	-516.	577.	1367.	208.	-998.	-.0315	-.0565	-.0031	.1288	-.0235	-.0798	1149.		
.3350	327.	-594.	538.	1157.	29.	-1336.	-.0284	-.0568	-.0047	.1310	-.0144	-.0772	1192.		
.3360	556.	-713.	505.	909.	-154.	-1591.	-.0245	-.0574	-.0066	.1327	-.0054	-.0745	1240.		
.3370	744.	-832.	462.	640.	-319.	-1741.	-.0199	-.0581	-.0090	.1336	.0031	-.0716	1268.		

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2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

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ENGLISH UNITS

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

.3270	-121.	-1283.	865.	842.	-149.	571.	-1272.	-0.0654	-0.0044	.1235	-0.0620	-0.0903	693.
.3280	-239.	-1182.	948.	1112.	106.	602.	-1331.	-0.0618	-0.0034	.1225	-0.0614	-0.0913	856.
.3290	-331.	-1041.	961.	1335.	313.	543.	-0.0349	-0.0602	-0.0023	.1221	-0.0587	-0.0909	994.
.3300	-376.	-873.	914.	1497.	448.	380.	-0.0358	-0.0588	-0.0016	.1223	-0.0541	-0.0894	1084.
.3310	-357.	-708.	826.	1585.	497.	116.	-0.0360	-0.0577	-0.0012	.1231	-0.0479	-0.0873	1123.
.3320	-268.	-578.	723.	1592.	461.	-226.	-0.0353	-0.0569	-0.0013	.1246	-0.0405	-0.0849	1127.
.3330	-114.	-509.	636.	1516.	358.	-612.	-0.0338	-0.0565	-0.0020	.1265	-0.0323	-0.0823	1128.
.3340	52.	-516.	577.	1367.	208.	-998.	-0.0315	-0.0565	-0.0031	.1288	-0.0235	-0.0798	1149.
.3350	327.	-594.	538.	1157.	29.	-1336.	-0.0284	-0.0568	-0.0047	.1310	-0.0144	-0.0772	1192.
.3360	556.	-713.	505.	909.	-154.	-1591.	-0.0245	-0.0574	-0.0066	.1327	-0.0054	-0.0745	1240.
.3370	744.	-832.	462.	640.	-319.	-1741.	-0.0199	-0.0581	-0.0090	.1336	.0031	-0.0716	1268.

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

CONDITION 24
LOADS
SHOCK
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ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	EL	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	HX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.3380	871.	-937.	391.	362.	-458.	-1764.	.0146	-0.0589	-0.0116	.1335	.0108	-0.0685	1252.							
.3390	932.	-1031.	292.	83.	-569.	-1651.	-0.0088	-0.0598	-0.0144	.1320	.0173	-0.0653	1179.							
.3400	934.	-1123.	186.	-193.	-646.	-1412.	-0.0025	-0.0606	-0.0173	.1293	.0227	-0.0622	1055.							
.3410	893.	-1236.	100.	-473.	-689.	-1062.	.0040	-0.0615	-0.0203	.1257	.0269	-0.0595	911.							
.3420	831.	-1402.	50.	-766.	-706.	-619.	.0105	-0.0624	-0.0233	.1213	.0301	-0.0573	817.							
.3430	773.	-1628.	48.	-1074.	-706.	-115.	.0169	-0.0632	-0.0264	.1163	.0326	-0.0558	870.							
.3440	732.	-1904.	96.	-1399.	-697.	406.	.0230	-0.0641	-0.0293	.1109	.0348	-0.0550	1088.							
.3450	714.	-2215.	174.	-1741.	-691.	904.	.0286	-0.0649	-0.0320	.1052	.0367	-0.0550	1402.							
.3460	718.	-2524.	249.	-2098.	-702.	1337.	.0336	-0.0656	-0.0343	.0992	.0387	-0.0557	1742.							
.3470	739.	-2778.	285.	-2454.	-742.	1666.	.0380	-0.0661	-0.0362	.0930	.0409	-0.0569	2061.							
.3480	765.	-2934.	256.	-2798.	-814.	1862.	.0417	-0.0664	-0.0375	.0863	.0434	-0.0582	2331.							
.3490	790.	-2984.	152.	-3119.	-916.	1914.	.0446	-0.0663	-0.0382	.0794	.0460	-0.0595	2543.							
.3500	819.	-2934.	-14.	-3405.	-1042.	1829.	.0467	-0.0657	-0.0383	.0723	.0490	-0.0608	2698.							
.3510	860.	-2804.	-211.	-3641.	-1179.	1623.	.0479	-0.0645	-0.0378	.0651	.0522	-0.0618	2802.							
.3520	910.	-2629.	-406.	-3816.	-1307.	1322.	.0482	-0.0626	-0.0369	.0581	.0555	-0.0624	2861.							
.3530	970.	-2439.	-565.	-3918.	-1407.	960.	.0476	-0.0600	-0.0354	.0512	.0588	-0.0627	2879.							
.3540	1043.	-2248.	-670.	-3929.	-1468.	569.	.0462	-0.0565	-0.0337	.0445	.0620	-0.0627	2853.							
.3550	1120.	-2059.	-715.	-3837.	-1485.	176.	.0440	-0.0522	-0.0316	.0380	.0648	-0.0623	2776.							
.3560	1183.	-1868.	-709.	-3637.	-1455.	-202.	.0412	-0.0470	-0.0293	.0315	.0666	-0.0615	2644.							
.3570	1216.	-1657.	-666.	-3328.	-1382.	-551.	.0379	-0.0410	-0.0268	.0249	.0671	-0.0602	2457.							
.3580	1214.	-1408.	-604.	-2912.	-1278.	-863.	.0343	-0.0342	-0.0241	.0182	.0661	-0.0585	2221.							
.3590	1180.	-1121.	-538.	-2406.	-1159.	-1127.	.0304	-0.0269	-0.0213	.0113	.0634	-0.0565	1954.							
.3600	1110.	-808.	-471.	-1834.	-1035.	-1340.	.0266	-0.0193	-0.0185	.0043	.0589	-0.0540	1683.							
.3610	1011.	-481.	-399.	-1222.	-913.	-1505.	.0228	-0.0116	-0.0157	-0.0026	.0524	-0.0512	1444.							
.3620	896.	-159.	-316.	-601.	-804.	-1618.	.0191	-0.0040	-0.0129	-0.0092	.0443	-0.0481	1283.							
.3630	778.	139.	-225.	3.	-719.	-1680.	.0156	.0032	-0.0102	-0.0154	.0348	-0.0447	1232.							
.3640	661.	408.	-128.	565.	-659.	-1699.	.0123	.0098	-0.0076	-0.0210	.0241	-0.0412	1286.							
.3650	540.	652.	-37.	1066.	-622.	-1684.	.0091	.0157	-0.0049	-0.0263	.0125	-0.0373	1407.							
.3660	414.	879.	32.	1491.	-607.	-1643.	.0060	.0209	-0.0023	-0.0311	.0005	-0.0333	1551.							
.3670	281.	1093.	69.	1832.	-606.	-1579.	.0028	.0253	.0005	-0.0357	-0.0116	-0.0289	1681.							
.3680	138.	1301.	68.	2084.	-607.	-1497.	-0.0004	.0289	.0033	-0.0402	-0.0233	-0.0244	1777.							
.3690	-12.	1491.	38.	2246.	-594.	-1395.	-0.0039	.0319	.0064	-0.0447	-0.0340	-0.0195	1827.							
.3700	-164.	1646.	-9.	2318.	-557.	-1272.	-0.0076	.0342	.0095	-0.0491	-0.0434	-0.0145	1822.							
.3710	-309.	1750.	-54.	2395.	-486.	-1127.	-0.0116	.0360	.0128	-0.0534	-0.0512	-0.0093	1760.							
.3720	-443.	1796.	-80.	2216.	-374.	-965.	-0.0159	.0373	.0162	-0.0576	-0.0572	-0.0039	1649.							
.3730	-559.	1780.	-81.	2064.	-221.	-791.	-0.0203	.0382	.0195	-0.0615	-0.0512	.0015	1497.							
.3740	-654.	1705.	-57.	1862.	-78.	-612.	-0.0249	.0389	.0227	-0.0650	-0.0535	.0070	1321.							
.3750	-731.	1587.	-12.	1627.	170.	-440.	-0.0294	.0394	.0258	-0.0681	-0.0541	.0125	1142.							

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2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
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ENGLISH UNITS

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

.3650	540.	652.	-27.	1066.	-622.	-1624.	.091	.0157	-.0049	-.0263	.0125	-.0373	1407.
.3660	414.	879.	33.	1491.	-607.	-1643.	.0060	.0209	-.0023	-.0311	.0005	-.0333	1551.
.3670	281.	1092.	69.	1832.	-606.	-1579.	.0028	.0253	.0005	-.0357	-.0116	-.0289	1681.
.3680	138.	1301.	68.	2074.	-607.	-1497.	-.0004	.0289	.0033	-.0402	-.0233	-.0244	1777.
.3690	-12.	1491.	37.	2246.	-594.	-1395.	-.0029	.0319	.0064	-.0447	-.0340	-.0195	1827.
.3700	-164.	1646.	-9.	2318.	-557.	-1272.	-.0076	.0342	.0095	-.0491	-.0434	-.0145	1822.
.3710	-309.	1750.	-54.	2305.	-488.	-1127.	-.0116	.0360	.0128	-.0534	-.0512	-.0093	1760.
.3720	-443.	1796.	-80.	2216.	-374.	-965.	-.0159	.0373	.0162	-.0576	-.0572	-.0039	1649.
.3730	-559.	1780.	-81.	2064.	-221.	-791.	-.0203	.0382	.0195	-.0615	-.0512	.0015	1497.
.3740	-654.	1705.	-57.	1862.	-78.	-612.	-.0249	.0389	.0227	-.0650	-.0535	.0070	1321.
.3750	-731.	1587.	-12.	1627.	170.	-440.	-.0294	.0394	.0258	-.0681	-.0541	.0125	1142.

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2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
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ENGLISH UNITS

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

SECTION	23	MEMBER	1	SEQUENCE	209	LOCATION	BEG	TYPE	EL						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3760	-796.	1444.	44.	1374.	391.	-282.	-.0337	.0397	.0286	-.0709	-.0533	.0180	982.		
.3770	-853.	1297.	97.	1119.	616.	-143.	-.0376	.0400	.0312	-.0732	-.0514	.0236	866.		
.3780	-905.	1166.	138.	878.	835.	-22.	-.0410	.0402	.0334	-.0750	-.0585	.0291	817.		
.3790	-951.	1056.	168.	661.	1043.	83.	-.0437	.0403	.0351	-.0764	-.0549	.0346	834.		
.3800	-992.	960.	191.	472.	1233.	175.	-.0455	.0404	.0364	-.0772	-.0507	.0397	898.		
.3810	-1027.	876.	209.	318.	1399.	258.	-.0466	.0404	.0372	-.0775	-.0462	.0445	983.		
.3820	-1052.	813.	222.	205.	1538.	334.	-.0467	.0403	.0374	-.0772	-.0416	.0488	1070.		
.3830	-1068.	774.	230.	137.	1643.	403.	-.0459	.0401	.0371	-.0765	-.0370	.0525	1144.		
.3840	-1074.	753.	228.	110.	1711.	466.	-.0442	.0399	.0363	-.0754	-.0326	.0554	1198.		
.3850	-1068.	746.	221.	123.	1739.	524.	-.0416	.0397	.0349	-.0739	-.0284	.0576	1227.		
.3860	-1059.	750.	212.	167.	1730.	576.	-.0382	.0394	.0331	-.0721	-.0245	.0590	1234.		
.3870	-1016.	754.	201.	231.	1684.	628.	-.0340	.0391	.0307	-.0702	-.0208	.0599	1221.		
.3880	-965.	749.	187.	300.	1605.	685.	-.0291	.0387	.0280	-.0682	-.0171	.0604	1193.		
.3890	-896.	734.	174.	362.	1495.	748.	-.0235	.0384	.0248	-.0662	-.0133	.0608	1153.		
.3900	-810.	699.	163.	402.	1360.	817.	-.0174	.0379	.0213	-.0643	-.0094	.0614	1103.		
.3910	-709.	639.	148.	408.	1200.	892.	-.0108	.0374	.0176	-.0624	-.0052	.0623	1045.		
.3920	-597.	564.	121.	376.	1015.	968.	-.0039	.0369	.0137	-.0606	-.0008	.0638	979.		
.3930	-478.	493.	77.	309.	810.	1037.	.0033	.0362	.0096	-.0587	.0037	.0660	911.		
.3940	-358.	429.	16.	209.	590.	1093.	.0105	.0354	.0056	-.0568	.0083	.0688	849.		
.3950	-242.	363.	-59.	76.	361.	1135.	.0176	.0344	.0017	-.0546	.0128	.0723	804.		
.3960	-134.	303.	-144.	-79.	133.	1161.	.0243	.0334	-.0020	-.0523	.0170	.0763	789.		
.3970	-37.	255.	-234.	-244.	-79.	1174.	.0303	.0322	-.0053	-.0500	.0210	.0805	810.		
.3980	45.	219.	-323.	-408.	-262.	1179.	.0355	.0310	-.0081	-.0477	.0248	.0846	859.		
.3990	109.	188.	-493.	-565.	-404.	1181.	.0395	.0299	-.0103	-.0456	.0281	.0882	923.		
.4000	157.	162.	-467.	-700.	-500.	1180.	.0423	.0288	-.0118	-.0437	.0309	.0910	984.		

MAXIMUM VALUE OF STRESS OCCURS AT

TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1100	142.	5396.	879.	10965.	611.	-8384.	.0798	-.0486	-.0286	-.0819	.0583	.0578	9313.		

SECTION	23	MEMBER	1	SEQUENCE	40	LOCATION	END	TYPE	EL						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		

ADLPIPE PAGE 1048

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.01.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.1100	142.	5296.	279.	10965.	611.	-2384.	.0798	-.0486	-.0286	-.0819	.0583	.0578	9313.

SECTION	23	MEMBER	1	SEQUENCE	40	LOCATION	END	TYPE	EL	DX	DY	DZ	RX	RY	RZ	STRESS (PSI)
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(PSI)

ADLPIPE PAGE 1048 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.27.01.

S/RV PIPING KEWAUNEE GKMOF 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	23	MEMBER	1	SEQUENCE	40	LOCATION	END	TYPE	EL	DX	DY	DZ	RX	RY	RZ	STRESS (PSI)
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(PSI)
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
.0010	-1.	-3.	-2.	1.	-1.	-1.	-.0000	-.0000	-.0000	-.0000	.0000	.0000	.0000	.0000	.0000	1.
.0020	-5.	-12.	-13.	7.	-5.	-8.	-.0000	-.0000	-.0000	-.0001	.0001	.0001	.0001	.0001	.0001	8.
.0030	-12.	4.	-30.	24.	-15.	-26.	-.0001	-.0001	-.0001	-.0003	.0004	.0001	.0001	.0001	.0001	26.
.0040	-23.	61.	-56.	53.	-30.	-55.	-.0001	-.0002	-.0001	-.0005	.0008	.0002	.0002	.0002	.0002	55.
.0050	-40.	139.	-94.	99.	-48.	-94.	-.0001	-.0004	-.0001	-.0009	.0013	.0004	.0004	.0004	.0004	98.
.0060	-62.	225.	-139.	174.	-66.	-146.	-.0001	-.0006	-.0000	-.0015	.0020	.0007	.0007	.0007	.0007	159.
.0070	-79.	322.	-188.	292.	-92.	-222.	-.0000	-.0011	-.0000	-.0023	.0029	.0011	.0011	.0011	.0011	255.
.0080	-93.	448.	-248.	469.	-149.	-345.	.0000	-.0016	.0000	-.0035	.0046	.0017	.0017	.0017	.0017	405.
.0090	-105.	681.	-310.	701.	-248.	-530.	.0001	-.0025	.0001	-.0051	.0079	.0023	.0023	.0023	.0023	616.
.0100	-124.	1017.	-375.	981.	-384.	-763.	.0004	-.0036	.0005	-.0071	.0129	.0028	.0028	.0028	.0028	877.
.0110	-152.	1355.	-437.	1316.	-542.	-1007.	.0010	-.0050	.0009	-.0096	.0194	.0032	.0032	.0032	.0032	1175.
.0120	-182.	1638.	-441.	1726.	-687.	-1226.	.0020	-.0066	.0012	-.0124	.0270	.0036	.0036	.0036	.0036	1500.
.0130	-211.	1862.	-317.	2219.	-771.	-1377.	.0036	-.0081	.0015	-.0155	.0353	.0035	.0035	.0035	.0035	1836.
.0140	-239.	1994.	-49.	2763.	-748.	-1398.	.0060	-.0096	.0017	-.0187	.0433	.0031	.0031	.0031	.0031	2147.
.0150	-252.	1971.	316.	3289.	-599.	-1224.	.0094	-.0107	.0016	-.0217	.0495	.0023	.0023	.0023	.0023	2400.
.0160	-219.	1799.	735.	3718.	-332.	-841.	.0138	-.0111	.0010	-.0238	.0533	.0009	.0009	.0009	.0009	2579.
.0170	-179.	1438.	1173.	3964.	1.	-290.	.0187	-.0106	-.0002	-.0252	.0553	-.0012	-.0012	-.0012	-.0012	2679.
.0180	-245.	802.	1571.	3947.	324.	344.	.0237	-.0089	-.0019	-.0269	.0580	-.0042	-.0042	-.0042	-.0042	2679.
.0190	-459.	-73.	1823.	3623.	553.	953.	.0285	-.0057	-.0043	-.0299	.0631	-.0077	-.0077	-.0077	-.0077	2552.
.0200	-804.	-1042.	1748.	3025.	532.	1399.	.0326	-.0013	-.0074	-.0351	.0725	-.0111	-.0111	-.0111	-.0111	2275.
.0210	-1131.	-1408.	1417.	2197.	215.	1591.	.0363	.0042	-.0104	-.0412	.0872	-.0146	-.0146	-.0146	-.0146	1834.
.0220	-1481.	-984.	1119.	1181.	-16.	1687.	.0407	.0106	-.0127	-.0479	.1033	-.0194	-.0194	-.0194	-.0194	1388.
.0230	-1870.	-1080.	782.	135.	20.	1963.	.0462	.0176	-.0155	-.0569	.1140	-.0216	-.0216	-.0216	-.0216	1326.
.0240	-1758.	-1694.	605.	-681.	316.	2546.	.0529	.0253	-.0192	-.0644	.1108	-.0193	-.0193	-.0193	-.0193	1789.
.0250	-1394.	-2456.	884.	-1235.	769.	3280.	.0602	.0337	-.0235	-.0689	.1001	-.0147	-.0147	-.0147	-.0147	2419.
.0260	-1790.	-3743.	1454.	-1788.	1409.	3937.	.0664	.0417	-.0281	-.0746	.0955	-.0109	-.0109	-.0109	-.0109	3066.
.0270	-2440.	-4613.	1855.	-2476.	2425.	4593.	.0719	.0483	-.0320	-.0782	.0849	-.0080	-.0080	-.0080	-.0080	3881.
.0280	-1845.	-4347.	1397.	-3233.	3189.	5408.	.0769	.0535	-.0349	-.0727	.0502	-.0001	-.0001	-.0001	-.0001	4760.
.0290	-811.	-4050.	389.	-4148.	3154.	5882.	.0780	.0572	-.0362	-.0633	.0135	.0103	.0103	.0103	.0103	5296.
.0300	-1261.	-4480.	194.	-5261.	3094.	5120.	.0718	.0597	-.0351	-.0631	.0088	.0091	.0091	.0091	.0091	5370.
.0310	-1336.	-4383.	404.	-6130.	2846.	3686.	.0607	.0611	-.0309	-.0641	.0057	.0038	.0038	.0038	.0038	5189.
.0320	183.	-4213.	-340.	-6554.	1816.	2605.	.0468	.0606	-.0243	-.0606	-.0245	.0079	.0079	.0079	.0079	4909.
.0330	1487.	-4288.	-1295.	-6924.	604.	1619.	.0285	.0578	-.0148	-.0582	-.0537	.0092	.0092	.0092	.0092	4810.
.0340	1279.	-3972.	-1105.	-7334.	-38.	246.	.0053	.0533	-.0020	-.0596	-.0564	-.0054	-.0054	-.0054	-.0054	4946.
.0350	1228.	-3663.	-592.	-7238.	-591.	-849.	-.0200	.0477	.0113	-.0586	-.0515	-.0207	-.0207	-.0207	-.0207	4928.
.0360	2530.	-3892.	-891.	-6402.	-1530.	-1087.	-.0447	.0407	.0228	-.0513	-.0913	-.0240	-.0240	-.0240	-.0240	4497.
.0370	3397.	-3666.	-1266.	-5385.	-2216.	-1061.	-.0695	.0319	.0335	-.0412	-.1146	-.0296	-.0296	-.0296	-.0296	3989.

ADLPIPE PAGE 1049 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.27.01.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.0270	-2440.	-4613.	1255.	-2476.	2425.	4598.	.719	.0483	-.0320	-.0782	.0849	-.0080	3881.
.0280	-1845.	-4347.	1397.	-3233.	3189.	5408.	.769	.0535	-.0349	-.0727	.0502	-.0001	4760.
.0290	-211.	-4050.	389.	-4148.	3154.	5882.	.0780	.0572	-.0362	-.0633	.0135	.0103	5296.
.0300	-1261.	-4400.	194.	-5261.	3094.	5120.	.0718	.0597	-.0351	-.0631	.0088	.0091	5370.
.0310	-1326.	-4383.	404.	-6170.	2846.	3686.	.0607	.0611	-.0309	-.0641	.0057	.0038	5189.
.0320	183.	-4213.	-340.	-6554.	1816.	2605.	.0468	.0606	-.0243	-.0606	-.0245	.0079	4909.
.0330	1487.	-4288.	-1295.	-6924.	604.	1619.	.0285	.0578	-.0148	-.0582	-.0537	.0092	4810.
.0340	1279.	-3972.	-1105.	-7334.	-38.	246.	.0053	.0533	-.0020	-.0596	-.0564	-.0054	4946.
.0350	1228.	-3663.	-592.	-7238.	-591.	-849.	-.0200	.0477	.0113	-.0586	-.0515	-.0207	4928.
.0360	2530.	-3892.	-891.	-6402.	-1070.	-1037.	-.0447	.0407	.0228	-.0513	-.0913	-.0240	4497.
.0370	3397.	-3666.	-1266.	-5385.	-2216.	-1061.	-.0695	.0319	.0335	-.0412	-.1146	-.0296	3989.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.01.

S/RV PIPING KEWAUNEE GKWCIF 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	23	MEMBER	1	SEQUENCE	40	LOCATION	END	TYPE	EL						
TIME	FX	FY	FZ	RX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0380	2500.	-2087.	-1158.	-4582.	-2212.	-1111.	-.0976	.0212	.0443	-.0293	-.1111	-.0467	3511.		
.0390	1457.	-52.	-1577.	-3651.	-2204.	-653.	-.1137	.0088	.0535	-.0114	-.1111	-.0573	2908.		
.0400	1458.	1126.	-2677.	-2264.	-2748.	45.	-.1286	-.0047	.0594	.0097	-.1227	-.0517	2400.		
.0410	1470.	2240.	-2767.	-567.	-3017.	-94.	-.1393	-.0181	.0634	.0283	-.1178	-.0463	2070.		
.0420	1015.	3446.	-1855.	1231.	-3024.	-966.	-.1452	-.0313	.0658	.0451	-.0935	-.0429	2295.		
.0430	966.	3755.	-1554.	2959.	-3460.	-1772.	-.1445	-.0450	.0653	.0631	-.0735	-.0283	3293.		
.0440	1379.	4151.	-1567.	4451.	-3926.	-2458.	-.1366	-.0588	.0626	.0841	-.0500	-.0077	4338.		
.0450	1455.	5233.	-886.	5628.	-3725.	-3341.	-.1230	-.0712	.0580	.1065	-.0422	.0070	5076.		
.0460	1296.	5333.	-25.	6599.	-3078.	-3967.	-.1054	-.0815	.0495	.1274	-.0290	.0196	5589.		
.0470	1628.	4219.	369.	7361.	-2492.	-4075.	-.0847	-.0891	.0370	.1477	-.0313	.0348	5915.		
.0480	1898.	3718.	754.	7581.	-1765.	-3999.	-.0628	-.0938	.0233	.1673	-.0356	.0419	5898.		
.0490	1180.	4026.	1086.	6994.	-682.	-3902.	-.0415	-.0958	.0099	.1812	-.0303	.0352	5418.		
.0500	260.	4131.	595.	5848.	261.	-3497.	-.0214	-.0951	-.0034	.1878	-.0295	.0242	4596.		
.0510	206.	4214.	-364.	4543.	745.	-2929.	-.0027	-.0912	-.0159	.1889	-.0393	.0127	3678.		
.0520	249.	4261.	-617.	3170.	1069.	-2698.	.0128	-.0835	-.0264	.1810	-.0398	-.0060	2897.		
.0530	-479.	3277.	-109.	1690.	1463.	-2704.	.0248	-.0732	-.0351	.1611	-.0234	-.0314	2365.		
.0540	-1011.	1635.	303.	208.	1817.	-2343.	.0356	-.0613	-.0430	.1379	-.0122	-.0539	2003.		
.0550	-607.	651.	324.	-1214.	2107.	-1386.	.0469	-.0486	-.0501	.1210	-.0174	-.0700	1886.		
.0560	-507.	10.	312.	-2694.	2509.	-142.	.0575	-.0360	-.0570	.1082	-.0195	-.0839	2483.		
.0570	-1549.	-1050.	446.	-4201.	3089.	1102.	.0659	-.0242	-.0643	.0955	-.0055	-.0967	3593.		
.0580	-2463.	-1786.	411.	-5449.	3606.	2365.	.0736	-.0138	-.0720	.0887	.0088	-.1026	4684.		
.0590	-2391.	-1643.	-146.	-6320.	3775.	3665.	.0813	-.0053	-.0794	.0914	.0126	-.0973	5543.		
.0600	-2476.	-1308.	-951.	-7001.	3674.	4719.	.0876	.0003	-.0852	.0973	.0226	-.0860	6206.		
.0610	-3356.	-1108.	-1367.	-7499.	3460.	5189.	.0910	.0029	-.0879	.1012	.0512	-.0750	6575.		
.0620	-3728.	-797.	-1241.	-7446.	3029.	5141.	.0922	.0029	-.0874	.1052	.0824	-.0617	6433.		
.0630	-2839.	-941.	-850.	-6624.	2250.	4869.	.0917	.0009	-.0846	.1099	.1012	-.0420	5745.		
.0640	-1867.	-1897.	-87.	-5304.	1419.	4426.	.0883	-.0031	-.0800	.1122	.1182	-.0223	4754.		
.0650	-1681.	-2658.	1124.	-3896.	898.	3817.	.0816	-.0090	-.0735	.1134	.1420	-.0114	3726.		
.0660	-1579.	-2458.	1963.	-2553.	538.	3379.	.0728	-.0168	-.0660	.1186	.1579	-.0065	2878.		
.0670	-1148.	-1655.	1689.	-1302.	38.	3326.	.0625	-.0264	-.0592	.1289	.1563	-.0023	2408.		
.0680	-1172.	-365.	855.	-251.	-462.	3239.	.0502	-.0370	-.0532	.1404	.1534	-.0041	2212.		
.0690	-1908.	1597.	192.	584.	-779.	2701.	.0362	-.0480	-.0470	.1501	.1598	-.0154	1935.		
.0700	-2396.	3612.	-558.	1423.	-1166.	1919.	.0229	-.0590	-.0407	.1579	.1617	-.0273	1792.		
.0710	-2128.	5032.	-1463.	2467.	-1715.	1109.	.0119	-.0698	-.0342	.1625	.1494	-.0332	2158.		
.0720	-1682.	5971.	-1657.	3715.	-2024.	13.	.0036	-.0794	-.0268	.1610	.1346	-.0381	2852.		
.0730	-1287.	6246.	-795.	5103.	-1948.	-1450.	-.0022	-.0871	-.0188	.1525	.1227	-.0435	3809.		
.0740	-426.	5422.	394.	6552.	-1007.	-2876.	-.0050	-.0924	-.0118	.1401	.1024	-.0422	4975.		
.0750	870.	4151.	1420.	7792.	-1653.	-4027.	-.0052	-.0950	-.0067	.1286	.0711	-.0345	6016.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.01.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.0650	-1681.	-2658.	1124.	-3696.	898.	3817.	8816	-.0090	-.0735	.1134	.1420	-.0114	3726.
.0660	-1579.	-2458.	1963.	-2553.	538.	3379.	.728	-.0168	-.0660	.1186	.1579	-.0065	2878.
.0670	-1148.	-1655.	1689.	-1302.	38.	3326.	.0625	-.0264	-.0592	.1289	.1563	-.0023	2408.
.0680	-1172.	-365.	855.	-251.	-462.	3239.	.0502	-.0370	-.0532	.1404	.1534	-.0041	2212.
.0690	-1908.	1597.	192.	584.	-779.	1701.	.0362	-.0480	-.0470	.1501	.1598	-.0154	1935.
.0700	-2396.	3612.	-558.	1423.	-1166.	1919.	.0229	-.0590	-.0407	.1579	.1517	-.0273	1792.
.0710	-2128.	5032.	-1463.	2467.	-1715.	1109.	.0119	-.0698	-.0342	.1625	.1494	-.0332	2158.
.0720	-1682.	5971.	-1657.	3715.	-2024.	13.	.0036	-.0794	-.0268	.1610	.1346	-.0381	2852.
.0730	-1287.	6246.	-795.	5103.	-1948.	-1450.	-.0022	-.0871	-.0188	.1525	.1227	-.0435	3809.
.0740	-426.	5422.	794.	6552.	-1007.	-2876.	-.0050	-.0924	-.0116	.1401	.1024	-.0422	4975.
.0750	870.	4151.	1420.	7792.	-1653.	-4027.	-.0052	-.0950	-.0067	.1286	.0711	-.0345	6016.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.01.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL							STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	(PSI)
.0760	1778.	3452.	2224.	8395.	-1271.	-5012.	-.0042	-.0946	-.0034	.1195	.0407	-.0279	6646.
.0770	1959.	3388.	2334.	8134.	-807.	-5757.	-.0035	-.0916	-.0020	.1125	.0154	-.0233	6739.
.0780	1826.	3775.	1347.	7119.	-588.	-6086.	-.0034	-.0861	-.0025	.1082	-.0107	-.0169	6317.
.0790	1604.	4747.	-207.	5595.	-545.	-6069.	-.0045	-.0779	-.0035	.1051	-.0361	-.0105	5576.
.0800	1206.	5769.	-1539.	3829.	-463.	-5984.	-.0073	-.0670	-.0035	.0984	-.0544	-.0068	4798.
.0810	866.	5778.	-2416.	2135.	-447.	-5738.	-.0117	-.0539	-.0018	.0849	-.0678	-.0028	4138.
.0820	940.	4696.	-2687.	759.	-569.	-5222.	-.0172	-.0390	.0021	.0656	-.0807	.0034	3577.
.0830	1309.	3077.	-2113.	-284.	-596.	-4494.	-.0235	-.0229	.0085	.0420	-.0912	.0082	3062.
.0840	1655.	880.	-995.	-1132.	-455.	-3532.	-.0306	-.0064	.0164	.0151	-.0975	.0110	2519.
.0850	1932.	-1746.	20.	-1917.	-360.	-2233.	-.0384	.0099	.0240	-.0117	-.1021	.0141	1999.
.0860	2069.	-3754.	664.	-2770.	-352.	-694.	-.0465	.0256	.0305	-.0336	-.1044	.0160	1939.
.0870	1798.	-4615.	798.	-3815.	-710.	902.	-.0546	.0400	.0354	-.0497	-.1011	.0145	2651.
.0880	1108.	-4799.	134.	-5054.	-325.	2510.	-.0621	.0525	.0382	-.0618	-.0942	.0119	3810.
.0890	332.	-4471.	-1125.	-6310.	-531.	4020.	-.0684	.0627	.0395	-.0703	-.0860	.0102	5056.
.0900	-317.	-3666.	-2185.	-7342.	-803.	5153.	-.0725	.0709	.0405	-.0766	-.0744	.0078	6070.
.0910	-738.	-3315.	-2533.	-7909.	-975.	5782.	-.0742	.0773	.0417	-.0853	-.0603	.0053	6637.
.0920	-649.	-4161.	-2174.	-7836.	-1061.	6035.	-.0730	.0818	.0427	-.0984	-.0502	.0057	6705.
.0930	25.	-5603.	-1152.	-7152.	-1062.	6010.	-.0689	.0846	.0438	-.1132	-.0466	.0076	6338.
.0940	763.	-6900.	328.	-6156.	-890.	5733.	-.0627	.0856	.0445	-.1274	-.0440	.0065	5702.
.0950	1070.	-7947.	1628.	-5184.	-558.	5335.	-.0554	.0845	.0438	-.1404	-.0401	.0013	5028.
.0960	1063.	-8253.	2166.	-4393.	-191.	4983.	-.0473	.0813	.0406	-.1484	-.0389	-.0068	4479.
.0970	899.	-7127.	1874.	-3797.	166.	4697.	-.0384	.0761	.0348	-.1482	-.0416	-.0184	4073.
.0980	264.	-4948.	965.	-3371.	571.	4405.	-.0292	.0689	.0269	-.1418	-.0425	-.0338	3759.
.0990	-947.	-2550.	-252.	-2960.	1076.	4067.	-.0196	.0595	.0175	-.1332	-.0393	-.0511	3467.
.1000	-2110.	-104.	-1330.	-2251.	1691.	3664.	-.0085	.0482	.0080	-.1226	-.0376	-.0664	3115.
.1010	-2639.	2110.	-1847.	-985.	2387.	3136.	.0050	.0353	-.0006	-.1106	-.0416	-.0765	2738.
.1020	-2654.	3245.	-1571.	852.	3113.	2363.	.0203	.0213	-.0078	-.1004	-.0472	-.0798	2696.
.1030	-2424.	3143.	-454.	3083.	3791.	1243.	.0361	.0066	-.0132	-.0934	-.0479	-.0774	3398.
.1040	-1847.	2595.	1198.	5440.	4302.	-177.	.0515	-.0080	-.0170	-.0860	-.0447	-.0705	4677.
.1050	-922.	2065.	2689.	7573.	4490.	-1692.	.0656	-.0218	-.0196	-.0759	-.0406	-.0589	6043.
.1060	-77.	1682.	3503.	9114.	4283.	-3138.	.0766	-.0342	-.0218	-.0632	-.0330	-.0443	7110.
.1070	327.	1893.	3653.	9866.	3781.	-4468.	.0833	-.0442	-.0233	-.0481	-.0175	-.0306	7732.
.1080	377.	2598.	3126.	9889.	2924.	-5621.	.0850	-.0510	-.0244	-.0325	.0054	-.0180	7917.
.1090	212.	3337.	1692.	9417.	1559.	-6611.	.0815	-.0544	-.0250	-.0200	.0365	-.0048	7826.
.1100	142.	5396.	879.	8643.	455.	-7050.	.0755	-.0537	-.0229	-.0074	.0639	.0052	7524.
.1110	93.	6474.	-88.	7717.	-517.	-6684.	.0677	-.0496	-.0190	-.0007	.0844	.0185	6890.
.1120	-100.	5369.	-685.	6832.	-1375.	-5742.	.0581	-.0420	-.0143	-.0033	.1035	.0352	6087.
.1130	-204.	4068.	-76.	6182.	-1852.	-4589.	.0478	-.0305	-.0081	-.0097	.1241	.0486	5338.

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

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

.1030	-2424.	3143.	-454.	3083.	3791.	1243.	.0361	.0066	-.0132	-.0934	-.0479	-.0774	3398.
.1040	-1847.	2595.	1198.	5440.	4302.	-177.	.0515	-.0080	-.0170	-.0860	-.0447	-.0705	4677.
.1050	-922.	2065.	2689.	7573.	4490.	-1692.	.0656	-.0218	-.0196	-.0759	-.0406	-.0589	6043.
.1060	-77.	1682.	3503.	9114.	4257.	-7138.	.0766	-.0342	-.0218	-.0632	-.0330	-.0443	7110.
.1070	327.	1893.	3657.	9866.	2781.	-4468.	.0833	-.0442	-.0233	-.0481	-.0175	-.0306	7732.
.1080	377.	2598.	3126.	9889.	2924.	-5621.	.0850	-.0510	-.0244	-.0325	.0054	-.0180	7917.
.1090	212.	3337.	1892.	9417.	1559.	-6611.	.0815	-.0544	-.0250	-.0200	.0365	-.0048	7826.
.1100	142.	5376.	879.	8643.	455.	-7050.	.0755	-.0537	-.0229	-.0074	.0539	.0052	7524.
.1110	93.	6474.	-88.	7717.	-517.	-6684.	.0677	-.0496	-.0190	-.0007	.0844	.0185	6890.
.1120	-100.	5369.	-615.	6832.	-1375.	-5742.	.0581	-.0420	-.0143	-.0033	.1035	.0352	6087.
.1130	-204.	4068.	-76.	6182.	-1852.	-4589.	.0478	-.0305	-.0081	-.0097	.1241	.0486	5338.

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

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

SECTION	23	MEMBER	1	SEQUENCE	40	LOCATION	END	TYPE	EL						
TIME	FX	FY	FZ	HX	HY	HZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1140	39.	2830.	1122.	5692.	-2071.	-3181.	.0382	-.0162	-.0012	-.0189	.1390	.0621	4612.		
.1150	330.	550.	1674.	5016.	-2322.	-1446.	.0296	-.0011	.0047	-.0336	.1460	.0810	3851.		
.1160	98.	-1338.	1688.	3920.	-2479.	282.	.0220	.0145	.0093	-.0490	.1548	.0976	3132.		
.1170	-590.	-1200.	1576.	2478.	-2473.	1835.	.0159	.0304	.0128	-.0577	.1655	.1065	2664.		
.1180	-1278.	-698.	1107.	884.	-2090.	3339.	.0122	.0458	.0141	-.0649	.1640	.1129	2721.		
.1190	-1383.	-1607.	-38.	-677.	-1872.	4881.	.0108	.0597	.0128	-.0740	.1429	.1253	3553.		
.1200	-1397.	-2613.	-711.	-2204.	-1663.	5843.	.0103	.0725	.0110	-.0828	.1207	.1320	4356.		
.1210	-1899.	-3094.	-451.	-3688.	-1043.	5777.	.0094	.0837	.0100	-.0941	.1090	.1240	4673.		
.1220	-1608.	-3659.	-526.	-4896.	-702.	5431.	.0093	.0922	.0100	-.1060	.0820	.1154	4951.		
.1230	-342.	-4605.	-1028.	-5716.	-642.	4900.	.0097	.0974	.0119	-.1222	.0370	.1087	5093.		
.1240	808.	-5184.	-917.	-6220.	-663.	3764.	.0078	.1003	.0163	-.1423	-.0009	.0929	4921.		
.1250	1209.	-5620.	-66.	-6465.	-594.	2050.	.0020	.1016	.0221	-.1652	-.0226	.0647	4589.		
.1260	1688.	-6520.	460.	-6375.	-472.	371.	-.0062	.1008	.0276	-.1888	-.0485	.0344	4316.		
.1270	3045.	-6862.	-19.	-5980.	-926.	-784.	-.0152	.0976	.0331	-.2056	-.0879	.0114	4113.		
.1280	3568.	-5751.	-517.	-5615.	-1329.	-1925.	-.0257	.0921	.0396	-.2181	-.1095	-.0158	4100.		
.1290	2638.	-3798.	-823.	-5312.	-1434.	-2974.	-.0374	.0847	.0461	-.2263	-.1062	-.0473	4216.		
.1300	1882.	-2178.	-1541.	-4635.	-1527.	-3316.	-.0470	.0758	.0506	-.2261	-.1068	-.0675	3976.		
.1310	2046.	-1039.	-2113.	-3287.	-1402.	-2975.	-.0523	.0662	.0533	-.2181	-.1196	-.0720	3134.		
.1320	2104.	-383.	-1696.	-1453.	-1066.	-2341.	-.0538	.0566	.0551	-.2057	-.1235	-.0659	1991.		
.1330	1043.	-688.	-293.	516.	-221.	-1754.	-.0527	.0469	.0558	-.1942	-.1060	-.0556	1242.		
.1340	309.	-1168.	934.	2534.	648.	-864.	-.0476	.0376	.0547	-.1764	-.0924	-.0343	1856.		
.1350	671.	-1044.	1504.	4450.	1205.	340.	-.0383	.0291	.0522	-.1501	-.0937	-.0009	3116.		
.1360	528.	-933.	2091.	5882.	1854.	1203.	-.0283	.0220	.0488	-.1269	-.0851	.0320	4235.		
.1370	-455.	-1078.	2772.	6708.	2398.	1642.	-.0193	.0170	.0447	-.1084	-.0626	.0602	4927.		
.1380	-1078.	-1049.	3112.	7072.	2820.	1906.	-.0113	.0149	.0396	-.0911	-.0488	.0847	5290.		
.1390	-629.	-675.	2707.	6980.	2903.	2259.	-.0042	.0155	.0342	-.0736	-.0570	.1073	5318.		
.1400	-358.	-503.	2041.	6166.	2838.	2404.	.0000	.0181	.0300	-.0630	-.0676	.1200	4854.		
.1410	-988.	-668.	1703.	4629.	2965.	1980.	-.0003	.0225	.0276	-.0634	-.0670	.1158	3938.		
.1420	-919.	-617.	1207.	2821.	2687.	1410.	-.0036	.0287	.0264	-.0655	-.0769	.1043	2793.		
.1430	136.	-782.	360.	997.	2039.	770.	-.0092	.0360	.0260	-.0699	-.1017	.0900	1615.		
.1440	969.	-1353.	-437.	-940.	1238.	-160.	-.0176	.0430	.0269	-.0804	-.1206	.0696	1053.		
.1450	1077.	-1653.	-908.	-2988.	446.	-1403.	-.0281	.0491	.0295	-.0941	-.1234	.0417	2246.		
.1460	1288.	-1528.	-1453.	-4850.	-313.	-2585.	-.0382	.0536	.0326	-.1048	-.1250	.0142	3704.		
.1470	2248.	-1500.	-2420.	-6231.	-1364.	-3203.	-.0462	.0563	.0348	-.1080	-.1356	-.0027	4811.		
.1480	2832.	-1863.	-2860.	-7143.	-2124.	-3651.	-.0526	.0570	.0364	-.1083	-.1357	-.0153	5593.		
.1490	2721.	-2363.	-2425.	-7584.	-2500.	-3955.	-.0568	.0558	.0372	-.1050	-.1182	-.0245	6007.		
.1500	2721.	-2954.	-1856.	-7475.	-2771.	-3717.	-.0576	.0528	.0365	-.0937	-.0992	-.0232	5929.		
.1510	2898.	-3565.	-1516.	-6878.	-2794.	-2695.	-.0546	.0479	.0336	-.0751	-.0843	-.0113	5371.		

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.1400	-358.	-503.	441.	6166.	2030.	2404.	-.0000	.0111	.0300	-.0630	-.0576	.1200	4854.
.1410	-988.	-668.	1703.	4629.	2965.	1980.	-.0003	.0225	.0276	-.0634	-.0670	.1158	3938.
.1420	-919.	-617.	1207.	2821.	2687.	1410.	-.0036	.0287	.0264	-.0655	-.0769	.1043	2793.
.1430	136.	-782.	360.	997.	2039.	770.	-.0092	.0760	.0260	-.0699	-.1017	.0900	1615.
.1440	969.	-1353.	-437.	-940.	1230.	-160.	-.0176	.0430	.0269	-.0804	-.1206	.0696	1053.
.1450	1077.	-1653.	-901.	-2988.	446.	-1403.	-.0281	.0491	.0295	-.0941	-.1234	.0417	2246.
.1460	1288.	-1528.	-1457.	-4850.	-317.	-2565.	-.0382	.0536	.0326	-.1048	-.1250	.0142	3704.
.1470	2248.	-1500.	-2420.	-6231.	-1364.	-3203.	-.0462	.0563	.0348	-.1080	-.1356	-.0027	4811.
.1480	2832.	-1863.	-2860.	-7143.	-2124.	-3651.	-.0526	.0570	.0364	-.1083	-.1357	-.0153	5593.
.1490	2721.	-2363.	-2425.	-7584.	-2500.	-3955.	-.0568	.0558	.0372	-.1050	-.1182	-.0245	6007.
.1500	2721.	-2954.	-1856.	-7475.	-2771.	-3717.	-.0576	.0528	.0365	-.0937	-.0992	-.0232	5929.
.1510	2898.	-3565.	-1516.	-6878.	-2794.	-2895.	-.0546	.0479	.0336	-.0751	-.0843	-.0113	5371.

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

SECTION	23	MEMBER	1	SEQUENCE	40	LOCATION	END	TYPE	EL						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1520	2762.	-3656.	-1206.	-5972.	-2680.	-1746.	-.0488	.0414	.0293	-.0505	-.0637	.0070	4566.		
.1530	1900.	-3199.	-645.	-4898.	-2312.	-676.	-.0415	.0337	.0242	-.0248	-.0293	.0259	3679.		
.1540	1051.	-2543.	-336.	-3644.	-2095.	365.	-.0328	.0251	.0179	.0024	.0069	.0493	2844.		
.1550	572.	-1714.	-417.	-2275.	-2101.	1314.	-.0230	.0159	.0107	.0310	.0384	.0755	2268.		
.1560	-90.	-632.	-391.	-969.	-1929.	1836.	-.0129	.0063	.0034	.0568	.0724	.0964	1910.		
.1570	-765.	530.	-324.	233.	-1916.	2029.	-.0028	-.0035	-.0032	.0796	.1056	.1129	1888.		
.1580	-1223.	1403.	-181.	1366.	-1908.	1909.	.0074	-.0134	-.0092	.0972	.1320	.1243	2039.		
.1590	-1325.	1951.	136.	2482.	-1708.	1495.	.0175	-.0229	-.0147	.1095	.1468	.1288	2267.		
.1600	-1058.	2284.	486.	3548.	-1533.	919.	.0272	-.0316	-.0199	.1186	.1491	.1273	2678.		
.1610	-781.	2473.	821.	4348.	-1392.	107.	.0356	-.0397	-.0246	.1233	.1460	.1176	3078.		
.1620	-823.	2599.	1081.	4734.	-1051.	-1034.	.0423	-.0472	-.0287	.1215	.1428	.0977	3342.		
.1630	-645.	3185.	887.	4819.	-888.	-2096.	.0480	-.0537	-.0323	.1193	.1304	.0737	3593.		
.1640	-343.	4041.	414.	4692.	-760.	-3021.	.0527	-.0590	-.0355	.1162	.1106	.0466	3796.		
.1650	-323.	4514.	69.	4397.	-406.	-3913.	.0560	-.0627	-.0381	.1082	.0917	.0162	3977.		
.1660	-363.	4533.	-89.	4084.	-49.	-4555.	.0583	-.0645	-.0401	.0976	.0722	-.0125	4124.		
.1670	-333.	4311.	56.	3845.	494.	-4869.	.0603	-.0642	-.0412	.0856	.0498	-.0377	4195.		
.1680	-28.	3876.	318.	3623.	1070.	-4768.	.0622	-.0618	-.0416	.0743	.0233	-.0561	4100.		
.1690	122.	2915.	667.	3273.	1744.	-4425.	.0631	-.0575	-.0413	.0620	.0006	-.0685	3892.		
.1700	3.	1836.	1036.	2774.	2333.	-3892.	.0626	-.0512	-.0408	.0511	-.0148	-.0745	3585.		
.1710	18.	1312.	1214.	2130.	2528.	-3115.	.0608	-.0432	-.0397	.0458	-.0270	-.0720	3061.		
.1720	-110.	884.	1170.	1232.	2704.	-2357.	.0573	-.0343	-.0384	.0417	-.0322	-.0641	2556.		
.1730	-299.	391.	639.	109.	2559.	-1520.	.0520	-.0248	-.0371	.0404	-.0326	-.0492	2008.		
.1740	-633.	325.	-56.	-1098.	2167.	-671.	.0448	-.0151	-.0350	.0430	-.0268	-.0308	1699.		
.1750	-1005.	663.	-584.	-2225.	1763.	104.	.0362	-.0057	-.0317	.0472	-.0169	-.0115	1915.		
.1760	-1035.	599.	-1105.	-3131.	1191.	940.	.0265	.0026	-.0271	.0509	-.0100	.0111	2345.		
.1770	-980.	-175.	-1359.	-3751.	705.	1709.	.0155	.0097	-.0214	.0516	-.0040	.0323	2818.		
.1780	-782.	-914.	-1160.	-4057.	196.	2402.	.0032	.0156	-.0141	.0527	.0013	.0486	3181.		
.1790	-534.	-1697.	-602.	-4124.	-168.	2953.	-.0102	.0201	-.0054	.0513	.0052	.0580	3421.		
.1800	-195.	-2890.	-143.	-4030.	-443.	3443.	-.0245	.0228	.0038	.0457	.0030	.0619	3585.		
.1810	329.	-3769.	42.	-3852.	-907.	3935.	-.0393	.0240	.0132	.0399	-.0059	.0605	3762.		
.1820	515.	-3913.	287.	-3766.	-1183.	4104.	-.0547	.0243	.0225	.0332	-.0126	.0477	3838.		
.1830	527.	-3827.	265.	-3878.	-1437.	4038.	-.0700	.0226	.0307	.0254	-.0201	.0280	3878.		
.1840	637.	-3838.	-189.	-4002.	-1734.	3854.	-.0876	.0219	.0371	.0170	-.0336	.0064	3923.		
.1850	844.	-3358.	-695.	-4190.	-1972.	3480.	-.0945	.0196	.0419	.0103	-.0505	-.0167	3904.		
.1860	1012.	-2481.	-1047.	-4392.	-2155.	2883.	-.1020	.0169	.0451	.0060	-.0562	-.0401	3827.		
.1870	558.	-2098.	-1275.	-4573.	-2068.	2047.	-.1055	.0135	.0458	.0011	-.0793	-.0611	3654.		
.1880	1197.	-1951.	-1520.	-4576.	-1967.	1194.	-.1041	.0095	.0442	-.0006	-.0962	-.0742	3453.		
.1890	1680.	-1478.	-1535.	-4361.	-1778.	266.	-.0978	.0051	.0407	.0022	-.1130	-.0804	3180.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.01.

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

.1790	-534.	-1697.	-602.	-4124.	-168.	2953.	-0102	.0201	-.0054	.0513	.0052	.0580	3421.
.1800	-195.	-2890.	-143.	-4030.	-443.	3443.	-.0245	.0228	.0038	.0457	.0030	.0619	3585.
.1810	329.	-3769.	42.	-3852.	-907.	3935.	-.0393	.0240	.0132	.0399	-.0059	.0605	3762.
.1820	515.	-3913.	267.	-3766.	-1123.	4104.	-.0547	.0243	.0225	.0332	-.0126	.0477	3838.
.1830	527.	-3937.	260.	-3878.	-1437.	4038.	-.0700	.0226	.0307	.0254	-.0201	.0280	3878.
.1840	637.	-3838.	-189.	-4002.	-1734.	3854.	-.0826	.0219	.0371	.0170	-.0336	.0064	3923.
.1850	844.	-3358.	-695.	-4190.	-1972.	3480.	-.0945	.0196	.0419	.0103	-.0505	-.0167	3904.
.1860	1012.	-2481.	-1047.	-4392.	-2155.	2883.	-.1020	.0169	.0451	.0060	-.0562	-.0401	3827.
.1870	958.	-2098.	-1275.	-4573.	-2062.	2047.	-.1055	.0135	.0458	.0011	-.0793	-.0611	3654.
.1880	1197.	-1951.	-1520.	-4576.	-1967.	1194.	-.1041	.0095	.0442	-.0006	-.0962	-.0742	3453.
.1890	1680.	-1478.	-1535.	-4361.	-1778.	268.	-.0978	.0051	.0407	.0022	-.1130	-.0804	3180.

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DIC/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.01.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	PX	RY	RZ	STRESS
TIME (SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(PSI)			
.1900	1938.	-1053.	-1237.	-4027.	-1423.	-795.	-.0878	.0001	.0353	.0071	-.1222	-.0813	2929.						
.1910	1998.	-885.	-1287.	-3608.	-1157.	-1804.	-.0750	-.0058	.0280	.0148	-.1247	-.0751	2828.						
.1920	2006.	-292.	-1317.	-3080.	-894.	-2704.	-.0601	-.0123	.0195	.0269	-.1220	-.0644	2827.						
.1930	2036.	798.	-1377.	-2446.	-659.	-3409.	-.0441	-.0193	.0107	.0433	-.1149	-.0507	2863.						
.1940	1842.	1626.	-1483.	-1740.	-462.	-3857.	-.0285	-.0268	.0018	.0602	-.1010	-.0354	2869.						
.1950	1387.	2108.	-1456.	-931.	-241.	-4035.	-.0144	-.0345	-.0065	.0762	-.0803	-.0213	2796.						
.1960	973.	2720.	-1159.	47.	20.	-3893.	-.0021	-.0418	-.0136	.0928	-.0575	-.0103	2624.						
.1970	686.	3175.	-761.	1148.	268.	-3387.	.0081	-.0486	-.0193	.1079	-.0358	-.0018	2418.						
.1980	283.	3120.	-364.	2225.	496.	-2611.	.0156	-.0551	-.0236	.1190	-.0131	.0030	2337.						
.1990	-281.	3048.	143.	3177.	720.	-1731.	.0204	-.0606	-.0263	.1268	.0123	.0019	2486.						
.2000	-768.	3225.	668.	3972.	867.	-821.	.0230	-.0648	-.0278	.1330	.0368	-.0041	2795.						
.2010	-1102.	3187.	958.	4550.	869.	73.	.0242	-.0677	-.0289	.1361	.0575	-.0117	3123.						
.2020	-1452.	2924.	1069.	4874.	785.	816.	.0245	-.0691	-.0299	.1355	.0767	-.0207	3347.						
.2030	-1846.	2942.	1172.	4801.	692.	1315.	.0248	-.0690	-.0309	.1333	.0953	-.0316	3388.						
.2040	-2094.	3114.	1143.	4485.	573.	1639.	.0262	-.0673	-.0325	.1309	.1088	-.0414	3242.						
.2050	-2123.	2963.	888.	3926.	439.	1830.	.0292	-.0644	-.0352	.1274	.1150	-.0474	2936.						
.2060	-2056.	2627.	662.	3176.	374.	1836.	.0339	-.0603	-.0387	.1233	.1172	-.0507	2485.						
.2070	-1961.	2358.	623.	2308.	406.	1628.	.0399	-.0551	-.0428	.1193	.1174	-.0526	1923.						
.2080	-1768.	1945.	550.	1384.	487.	1345.	.0469	-.0493	-.0474	.1151	.1135	-.0517	1338.						
.2090	-1473.	1381.	317.	446.	536.	1074.	.0542	-.0433	-.0520	.1105	.1048	-.0483	863.						
.2100	-1216.	1046.	91.	-462.	650.	796.	.0608	-.0374	-.0559	.1055	.0952	-.0454	759.						
.2110	-1081.	912.	-51.	-1271.	783.	528.	.0657	-.0317	-.0585	.0995	.0867	-.0444	1067.						
.2120	-984.	632.	-202.	-1903.	880.	356.	.0681	-.0265	-.0597	.0914	.0780	-.0445	1434.						
.2130	-847.	280.	-326.	-2314.	941.	324.	.0676	-.0220	-.0592	.0821	.0683	-.0463	1698.						
.2140	-753.	105.	-314.	-2517.	993.	424.	.0641	-.0181	-.0568	.0724	.0595	-.0510	1846.						
.2150	-758.	-22.	-212.	-2553.	1035.	654.	.0577	-.0152	-.0524	.0624	.0528	-.0580	1908.						
.2160	-900.	-228.	-132.	-2476.	1048.	1010.	.0489	-.0133	-.0467	.0525	.0466	-.0655	1913.						
.2170	-948.	-308.	-65.	-2163.	1024.	1436.	.0386	-.0124	-.0401	.0446	.0399	-.0723	1881.						
.2180	-988.	-200.	14.	-1772.	954.	1836.	.0275	-.0123	-.0330	.0391	.0344	-.0775	1837.						
.2190	-1101.	-85.	57.	-1336.	829.	2126.	.0163	-.0132	-.0260	.0356	.0312	-.0798	1782.						
.2200	-1201.	64.	33.	-899.	651.	2257.	.0061	-.0148	-.0192	.0344	.0295	-.0779	1693.						
.2210	-1157.	372.	-32.	-479.	421.	2212.	-.0024	-.0170	-.0131	.0364	.0272	-.0711	1545.						
.2220	-994.	666.	-80.	35.	157.	1976.	-.0088	-.0194	-.0078	.0405	.0247	-.0595	1336.						
.2230	-790.	733.	-35.	475.	-92.	1539.	-.0133	-.0217	-.0033	.0450	.0227	-.0439	1089.						
.2240	-517.	651.	130.	916.	-288.	957.	-.0158	-.0236	-.0003	.0493	.0200	-.0256	913.						
.2250	-119.	554.	351.	1307.	-424.	340.	-.0167	-.0247	.0021	.0536	.0142	-.0060	954.						
.2260	250.	476.	424.	1594.	-490.	-222.	-.0167	-.0251	.0052	.0569	.0051	.0131	1135.						
.2270	575.	381.	508.	1710.	-476.	-727.	-.0166	-.0245	.0068	.0583	-.0056	.0291	1295.						

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ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.01.

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

CONDITION 24
LOADS
SHOCK
PRESSURE

.2170	-948.	-308.	-75.	-2163.	1024.	1436.	.0386	-.0124	-.0401	.0446	.0399	-.0723	1881.
.2180	-988.	-200.	14.	-1772.	954.	1836.	.0271	-.0123	-.0330	.0391	.0344	-.0775	1837.
.2190	-1101.	-85.	57.	-1376.	829.	2126.	.0163	-.0132	-.0260	.0356	.0312	-.0798	1782.
.2200	-1201.	64.	33.	-856.	651.	2257.	.0061	-.0148	-.0192	.0344	.0295	-.0779	1693.
.2210	-1157.	372.	-22.	-429.	421.	2212.	-.0024	-.0170	-.0131	.0364	.0272	-.0711	1545.
.2220	-994.	666.	-80.	35.	157.	1976.	-.0088	-.0194	-.0078	.0405	.0247	-.0595	1336.
.2230	-790.	733.	-35.	485.	-92.	1539.	-.0133	-.0217	-.0033	.0450	.0227	-.0439	1089.
.2240	-513.	651.	138.	916.	-268.	957.	-.0158	-.0236	.0003	.0493	.0200	-.0256	913.
.2250	-119.	554.	351.	1307.	-424.	340.	-.0167	-.0247	.0031	.0536	.0142	-.0060	954.
.2260	290.	476.	466.	1594.	-490.	-228.	-.0167	-.0251	.0052	.0569	.0051	.0131	1135.
.2270	575.	361.	506.	1713.	-476.	-727.	-.0166	-.0245	.0068	.0583	-.0056	.0291	1295.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.01.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL										STRESS						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	HX (FT-LB)	HY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)										(PSI)
.2280	724.	466.	404.	1053.	-415.	-1136.	-.0173	-.0230	.0082	.0575	-.0172	.0403										1380.
.2290	800.	720.	149.	1444.	-350.	-1425.	-.0190	-.0206	.0097	.0543	-.0305	.0463										1388.
.2300	823.	985.	-234.	1125.	-290.	-1603.	-.0222	-.0173	.0114	.0480	-.0450	.0468										1335.
.2310	792.	1222.	-628.	742.	-231.	-1706.	-.0267	-.0135	.0138	.0383	-.0594	.0419										1264.
.2320	753.	1394.	-924.	358.	-186.	-1750.	-.0323	-.0093	.0171	.0255	-.0730	.0325										1211.
.2330	781.	1361.	-1074.	32.	-165.	-1741.	-.0384	-.0049	.0211	.0101	-.0858	.0202										1179.
.2340	906.	1035.	-1055.	-212.	-158.	-1697.	-.0447	-.0003	.0256	-.0072	-.0975	.0066										1158.
.2350	1100.	504.	-870.	-382.	-172.	-1634.	-.0505	.0043	.0302	-.0249	-.1068	-.0070										1137.
.2360	1297.	-93.	-597.	-522.	-222.	-1543.	-.0555	.0088	.0344	-.0415	-.1125	-.0195										1108.
.2370	1439.	-653.	-370.	-681.	-302.	-1403.	-.0591	.0130	.0377	-.0561	-.1142	-.0296										1071.
.2380	1495.	-1068.	-282.	-683.	-400.	-1195.	-.0610	.0170	.0399	-.0676	-.1120	-.0365										1037.
.2390	1450.	-1261.	-335.	-1110.	-512.	-919.	-.0609	.0206	.0406	-.0756	-.1058	-.0395										1030.
.2400	1299.	-1290.	-457.	-1323.	-616.	-590.	-.0586	.0241	.0400	-.0806	-.0954	-.0385										1061.
.2410	1081.	-1294.	-568.	-1473.	-684.	-225.	-.0542	.0274	.0382	-.0836	-.0815	-.0334										1105.
.2420	366.	-1351.	-599.	-1515.	-705.	170.	-.0478	.0305	.0354	-.0853	-.0656	-.0246										1132.
.2430	684.	-1476.	-494.	-1425.	-677.	579.	-.0395	.0334	.0320	-.0862	-.0484	-.0130										1133.
.2440	515.	-1696.	-236.	-1220.	-589.	971.	-.0300	.0361	.0282	-.0870	-.0304	.0001										1123.
.2450	353.	-2005.	121.	-935.	-449.	1329.	-.0197	.0386	.0241	-.0882	-.0125	.0136										1136.
.2460	214.	-2294.	479.	-618.	-290.	1651.	-.0091	.0408	.0199	-.0895	.0042	.0264										1204.
.2470	56.	-2431.	757.	-328.	-132.	1922.	.0012	.0427	.0154	-.0906	.0193	.0369										1317.
.2480	-183.	-2376.	897.	-116.	33.	2117.	.0108	.0440	.0110	-.0915	.0329	.0442										1429.
.2490	-488.	-2137.	861.	15.	201.	2234.	.0194	.0447	.0065	-.0925	.0442	.0480										1512.
.2500	-777.	-1721.	682.	105.	354.	2278.	.0271	.0447	.0024	-.0935	.0521	.0487										1555.
.2510	-1021.	-1230.	479.	205.	503.	2223.	.0339	.0441	-.0013	-.0948	.0569	.0465										1542.
.2520	-1219.	-845.	373.	365.	675.	2043.	.0397	.0429	-.0042	-.0974	.0594	.0419										1471.
.2530	-1311.	-656.	119.	623.	865.	1751.	.0449	.0412	-.0063	-.1013	.0593	.0361										1384.
.2540	-1235.	-620.	614.	1024.	1057.	1379.	.0494	.0392	-.0076	-.1059	.0559	.0303										1359.
.2550	-1046.	-696.	914.	1489.	1241.	941.	.0533	.0370	-.0081	-.1110	.0506	.0249										1452.
.2560	-850.	-830.	1238.	1952.	1403.	453.	.0564	.0346	-.0080	-.1160	.0451	.0204										1649.
.2570	-669.	-882.	1491.	2353.	1512.	-46.	.0586	.0325	-.0076	-.1200	.0397	.0173										1885.
.2580	-489.	-768.	1521.	2649.	1544.	-515.	.0597	.0306	-.0071	-.1221	.0342	.0162										2096.
.2590	-792.	-523.	1471.	2811.	1495.	-937.	.0597	.0291	-.0064	-.1225	.0295	.0175										2237.
.2600	-298.	-170.	1207.	2878.	1366.	-1303.	.0585	.0281	-.0055	-.1214	.0265	.0208										2298.
.2610	-285.	269.	873.	2774.	1164.	-1600.	.0559	.0277	-.0039	-.1193	.0250	.0262										2297.
.2620	-231.	652.	551.	2686.	907.	-1813.	.0520	.0279	-.0016	-.1170	.0240	.0336										2268.
.2630	-104.	813.	326.	2634.	615.	-1942.	.0469	.0287	.0016	-.1157	.0231	.0428										2244.
.2640	77.	776.	176.	2651.	305.	-1994.	.0404	.0302	.0060	-.1159	.0225	.0527										2246.
.2650	290.	473.	394.	2717.	6.	-1966.	.0326	.0323	.0114	-.1170	.0221	.0621										2266.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.01.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

.2550	-1044.	-696.	14.	1489.	1241.	941.	.0523	.0370	-.0081	-.1110	.0506	.0249	1452.
.2560	-850.	-830.	1238.	1952.	1403.	453.	.0564	.0346	-.0080	-.1160	.0451	.0204	1649.
.2570	-669.	-882.	1491.	2353.	1512.	-46.	.0586	.0325	-.0076	-.1200	.0397	.0173	1885.
.2580	-485.	-768.	1781.	2649.	1544.	-515.	.0597	.0306	-.0071	-.1221	.0342	.0162	2096.
.2590	-352.	-523.	1471.	2811.	1495.	-937.	.0597	.0291	-.0064	-.1225	.0295	.0175	2237.
.2600	-293.	-170.	1207.	2870.	1260.	-1303.	.0585	.0281	-.0055	-.1214	.0265	.0208	2298.
.2610	-280.	269.	877.	2774.	1164.	-1600.	.0559	.0277	-.0039	-.1193	.0250	.0262	2297.
.2620	-231.	652.	551.	2686.	907.	-1813.	.0520	.0275	-.0016	-.1170	.0240	.0376	2268.
.2630	-104.	813.	326.	2634.	615.	-1942.	.0469	.0287	.0016	-.1157	.0231	.0428	2244.
.2640	77.	776.	276.	2651.	305.	-1994.	.0404	.0302	.0060	-.1159	.0225	.0527	2246.
.2650	290.	473.	294.	2727.	-6.	-1966.	.0326	.0322	.0114	-.1178	.0221	.0621	2266.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.01.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL								
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	PX (DEG)	PY (DEG)	PZ (DEG)	STRESS (PSI)	
.2660	512.	106.	574.	2813.	-311.	-1038.	.0235	.0348	.0177	-.1214	.0213	.0705	2275.	
.2670	704.	-296.	700.	2856.	-607.	-1596.	.0133	.0378	.0244	-.1263	.0193	.0769	2243.	
.2680	816.	-592.	752.	2807.	-881.	-1256.	.0022	.0412	.0314	-.1319	.0164	.0805	2156.	
.2690	829.	-760.	690.	2638.	-1118.	-846.	-.0093	.0449	.0381	-.1379	.0126	.0809	2013.	
.2700	769.	-878.	514.	2347.	-1308.	-391.	-.0208	.0487	.0443	-.1442	.0073	.0786	1830.	
.2710	683.	-973.	274.	1961.	-1439.	75.	-.0315	.0527	.0497	-.1507	-.0001	.0740	1641.	
.2720	696.	-1064.	59.	1516.	-1490.	499.	-.0408	.0566	.0544	-.1572	-.0094	.0679	1472.	
.2730	578.	-1251.	-79.	1049.	-1455.	829.	-.0482	.0605	.0582	-.1637	-.0206	.0612	1332.	
.2740	634.	-1602.	-128.	588.	-1362.	1025.	-.0533	.0641	.0608	-.1702	-.0333	.0549	1215.	
.2750	774.	-2040.	-88.	143.	-1227.	1057.	-.0559	.0673	.0623	-.1761	-.0467	.0496	1096.	
.2760	958.	-2467.	4.	-300.	-1061.	919.	-.0562	.0702	.0625	-.1807	-.0598	.0454	968.	
.2770	1153.	-2847.	65.	-755.	-886.	645.	-.0542	.0724	.0615	-.1838	-.0721	.0429	897.	
.2780	1335.	-3123.	50.	-1218.	-715.	286.	-.0504	.0739	.0594	-.1848	-.0832	.0419	971.	
.2790	1475.	-3231.	-30.	-1660.	-543.	-110.	-.0451	.0747	.0561	-.1835	-.0924	.0421	1186.	
.2800	1538.	-3209.	-151.	-2079.	-361.	-487.	-.0390	.0749	.0520	-.1798	-.0992	.0431	1460.	
.2810	1526.	-3127.	-291.	-2406.	-169.	-787.	-.0324	.0742	.0474	-.1744	-.1035	.0448	1710.	
.2820	1468.	-2989.	-398.	-2605.	34.	-973.	-.0258	.0728	.0427	-.1674	-.1056	.0469	1875.	
.2830	1373.	-2820.	-428.	-2648.	245.	-1033.	-.0197	.0706	.0382	-.1594	-.1051	.0488	1923.	
.2840	1232.	-2686.	-380.	-2528.	445.	-973.	-.0142	.0677	.0341	-.1506	-.1016	.0505	1850.	
.2850	1049.	-2581.	-258.	-2254.	615.	-808.	-.0098	.0640	.0305	-.1414	-.0951	.0515	1666.	
.2860	847.	-2441.	-70.	-1850.	746.	-563.	-.0064	.0597	.0276	-.1318	-.0859	.0518	1397.	
.2870	636.	-2273.	145.	-1354.	831.	-267.	-.0040	.0548	.0251	-.1218	-.0746	.0514	1086.	
.2880	411.	-2095.	332.	-821.	866.	57.	-.0024	.0494	.0230	-.1112	-.0618	.0504	805.	
.2890	175.	-1855.	475.	-298.	854.	378.	-.0014	.0436	.0209	-.0997	-.0482	.0487	660.	
.2900	-52.	-1527.	571.	172.	806.	653.	-.0008	.0374	.0189	-.0872	-.0344	.0466	709.	
.2910	-241.	-1184.	604.	562.	724.	860.	-.0003	.0314	.0166	-.0739	-.0215	.0443	847.	
.2920	-370.	-863.	573.	255.	603.	964.	.0004	.0252	.0141	-.0601	-.0098	.0423	959.	
.2930	-432.	-533.	509.	1045.	447.	933.	.0013	.0190	.0113	-.0456	.0006	.0401	991.	
.2940	-426.	-214.	430.	1133.	258.	755.	.0026	.0131	.0083	-.0311	.0097	.0379	934.	
.2950	-353.	38.	333.	1130.	40.	447.	.0042	.0074	.0053	-.0172	.0175	.0356	819.	
.2960	-216.	234.	232.	1057.	-196.	39.	.0060	.0019	.0021	-.0040	.0238	.0333	725.	
.2970	-43.	411.	153.	976.	-426.	-427.	.0080	-.0032	-.0010	.0084	.0289	.0304	751.	
.2980	124.	545.	93.	783.	-629.	-891.	.0099	-.0078	-.0042	.0199	.0331	.0268	905.	
.2990	264.	628.	35.	610.	-786.	-1290.	.0118	-.0121	-.0073	.0304	.0361	.0226	1098.	
.3000	753.	726.	-29.	429.	-882.	-1576.	.0135	-.0159	-.0105	.0403	.0382	.0179	1251.	
.3010	372.	876.	-108.	248.	-912.	-1723.	.0151	-.0195	-.0136	.0501	.0396	.0127	1325.	
.3020	307.	1046.	-207.	79.	-884.	-1736.	.0164	-.0227	-.0166	.0596	.0408	.0074	1314.	
.3030	178.	1226.	-316.	-65.	-815.	-1640.	.0175	-.0257	-.0197	.0690	.0422	.0027	1235.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.02.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS