

50-305

RESPONSE TO NUREG-0737 ITEM II.D.1

Docket # *50-305*

Control # *8403280048*

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

.3010	0.	0.	0.	0.	0.	0.	0.	-.0319	.0126	-.0068	-.0756	.0249	.0214	0.
.3020	0.	0.	0.	0.	0.	0.	0.	-.0362	.0157	-.0044	-.0821	.0220	.0173	0.
.3030	0.	0.	0.	0.	0.	0.	0.	-.0396	.0187	-.0019	-.0907	.0187	.0152	0.
.3040	0.	0.	0.	0.	0.	0.	0.	-.0425	.0216	.0007	-.0990	.0146	.0150	0.
.3050	0.	0.	0.	0.	0.	0.	0.	-.0449	.0242	.0030	-.1064	.0094	.0161	0.
.3060	0.	0.	0.	0.	0.	0.	0.	-.0468	.0266	.0050	-.1125	.0031	.0183	0.
.3070	0.	0.	0.	0.	0.	0.	0.	-.0482	.0285	.0065	-.1166	-.0043	.0216	0.
.3080	0.	0.	0.	0.	0.	0.	0.	-.0492	.0301	.0073	-.1187	-.0124	.0260	0.
.3090	0.	0.	0.	0.	0.	0.	0.	-.0497	.0312	.0078	-.1194	-.0206	.0315	0.
.3100	0.	0.	0.	0.	0.	0.	0.	-.0499	.0320	.0082	-.1193	-.0277	.0378	0.
.3110	0.	0.	0.	0.	0.	0.	0.	-.0497	.0325	.0084	-.1184	-.0330	.0450	0.

ADLPIPE PAGE 2731

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.52.

S/RV PIPING KEWAUNEE CKNODE 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	GO	MEMBER	1	SEQUENCE	102	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3120	0.	0.	0.	0.	0.	0.	0.	-.0489	.0326	.0084	-.1166	-.0365	.0531	0.	
.3130	0.	0.	0.	0.	0.	0.	0.	-.0478	.0325	.0080	-.1136	-.0385	.0616	0.	
.3140	0.	0.	0.	0.	0.	0.	0.	-.0465	.0321	.0074	-.1094	-.0389	.0700	0.	
.3150	0.	0.	0.	0.	0.	0.	0.	-.0453	.0316	.0063	-.1040	-.0379	.0775	0.	
.3160	0.	0.	0.	0.	0.	0.	0.	-.0441	.0310	.0049	-.0971	-.0359	.0842	0.	
.3170	0.	0.	0.	0.	0.	0.	0.	-.0429	.0304	.0029	-.0889	-.0331	.0901	0.	
.3180	0.	0.	0.	0.	0.	0.	0.	-.0417	.0297	.0007	-.0799	-.0292	.0951	0.	
.3190	0.	0.	0.	0.	0.	0.	0.	-.0405	.0291	-.0016	-.0709	-.0238	.0990	0.	
.3200	0.	0.	0.	0.	0.	0.	0.	-.0393	.0286	-.0037	-.0624	-.0170	.1019	0.	
.3210	0.	0.	0.	0.	0.	0.	0.	-.0382	.0280	-.0057	-.0544	-.0092	.1040	0.	
.3220	0.	0.	0.	0.	0.	0.	0.	-.0370	.0275	-.0075	-.0471	-.0007	.1052	0.	
.3230	0.	0.	0.	0.	0.	0.	0.	-.0357	.0269	-.0093	-.0405	.0081	.1056	0.	
.3240	0.	0.	0.	0.	0.	0.	0.	-.0344	.0261	-.0109	-.0346	.0164	.1049	0.	
.3250	0.	0.	0.	0.	0.	0.	0.	-.0333	.0252	-.0122	-.0296	.0238	.1033	0.	
.3260	0.	0.	0.	0.	0.	0.	0.	-.0321	.0240	-.0134	-.0255	.0302	.1008	0.	
.3270	0.	0.	0.	0.	0.	0.	0.	-.0307	.0224	-.0144	-.0225	.0356	.0979	0.	
.3280	0.	0.	0.	0.	0.	0.	0.	-.0291	.0204	-.0150	-.0207	.0398	.0947	0.	
.3290	0.	0.	0.	0.	0.	0.	0.	-.0274	.0179	-.0153	-.0203	.0426	.0913	0.	
.3300	0.	0.	0.	0.	0.	0.	0.	-.0256	.0149	-.0152	-.0212	.0443	.0877	0.	
.3310	0.	0.	0.	0.	0.	0.	0.	-.0236	.0112	-.0148	-.0233	.0447	.0838	0.	
.3320	0.	0.	0.	0.	0.	0.	0.	-.0214	.0071	-.0143	-.0259	.0435	.0799	0.	
.3330	0.	0.	0.	0.	0.	0.	0.	-.0191	.0024	-.0137	-.0290	.0406	.0760	0.	
.3340	0.	0.	0.	0.	0.	0.	0.	-.0169	-.0029	-.0129	-.0324	.0365	.0716	0.	
.3350	0.	0.	0.	0.	0.	0.	0.	-.0148	-.0085	-.0121	-.0363	.0314	.0669	0.	
.3360	0.	0.	0.	0.	0.	0.	0.	-.0126	-.0144	-.0111	-.0404	.0259	.0621	0.	
.3370	0.	0.	0.	0.	0.	0.	0.	-.0104	-.0206	-.0101	-.0445	.0199	.0572	0.	
.3380	0.	0.	0.	0.	0.	0.	0.	-.0083	-.0268	-.0091	-.0486	.0141	.0522	0.	
.3390	0.	0.	0.	0.	0.	0.	0.	-.0064	-.0330	-.0080	-.0525	.0085	.0466	0.	
.3400	0.	0.	0.	0.	0.	0.	0.	-.0047	-.0390	-.0070	-.0559	.0033	.0404	0.	
.3410	0.	0.	0.	0.	0.	0.	0.	-.0034	-.0447	-.0063	-.0582	-.0018	.0335	0.	
.3420	0.	0.	0.	0.	0.	0.	0.	-.0024	-.0499	-.0059	-.0593	-.0066	.0261	0.	
.3430	0.	0.	0.	0.	0.	0.	0.	-.0017	-.0547	-.0057	-.0593	-.0100	.0179	0.	
.3440	0.	0.	0.	0.	0.	0.	0.	-.0013	-.0588	-.0056	-.0585	-.0135	.0093	0.	
.3450	0.	0.	0.	0.	0.	0.	0.	-.0012	-.0624	-.0056	-.0572	-.0149	.0003	0.	
.3460	0.	0.	0.	0.	0.	0.	0.	-.0013	-.0652	-.0055	-.0555	-.0144	-.0085	0.	
.3470	0.	0.	0.	0.	0.	0.	0.	-.0013	-.0674	-.0053	-.0535	-.0119	-.0169	0.	
.3480	0.	0.	0.	0.	0.	0.	0.	-.0014	-.0691	-.0050	-.0514	-.0076	-.0250	0.	
.3490	0.	0.	0.	0.	0.	0.	0.	-.0016	-.0701	-.0047	-.0489	-.0020	-.0326	0.	

ADLPIPE PAGE 2732

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.52.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.3390	0.	0.	0.	0.	0.	0.	0.	-0.0064	-0.0330	-0.0080	-0.0525	.0085	.0466	0.
.3400	0.	0.	0.	0.	0.	0.	0.	-0.0047	-0.0390	-0.0070	-0.0559	.0033	.0404	0.
.3410	0.	0.	0.	0.	0.	0.	0.	-0.0034	-0.0447	-0.0063	-0.0582	-0.0018	.0335	0.
.3420	0.	0.	0.	0.	0.	0.	0.	-0.0024	-0.0499	-0.0059	-0.0593	-0.0066	.0261	0.
.3430	0.	0.	0.	0.	0.	0.	0.	-0.0017	-0.0547	-0.0057	-0.0593	-0.0106	.0179	0.
.3440	0.	0.	0.	0.	0.	0.	0.	-0.0013	-0.0588	-0.0056	-0.0585	-0.0135	.0093	0.
.3450	0.	0.	0.	0.	0.	0.	0.	-0.0012	-0.0624	-0.0056	-0.0572	-0.0149	.0003	0.
.3460	0.	0.	0.	0.	0.	0.	0.	-0.0013	-0.0652	-0.0055	-0.0555	-0.0144	-.0085	0.
.3470	0.	0.	0.	0.	0.	0.	0.	-0.0013	-0.0674	-0.0053	-0.0535	-0.0119	-.0169	0.
.3480	0.	0.	0.	0.	0.	0.	0.	-0.0014	-0.0691	-0.0050	-0.0514	-0.0076	-.0250	0.
.3490	0.	0.	0.	0.	0.	0.	0.	-0.0016	-0.0701	-0.0047	-0.0489	-0.0020	-.0326	0.

ADLPIPE PAGE 2732

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.52.

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	68	MEMBER	1	SEQUENCE	102	LOCATION	DIS	TYPE	VA						
TIME	FY	FY	F2	MX	MY	MZ		DX	DY	DZ	FX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3500	0.	0.	0.	0.	0.	0.	0.	-0.0019	-0.0707	-0.0044	-0.0457	.0043	-.0398	0.	
.3510	0.	0.	0.	0.	0.	0.	0.	-0.0022	-0.0710	-0.0043	-0.0415	.0108	-.0464	0.	
.3520	0.	0.	0.	0.	0.	0.	0.	-0.0024	-0.0710	-0.0045	-0.0363	.0172	-.0524	0.	
.3530	0.	0.	0.	0.	0.	0.	0.	-0.0025	-0.0708	-0.0048	-0.0302	.0232	-.0573	0.	
.3540	0.	0.	0.	0.	0.	0.	0.	-0.0025	-0.0706	-0.0051	-0.0235	.0287	-.0611	0.	
.3550	0.	0.	0.	0.	0.	0.	0.	-0.0022	-0.0704	-0.0054	-0.0168	.0340	-.0634	0.	
.3560	0.	0.	0.	0.	0.	0.	0.	-0.0014	-0.0704	-0.0056	-0.0102	.0390	-.0641	0.	
.3570	0.	0.	0.	0.	0.	0.	0.	-0.0003	-0.0706	-0.0056	-0.0037	.0434	-.0629	0.	
.3580	0.	0.	0.	0.	0.	0.	0.	.0013	-0.0711	-0.0056	.0027	.0468	-.0601	0.	
.3590	0.	0.	0.	0.	0.	0.	0.	.0031	-0.0718	-0.0055	.0092	.0489	-.0558	0.	
.3600	0.	0.	0.	0.	0.	0.	0.	.0052	-0.0729	-0.0055	.0160	.0495	-.0505	0.	
.3610	0.	0.	0.	0.	0.	0.	0.	.0075	-0.0742	-0.0057	.0233	.0480	-.0442	0.	
.3620	0.	0.	0.	0.	0.	0.	0.	.0099	-0.0758	-0.0060	.0312	.0446	-.0369	0.	
.3630	0.	0.	0.	0.	0.	0.	0.	.0125	-0.0776	-0.0064	.0392	.0397	-.0289	0.	
.3640	0.	0.	0.	0.	0.	0.	0.	.0152	-0.0795	-0.0067	.0469	.0340	-.0204	0.	
.3650	0.	0.	0.	0.	0.	0.	0.	.0180	-0.0814	-0.0067	.0539	.0281	-.0112	0.	
.3660	0.	0.	0.	0.	0.	0.	0.	.0209	-0.0832	-0.0064	.0599	.0225	-.0015	0.	
.3670	0.	0.	0.	0.	0.	0.	0.	.0239	-0.0848	-0.0057	.0649	.0174	.0086	0.	
.3680	0.	0.	0.	0.	0.	0.	0.	.0268	-0.0861	-0.0047	.0690	.0130	.0186	0.	
.3690	0.	0.	0.	0.	0.	0.	0.	.0295	-0.0870	-0.0035	.0725	.0090	.0280	0.	
.3700	0.	0.	0.	0.	0.	0.	0.	.0317	-0.0874	-0.0022	.0758	.0050	.0362	0.	
.3710	0.	0.	0.	0.	0.	0.	0.	.0333	-0.0871	-0.0010	.0795	.0009	.0430	0.	
.3720	0.	0.	0.	0.	0.	0.	0.	.0344	-.0862	-0.0001	.0838	-.0035	.0479	0.	
.3730	0.	0.	0.	0.	0.	0.	0.	.0348	-.0845	.0008	.0884	-.0080	.0510	0.	
.3740	0.	0.	0.	0.	0.	0.	0.	.0345	-.0820	.0016	.0932	-.0121	.0522	0.	
.3750	0.	0.	0.	0.	0.	0.	0.	.0336	-.0786	.0025	.0975	-.0154	.0517	0.	
.3760	0.	0.	0.	0.	0.	0.	0.	.0322	-.0744	.0038	.1011	-.0171	.0498	0.	
.3770	0.	0.	0.	0.	0.	0.	0.	.0304	-.0694	.0054	.1035	-.0169	.0468	0.	
.3780	0.	0.	0.	0.	0.	0.	0.	.0284	-.0637	.0074	.1046	-.0149	.0428	0.	
.3790	0.	0.	0.	0.	0.	0.	0.	.0259	-.0572	.0098	.1045	-.0111	.0379	0.	
.3800	0.	0.	0.	0.	0.	0.	0.	.0231	-.0501	.0125	.1033	-.0060	.0319	0.	
.3810	0.	0.	0.	0.	0.	0.	0.	.0201	-.0425	.0153	.1014	-.0002	.0252	0.	
.3820	0.	0.	0.	0.	0.	0.	0.	.0168	-.0345	.0180	.0994	.0056	.0177	0.	
.3830	0.	0.	0.	0.	0.	0.	0.	.0132	-.0263	.0206	.0974	.0110	.0095	0.	
.3840	0.	0.	0.	0.	0.	0.	0.	.0095	-.0180	.0231	.0954	.0156	.0008	0.	
.3850	0.	0.	0.	0.	0.	0.	0.	.0056	-.0098	.0253	.0932	.0195	-.0082	0.	
.3860	0.	0.	0.	0.	0.	0.	0.	.0018	-.0018	.0274	.0910	.0224	-.0170	0.	
.3870	0.	0.	0.	0.	0.	0.	0.	-.0018	.0058	.0293	.0886	.0245	-.0251	0.	

ADLPIPE PAGE 2733

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.52.

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

.3780	0.	0.	0.	0.	0.	0.	0.	.0284	-.0637	.0074	.1046	-.0149	.0428	0.
.3790	0.	0.	0.	0.	0.	0.	0.	.0259	-.0572	.0098	.1045	-.0111	.0379	0.
.3800	0.	0.	0.	0.	0.	0.	0.	.0231	-.0501	.0125	.1033	-.0060	.0319	0.
.3810	0.	0.	0.	0.	0.	0.	0.	.0201	-.0425	.0153	.1014	-.0002	.0252	0.
.3820	0.	0.	0.	0.	0.	0.	0.	.0168	-.0345	.0180	.0994	.0056	.0177	0.
.3830	0.	0.	0.	0.	0.	0.	0.	.0132	-.0263	.0206	.0974	.0110	.0095	0.
.3840	0.	0.	0.	0.	0.	0.	0.	.0095	-.0180	.0231	.0954	.0156	.0008	0.
.3850	0.	0.	0.	0.	0.	0.	0.	.0056	-.0098	.0253	.0932	.0193	-.0082	0.
.3860	0.	0.	0.	0.	0.	0.	0.	.0018	-.0018	.0274	.0910	.0224	-.0170	0.
.3870	0.	0.	0.	0.	0.	0.	0.	-.0018	.0058	.0293	.0886	.0243	-.0251	0.

ADLPIPE PAGE 2733

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.52.

S/RV PIPING KEWAUNEE CRWOODF 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	68	MEMBER	1	SEQUENCE	102	LOCATION	DIS	TYPE	VA					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3880	0.	0.	0.	0.	0.	0.	-.0051	.0129	.0311	.0860	.0257	-.0325	0.	
.3890	0.	0.	0.	0.	0.	0.	-.0081	.0192	.0326	.0829	.0259	-.0389	0.	
.3900	0.	0.	0.	0.	0.	0.	-.0108	.0248	.0340	.0797	.0251	-.0443	0.	
.3910	0.	0.	0.	0.	0.	0.	-.0131	.0295	.0351	.0766	.0230	-.0484	0.	
.3920	0.	0.	0.	0.	0.	0.	-.0149	.0331	.0358	.0737	.0195	-.0512	0.	
.3930	0.	0.	0.	0.	0.	0.	-.0163	.0358	.0360	.0712	.0146	-.0529	0.	
.3940	0.	0.	0.	0.	0.	0.	-.0173	.0374	.0359	.0690	.0085	-.0533	0.	
.3950	0.	0.	0.	0.	0.	0.	-.0179	.0379	.0355	.0668	.0015	-.0526	0.	
.3960	0.	0.	0.	0.	0.	0.	-.0181	.0375	.0348	.0646	-.0061	-.0508	0.	
.3970	0.	0.	0.	0.	0.	0.	-.0179	.0361	.0338	.0624	-.0137	-.0477	0.	
.3980	0.	0.	0.	0.	0.	0.	-.0172	.0339	.0326	.0601	-.0214	-.0436	0.	
.3990	0.	0.	0.	0.	0.	0.	-.0164	.0310	.0312	.0575	-.0287	-.0389	0.	
.4000	0.	0.	0.	0.	0.	0.	-.0155	.0275	.0298	.0547	-.0355	-.0338	0.	

MAXIMUM VALUE OF DISCONTINUITY FORCE OCCURS AT

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

SECTION	68	MEMBER	1	SEQUENCE	102	LOCATION	END	TYPE	VA					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.	
.0010	-0.	-0.	0.	0.	0.	0.	.0000	-.0000	-.0000	.0000	-.0000	-.0000	0.	
.0020	-0.	-0.	0.	0.	0.	0.	.0000	-.0000	-.0000	-.0000	-.0000	-.0000	0.	
.0030	-0.	-0.	0.	0.	0.	0.	.0000	-.0000	.0000	-.0000	.0000	-.0000	0.	
.0040	-0.	-0.	0.	0.	0.	0.	.0000	.0000	-.0000	-.0000	.0000	-.0000	0.	
.0050	-0.	-0.	0.	0.	0.	0.	-.0000	.0000	-.0000	.0000	-.0000	-.0000	0.	
.0060	0.	-0.	0.	0.	0.	0.	-.0000	.0000	-.0000	.0001	-.0001	-.0001	1.	
.0070	1.	-0.	0.	1.	0.	0.	-.0001	-.0000	-.0001	.0003	-.0003	-.0002	4.	
.0080	2.	-2.	1.	1.	0.	0.	-.0002	-.0000	-.0002	.0006	-.0007	-.0004	9.	
.0090	3.	-2.	2.	2.	0.	0.	-.0003	-.0000	-.0004	.0012	-.0014	-.0008	19.	
.0100	6.	-2.	3.	4.	0.	0.	-.0006	-.0000	-.0007	.0020	-.0024	-.0014	33.	
.0110	10.	-0.	4.	7.	0.	0.	-.0009	-.0000	-.0012	.0032	-.0039	-.0023	52.	

ADLPIPE PAGE 2734

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.52.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.0010	-0.	-0.	0.	0.	0.	0.	0.	0.	0.0000	-0.0000	-0.0000	0.0000	-0.0000	-0.0000	0.
.0020	-0.	-0.	0.	0.	0.	0.	0.	0.	0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	0.
.0030	-0.	-0.	0.	0.	0.	0.	0.	0.	0.0000	-0.0000	0.0000	-0.0000	0.0000	-0.0000	0.
.0040	-0.	-0.	0.	0.	0.	0.	0.	0.	0.0000	0.0000	-0.0000	-0.0000	0.0000	-0.0000	0.
.0050	-0.	-0.	0.	0.	0.	-0.	0.	0.	-0.0000	0.0000	-0.0000	0.0000	-0.0000	-0.0000	0.
.0060	0.	-0.	0.	0.	0.	0.	-0.	0.	-0.0000	0.0000	-0.0000	0.0001	-0.0001	-0.0001	1.
.0070	1.	-0.	0.	1.	0.	0.	-1.	0.	-0.0001	-0.0000	-0.0001	0.0003	-0.0003	-0.0002	4.
.0080	2.	-2.	1.	1.	0.	0.	-3.	0.	-0.0002	-0.0000	-0.0002	0.0006	-0.0007	-0.0004	9.
.0090	3.	-2.	2.	2.	0.	0.	-6.	0.	-0.0003	-0.0000	-0.0004	0.0012	-0.0014	-0.0008	19.
.0100	6.	-2.	3.	4.	0.	0.	-10.	0.	-0.0006	-0.0000	-0.0007	0.0020	-0.0024	-0.0014	33.
.0110	10.	-0.	4.	7.	0.	0.	-16.	0.	-0.0009	-0.0000	-0.0012	0.0032	-0.0039	-0.0023	52.

ADLPIPE PAGE 2734

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/3/12/02.

18.29.52.

S/RV PIPING KEWAUNEE GROUND 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	68	MEMBER	1	SEQUENCE	102	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.0120	15.	0.	6.	10.	0.	-24.		-0.0014	-0.0000	-0.0018	0.0049	-0.0061	-0.0035	80.	
.0130	27.	0.	9.	14.	0.	-38.		-0.0022	-0.0000	-0.0026	0.0071	-0.0090	-0.0052	122.	
.0140	35.	1.	11.	18.	0.	-56.		-0.0031	-0.0000	-0.0035	0.0098	-0.0127	-0.0074	178.	
.0150	48.	3.	13.	21.	0.	-77.		-0.0043	-0.0000	-0.0046	0.0129	-0.0170	-0.0099	244.	
.0160	60.	8.	16.	26.	0.	-97.		-0.0055	-0.0000	-0.0058	0.0161	-0.0214	-0.0126	306.	
.0170	68.	13.	19.	31.	0.	-110.		-0.0066	-0.0000	-0.0068	0.0190	-0.0253	-0.0150	346.	
.0180	69.	13.	22.	36.	0.	-111.		-0.0074	-0.0001	-0.0076	0.0208	-0.0279	-0.0167	355.	
.0190	67.	9.	24.	38.	0.	-101.		-0.0078	-0.0001	-0.0077	0.0207	-0.0283	-0.0174	328.	
.0200	49.	1.	23.	36.	0.	-80.		-0.0076	-0.0001	-0.0069	0.0180	-0.0255	-0.0164	266.	
.0210	30.	3.	18.	29.	0.	-49.		-0.0067	-0.0001	-0.0050	0.0123	-0.0191	-0.0136	172.	
.0220	9.	13.	8.	13.	0.	-15.		-0.0052	-0.0002	-0.0021	0.0037	-0.0092	-0.0089	59.	
.0230	-13.	74.	-5.	-8.	0.	21.		-0.0033	-0.0003	0.0015	-0.0067	0.0030	-0.0029	69.	
.0240	-32.	112.	-18.	-30.	0.	52.		-0.0013	-0.0005	0.0051	-0.0174	0.0155	0.0032	182.	
.0250	-45.	129.	-31.	-50.	0.	72.		0.0002	-0.0008	0.0083	-0.0265	0.0262	0.0084	267.	
.0260	-54.	123.	-40.	-64.	0.	86.		0.0013	-0.0011	0.0104	-0.0328	0.0338	0.0121	327.	
.0270	-63.	151.	-43.	-69.	0.	101.		0.0021	-0.0016	0.0113	-0.0354	0.0379	0.0149	373.	
.0280	-81.	195.	-35.	-57.	0.	131.		0.0029	-0.0022	0.0106	-0.0339	0.0385	0.0171	434.	
.0290	-103.	160.	-21.	-73.	0.	166.		0.0033	-0.0029	0.0090	-0.0296	0.0357	0.0179	516.	
.0300	-103.	82.	-18.	-29.	0.	166.		0.0033	-0.0038	0.0077	-0.0258	0.0324	0.0179	513.	
.0310	-87.	60.	-27.	-44.	0.	139.		0.0035	-0.0047	0.0073	-0.0244	0.0322	0.0191	444.	
.0320	-93.	49.	-29.	-47.	-0.	150.		0.0052	-0.0056	0.0077	-0.0252	0.0358	0.0236	478.	
.0330	-121.	-6.	-28.	-44.	-0.	194.		0.0082	-0.0065	0.0088	-0.0283	0.0423	0.0309	607.	
.0340	-122.	-52.	-41.	-66.	-0.	196.		0.0109	-0.0075	0.0108	-0.0335	0.0506	0.0380	629.	
.0350	-80.	-67.	-69.	-111.	-0.	128.		0.0122	-0.0083	0.0129	-0.0379	0.0571	0.0426	516.	
.0360	-36.	-120.	-87.	-140.	-0.	58.		0.0123	-0.0091	0.0128	-0.0364	0.0563	0.0436	462.	
.0370	-25.	-221.	-81.	-130.	-0.	41.		0.0120	-0.0098	0.0093	-0.0254	0.0453	0.0416	415.	
.0380	-31.	-295.	-56.	-90.	-0.	49.		0.0107	-0.0103	0.0028	-0.0062	0.0258	0.0363	312.	
.0390	-19.	-354.	-27.	-44.	-0.	31.		0.0080	-0.0105	-0.0051	0.0170	0.0006	0.0272	163.	
.0400	13.	-405.	-8.	-13.	-0.	-21.		0.0043	-0.0105	-0.0124	0.0388	-0.0255	0.0160	76.	
.0410	42.	-603.	-4.	-7.	-0.	-67.		0.0014	-0.0100	-0.0170	0.0537	-0.0441	0.0073	206.	
.0420	27.	-616.	-1.	-2.	-0.	-43.		0.0015	-0.0091	-0.0183	0.0585	-0.0489	0.0057	132.	
.0430	-30.	-581.	5.	8.	-0.	49.		0.0046	-0.0077	-0.0161	0.0529	-0.0407	0.0109	150.	
.0440	-72.	-567.	-8.	-13.	-0.	115.		0.0083	-0.0059	-0.0103	0.0373	-0.0236	0.0188	354.	
.0450	-54.	-495.	-48.	-78.	-0.	87.		0.0106	-0.0036	-0.0021	0.0159	-0.0019	0.0249	356.	
.0460	-17.	-336.	-82.	-132.	-0.	27.		0.0114	-0.0010	0.0049	-0.0020	0.0159	0.0272	411.	
.0470	-31.	-215.	-71.	-115.	-0.	49.		0.0115	0.0019	0.0070	-0.0073	0.0197	0.0251	380.	
.0480	-87.	-185.	-21.	-33.	-0.	140.		0.0103	0.0050	0.0041	0.0007	0.0088	0.0173	438.	
.0490	-110.	-136.	34.	54.	-0.	177.		0.0065	0.0082	-0.0010	0.0151	-0.0098	0.0033	564.	

ADLPIPE PAGE 2735

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/3/12/02.

18.29.52.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.0390	-19.	-354.	-27.	-44.	-0.	31.	.0080	-.0105	-.0051	.0170	.0006	.0272	163.
.0400	11.	-485.	-0.	-13.	-0.	-21.	.0043	-.0105	-.0124	.0388	-.0255	.0160	76.
.0410	42.	-603.	-4.	-7.	-0.	-67.	.0014	-.0100	-.0170	.0537	-.0441	.0073	206.
.0420	27.	-616.	-1.	-2.	-0.	-43.	.0015	-.0091	-.0183	.0585	-.0489	.0057	132.
.0430	-30.	-581.	5.	8.	-0.	49.	.0046	-.0077	-.0161	.0529	-.0407	.0109	150.
.0440	-72.	-567.	-0.	-13.	-0.	115.	.0083	-.0059	-.0103	.0373	-.0236	.0188	354.
.0450	-54.	-495.	-48.	-78.	-0.	87.	.0106	-.0036	-.0021	.0159	-.0019	.0249	356.
.0460	-17.	-336.	-82.	-132.	-0.	27.	.0114	-.0010	.0049	-.0020	.0159	.0272	411.
.0470	-31.	-215.	-71.	-115.	-0.	49.	.0115	.0019	.0070	-.0073	.0197	.0251	380.
.0480	-87.	-185.	-21.	-33.	-0.	140.	.0103	.0050	.0041	.0007	.0088	.0173	438.
.0490	-110.	-136.	34.	54.	-0.	177.	.0065	.0082	-.0010	.0151	-.0098	.0033	564.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.52.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	68	MEMBER	1	SEQUENCE	102	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0500	-71.	-15.	72.	115.	-0.	114.	.0007	.0114	-.0058	.0294	-.0302	-.0147	494.		
.0510	-23.	108.	102.	164.	-0.	37.	-.0047	.0147	-.0091	.0395	-.0473	-.0311	510.		
.0520	-20.	204.	133.	214.	-0.	31.	-.0074	.0178	-.0099	.0415	-.0533	-.0412	659.		
.0530	-44.	327.	158.	254.	0.	71.	-.0072	.0208	-.0069	.0326	-.0442	-.0442	802.		
.0540	-43.	509.	156.	251.	0.	69.	-.0059	.0234	-.0004	.0157	-.0243	-.0427	793.		
.0550	-2.	701.	130.	209.	0.	3.	-.0048	.0256	.0079	-.0098	-.0013	-.0403	636.		
.0560	39.	824.	105.	169.	0.	-62.	-.0041	.0273	.0152	-.0308	.0196	-.0391	549.		
.0570	51.	861.	103.	166.	0.	-81.	-.0039	.0283	.0190	-.0423	.0314	-.0407	562.		
.0580	59.	865.	117.	188.	0.	-96.	-.0052	.0286	.0184	-.0418	.0291	-.0467	643.		
.0590	99.	855.	128.	207.	0.	-159.	-.0086	.0282	.0149	-.0329	.0158	-.0572	793.		
.0600	158.	787.	131.	211.	0.	-254.	-.0130	.0271	.0106	-.0216	.0001	-.0696	1003.		
.0610	199.	666.	128.	206.	0.	-319.	-.0161	.0254	.0072	-.0130	-.0115	-.0788	1155.		
.0620	206.	578.	117.	188.	0.	-332.	-.0165	.0232	.0060	-.0110	-.0146	-.0806	1160.		
.0630	196.	524.	88.	142.	0.	-316.	-.0141	.0206	.0085	-.0192	-.0047	-.0745	1053.		
.0640	194.	416.	34.	55.	0.	-312.	-.0102	.0175	.0149	-.0382	.0176	-.0633	963.		
.0650	215.	278.	-40.	-64.	0.	-346.	-.0061	.0142	.0233	-.0624	.0446	-.0499	1069.		
.0660	249.	229.	-111.	-179.	0.	-400.	-.0025	.0106	.0303	-.0826	.0666	-.0369	1333.		
.0670	262.	219.	-154.	-248.	0.	-422.	.0001	.0069	.0331	-.0909	.0766	-.0272	1489.		
.0680	247.	93.	-164.	-264.	0.	-398.	.0007	.0030	.0302	-.0836	.0698	-.0240	1451.		
.0690	242.	-114.	-156.	-251.	0.	-390.	-.0016	-.0009	.0226	-.0625	.0462	-.0285	1411.		
.0700	272.	-252.	-146.	-234.	0.	-438.	-.0063	-.0047	.0123	-.0334	.0125	-.0379	1512.		
.0710	303.	-339.	-132.	-213.	0.	-488.	-.0111	-.0083	.0021	-.0041	-.0209	-.0468	1618.		
.0720	292.	-458.	-116.	-187.	-0.	-469.	-.0135	-.0116	-.0057	.0182	-.0446	-.0500	1535.		
.0730	246.	-523.	-108.	-173.	-0.	-396.	-.0128	-.0145	-.0091	.0279	-.0524	-.0445	1315.		
.0740	203.	-451.	-119.	-192.	-0.	-326.	-.0096	-.0170	-.0073	.0236	-.0434	-.0310	1150.		
.0750	169.	-354.	-149.	-240.	-0.	-271.	-.0051	-.0192	-.0017	.0087	-.0224	-.0130	1102.		
.0760	126.	-338.	-182.	-293.	-0.	-202.	-.0004	-.0210	.0051	-.0092	.0021	.0059	1083.		
.0770	65.	-316.	-196.	-315.	-0.	-105.	.0038	-.0226	.0099	-.0212	.0213	.0227	1010.		
.0780	-5.	-222.	-179.	-288.	-0.	8.	.0066	-.0239	.0102	-.0210	.0278	.0348	876.		
.0790	-71.	-155.	-138.	-222.	-0.	114.	.0069	-.0251	.0058	-.0076	.0192	.0399	759.		
.0800	-119.	-183.	-87.	-140.	-0.	192.	.0048	-.0261	-.0016	.0150	-.0004	.0383	722.		
.0810	-146.	-216.	-35.	-56.	-0.	235.	.0014	-.0269	-.0100	.0405	-.0233	.0336	736.		
.0820	-170.	-195.	14.	22.	-0.	274.	-.0012	-.0276	-.0172	.0627	-.0420	.0309	836.		
.0830	-212.	-172.	53.	86.	-0.	341.	-.0015	-.0281	-.0213	.0758	-.0493	.0338	1069.		
.0840	-268.	-169.	76.	123.	-0.	431.	.0006	-.0285	-.0209	.0764	-.0411	.0429	1362.		
.0850	-316.	-136.	80.	129.	-0.	509.	.0045	-.0288	-.0166	.0660	-.0197	.0568	1597.		
.0860	-348.	-62.	70.	112.	-0.	560.	.0091	-.0289	-.0103	.0500	.0071	.0727	1739.		
.0870	-377.	-16.	59.	94.	-0.	607.	.0135	-.0290	-.0044	.0349	.0322	.0873	1868.		

ADLPIPE PAGE 2736

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.52.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.0770	65.	-316.	-196.	-315.	-0.	-105.	.0038	-.0226	.0099	-.0212	.0213	.0227	1010.
.0780	-5.	-222.	-179.	-288.	-0.	8.	.0066	-.0239	.0102	-.0210	.0278	.0348	876.
.0790	-71.	-155.	-138.	-222.	-0.	114.	.0069	-.0251	.0058	-.0076	.0192	.0399	759.
.0800	-119.	-183.	-87.	-140.	-0.	192.	.0048	-.0261	-.0016	.0150	-.0004	.0383	722.
.0810	-146.	-216.	-35.	-56.	-0.	235.	.0014	-.0269	-.0100	.0405	-.0233	.0336	736.
.0820	-170.	-195.	14.	22.	-0.	274.	-.0012	-.0276	-.0172	.0627	-.0420	.0309	836.
.0830	-212.	-172.	53.	86.	-0.	341.	-.0015	-.0281	-.0213	.0758	-.0493	.0338	1069.
.0840	-268.	-169.	76.	123.	-0.	431.	.0006	-.0285	-.0209	.0764	-.0411	.0429	1362.
.0850	-316.	-136.	80.	129.	-0.	509.	.0045	-.0288	-.0166	.0660	-.0197	.0568	1597.
.0860	-348.	-62.	70.	112.	-0.	560.	.0091	-.0289	-.0103	.0500	.0071	.0727	1739.
.0870	-377.	-16.	59.	94.	-0.	607.	.0135	-.0290	-.0044	.0349	.0322	.0873	1868.

ADLPIPE PAGE 2736

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/31/02.

18.29.52.

S/RV PIPING KEWAUNEE GKW00F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	60	MEMBER	1	SEQUENCE	102	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.0880	-415.	-41.	59.	95.	-0.	667.		.0170	-.0291	-.0007	.0259	.0508	.0980	2049.	
.0890	-448.	-102.	73.	117.	-0.	721.		.0191	-.0291	-.0000	.0251	.0591	.1034	2223.	
.0900	-461.	-158.	80.	143.	-0.	741.		.0195	-.0290	-.0017	.0309	.0578	.1039	2295.	
.0910	-452.	-215.	101.	163.	-0.	727.		.0189	-.0288	-.0040	.0385	.0528	.1014	2268.	
.0920	-440.	-288.	107.	172.	0.	707.		.0187	-.0284	-.0053	.0434	.0502	.0987	2214.	
.0930	-425.	-348.	105.	168.	0.	683.		.0193	-.0278	-.0048	.0431	.0523	.0977	2141.	
.0940	-393.	-348.	80.	142.	0.	632.		.0205	-.0269	-.0024	.0373	.0584	.0982	1971.	
.0950	-335.	-311.	60.	97.	0.	539.		.0213	-.0257	-.0011	.0285	.0661	.0977	1666.	
.0960	-267.	-297.	30.	49.	0.	423.		.0209	-.0243	.0038	.0220	.0696	.0936	1296.	
.0970	-193.	-310.	13.	21.	0.	310.		.0189	-.0226	.0036	.0234	.0624	.0841	946.	
.0980	-131.	-315.	15.	24.	0.	210.		.0153	-.0206	-.0002	.0350	.0423	.0688	644.	
.0990	-74.	-328.	31.	50.	0.	119.		.0101	-.0184	-.0069	.0543	.0133	.0484	392.	
.1000	-14.	-382.	47.	76.	0.	23.		.0038	-.0158	-.0144	.0758	-.0195	.0247	243.	
.1010	51.	-430.	54.	87.	0.	-82.		-.0024	-.0130	-.0204	.0934	-.0492	.0014	363.	
.1020	112.	-403.	49.	79.	-0.	-179.		-.0074	-.0098	-.0235	.1026	-.0694	-.0182	597.	
.1030	150.	-331.	36.	58.	-0.	-242.		-.0102	-.0063	-.0230	.1015	-.0772	-.0321	757.	
.1040	165.	-271.	16.	26.	-0.	-266.		-.0112	-.0026	-.0194	.0912	-.0743	-.0410	813.	
.1050	175.	-192.	-10.	-17.	-0.	-281.		-.0112	.0014	-.0136	.0746	-.0646	-.0470	856.	
.1060	188.	-66.	-38.	-60.	-0.	-302.		-.0111	.0055	-.0070	.0561	-.0529	-.0521	936.	
.1070	192.	47.	-56.	-91.	-0.	-309.		-.0112	.0097	-.0012	.0393	-.0432	-.0575	981.	
.1080	180.	88.	-61.	-88.	-0.	-289.		-.0114	.0138	.0033	.0260	-.0371	-.0638	928.	
.1090	166.	119.	-57.	-91.	-0.	-266.		-.0118	.0178	.0069	.0150	-.0331	-.0702	856.	
.1100	178.	277.	-59.	-95.	-0.	-286.		-.0124	.0217	.0107	.0041	-.0284	-.0756	917.	
.1110	192.	400.	-61.	-88.	-0.	-308.		-.0127	.0253	.0146	-.0073	-.0221	-.0794	983.	
.1120	193.	410.	-55.	-89.	-0.	-311.		-.0123	.0287	.0185	-.0186	-.0147	-.0816	984.	
.1130	212.	488.	-51.	-82.	-0.	-340.		-.0120	.0317	.0220	-.0287	-.0072	-.0825	1064.	
.1140	246.	654.	-47.	-76.	-0.	-395.		-.0119	.0342	.0242	-.0348	-.0026	-.0831	1224.	
.1150	255.	696.	-29.	-47.	-0.	-409.		-.0118	.0362	.0241	-.0345	-.0035	-.0842	1253.	
.1160	232.	594.	5.	9.	-0.	-374.		-.0116	.0378	.0217	-.0280	-.0095	-.0856	1137.	
.1170	218.	546.	40.	64.	-0.	-350.		-.0115	.0388	.0182	-.0181	-.0177	-.0864	1083.	
.1180	220.	582.	59.	94.	-0.	-355.		-.0110	.0394	.0150	-.0089	-.0244	-.0848	1116.	
.1190	188.	462.	71.	114.	-0.	-302.		-.0087	.0395	.0134	-.0041	-.0244	-.0788	983.	
.1200	108.	219.	80.	129.	-0.	-174.		-.0036	.0394	.0143	-.0069	-.0134	-.0662	659.	
.1210	32.	155.	71.	114.	-0.	-51.		.0037	.0390	.0181	-.0176	.0083	-.0466	380.	
.1220	-28.	250.	47.	75.	-0.	45.		.0122	.0385	.0236	-.0329	.0348	-.0230	266.	
.1230	-98.	210.	23.	27.	-0.	157.		.0204	.0379	.0286	-.0467	.0591	-.0003	490.	
.1240	-178.	-4.	14.	23.	-0.	286.		.0272	.0371	.0305	-.0523	.0735	.0173	872.	
.1250	-226.	-114.	21.	34.	-0.	364.		.0314	.0363	.0279	-.0450	.0714	.0278	1112.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/31/02.

18.29.52.

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

.1150	255.	676.	-29.	-47.	-0.	-409.	-.0118	.0362	.0241	-.0345	-.0035	-.0842	1224.
.1160	232.	594.	5.	9.	-0.	-374.	-.0116	.0378	.0217	-.0280	-.0095	-.0856	1137.
.1170	218.	546.	40.	64.	-0.	-350.	-.0115	.0388	.0182	-.0181	-.0177	-.0864	1083.
.1180	220.	582.	59.	94.	-0.	-355.	-.0110	.0394	.0150	-.0089	-.0244	-.0848	1116.
.1190	188.	462.	71.	114.	-0.	-302.	-.0087	.0395	.0134	-.0041	-.0244	-.0788	983.
.1200	100.	219.	80.	129.	-0.	-174.	-.0036	.0394	.0143	-.0069	-.0134	-.0662	659.
.1210	32.	155.	71.	114.	-0.	-51.	.0037	.0390	.0181	-.0176	.0083	-.0466	380.
.1220	-28.	250.	47.	75.	-0.	45.	.0122	.0385	.0236	-.0329	.0348	-.0230	266.
.1230	-98.	210.	23.	37.	-0.	157.	.0204	.0379	.0286	-.0467	.0591	-.0003	490.
.1240	-170.	-4.	14.	23.	-0.	206.	.0272	.0371	.0305	-.0523	.0735	.0173	872.
.1250	-226.	-114.	21.	34.	-0.	364.	.0314	.0363	.0279	-.0450	.0714	.0278	1112.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.52.

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	68	MEMBER	1	SEQUENCE	102	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1260	-242.	-75.	41.	65.	-0.	389.	.0328	.0356	.0205	-.0242	.0518	.0311	1200.		
.1270	-281.	-103.	81.	130.	-0.	452.	.0330	.0351	.0099	.0053	.0222	.0292	1431.		
.1280	-347.	-431.	130.	209.	-0.	559.	.0333	.0347	-.0010	.0350	-.0071	.0259	1814.		
.1290	-386.	-496.	162.	261.	-0.	620.	.0344	.0346	-.0095	.0573	-.0286	.0253	2048.		
.1300	-379.	-339.	166.	266.	-0.	610.	.0367	.0349	-.0132	.0675	-.0383	.0290	2024.		
.1310	-370.	-273.	147.	236.	-0.	594.	.0402	.0355	-.0128	.0653	-.0348	.0357	1945.		
.1320	-379.	-383.	126.	202.	-0.	609.	.0446	.0364	-.0099	.0555	-.0225	.0433	1952.		
.1330	-362.	-335.	106.	171.	0.	582.	.0484	.0375	-.0072	.0459	-.0117	.0493	1844.		
.1340	-307.	-65.	95.	153.	0.	493.	.0503	.0389	-.0069	.0429	-.0104	.0505	1571.		
.1350	-262.	55.	102.	165.	0.	422.	.0500	.0404	-.0099	.0488	-.0198	.0441	1378.		
.1360	-238.	-87.	126.	203.	0.	383.	.0478	.0418	-.0157	.0620	-.0376	.0304	1318.		
.1370	-183.	-151.	151.	242.	0.	294.	.0439	.0433	-.0226	.0779	-.0603	.0127	1159.		
.1380	-76.	26.	157.	252.	0.	123.	.0395	.0449	-.0280	.0900	-.0807	-.0049	854.		
.1390	17.	135.	150.	241.	0.	-28.	.0363	.0464	-.0301	.0924	-.0896	-.0195	738.		
.1400	60.	58.	139.	223.	0.	-97.	.0356	.0479	-.0282	.0828	-.0834	-.0288	741.		
.1410	100.	128.	117.	188.	0.	-160.	.0367	.0493	-.0231	.0638	-.0665	-.0326	752.		
.1420	166.	408.	83.	133.	0.	-267.	.0382	.0505	-.0162	.0400	-.0453	-.0338	907.		
.1430	229.	519.	44.	70.	0.	-368.	.0390	.0515	-.0095	.0158	-.0246	-.0371	1140.		
.1440	269.	339.	14.	23.	0.	-432.	.0384	.0521	-.0039	-.0042	-.0088	-.0446	1316.		
.1450	317.	262.	-2.	-3.	0.	-510.	.0365	.0524	-.0014	-.0163	-.0020	-.0550	1551.		
.1460	384.	451.	-9.	-14.	0.	-617.	.0337	.0524	-.0016	-.0206	-.0041	-.0666	1878.		
.1470	422.	513.	-6.	-10.	0.	-679.	.0307	.0521	-.0031	-.0216	-.0090	-.0790	2065.		
.1480	430.	293.	-8.	-13.	0.	-692.	.0280	.0515	-.0037	-.0250	-.0103	-.0909	2105.		
.1490	458.	144.	-29.	-47.	0.	-737.	.0258	.0506	-.0020	-.0340	-.0058	-.0994	2245.		
.1500	510.	237.	-69.	-110.	0.	-821.	.0246	.0496	.0018	-.0490	.0046	-.1024	2519.		
.1510	530.	266.	-110.	-177.	0.	-852.	.0252	.0484	.0075	-.0685	.0210	-.1006	2648.		
.1520	498.	70.	-143.	-230.	0.	-802.	.0268	.0470	.0133	-.0893	.0400	-.0966	2537.		
.1530	481.	-32.	-175.	-282.	0.	-773.	.0277	.0456	.0181	-.1065	.0542	-.0929	2503.		
.1540	505.	75.	-208.	-335.	-0.	-813.	.0268	.0442	.0204	-.1158	.0574	-.0919	2674.		
.1550	519.	63.	-230.	-370.	-0.	-835.	.0241	.0428	.0196	-.1158	.0497	-.0952	2779.		
.1560	488.	-201.	-234.	-376.	-0.	-784.	.0204	.0414	.0159	-.1074	.0339	-.1021	2646.		
.1570	445.	-409.	-224.	-360.	-0.	-716.	.0162	.0401	.0102	-.0932	.0123	-.1099	2439.		
.1580	433.	-360.	-217.	-350.	-0.	-696.	.0116	.0392	.0045	-.0775	-.0117	-.1166	2369.		
.1590	423.	-312.	-218.	-351.	-0.	-680.	.0072	.0385	-.0002	-.0652	-.0317	-.1216	2327.		
.1600	380.	-448.	-217.	-349.	-0.	-610.	.0038	.0382	-.0027	-.0584	-.0436	-.1241	2140.		
.1610	326.	-527.	-214.	-345.	-0.	-524.	.0014	.0382	-.0036	-.0561	-.0496	-.1232	1908.		
.1620	290.	-373.	-215.	-346.	-0.	-466.	-.0006	.0386	-.0034	-.0562	-.0525	-.1194	1766.		
.1630	245.	-234.	-211.	-339.	-0.	-394.	-.0024	.0392	-.0027	-.0577	-.0522	-.1151	1581.		

ADLPIPE PAGE 2738

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.53.

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

.1530	481.	-32.	-175.	-202.	0.	-773.	.0277	.0456	.0181	-.1065	.0542	-.0929	2503.
.1540	505.	75.	-208.	-375.	-0.	-813.	.0268	.0442	.0204	-.1158	.0574	-.0919	2674.
.1550	519.	63.	-230.	-370.	-0.	-835.	.0241	.0428	.0196	-.1158	.0497	-.0952	2779.
.1560	489.	-201.	-234.	-376.	-0.	-784.	.0204	.0414	.0159	-.1074	.0339	-.1021	2646.
.1570	445.	-409.	-224.	-360.	-0.	-716.	.0162	.0401	.0102	-.0932	.0123	-.1099	2439.
.1580	433.	-360.	-217.	-350.	-0.	-696.	.0116	.0392	.0043	-.0775	-.0117	-.1166	2369.
.1590	423.	-312.	-218.	-351.	-0.	-680.	.0072	.0385	-.0002	-.0652	-.0317	-.1216	2327.
.1600	380.	-448.	-217.	-349.	-0.	-610.	.0038	.0382	-.0027	-.0584	-.0436	-.1241	2140.
.1610	326.	-527.	-214.	-345.	-0.	-524.	.0014	.0382	-.0036	-.0561	-.0496	-.1232	1908.
.1620	290.	-373.	-215.	-346.	-0.	-466.	-.0006	.0386	-.0034	-.0562	-.0523	-.1194	1766.
.1630	245.	-234.	-211.	-339.	-0.	-394.	-.0024	.0392	-.0027	-.0577	-.0522	-.1151	1581.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.53.

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	68	MEMBER	1	SEQUENCE	102	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1640	171.	-275.	-195.	-313.	-0.	-276.	-.0044	.0401	-.0020	-.0591	-.0496	-.1118	1270.		
.1650	97.	-264.	-169.	-272.	-0.	-156.	-.0066	.0412	-.0020	-.0583	-.0477	-.1090	953.		
.1660	42.	-33.	-133.	-213.	-0.	-67.	-.0092	.0424	-.0029	-.0550	-.0475	-.1061	681.		
.1670	-7.	220.	-90.	-144.	-0.	12.	-.0120	.0437	-.0040	-.0509	-.0465	-.1037	439.		
.1680	-66.	297.	-41.	-66.	-0.	106.	-.0149	.0448	-.0049	-.0477	-.0428	-.1021	379.		
.1690	-105.	388.	7.	11.	-0.	169.	-.0181	.0456	-.0055	-.0451	-.0379	-.1007	516.		
.1700	-117.	666.	55.	88.	-0.	181.	-.0213	.0461	-.0063	-.0420	-.0332	-.0982	613.		
.1710	-121.	933.	111.	178.	-0.	195.	-.0242	.0460	-.0076	-.0380	-.0283	-.0951	803.		
.1720	-146.	1016.	168.	270.	-0.	234.	-.0268	.0452	-.0092	-.0334	-.0228	-.0920	1087.		
.1730	-158.	1056.	220.	354.	-0.	255.	-.0293	.0435	-.0111	-.0283	-.0176	-.0886	1326.		
.1740	-137.	1221.	258.	415.	-0.	214.	-.0318	.0410	-.0129	-.0231	-.0127	-.0840	1421.		
.1750	-95.	1349.	281.	451.	-0.	152.	-.0339	.0376	-.0143	-.0191	-.0066	-.0779	1449.		
.1760	-77.	1250.	292.	470.	-0.	124.	-.0349	.0331	-.0151	-.0173	.0028	-.0698	1477.		
.1770	-61.	1085.	287.	462.	-0.	99.	-.0349	.0276	-.0149	-.0183	.0153	-.0589	1438.		
.1780	-25.	1023.	264.	424.	-0.	41.	-.0340	.0213	-.0139	-.0216	.0294	-.0448	1296.		
.1790	18.	943.	222.	357.	-0.	-29.	-.0325	.0141	-.0122	-.0269	.0443	-.0283	1088.		
.1800	42.	666.	168.	270.	-0.	-68.	-.0304	.0063	-.0101	-.0334	.0595	-.0110	846.		
.1810	59.	291.	106.	170.	-0.	-94.	-.0281	-.0019	-.0080	-.0395	.0728	.0067	591.		
.1820	96.	18.	30.	48.	-0.	-155.	-.0262	-.0104	-.0064	-.0441	.0817	.0242	492.		
.1830	139.	-229.	-54.	-87.	-0.	-224.	-.0247	-.0188	-.0053	-.0468	.0862	.0408	730.		
.1840	157.	-600.	-137.	-220.	-0.	-253.	-.0234	-.0269	-.0048	-.0480	.0877	.0561	1019.		
.1850	157.	-1000.	-215.	-346.	-0.	-253.	-.0225	-.0345	-.0046	-.0477	.0862	.0701	1304.		
.1860	163.	-1258.	-291.	-468.	-0.	-262.	-.0221	-.0413	-.0047	-.0461	.0809	.0830	1632.		
.1870	173.	-1414.	-364.	-585.	-0.	-278.	-.0224	-.0470	-.0049	-.0437	.0728	.0942	1969.		
.1880	161.	-1626.	-422.	-679.	-0.	-259.	-.0235	-.0515	-.0053	-.0406	.0627	.1027	2210.		
.1890	130.	-1830.	-462.	-744.	-0.	-209.	-.0254	-.0547	-.0061	-.0359	.0498	.1085	2350.		
.1900	98.	-1860.	-484.	-779.	-0.	-157.	-.0281	-.0564	-.0075	-.0289	.0334	.1118	2417.		
.1910	56.	-1762.	-485.	-780.	-0.	-91.	-.0316	-.0567	-.0094	-.0203	.0151	.1128	2388.		
.1920	-11.	-1682.	-465.	-748.	-0.	17.	-.0355	-.0555	-.0112	-.0119	-.0021	.1114	2276.		
.1930	-98.	-1592.	-429.	-689.	-0.	158.	-.0395	-.0530	-.0123	-.0051	-.0162	.1090	2151.		
.1940	-187.	-1354.	-380.	-611.	-0.	301.	-.0432	-.0493	-.0122	-.0014	-.0256	.1067	2072.		
.1950	-273.	-1000.	-322.	-518.	-0.	439.	-.0467	-.0445	-.0106	-.0017	-.0292	.1050	2067.		
.1960	-367.	-673.	-255.	-410.	-0.	591.	-.0498	-.0390	-.0076	-.0057	-.0268	.1034	2188.		
.1970	-462.	-362.	-178.	-286.	-0.	743.	-.0527	-.0330	-.0040	-.0115	-.0208	.1011	2422.		
.1980	-540.	40.	-90.	-144.	-0.	869.	-.0559	-.0267	-.0008	-.0161	-.0150	.0977	2679.		
.1990	-603.	480.	8.	13.	-0.	970.	-.0596	-.0205	.0011	-.0171	-.0120	.0923	2952.		
.2000	-664.	806.	115.	185.	-0.	1068.	-.0637	-.0148	.0014	-.0137	-.0125	.0840	3297.		
.2010	-716.	1018.	224.	360.	-0.	1151.	-.0683	-.0097	.0003	-.0068	-.0156	.0733	3667.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.53.

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

.1920	-11.	-1692.	-469.	-748.	-0.	17.	-.0355	-.0555	-.0112	-.0119	-.0021	.1114	2276.
.1930	-98.	-1592.	-429.	-689.	-0.	158.	-.0395	-.0530	-.0123	-.0051	-.0162	.1090	2151.
.1940	-187.	-1354.	-380.	-611.	-0.	301.	-.0472	-.0493	-.0122	-.0014	-.0256	.1067	2072.
.1950	-273.	-1000.	-322.	-518.	-0.	439.	-.0467	-.0445	-.0106	-.0017	-.0292	.1050	2067.
.1960	-367.	-673.	-255.	-410.	-0.	591.	-.0498	-.0390	-.0076	-.0057	-.0268	.1034	2188.
.1970	-462.	-362.	-178.	-266.	-0.	743.	-.0527	-.0330	-.0040	-.0115	-.0208	.1011	2422.
.1980	-540.	40.	-90.	-144.	-0.	869.	-.0559	-.0267	-.0008	-.0161	-.0150	.0977	2679.
.1990	-603.	480.	8.	13.	-0.	970.	-.0526	-.0205	.0011	-.0171	-.0120	.0923	2952.
.2000	-664.	806.	115.	185.	-0.	1068.	-.0637	-.0148	.0014	-.0137	-.0125	.0840	3297.
.2010	-716.	1018.	224.	360.	-0.	1151.	-.0683	-.0097	.0003	-.0068	-.0156	.0733	3667.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.29.53.

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	68	MEMBER	1	SEQUENCE	102	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	FX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2020	-741.	1234.	323.	520.	-0.	1192.	-.0727	-.0054	-.0013	.0016	-.0196	.0624	3957.		
.2030	-747.	1453.	400.	657.	-0.	1202.	-.0762	-.0022	-.0025	.0085	-.0211	.0533	4165.		
.2040	-751.	1567.	475.	764.	-0.	1207.	-.0779	-.0002	-.0024	.0113	-.0166	.0476	4346.		
.2050	-748.	1570.	518.	834.	-0.	1204.	-.0779	.0006	-.0004	.0084	-.0051	.0458	4454.		
.2060	-722.	1556.	533.	857.	-0.	1161.	-.0763	.0002	.0032	.0004	.0115	.0477	4389.		
.2070	-670.	1524.	521.	838.	-0.	1077.	-.0737	-.0015	.0078	-.0103	.0301	.0521	4152.		
.2080	-611.	1384.	493.	793.	-0.	983.	-.0704	-.0043	.0120	-.0206	.0472	.0572	3841.		
.2090	-551.	1136.	454.	731.	-0.	887.	-.0668	-.0083	.0149	-.0277	.0594	.0618	3496.		
.2100	-477.	878.	406.	653.	-0.	768.	-.0635	-.0131	.0160	-.0299	.0641	.0648	3066.		
.2110	-385.	635.	347.	558.	-0.	620.	-.0607	-.0185	.0152	-.0273	.0615	.0661	2537.		
.2120	-291.	337.	278.	447.	-0.	468.	-.0582	-.0244	.0135	-.0220	.0532	.0660	1968.		
.2130	-204.	-18.	200.	321.	0.	328.	-.0553	-.0305	.0115	-.0164	.0431	.0658	1397.		
.2140	-122.	-335.	112.	180.	0.	196.	-.0517	-.0366	.0102	-.0129	.0334	.0670	811.		
.2150	-45.	-569.	16.	26.	0.	72.	-.0472	-.0423	.0102	-.0128	.0259	.0704	233.		
.2160	19.	-772.	-85.	-136.	0.	-31.	-.0420	-.0475	.0115	-.0166	.0214	.0754	424.		
.2170	66.	-970.	-183.	-295.	0.	-106.	-.0364	-.0521	.0136	-.0225	.0183	.0810	953.		
.2180	100.	-1110.	-274.	-441.	0.	-161.	-.0309	-.0559	.0156	-.0281	.0141	.0859	1429.		
.2190	125.	-1175.	-352.	-567.	0.	-201.	-.0259	-.0587	.0167	-.0310	.0065	.0889	1829.		
.2200	135.	-1219.	-413.	-665.	0.	-217.	-.0219	-.0606	.0166	-.0300	-.0048	.0890	2127.		
.2210	128.	-1264.	-455.	-732.	0.	-206.	-.0187	-.0615	.0154	-.0255	-.0190	.0862	2315.		
.2220	109.	-1255.	-479.	-771.	0.	-176.	-.0160	-.0614	.0135	-.0187	-.0338	.0816	2405.		
.2230	81.	-1165.	-487.	-783.	0.	-131.	-.0135	-.0603	.0117	-.0116	-.0467	.0767	2414.		
.2240	42.	-1043.	-480.	-773.	0.	-68.	-.0106	-.0583	.0108	-.0066	-.0546	.0722	2359.		
.2250	-4.	-922.	-463.	-745.	-0.	6.	-.0075	-.0554	.0111	-.0047	-.0561	.0685	2265.		
.2260	-47.	-768.	-436.	-701.	-0.	76.	-.0041	-.0518	.0126	-.0055	-.0520	.0654	2146.		
.2270	-84.	-562.	-397.	-638.	-0.	135.	-.0008	-.0477	.0145	-.0070	-.0444	.0625	1984.		
.2280	-121.	-357.	-241.	-548.	-0.	195.	.0023	-.0431	.0158	-.0068	-.0358	.0586	1771.		
.2290	-160.	-193.	-268.	-431.	-0.	258.	.0048	-.0382	.0160	-.0030	-.0285	.0527	1527.		
.2300	-189.	-45.	-182.	-292.	-0.	304.	.0065	-.0332	.0148	.0049	-.0237	.0445	1283.		
.2310	-201.	110.	-88.	-141.	-0.	323.	.0075	-.0282	.0124	.0164	-.0214	.0343	1072.		
.2320	-200.	239.	10.	16.	-0.	322.	.0081	-.0233	.0094	.0297	-.0200	.0231	981.		
.2330	-195.	319.	107.	171.	-0.	313.	.0089	-.0186	.0066	.0425	-.0174	.0122	1086.		
.2340	-182.	300.	197.	316.	-0.	293.	.0102	-.0142	.0045	.0530	-.0120	.0029	1311.		
.2350	-159.	448.	275.	442.	-0.	256.	.0123	-.0101	.0036	.0599	-.0033	-.0042	1555.		
.2360	-132.	494.	339.	545.	-0.	212.	.0152	-.0063	.0039	.0632	.0084	-.0092	1780.		
.2370	-106.	490.	389.	625.	-0.	171.	.0188	-.0030	.0052	.0636	.0217	-.0125	1971.		
.2380	-81.	454.	424.	681.	-0.	131.	.0228	-.0001	.0068	.0625	.0348	-.0148	2110.		
.2390	-55.	411.	444.	714.	-0.	88.	.0269	.0025	.0083	.0613	.0455	-.0168	2188.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.53.

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

.2290	-160.	-193.	-268.	-431.	-0.	258.	.0048	-.0382	.0160	-.0030	-.0285	.0527	1527.
.2300	-189.	-45.	-182.	-292.	-0.	304.	.0065	-.0332	.0148	.0049	-.0237	.0445	1283.
.2310	-201.	110.	-88.	-141.	-0.	323.	.0075	-.0282	.0124	.0164	-.0214	.0343	1072.
.2320	-200.	239.	10.	16.	-0.	322.	.0081	-.0233	.0094	.0297	-.0200	.0231	981.
.2330	-195.	319.	107.	171.	-0.	313.	.0089	-.0186	.0066	.0425	-.0174	.0122	1086.
.2340	-182.	380.	197.	316.	-0.	293.	.0102	-.0142	.0045	.0530	-.0120	.0029	1311.
.2350	-159.	448.	275.	442.	-0.	256.	.0123	-.0101	.0036	.0599	-.0033	-.0042	1555.
.2360	-132.	494.	339.	545.	-0.	212.	.0152	-.0063	.0039	.0632	.0084	-.0092	1780.
.2370	-106.	490.	380.	625.	-0.	171.	.0188	-.0030	.0052	.0636	.0217	-.0125	1971.
.2380	-81.	454.	424.	661.	-0.	131.	.0228	-.0001	.0068	.0625	.0348	-.0148	2110.
.2390	-55.	411.	444.	714.	-0.	88.	.0269	.0025	.0083	.0613	.0455	-.0168	2188.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE CKW08F 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	CS	MEMBER	1	SEQUENCE	102	LOCATION	END	TYPE	VA						
TIME	FX	Fy	FZ	MX	MY	MZ			DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)			(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2400	-28.	347.	450.	724.	-0.	45.	.0309	.0048	.0094	.0606	.0527	-.0193	2205.		
.2410	-7.	250.	442.	711.	-0.	5.	.0346	.0068	.0102	.0608	.0562	-.0225	2164.		
.2420	20.	142.	422.	678.	-0.	-32.	.0382	.0086	.0106	.0615	.0559	-.0265	2066.		
.2430	40.	48.	390.	627.	-0.	-65.	.0416	.0103	.0107	.0622	.0525	-.0307	1917.		
.2440	58.	-38.	347.	558.	-0.	-93.	.0449	.0119	.0109	.0625	.0467	-.0353	1722.		
.2450	73.	-130.	295.	474.	-0.	-117.	.0481	.0136	.0113	.0619	.0391	-.0405	1486.		
.2460	89.	-213.	235.	378.	-0.	-143.	.0509	.0154	.0118	.0605	.0299	-.0463	1230.		
.2470	107.	-262.	172.	276.	-0.	-171.	.0533	.0174	.0122	.0589	.0190	-.0530	988.		
.2480	123.	-292.	109.	175.	-0.	-198.	.0553	.0195	.0124	.0576	.0068	-.0608	802.		
.2490	136.	-290.	49.	79.	-0.	-219.	.0568	.0219	.0123	.0569	-.0065	-.0697	707.		
.2500	150.	-281.	-4.	-7.	-0.	-241.	.0577	.0245	.0119	.0567	-.0202	-.0799	733.		
.2510	171.	-241.	-51.	-83.	-0.	-275.	.0581	.0274	.0113	.0567	-.0336	-.0912	873.		
.2520	200.	-174.	-91.	-147.	-0.	-322.	.0579	.0304	.0108	.0565	-.0458	-.1034	1076.		
.2530	237.	-94.	-120.	-194.	-0.	-375.	.0574	.0335	.0104	.0557	-.0556	-.1158	1283.		
.2540	267.	-0.	-137.	-221.	-0.	-430.	.0567	.0366	.0100	.0544	-.0625	-.1279	1470.		
.2550	306.	119.	-142.	-228.	-0.	-492.	.0559	.0398	.0098	.0525	-.0663	-.1395	1651.		
.2560	357.	250.	-137.	-220.	0.	-567.	.0550	.0428	.0098	.0501	-.0669	-.1507	1850.		
.2570	406.	365.	-123.	-197.	0.	-653.	.0538	.0455	.0098	.0475	-.0645	-.1613	2075.		
.2580	465.	463.	-101.	-162.	0.	-747.	.0524	.0480	.0098	.0449	-.0594	-.1711	2325.		
.2590	526.	560.	-70.	-113.	0.	-846.	.0510	.0501	.0096	.0427	-.0520	-.1798	2597.		
.2600	588.	648.	-34.	-54.	0.	-946.	.0497	.0517	.0092	.0410	-.0428	-.1869	2881.		
.2610	649.	711.	8.	12.	0.	-1044.	.0485	.0527	.0087	.0397	-.0320	-.1923	3175.		
.2620	711.	749.	49.	79.	0.	-1143.	.0474	.0532	.0080	.0385	-.0202	-.1959	3484.		
.2630	770.	765.	39.	144.	0.	-1239.	.0464	.0530	.0073	.0376	-.0080	-.1974	3793.		
.2640	821.	755.	127.	205.	0.	-1320.	.0457	.0522	.0064	.0371	.0040	-.1966	4064.		
.2650	859.	715.	162.	261.	0.	-1381.	.0453	.0508	.0052	.0373	.0152	-.1934	4275.		
.2660	883.	653.	191.	308.	0.	-1421.	.0451	.0489	.0038	.0380	.0250	-.1880	4422.		
.2670	895.	577.	212.	342.	0.	-1439.	.0452	.0464	.0021	.0392	.0332	-.1803	4499.		
.2680	887.	489.	225.	362.	0.	-1429.	.0456	.0434	.0003	.0410	.0393	-.1705	4484.		
.2690	861.	384.	230.	369.	0.	-1384.	.0463	.0401	-.0018	.0430	.0434	-.1583	4358.		
.2700	812.	269.	226.	363.	0.	-1306.	.0474	.0364	-.0039	.0450	.0455	-.1440	4123.		
.2710	746.	156.	213.	343.	0.	-1200.	.0488	.0326	-.0058	.0466	.0456	-.1278	3796.		
.2720	665.	54.	192.	308.	0.	-1069.	.0503	.0286	-.0077	.0477	.0438	-.1100	3385.		
.2730	566.	-44.	164.	264.	0.	-910.	.0520	.0246	-.0095	.0484	.0402	-.0909	2881.		
.2740	449.	-138.	134.	216.	0.	-722.	.0539	.0207	-.0114	.0491	.0345	-.0709	2293.		
.2750	324.	-210.	102.	164.	0.	-521.	.0556	.0168	-.0134	.0501	.0266	-.0506	1661.		
.2760	199.	-255.	66.	105.	0.	-320.	.0569	.0132	-.0155	.0511	.0169	-.0308	1025.		
.2770	77.	-295.	28.	44.	0.	-118.	.0578	.0097	-.0176	.0523	.0058	-.0118	384.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/3/12/02.

18.29.53.

S/RV PIPING KEWAUNEE CKW08F 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

.2670	895.	577.	212.	342.	0.	-1439.	.0452	.0464	.0021	.0392	.0332	-.1803	4422.
.2680	889.	409.	225.	362.	0.	-1429.	.0456	.0434	.0003	.0410	.0393	-.1705	4484.
.2690	861.	384.	230.	369.	0.	-1384.	.0463	.0401	-.0018	.0430	.0434	-.1583	4358.
.2700	810.	269.	226.	363.	0.	-1306.	.0474	.0364	-.0039	.0450	.0455	-.1440	4123.
.2710	746.	156.	217.	343.	0.	-1200.	.0488	.0326	-.0058	.0466	.0456	-.1278	3796.
.2720	665.	54.	192.	308.	0.	-1069.	.0503	.0286	-.0077	.0477	.0438	-.1100	3385.
.2730	566.	-44.	164.	264.	0.	-910.	.0520	.0246	-.0095	.0484	.0402	-.0909	2881.
.2740	449.	-138.	134.	216.	0.	-722.	.0539	.0207	-.0114	.0491	.0345	-.0709	2293.
.2750	324.	-210.	102.	164.	0.	-521.	.0556	.0168	-.0134	.0501	.0266	-.0506	1661.
.2760	199.	-295.	66.	105.	0.	-320.	.0569	.0132	-.0155	.0511	.0169	-.0308	1025.
.2770	73.	-295.	28.	44.	0.	-118.	.0578	.0097	-.0176	.0523	.0058	-.0118	384.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.53.

S/RV PIPING KEWAUNEE GKWOOD 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	68	MEMBER	1	SEQUENCE	102	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2780	-55.	-338.	-8.	-12.	0.	89.	.0585	.0066	-.0199	.0536	-.0059	.0065	274.		
.2790	-181.	-360.	-39.	-62.	0.	292.	.0590	.0037	-.0220	.0546	-.0176	.0239	907.		
.2800	-293.	-349.	-68.	-109.	0.	472.	.0590	.0010	-.0239	.0548	-.0284	.0403	1473.		
.2810	-387.	-335.	-96.	-155.	0.	622.	.0586	-.0013	-.0254	.0537	-.0375	.0551	1950.		
.2820	-465.	-342.	-121.	-195.	0.	747.	.0576	-.0033	-.0265	.0514	-.0445	.0683	2349.		
.2830	-525.	-346.	-139.	-224.	0.	844.	.0563	-.0051	-.0271	.0485	-.0497	.0797	2656.		
.2840	-561.	-324.	-151.	-243.	0.	903.	.0543	-.0066	-.0278	.0457	-.0536	.0890	2844.		
.2850	-573.	-302.	-158.	-254.	0.	921.	.0515	-.0078	-.0286	.0431	-.0566	.0954	2906.		
.2860	-562.	-317.	-160.	-257.	0.	904.	.0477	-.0088	-.0295	.0410	-.0586	.0988	2858.		
.2870	-533.	-348.	-155.	-249.	0.	857.	.0433	-.0096	-.0306	.0395	-.0597	.0995	2716.		
.2880	-488.	-361.	-144.	-231.	0.	784.	.0384	-.0100	-.0317	.0382	-.0598	.0981	2487.		
.2890	-428.	-371.	-129.	-208.	0.	688.	.0330	-.0102	-.0325	.0361	-.0579	.0950	2187.		
.2900	-359.	-407.	-115.	-185.	0.	577.	.0275	-.0100	-.0324	.0320	-.0529	.0907	1842.		
.2910	-282.	-451.	-101.	-163.	0.	454.	.0219	-.0096	-.0314	.0253	-.0446	.0858	1466.		
.2920	-201.	-462.	-89.	-143.	0.	324.	.0165	-.0087	-.0295	.0161	-.0335	.0809	1078.		
.2930	-123.	-446.	-77.	-124.	0.	198.	.0114	-.0075	-.0268	.0050	-.0204	.0761	711.		
.2940	-52.	-438.	-65.	-105.	0.	84.	.0062	-.0060	-.0237	-.0074	-.0066	.0709	410.		
.2950	14.	-433.	-56.	-90.	0.	-23.	.0010	-.0041	-.0204	-.0200	.0064	.0648	282.		
.2960	77.	-394.	-48.	-77.	0.	-125.	-.0046	-.0019	-.0173	-.0317	.0168	.0579	445.		
.2970	131.	-325.	-39.	-63.	-0.	-211.	-.0103	.0006	-.0147	-.0419	.0239	.0503	669.		
.2980	166.	-265.	-30.	-48.	-0.	-268.	-.0160	.0034	-.0126	-.0505	.0277	.0423	827.		
.2990	186.	-209.	-21.	-35.	-0.	-299.	-.0216	.0063	-.0107	-.0582	.0286	.0344	917.		
.3000	199.	-120.	-19.	-30.	-0.	-320.	-.0270	.0094	-.0089	-.0657	.0274	.0272	977.		
.3010	203.	-2.	-23.	-37.	-0.	-326.	-.0319	.0126	-.0068	-.0736	.0249	.0214	999.		
.3020	188.	101.	-32.	-52.	-0.	-303.	-.0362	.0157	-.0044	-.0821	.0220	.0173	935.		
.3030	159.	182.	-45.	-72.	-0.	-249.	-.0396	.0187	-.0019	-.0907	.0187	.0152	787.		
.3040	112.	277.	-63.	-101.	-0.	-180.	-.0425	.0216	.0007	-.0990	.0146	.0150	627.		
.3050	66.	380.	-86.	-139.	-0.	-106.	-.0449	.0242	.0030	-.1064	.0094	.0161	532.		
.3060	12.	444.	-113.	-181.	-0.	-19.	-.0468	.0266	.0050	-.1125	.0031	.0183	554.		
.3070	-53.	460.	-137.	-221.	-0.	86.	-.0482	.0285	.0065	-.1166	-.0043	.0216	721.		
.3080	-121.	468.	-160.	-258.	-0.	195.	-.0492	.0301	.0073	-.1187	-.0124	.0260	983.		
.3090	-183.	478.	-183.	-294.	-0.	295.	-.0497	.0312	.0078	-.1194	-.0206	.0315	1267.		
.3100	-241.	454.	-204.	-328.	-0.	388.	-.0499	.0320	.0082	-.1193	-.0277	.0378	1545.		
.3110	-297.	387.	-222.	-357.	-0.	477.	-.0497	.0325	.0084	-.1184	-.0330	.0450	1812.		
.3120	-348.	320.	-233.	-375.	-0.	560.	-.0489	.0326	.0084	-.1166	-.0365	.0531	2051.		
.3130	-393.	269.	-237.	-381.	-0.	632.	-.0478	.0325	.0080	-.1136	-.0385	.0616	2245.		
.3140	-430.	202.	-233.	-375.	-0.	691.	-.0465	.0321	.0074	-.1094	-.0389	.0700	2393.		
.3150	-459.	110.	-221.	-355.	-0.	738.	-.0453	.0316	.0063	-.1040	-.0379	.0775	2490.		

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

CONDITION 24

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.3040	112.	277.	-83.	-101.	-0.	-180.	-.0425	.0216	.0007	-.0990	.0146	.0150	627.
.3050	66.	330.	-86.	-139.	-0.	-106.	-.0449	.0242	.0030	-.1064	.0094	.0161	532.
.3060	12.	444.	-113.	-181.	-0.	-19.	-.0468	.0266	.0050	-.1125	.0031	.0183	554.
.3070	-53.	460.	-137.	-221.	-0.	86.	-.0482	.0285	.0065	-.1166	-.0043	.0216	721.
.3080	-121.	468.	-160.	-258.	-0.	195.	-.0492	.0301	.0073	-.1187	-.0124	.0260	983.
.3090	-183.	478.	-183.	-294.	-0.	295.	-.0497	.0312	.0078	-.1194	-.0206	.0315	1267.
.3100	-241.	454.	-204.	-328.	-0.	388.	-.0499	.0320	.0082	-.1193	-.0277	.0378	1545.
.3110	-297.	387.	-222.	-357.	-0.	477.	-.0497	.0325	.0084	-.1184	-.0330	.0450	1812.
.3120	-348.	320.	-233.	-375.	-0.	560.	-.0489	.0326	.0084	-.1166	-.0365	.0531	2051.
.3130	-392.	269.	-237.	-381.	-0.	632.	-.0478	.0325	.0080	-.1136	-.0385	.0616	2245.
.3140	-430.	202.	-233.	-375.	-0.	691.	-.0465	.0321	.0074	-.1094	-.0389	.0700	2393.
.3150	-459.	110.	-221.	-355.	-0.	738.	-.0453	.0316	.0063	-.1040	-.0379	.0775	2490.

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	VA	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)
.3160	-470.	34.	-198.	-318.	-0.	768.	-.0441	.0310	.0049	-.0971	-.0359	.0842	2529.
.3170	-489.	-5.	-164.	-264.	-0.	786.	-.0429	.0304	.0029	-.0889	-.0331	.0901	2523.
.3180	-497.	-32.	-119.	-192.	-0.	799.	-.0417	.0297	.0007	-.0799	-.0292	.0951	2499.
.3190	-499.	-59.	-67.	-107.	-0.	803.	-.0405	.0291	-.0016	-.0709	-.0238	.0990	2465.
.3200	-492.	-54.	-10.	-15.	-0.	791.	-.0393	.0286	-.0037	-.0624	-.0170	.1019	2408.
.3210	-476.	-3.	50.	81.	-0.	766.	-.0382	.0280	-.0057	-.0544	-.0092	.1040	2344.
.3220	-461.	65.	113.	182.	-0.	742.	-.0370	.0275	-.0075	-.0471	-.0007	.1052	2323.
.3230	-449.	130.	177.	285.	-0.	722.	-.0357	.0269	-.0093	-.0405	.0081	.1056	2360.
.3240	-432.	215.	237.	381.	-0.	695.	-.0344	.0261	-.0109	-.0346	.0164	.1049	2411.
.3250	-407.	331.	289.	465.	-0.	655.	-.0333	.0252	-.0122	-.0296	.0238	.1033	2443.
.3260	-381.	442.	332.	534.	-0.	613.	-.0321	.0240	-.0134	-.0255	.0302	.1008	2474.
.3270	-361.	523.	266.	589.	-0.	580.	-.0307	.0224	-.0144	-.0225	.0356	.0979	2514.
.3280	-341.	594.	388.	624.	-0.	548.	-.0291	.0204	-.0150	-.0207	.0398	.0947	2525.
.3290	-314.	670.	393.	633.	0.	506.	-.0274	.0179	-.0153	-.0203	.0426	.0913	2464.
.3300	-284.	720.	382.	615.	0.	457.	-.0256	.0149	-.0152	-.0212	.0443	.0877	2329.
.3310	-255.	716.	356.	572.	0.	411.	-.0236	.0112	-.0148	-.0233	.0447	.0838	2142.
.3320	-228.	680.	316.	508.	0.	366.	-.0214	.0071	-.0143	-.0259	.0435	.0799	1904.
.3330	-196.	632.	262.	422.	0.	315.	-.0191	.0024	-.0137	-.0290	.0406	.0760	1602.
.3340	-159.	554.	196.	315.	0.	256.	-.0169	-.0029	-.0129	-.0324	.0365	.0716	1236.
.3350	-120.	425.	119.	192.	0.	194.	-.0148	-.0085	-.0121	-.0363	.0314	.0669	830.
.3360	-80.	270.	37.	59.	0.	129.	-.0126	-.0144	-.0111	-.0404	.0259	.0621	432.
.3370	-39.	121.	-49.	-79.	0.	62.	-.0104	-.0206	-.0101	-.0445	.0199	.0572	305.
.3380	5.	-32.	-134.	-216.	0.	-7.	-.0083	-.0268	-.0091	-.0486	.0141	.0522	658.
.3390	48.	-205.	-217.	-349.	0.	-78.	-.0064	-.0330	-.0080	-.0525	.0085	.0466	1089.
.3400	94.	-376.	-294.	-473.	0.	-151.	-.0047	-.0390	-.0070	-.0559	.0033	.0404	1510.
.3410	141.	-514.	-361.	-580.	0.	-226.	-.0034	-.0447	-.0063	-.0582	-.0018	.0335	1894.
.3420	184.	-624.	-414.	-665.	0.	-296.	-.0024	-.0499	-.0059	-.0593	-.0066	.0261	2215.
.3430	221.	-725.	-451.	-726.	0.	-356.	-.0017	-.0547	-.0057	-.0593	-.0106	.0179	2460.
.3440	256.	-801.	-474.	-763.	0.	-412.	-.0013	-.0588	-.0056	-.0585	-.0135	.0093	2637.
.3450	290.	-828.	-483.	-776.	0.	-466.	-.0012	-.0624	-.0056	-.0572	-.0149	.0003	2755.
.3460	319.	-811.	-476.	-766.	0.	-513.	-.0013	-.0652	-.0055	-.0555	-.0144	-.0085	2804.
.3470	338.	-774.	-454.	-730.	0.	-544.	-.0013	-.0674	-.0053	-.0535	-.0119	-.0169	2770.
.3480	350.	-713.	-419.	-674.	0.	-562.	-.0014	-.0691	-.0050	-.0514	-.0076	-.0250	2669.
.3490	359.	-612.	-373.	-600.	0.	-577.	-.0016	-.0701	-.0047	-.0489	-.0020	-.0326	2532.
.3500	364.	-482.	-319.	-513.	0.	-586.	-.0019	-.0707	-.0044	-.0457	.0043	-.0398	2370.
.3510	362.	-351.	-257.	-414.	0.	-582.	-.0022	-.0710	-.0043	-.0415	.0108	-.0464	2173.
.3520	351.	-226.	-190.	-306.	0.	-564.	-.0024	-.0710	-.0045	-.0363	.0172	-.0524	1952.
.3530	335.	-93.	-122.	-196.	0.	-538.	-.0025	-.0708	-.0048	-.0302	.0232	-.0573	1743.

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2 SAFETY COLD FKW24F--2 PSV

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INTERNAL FORCES IN THE PIPING
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.3430	221.	-725.	-451.	-726.	0.	-356.	-.0017	-.0547	-.0057	-.0593	-.0106	.0179	2460.
.3440	256.	-801.	-474.	-763.	0.	-412.	-.0013	-.0588	-.0056	-.0585	-.0135	.0093	2637.
.3450	290.	-828.	-483.	-776.	0.	-466.	-.0012	-.0624	-.0056	-.0572	-.0149	.0003	2755.
.3460	319.	-811.	-476.	-766.	0.	-513.	-.0013	-.0652	-.0055	-.0555	-.0144	-.0085	2804.
.3470	338.	-774.	-454.	-730.	0.	-544.	-.0013	-.0674	-.0053	-.0535	-.0119	-.0169	2770.
.3480	350.	-713.	-419.	-674.	0.	-562.	-.0014	-.0691	-.0050	-.0514	-.0076	-.0250	2669.
.3490	359.	-612.	-373.	-600.	0.	-577.	-.0016	-.0701	-.0047	-.0489	-.0020	-.0326	2532.
.3500	364.	-482.	-319.	-513.	0.	-586.	-.0019	-.0707	-.0044	-.0457	.0043	-.0398	2370.
.3510	362.	-351.	-257.	-414.	0.	-582.	-.0022	-.0710	-.0043	-.0415	.0108	-.0464	2173.
.3520	351.	-226.	-190.	-306.	0.	-564.	-.0024	-.0710	-.0045	-.0363	.0172	-.0524	1952.
.3530	335.	-93.	-122.	-196.	0.	-538.	-.0025	-.0708	-.0048	-.0302	.0232	-.0573	1743.

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

SECTION	68	MEMBER	1	SEQUENCE	102	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3540	317.	42.	-57.	-91.	0.	-510.		-.0025	-.0706	-.0051	-.0235	.0287	-.0611	1575.	
.3550	295.	155.	3.	6.	0.	-475.		-.0022	-.0704	-.0054	-.0168	.0340	-.0634	1444.	
.3560	268.	238.	57.	91.	0.	-431.		-.0014	-.0704	-.0056	-.0102	.0390	-.0641	1341.	
.3570	238.	307.	101.	162.	0.	-383.		-.0003	-.0706	-.0056	-.0037	.0434	-.0629	1265.	
.3580	208.	361.	134.	214.	0.	-335.		.0013	-.0711	-.0056	.0027	.0468	-.0601	1212.	
.3590	179.	379.	156.	252.	0.	-288.		.0031	-.0718	-.0055	.0092	.0489	-.0558	1163.	
.3600	151.	357.	167.	268.	0.	-243.		.0052	-.0729	-.0055	.0160	.0495	-.0505	1101.	
.3610	124.	311.	167.	268.	0.	-200.		.0075	-.0742	-.0057	.0233	.0480	-.0442	1018.	
.3620	99.	246.	158.	253.	0.	-159.		.0099	-.0758	-.0060	.0312	.0446	-.0369	911.	
.3630	75.	153.	139.	224.	0.	-121.		.0125	-.0776	-.0064	.0392	.0397	-.0289	775.	
.3640	54.	31.	113.	181.	0.	-88.		.0152	-.0795	-.0067	.0469	.0340	-.0204	612.	
.3650	38.	-102.	78.	126.	0.	-62.		.0180	-.0814	-.0067	.0539	.0281	-.0112	426.	
.3660	26.	-233.	39.	62.	0.	-41.		.0209	-.0832	-.0064	.0599	.0225	-.0015	227.	
.3670	14.	-370.	-4.	-6.	0.	-22.		.0239	-.0848	-.0057	.0649	.0174	.0086	69.	
.3680	3.	-514.	-46.	-75.	0.	-5.		.0268	-.0861	-.0047	.0690	.0130	.0186	228.	
.3690	-3.	-647.	-88.	-142.	0.	4.		.0295	-.0870	-.0035	.0725	.0090	.0280	431.	
.3700	-2.	-760.	-126.	-203.	0.	4.		.0317	-.0874	-.0022	.0758	.0050	.0362	618.	
.3710	-0.	-861.	-157.	-253.	0.	0.		.0333	-.0871	-.0010	.0795	.0009	.0430	770.	
.3720	2.	-953.	-179.	-288.	-0.	-3.		.0344	-.0862	-.0001	.0838	-.0035	.0479	875.	
.3730	6.	-1023.	-191.	-306.	-0.	-9.		.0348	-.0845	.0008	.0884	-.0080	.0510	932.	
.3740	14.	-1058.	-192.	-309.	-0.	-23.		.0345	-.0820	.0016	.0932	-.0121	.0522	944.	
.3750	24.	-1064.	-185.	-297.	-0.	-39.		.0336	-.0786	.0025	.0975	-.0154	.0517	911.	
.3760	33.	-1049.	-167.	-268.	-0.	-53.		.0322	-.0744	.0038	.1011	-.0171	.0498	831.	
.3770	38.	-1005.	-139.	-223.	-0.	-62.		.0304	-.0694	.0054	.1035	-.0169	.0468	705.	
.3780	42.	-924.	-102.	-165.	-0.	-68.		.0284	-.0637	.0074	.1046	-.0149	.0428	542.	
.3790	46.	-810.	-59.	-95.	-0.	-75.		.0259	-.0572	.0098	.1045	-.0111	.0379	367.	
.3800	49.	-675.	-9.	-15.	-0.	-79.		.0231	-.0501	.0125	.1033	-.0060	.0319	246.	
.3810	49.	-523.	47.	75.	-0.	-79.		.0201	-.0425	.0153	.1014	-.0002	.0252	331.	
.3820	45.	-347.	109.	175.	-0.	-73.		.0168	-.0345	.0180	.0994	.0056	.0177	576.	
.3830	40.	-152.	174.	280.	-0.	-65.		.0132	-.0263	.0206	.0974	.0110	.0095	875.	
.3840	35.	44.	241.	387.	-0.	-56.		.0095	-.0180	.0231	.0954	.0156	.0008	1190.	
.3850	30.	239.	306.	492.	-0.	-48.		.0056	-.0098	.0253	.0932	.0195	-.0082	1504.	
.3860	24.	437.	368.	593.	-0.	-39.		.0018	-.0018	.0274	.0910	.0224	-.0170	1807.	
.3870	17.	632.	426.	686.	-0.	-27.		-.0018	.0058	.0293	.0886	.0245	-.0251	2088.	
.3880	8.	808.	478.	768.	-0.	-12.		-.0051	.0129	.0311	.0860	.0257	-.0325	2338.	
.3890	1.	964.	520.	836.	-0.	-1.		-.0081	.0192	.0326	.0829	.0259	-.0389	2542.	
.3900	-4.	1103.	550.	885.	-0.	6.		-.0108	.0248	.0340	.0797	.0251	-.0443	2693.	
.3910	-8.	1213.	570.	917.	-0.	13.		-.0131	.0295	.0351	.0766	.0230	-.0484	2791.	

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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

.3800	49.	-675.	75.	-15.	-6.	-79.	.0231	-.0501	.0125	.1033	-.0060	.0319	246.
.3810	49.	-523.	47.	75.	-0.	-79.	.201	-.0425	.0153	.1014	-.0002	.0252	331.
.3820	45.	-347.	109.	175.	-0.	-73.	.168	-.0345	.0180	.0994	.0056	.0177	576.
.3830	40.	-152.	174.	280.	-0.	-65.	.0132	-.0263	.0206	.0974	.0110	.0095	875.
.3840	35.	44.	241.	387.	-0.	-56.	.0095	-.0180	.0231	.0954	.0156	.0008	1190.
.3850	30.	239.	306.	492.	-0.	-48.	.0056	-.0098	.0253	.0932	.0195	-.0082	1504.
.3860	24.	437.	368.	593.	-0.	-39.	.0018	-.0018	.0274	.0910	.0224	-.0170	1807.
.3870	17.	632.	426.	686.	-0.	-27.	-.0018	.0058	.0293	.0886	.0243	-.0251	2088.
.3880	8.	808.	478.	768.	-0.	-12.	-.0051	.0129	.0311	.0860	.0257	-.0325	2338.
.3890	1.	964.	520.	836.	-0.	-1.	-.0081	.0192	.0326	.0829	.0259	-.0389	2542.
.3900	-4.	1103.	550.	885.	-0.	6.	-.0108	.0248	.0340	.0797	.0251	-.0443	2693.
.3910	-8.	1213.	570.	917.	-0.	13.	-.0131	.0295	.0351	.0766	.0230	-.0484	2791.

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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	VA	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
TIME (SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(PSI)
.3920	-16.	1279.	580.	933.	-0.	26.	-.0149	.0331	.0358	.0737	.0191	-.0512	2840.						
.3930	-26.	1303.	579.	931.	-0.	41.	-.0163	.0358	.0360	.0712	.0146	-.0529	2836.						
.3940	-31.	1299.	566.	910.	-0.	50.	-.0173	.0374	.0359	.0690	.0085	-.0533	2773.						
.3950	-33.	1262.	540.	869.	-0.	52.	-.0179	.0379	.0355	.0668	.0015	-.0526	2649.						
.3960	-34.	1102.	505.	812.	0.	55.	-.0181	.0375	.0348	.0646	-.0061	-.0508	2476.						
.3970	-38.	1064.	461.	742.	0.	62.	-.0179	.0361	.0338	.0624	-.0137	-.0477	2265.						
.3980	-41.	926.	410.	660.	0.	66.	-.0172	.0339	.0326	.0601	-.0214	-.0436	2018.						
.3990	-40.	774.	353.	567.	0.	64.	-.0164	.0310	.0312	.0575	-.0287	-.0389	1736.						
.4000	-36.	600.	290.	467.	0.	57.	-.0155	.0275	.0298	.0547	-.0355	-.0338	1431.						

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)
.2670	895.	577.	212.	342.	0.	-1439.	.0452	.0464	.0021	.0392	.0332	-.1803	4499.

SECTION	MEMBER	SEQUENCE	LOCATION	DIS	TYPE	VA	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
TIME (SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
.0010	0.	0.	0.	0.	0.	0.	-.0000	-.0000	.0000	.0000	-.0000	.0000	-.0000	-.0000	.0000	.0000	-.0000	.0000	0.
.0020	0.	0.	0.	0.	0.	0.	-.0000	-.0000	.0000	.0000	-.0000	.0000	-.0000	-.0000	.0000	.0000	-.0000	.0000	0.
.0030	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0000	-.0000	-.0000	.0000	-.0000	-.0000	.0000	.0000	.0000	.0000	0.
.0040	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0000	-.0000	-.0000	.0000	-.0000	-.0000	.0000	.0000	.0000	.0000	0.
.0050	0.	0.	0.	0.	0.	0.	-.0000	.0000	-.0000	.0000	-.0000	-.0000	-.0000	-.0000	.0000	-.0000	-.0000	-.0000	0.
.0060	0.	0.	0.	0.	0.	0.	-.0000	.0000	-.0000	.0001	-.0001	-.0001	-.0000	-.0000	.0001	-.0001	-.0001	-.0001	0.
.0070	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0000	.0003	-.0003	-.0002	-.0000	-.0000	.0003	-.0003	-.0002	-.0002	0.
.0080	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0000	.0006	-.0007	-.0005	-.0000	-.0000	.0006	-.0007	-.0005	-.0005	0.
.0090	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0000	.0012	-.0014	-.0010	-.0000	-.0000	.0012	-.0014	-.0010	-.0010	0.
.0100	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0000	.0022	-.0024	-.0018	-.0000	-.0000	.0022	-.0024	-.0018	-.0018	0.
.0110	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0000	.0035	-.0039	-.0029	-.0000	-.0000	.0035	-.0039	-.0029	-.0029	0.
.0120	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0000	.0053	-.0061	-.0044	-.0000	-.0000	.0053	-.0061	-.0044	-.0044	0.
.0130	0.	0.	0.	0.	0.	0.	-.0001	-.0000	-.0000	.0076	-.0090	-.0066	-.0000	-.0000	.0076	-.0090	-.0066	-.0066	0.
.0140	0.	0.	0.	0.	0.	0.	-.0001	-.0000	-.0001	.0105	-.0127	-.0095	-.0000	-.0000	.0105	-.0127	-.0095	-.0095	0.
.0150	0.	0.	0.	0.	0.	0.	-.0002	-.0000	-.0001	.0137	-.0170	-.0129	-.0000	-.0000	.0137	-.0170	-.0129	-.0129	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.53.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.0050	0.	0.	0.	0.	0.	0.	0.	-.0000	.0000	-.0000	.0000	-.0000	-.0000	0.
.0060	0.	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0000	.0001	-.0001	-.0001	0.
.0070	0.	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0000	.0003	-.0003	-.0002	0.
.0080	0.	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0000	.0006	-.0007	-.0005	0.
.0090	0.	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0000	.0012	-.0014	-.0010	0.
.0100	0.	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0000	.0022	-.0024	-.0018	0.
.0110	0.	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0000	.0035	-.0039	-.0029	0.
.0120	0.	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0000	.0053	-.0061	-.0044	0.
.0130	0.	0.	0.	0.	0.	0.	0.	-.0001	-.0000	-.0000	.0076	-.0090	-.0066	0.
.0140	0.	0.	0.	0.	0.	0.	0.	-.0001	-.0000	-.0001	.0105	-.0127	-.0095	0.
.0150	0.	0.	0.	0.	0.	0.	0.	-.0002	-.0000	-.0001	.0137	-.0170	-.0129	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/3/12/02.

18.29.55.

S/RV PIPING KEWAUNEE GKW00F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	68	MEMBER	2	SEQUENCE	833	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0160	0.	0.	0.	0.	0.	0.	-.0003	-.0000	-.0001	.0171	-.0214	-.0163	0.		
.0170	0.	0.	0.	0.	0.	0.	-.0005	-.0000	-.0002	.0201	-.0253	-.0192	0.		
.0180	0.	0.	0.	0.	0.	0.	-.0007	-.0001	-.0003	.0222	-.0279	-.0210	0.		
.0190	0.	0.	0.	0.	0.	0.	-.0010	-.0001	-.0003	.0222	-.0283	-.0212	0.		
.0200	0.	0.	0.	0.	0.	0.	-.0013	-.0001	-.0005	.0194	-.0255	-.0195	0.		
.0210	0.	0.	0.	0.	0.	0.	-.0017	-.0001	-.0006	.0134	-.0191	-.0155	0.		
.0220	0.	0.	0.	0.	0.	0.	-.0021	-.0002	-.0007	.0042	-.0092	-.0095	0.		
.0230	0.	0.	0.	0.	0.	0.	-.0025	-.0003	-.0009	-.0070	.0030	-.0021	0.		
.0240	0.	0.	0.	0.	0.	0.	-.0029	-.0005	-.0010	-.0185	.0155	.0052	0.		
.0250	0.	0.	0.	0.	0.	0.	-.0032	-.0007	-.0011	-.0284	.0262	.0111	0.		
.0260	0.	0.	0.	0.	0.	0.	-.0035	-.0011	-.0012	-.0352	.0338	.0154	0.		
.0270	0.	0.	0.	0.	0.	0.	-.0038	-.0016	-.0013	-.0381	.0379	.0188	0.		
.0280	0.	0.	0.	0.	0.	0.	-.0040	-.0022	-.0013	-.0361	.0385	.0221	0.		
.0290	0.	0.	0.	0.	0.	0.	-.0042	-.0029	-.0013	-.0309	.0357	.0243	0.		
.0300	0.	0.	0.	0.	0.	0.	-.0042	-.0038	-.0013	-.0269	.0324	.0242	0.		
.0310	0.	0.	0.	0.	0.	0.	-.0042	-.0047	-.0013	-.0260	.0322	.0244	0.		
.0320	0.	0.	0.	0.	0.	0.	-.0041	-.0056	-.0012	-.0270	.0358	.0293	0.		
.0330	0.	0.	0.	0.	0.	0.	-.0039	-.0065	-.0011	-.0300	.0423	.0383	0.		
.0340	0.	0.	0.	0.	0.	0.	-.0037	-.0075	-.0010	-.0360	.0506	.0455	0.		
.0350	0.	0.	0.	0.	0.	0.	-.0033	-.0083	-.0009	-.0422	.0571	.0474	0.		
.0360	0.	0.	0.	0.	0.	0.	-.0029	-.0091	-.0007	-.0417	.0563	.0459	0.		
.0370	0.	0.	0.	0.	0.	0.	-.0024	-.0098	-.0005	-.0304	.0453	.0432	0.		
.0380	0.	0.	0.	0.	0.	0.	-.0019	-.0103	-.0001	-.0096	.0258	.0381	0.		
.0390	0.	0.	0.	0.	0.	0.	-.0015	-.0106	.0002	.0154	.0006	.0284	0.		
.0400	0.	0.	0.	0.	0.	0.	-.0009	-.0105	.0006	.0383	-.0255	.0152	0.		
.0410	0.	0.	0.	0.	0.	0.	-.0004	-.0101	.0010	.0534	-.0441	.0047	0.		
.0420	0.	0.	0.	0.	0.	0.	.0000	-.0092	.0014	.0584	-.0489	.0040	0.		
.0430	0.	0.	0.	0.	0.	0.	.0005	-.0078	.0018	.0531	-.0407	.0128	0.		
.0440	0.	0.	0.	0.	0.	0.	.0009	-.0059	.0022	.0368	-.0236	.0232	0.		
.0450	0.	0.	0.	0.	0.	0.	.0014	-.0036	.0026	.0129	-.0019	.0282	0.		
.0460	0.	0.	0.	0.	0.	0.	.0020	-.0010	.0030	-.0071	.0159	.0282	0.		
.0470	0.	0.	0.	0.	0.	0.	.0026	.0019	.0035	-.0117	.0197	.0270	0.		
.0480	0.	0.	0.	0.	0.	0.	.0032	.0050	.0041	-.0006	.0088	.0227	0.		
.0490	0.	0.	0.	0.	0.	0.	.0038	.0082	.0046	.0172	-.0098	.0100	0.		
.0500	0.	0.	0.	0.	0.	0.	.0046	.0114	.0052	.0338	-.0302	-.0103	0.		
.0510	0.	0.	0.	0.	0.	0.	.0054	.0147	.0056	.0457	-.0473	-.0297	0.		
.0520	0.	0.	0.	0.	0.	0.	.0062	.0178	.0060	.0497	-.0533	-.0400	0.		
.0530	0.	0.	0.	0.	0.	0.	.0070	.0208	.0063	.0423	-.0442	-.0414	0.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/3/12/02.

18.29.55.

S/RV PIPING KEWAUNEE GKW00F 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

.0430	0.	0.	0.	0.	0.	0.	0.	.0005	-.0078	.0018	.0531	-.0407	.0128	0.
.0440	0.	0.	0.	0.	0.	0.	0.	.0009	-.0059	.0022	.0368	-.0236	.0232	0.
.0450	0.	0.	0.	0.	0.	0.	0.	.0014	-.0036	.0026	.0129	-.0019	.0282	0.
.0460	0.	0.	0.	0.	0.	0.	0.	.0020	-.0010	.0030	-.0071	.0159	.0282	0.
.0470	0.	0.	0.	0.	0.	0.	0.	.0026	.0019	.0035	-.0117	.0197	.0270	0.
.0480	0.	0.	0.	0.	0.	0.	0.	.0032	.0050	.0041	-.0006	.0088	.0227	0.
.0490	0.	0.	0.	0.	0.	0.	0.	.0038	.0082	.0046	.0172	-.0098	.0100	0.
.0500	0.	0.	0.	0.	0.	0.	0.	.0046	.0114	.0052	.0338	-.0302	-.0103	0.
.0510	0.	0.	0.	0.	0.	0.	0.	.0054	.0147	.0056	.0457	-.0473	-.0297	0.
.0520	0.	0.	0.	0.	0.	0.	0.	.0062	.0178	.0060	.0497	-.0533	-.0400	0.
.0530	0.	0.	0.	0.	0.	0.	0.	.0070	.0208	.0065	.0423	-.0442	-.0414	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.53.

S/RV PIPING KEWAUNEE GKW00F 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	DIS	TYPE	VA	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)
.0540	0.	0.	0.	0.	0.	0.	.0079	.0235	.0064	.0233	-.0245	-.0401	0.
.0550	0.	0.	0.	0.	0.	0.	.0088	.0257	.0065	-.0019	-.0013	-.0402	0.
.0560	0.	0.	0.	0.	0.	0.	.0097	.0274	.0064	-.0243	.0196	-.0415	0.
.0570	0.	0.	0.	0.	0.	0.	.0105	.0284	.0062	-.0359	.0314	-.0438	0.
.0580	0.	0.	0.	0.	0.	0.	.0113	.0287	.0060	-.0346	.0291	-.0503	0.
.0590	0.	0.	0.	0.	0.	0.	.0121	.0283	.0056	-.0250	.0158	-.0633	0.
.0600	0.	0.	0.	0.	0.	0.	.0128	.0272	.0052	-.0136	.0001	-.0793	0.
.0610	0.	0.	0.	0.	0.	0.	.0133	.0255	.0047	-.0051	-.0115	-.0910	0.
.0620	0.	0.	0.	0.	0.	0.	.0137	.0233	.0040	-.0038	-.0146	-.0933	0.
.0630	0.	0.	0.	0.	0.	0.	.0139	.0206	.0033	-.0138	-.0047	-.0866	0.
.0640	0.	0.	0.	0.	0.	0.	.0139	.0176	.0025	-.0361	.0176	-.0752	0.
.0650	0.	0.	0.	0.	0.	0.	.0138	.0142	.0017	-.0648	.0446	-.0631	0.
.0660	0.	0.	0.	0.	0.	0.	.0135	.0106	.0009	-.0895	.0666	-.0522	0.
.0670	0.	0.	0.	0.	0.	0.	.0130	.0069	.0002	-.1004	.0766	-.0433	0.
.0680	0.	0.	0.	0.	0.	0.	.0123	.0030	-.0003	-.0937	.0698	-.0392	0.
.0690	0.	0.	0.	0.	0.	0.	.0114	-.0009	-.0007	-.0721	.0462	-.0434	0.
.0700	0.	0.	0.	0.	0.	0.	.0104	-.0047	-.0010	-.0424	.0125	-.0546	0.
.0710	0.	0.	0.	0.	0.	0.	.0091	-.0083	-.0012	-.0122	-.0209	-.0654	0.
.0720	0.	0.	0.	0.	0.	0.	.0075	-.0116	-.0013	.0110	-.0446	-.0679	0.
.0730	0.	0.	0.	0.	0.	0.	.0057	-.0146	-.0012	.0212	-.0524	-.0596	0.
.0740	0.	0.	0.	0.	0.	0.	.0038	-.0171	-.0011	.0162	-.0434	-.0435	0.
.0750	0.	0.	0.	0.	0.	0.	.0017	-.0192	-.0009	-.0005	-.0224	-.0233	0.
.0760	0.	0.	0.	0.	0.	0.	-.0006	-.0211	-.0006	-.0204	.0021	-.0018	0.
.0770	0.	0.	0.	0.	0.	0.	-.0029	-.0226	-.0001	-.0333	.0213	.0187	0.
.0780	0.	0.	0.	0.	0.	0.	-.0052	-.0239	.0005	-.0320	.0278	.0351	0.
.0790	0.	0.	0.	0.	0.	0.	-.0076	-.0251	.0013	-.0160	.0192	.0443	0.
.0800	0.	0.	0.	0.	0.	0.	-.0098	-.0261	.0022	.0097	-.0004	.0456	0.
.0810	0.	0.	0.	0.	0.	0.	-.0120	-.0269	.0031	.0384	-.0233	.0426	0.
.0820	0.	0.	0.	0.	0.	0.	-.0141	-.0276	.0041	.0635	-.0420	.0414	0.
.0830	0.	0.	0.	0.	0.	0.	-.0159	-.0281	.0050	.0790	-.0493	.0468	0.
.0840	0.	0.	0.	0.	0.	0.	-.0177	-.0285	.0059	.0811	-.0411	.0594	0.
.0850	0.	0.	0.	0.	0.	0.	-.0191	-.0288	.0067	.0709	-.0197	.0763	0.
.0860	0.	0.	0.	0.	0.	0.	-.0204	-.0289	.0075	.0543	.0071	.0942	0.
.0870	0.	0.	0.	0.	0.	0.	-.0213	-.0290	.0082	.0385	.0322	.1105	0.
.0880	0.	0.	0.	0.	0.	0.	-.0219	-.0291	.0089	.0295	.0508	.1235	0.
.0890	0.	0.	0.	0.	0.	0.	-.0222	-.0291	.0095	.0295	.0591	.1310	0.
.0900	0.	0.	0.	0.	0.	0.	-.0221	-.0290	.0100	.0363	.0578	.1322	0.
.0910	0.	0.	0.	0.	0.	0.	-.0217	-.0288	.0105	.0448	.0528	.1292	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.53.

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

.0820	0.	0.	0.	0.	0.	0.	0.	0.	-.0141	-.0276	.0041	.0635	-.0420	.0414	0.
.0830	0.	0.	0.	0.	0.	0.	0.	0.	-.0159	-.0281	.0050	.0790	-.0493	.0468	0.
.0840	0.	0.	0.	0.	0.	0.	0.	0.	-.0177	-.0285	.0059	.0811	-.0411	.0594	0.
.0850	0.	0.	0.	0.	0.	0.	0.	0.	-.0191	-.0288	.0067	.0709	-.0197	.0763	0.
.0860	0.	0.	0.	0.	0.	0.	0.	0.	-.0204	-.0289	.0075	.0543	.0071	.0942	0.
.0870	0.	0.	0.	0.	0.	0.	0.	0.	-.0213	-.0290	.0082	.0385	.0322	.1105	0.
.0880	0.	0.	0.	0.	0.	0.	0.	0.	-.0219	-.0291	.0089	.0295	.0508	.1235	0.
.0890	0.	0.	0.	0.	0.	0.	0.	0.	-.0222	-.0291	.0095	.0295	.0591	.1310	0.
.0900	0.	0.	0.	0.	0.	0.	0.	0.	-.0221	-.0290	.0100	.0363	.0578	.1322	0.
.0910	0.	0.	0.	0.	0.	0.	0.	0.	-.0217	-.0288	.0105	.0448	.0528	.1292	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/3/12/02.

18.29.53.

S/RV PIPING KEWAUNEE GKW00F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	08	MEMBER	2	SEQUENCE	833	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.0920	0.	0.	0.	0.	0.	0.	0.	-.0209	-.0285	.0109	.0500	.0502	.1257	0.	
.0930	0.	0.	0.	0.	0.	0.	0.	-.0197	-.0278	.0112	.0495	.0523	.1239	0.	
.0940	0.	0.	0.	0.	0.	0.	0.	-.0183	-.0269	.0114	.0427	.0584	.1224	0.	
.0950	0.	0.	0.	0.	0.	0.	0.	-.0165	-.0257	.0115	.0322	.0661	.1183	0.	
.0960	0.	0.	0.	0.	0.	0.	0.	-.0144	-.0243	.0116	.0238	.0696	.1097	0.	
.0970	0.	0.	0.	0.	0.	0.	0.	-.0121	-.0226	.0117	.0242	.0624	.0959	0.	
.0980	0.	0.	0.	0.	0.	0.	0.	-.0097	-.0206	.0118	.0359	.0425	.0768	0.	
.0990	0.	0.	0.	0.	0.	0.	0.	-.0072	-.0184	.0118	.0562	.0133	.0529	0.	
.1000	0.	0.	0.	0.	0.	0.	0.	-.0047	-.0159	.0119	.0787	-.0195	.0256	0.	
.1010	0.	0.	0.	0.	0.	0.	0.	-.0021	-.0130	.0118	.0967	-.0492	-.0017	0.	
.1020	0.	0.	0.	0.	0.	0.	0.	.0003	-.0099	.0118	.1056	-.0694	-.0250	0.	
.1030	0.	0.	0.	0.	0.	0.	0.	.0027	-.0064	.0117	.1037	-.0772	-.0413	0.	
.1040	0.	0.	0.	0.	0.	0.	0.	.0050	-.0026	.0116	.0921	-.0743	-.0512	0.	
.1050	0.	0.	0.	0.	0.	0.	0.	.0072	.0014	.0114	.0740	-.0646	-.0577	0.	
.1060	0.	0.	0.	0.	0.	0.	0.	.0091	.0055	.0113	.0538	-.0529	-.0636	0.	
.1070	0.	0.	0.	0.	0.	0.	0.	.0110	.0097	.0112	.0358	-.0432	-.0694	0.	
.1080	0.	0.	0.	0.	0.	0.	0.	.0127	.0138	.0112	.0223	-.0371	-.0748	0.	
.1090	0.	0.	0.	0.	0.	0.	0.	.0142	.0178	.0112	.0115	-.0331	-.0803	0.	
.1100	0.	0.	0.	0.	0.	0.	0.	.0156	.0217	.0112	.0005	-.0284	-.0865	0.	
.1110	0.	0.	0.	0.	0.	0.	0.	.0168	.0254	.0113	-.0110	-.0221	-.0912	0.	
.1120	0.	0.	0.	0.	0.	0.	0.	.0179	.0287	.0114	-.0220	-.0147	-.0935	0.	
.1130	0.	0.	0.	0.	0.	0.	0.	.0189	.0317	.0116	-.0318	-.0072	-.0955	0.	
.1140	0.	0.	0.	0.	0.	0.	0.	.0196	.0343	.0118	-.0377	-.0026	-.0982	0.	
.1150	0.	0.	0.	0.	0.	0.	0.	.0202	.0363	.0121	-.0363	-.0035	-.0998	0.	
.1160	0.	0.	0.	0.	0.	0.	0.	.0205	.0378	.0124	-.0277	-.0095	-.0999	0.	
.1170	0.	0.	0.	0.	0.	0.	0.	.0207	.0388	.0120	-.0156	-.0177	-.0998	0.	
.1180	0.	0.	0.	0.	0.	0.	0.	.0207	.0394	.0129	-.0053	-.0244	-.0984	0.	
.1190	0.	0.	0.	0.	0.	0.	0.	.0206	.0396	.0130	.0002	-.0244	-.0904	0.	
.1200	0.	0.	0.	0.	0.	0.	0.	.0203	.0394	.0132	-.0020	-.0134	-.0728	0.	
.1210	0.	0.	0.	0.	0.	0.	0.	.0199	.0390	.0132	-.0133	.0083	-.0485	0.	
.1220	0.	0.	0.	0.	0.	0.	0.	.0195	.0385	.0132	-.0300	.0348	-.0213	0.	
.1230	0.	0.	0.	0.	0.	0.	0.	.0191	.0379	.0132	-.0453	.0591	.0057	0.	
.1240	0.	0.	0.	0.	0.	0.	0.	.0189	.0371	.0131	-.0515	.0735	.0282	0.	
.1250	0.	0.	0.	0.	0.	0.	0.	.0188	.0363	.0131	-.0437	.0714	.0417	0.	
.1260	0.	0.	0.	0.	0.	0.	0.	.0188	.0356	.0130	-.0217	.0518	.0460	0.	
.1270	0.	0.	0.	0.	0.	0.	0.	.0191	.0350	.0128	.0103	.0222	.0465	0.	
.1280	0.	0.	0.	0.	0.	0.	0.	.0196	.0346	.0126	.0430	-.0071	.0472	0.	
.1290	0.	0.	0.	0.	0.	0.	0.	.0204	.0346	.0123	.0673	-.0286	.0490	0.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/3/12/02.

18.29.53.

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

.1190	0.	0.	0.	0.	0.	0.	0.	.0206	.0396	.0130	-.0002	-.0244	-.0904	0.
.1200	0.	0.	0.	0.	0.	0.	0.	.0203	.0394	.0132	-.0020	-.0134	-.0728	0.
.1210	0.	0.	0.	0.	0.	0.	0.	.0199	.0390	.0132	-.0133	.0083	-.0485	0.
.1220	0.	0.	0.	0.	0.	0.	0.	.0195	.0385	.0132	-.0300	.0348	-.0213	0.
.1230	0.	0.	0.	0.	0.	0.	0.	.0191	.0379	.0132	-.0453	.0591	.0057	0.
.1240	0.	0.	0.	0.	0.	0.	0.	.0189	.0371	.0131	-.0515	.0735	.0282	0.
.1250	0.	0.	0.	0.	0.	0.	0.	.0188	.0363	.0131	-.0437	.0714	.0417	0.
.1260	0.	0.	0.	0.	0.	0.	0.	.0188	.0356	.0130	-.0217	.0518	.0460	0.
.1270	0.	0.	0.	0.	0.	0.	0.	.0191	.0350	.0128	.0103	.0222	.0465	0.
.1280	0.	0.	0.	0.	0.	0.	0.	.0196	.0346	.0126	.0430	-.0071	.0472	0.
.1290	0.	0.	0.	0.	0.	0.	0.	.0204	.0346	.0123	.0673	-.0286	.0490	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.53.

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	68	MEMBER	2	SEQUENCE	833	LOCATION	DIS	TYPE	VA					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.1300	0.	0.	0.	0.	0.	0.	.0215	.0349	.0119	.0777	-.0383	.0523	0.	
.1310	0.	0.	0.	0.	0.	0.	.0229	.0355	.0113	.0743	-.0348	.0585	0.	
.1320	0.	0.	0.	0.	0.	0.	.0246	.0364	.0106	.0632	-.0225	.0666	0.	
.1330	0.	0.	0.	0.	0.	0.	.0266	.0375	.0098	.0524	-.0117	.0715	0.	
.1340	0.	0.	0.	0.	0.	0.	.0289	.0389	.0089	.0487	-.0104	.0693	0.	
.1350	0.	0.	0.	0.	0.	0.	.0314	.0404	.0080	.0551	-.0198	.0603	0.	
.1360	0.	0.	0.	0.	0.	0.	.0341	.0418	.0070	.0698	-.0376	.0451	0.	
.1370	0.	0.	0.	0.	0.	0.	.0370	.0433	.0058	.0872	-.0603	.0240	0.	
.1380	0.	0.	0.	0.	0.	0.	.0400	.0449	.0046	.0997	-.0807	-.0002	0.	
.1390	0.	0.	0.	0.	0.	0.	.0431	.0464	.0032	.1016	-.0896	-.0205	0.	
.1400	0.	0.	0.	0.	0.	0.	.0461	.0479	.0017	.0914	-.0834	-.0325	0.	
.1410	0.	0.	0.	0.	0.	0.	.0491	.0493	.0001	.0710	-.0665	-.0387	0.	
.1420	0.	0.	0.	0.	0.	0.	.0520	.0506	-.0016	.0451	-.0453	-.0440	0.	
.1430	0.	0.	0.	0.	0.	0.	.0547	.0515	-.0033	.0185	-.0246	-.0511	0.	
.1440	0.	0.	0.	0.	0.	0.	.0573	.0521	-.0051	-.0033	-.0088	-.0611	0.	
.1450	0.	0.	0.	0.	0.	0.	.0596	.0524	-.0069	-.0164	-.0020	-.0745	0.	
.1460	0.	0.	0.	0.	0.	0.	.0617	.0525	-.0087	-.0212	-.0041	-.0902	0.	
.1470	0.	0.	0.	0.	0.	0.	.0634	.0522	-.0104	-.0220	-.0090	-.1049	0.	
.1480	0.	0.	0.	0.	0.	0.	.0648	.0515	-.0122	-.0255	-.0103	-.1173	0.	
.1490	0.	0.	0.	0.	0.	0.	.0658	.0506	-.0139	-.0359	-.0058	-.1275	0.	
.1500	0.	0.	0.	0.	0.	0.	.0665	.0496	-.0157	-.0532	.0046	-.1337	0.	
.1510	0.	0.	0.	0.	0.	0.	.0667	.0484	-.0173	-.0752	.0210	-.1332	0.	
.1520	0.	0.	0.	0.	0.	0.	.0665	.0470	-.0189	-.0981	.0400	-.1273	0.	
.1530	0.	0.	0.	0.	0.	0.	.0659	.0456	-.0203	-.1173	.0542	-.1224	0.	
.1540	0.	0.	0.	0.	0.	0.	.0650	.0442	-.0216	-.1286	.0574	-.1229	0.	
.1550	0.	0.	0.	0.	0.	0.	.0636	.0428	-.0227	-.1299	.0497	-.1271	0.	
.1560	0.	0.	0.	0.	0.	0.	.0618	.0414	-.0236	-.1218	.0339	-.1321	0.	
.1570	0.	0.	0.	0.	0.	0.	.0596	.0401	-.0244	-.1070	.0123	-.1373	0.	
.1580	0.	0.	0.	0.	0.	0.	.0571	.0391	-.0249	-.0908	-.0117	-.1432	0.	
.1590	0.	0.	0.	0.	0.	0.	.0542	.0385	-.0253	-.0786	-.0317	-.1476	0.	
.1600	0.	0.	0.	0.	0.	0.	.0511	.0381	-.0255	-.0718	-.0436	-.1474	0.	
.1610	0.	0.	0.	0.	0.	0.	.0476	.0381	-.0256	-.0692	-.0496	-.1432	0.	
.1620	0.	0.	0.	0.	0.	0.	.0438	.0385	-.0254	-.0695	-.0525	-.1373	0.	
.1630	0.	0.	0.	0.	0.	0.	.0399	.0392	-.0251	-.0707	-.0522	-.1302	0.	
.1640	0.	0.	0.	0.	0.	0.	.0358	.0401	-.0247	-.0711	-.0496	-.1223	0.	
.1650	0.	0.	0.	0.	0.	0.	.0315	.0412	-.0240	-.0687	-.0477	-.1150	0.	
.1660	0.	0.	0.	0.	0.	0.	.0272	.0424	-.0233	-.0631	-.0475	-.1087	0.	
.1670	0.	0.	0.	0.	0.	0.	.0228	.0437	-.0224	-.0564	-.0465	-.1032	0.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.53.

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

.1570	0.	0.	0.	0.	0.	0.	0.	.0596	.0401	-.0244	-.1070	.0123	-.1373	0.
.1580	0.	0.	0.	0.	0.	0.	0.	.0571	.0391	-.0249	-.0908	-.0117	-.1432	0.
.1590	0.	0.	0.	0.	0.	0.	0.	.0542	.0385	-.0253	-.0786	-.0317	-.1476	0.
.1600	0.	0.	0.	0.	0.	0.	0.	.0511	.0381	-.0255	-.0718	-.0436	-.1474	0.
.1610	0.	0.	0.	0.	0.	0.	0.	.0476	.0381	-.0256	-.0692	-.0496	-.1432	0.
.1620	0.	0.	0.	0.	0.	0.	0.	.0438	.0385	-.0254	-.0695	-.0525	-.1373	0.
.1630	0.	0.	0.	0.	0.	0.	0.	.0399	.0392	-.0251	-.0707	-.0522	-.1302	0.
.1640	0.	0.	0.	0.	0.	0.	0.	.0358	.0401	-.0247	-.0711	-.0496	-.1223	0.
.1650	0.	0.	0.	0.	0.	0.	0.	.0315	.0412	-.0240	-.0687	-.0477	-.1150	0.
.1660	0.	0.	0.	0.	0.	0.	0.	.0272	.0424	-.0235	-.0631	-.0475	-.1087	0.
.1670	0.	0.	0.	0.	0.	0.	0.	.0228	.0437	-.0224	-.0564	-.0465	-.1032	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.53.

S/RV PIPING KEWAUNEE GKW00F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	CB	MEMBER	2	SEQUENCE	873	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1680	0.	0.	0.	0.	0.	0.	.0185	.0448	-.0215	-.0502	-.0428	-.0981	0.		
.1690	0.	0.	0.	0.	0.	0.	.0143	.0456	-.0206	-.0447	-.0379	-.0942	0.		
.1700	0.	0.	0.	0.	0.	0.	.0101	.0461	-.0197	-.0386	-.0332	-.0913	0.		
.1710	0.	0.	0.	0.	0.	0.	.0061	.0461	-.0188	-.0312	-.0283	-.0876	0.		
.1720	0.	0.	0.	0.	0.	0.	.0021	.0453	-.0180	-.0231	-.0228	-.0830	0.		
.1730	0.	0.	0.	0.	0.	0.	-.0017	.0436	-.0174	-.0148	-.0176	-.0789	0.		
.1740	0.	0.	0.	0.	0.	0.	-.0054	.0412	-.0170	-.0072	-.0127	-.0758	0.		
.1750	0.	0.	0.	0.	0.	0.	-.0090	.0377	-.0167	-.0018	-.0066	-.0721	0.		
.1760	0.	0.	0.	0.	0.	0.	-.0125	.0332	-.0167	-.0006	.0026	-.0651	0.		
.1770	0.	0.	0.	0.	0.	0.	-.0159	.0277	-.0170	-.0007	.0153	-.0551	0.		
.1780	0.	0.	0.	0.	0.	0.	-.0193	.0214	-.0174	-.0054	.0294	-.0432	0.		
.1790	0.	0.	0.	0.	0.	0.	-.0227	.0142	-.0181	-.0133	.0443	-.0294	0.		
.1800	0.	0.	0.	0.	0.	0.	-.0261	.0064	-.0189	-.0231	.0595	-.0136	0.		
.1810	0.	0.	0.	0.	0.	0.	-.0295	-.0019	-.0198	-.0330	.0728	.0030	0.		
.1820	0.	0.	0.	0.	0.	0.	-.0329	-.0103	-.0209	-.0423	.0817	.0183	0.		
.1830	0.	0.	0.	0.	0.	0.	-.0364	-.0188	-.0219	-.0502	.0862	.0323	0.		
.1840	0.	0.	0.	0.	0.	0.	-.0401	-.0270	-.0229	-.0564	.0877	.0464	0.		
.1850	0.	0.	0.	0.	0.	0.	-.0438	-.0346	-.0238	-.0609	.0862	.0604	0.		
.1860	0.	0.	0.	0.	0.	0.	-.0477	-.0414	-.0244	-.0640	.0809	.0730	0.		
.1870	0.	0.	0.	0.	0.	0.	-.0517	-.0471	-.0249	-.0661	.0728	.0836	0.		
.1880	0.	0.	0.	0.	0.	0.	-.0558	-.0517	-.0250	-.0666	.0627	.0929	0.		
.1890	0.	0.	0.	0.	0.	0.	-.0601	-.0549	-.0248	-.0643	.0498	.1005	0.		
.1900	0.	0.	0.	0.	0.	0.	-.0644	-.0566	-.0242	-.0587	.0334	.1058	0.		
.1910	0.	0.	0.	0.	0.	0.	-.0688	-.0569	-.0233	-.0501	.0151	.1093	0.		
.1920	0.	0.	0.	0.	0.	0.	-.0732	-.0557	-.0219	-.0405	-.0021	.1121	0.		
.1930	0.	0.	0.	0.	0.	0.	-.0776	-.0532	-.0202	-.0315	-.0162	.1150	0.		
.1940	0.	0.	0.	0.	0.	0.	-.0819	-.0494	-.0181	-.0248	-.0256	.1182	0.		
.1950	0.	0.	0.	0.	0.	0.	-.0860	-.0446	-.0158	-.0215	-.0292	.1218	0.		
.1960	0.	0.	0.	0.	0.	0.	-.0899	-.0391	-.0132	-.0214	-.0268	.1259	0.		
.1970	0.	0.	0.	0.	0.	0.	-.0934	-.0330	-.0104	-.0224	-.0208	.1295	0.		
.1980	0.	0.	0.	0.	0.	0.	-.0966	-.0267	-.0075	-.0216	-.0150	.1309	0.		
.1990	0.	0.	0.	0.	0.	0.	-.0993	-.0205	-.0045	-.0166	-.0120	.1294	0.		
.2000	0.	0.	0.	0.	0.	0.	-.1016	-.0147	-.0016	-.0066	-.0125	.1248	0.		
.2010	0.	0.	0.	0.	0.	0.	-.1032	-.0096	.0012	.0069	-.0156	.1173	0.		
.2020	0.	0.	0.	0.	0.	0.	-.1043	-.0053	.0038	.0214	-.0196	.1080	0.		
.2030	0.	0.	0.	0.	0.	0.	-.1048	-.0021	.0062	.0336	-.0211	.0992	0.		
.2040	0.	0.	0.	0.	0.	0.	-.1047	.0000	.0082	.0405	-.0166	.0937	0.		
.2050	0.	0.	0.	0.	0.	0.	-.1040	.0008	.0098	.0402	-.0051	.0918	0.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.53.

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

.1950	0.	0.	0.	0.	0.	0.	0.	-.0860	-.0446	-.0158	-.0215	-.0292	.1218	0.
.1960	0.	0.	0.	0.	0.	0.	0.	-.0899	-.0391	-.0132	-.0214	-.0268	.1259	0.
.1970	0.	0.	0.	0.	0.	0.	0.	-.0934	-.0330	-.0104	-.0224	-.0208	.1295	0.
.1980	0.	0.	0.	0.	0.	0.	0.	-.0966	-.0267	-.0075	-.0216	-.0150	.1309	0.
.1990	0.	0.	0.	0.	0.	0.	0.	-.0993	-.0205	-.0045	-.0166	-.0120	.1294	0.
.2000	0.	0.	0.	0.	0.	0.	0.	-.1016	-.0147	-.0016	-.0066	-.0125	.1248	0.
.2010	0.	0.	0.	0.	0.	0.	0.	-.1032	-.0096	.0012	.0069	-.0156	.1173	0.
.2020	0.	0.	0.	0.	0.	0.	0.	-.1043	-.0053	.0038	.0214	-.0196	.1080	0.
.2030	0.	0.	0.	0.	0.	0.	0.	-.1048	-.0021	.0062	.0336	-.0211	.0992	0.
.2040	0.	0.	0.	0.	0.	0.	0.	-.1047	.0000	.0052	.0405	-.0166	.0937	0.
.2050	0.	0.	0.	0.	0.	0.	0.	-.1040	.0008	.0098	.0402	-.0051	.0918	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.53.

S/RV PIPING KEWAUNEE CRKWOEF 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	GC	MEMBER	Z	SEQUENCE	833	LOCATION	DIS	TYPE	VA					STRESS
TIME														(PSI)
(SEC)		FX	FY	FZ	FX	MY	NZ		DY	DZ	RX	RY	RZ	
		(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(DEG)	(DEG)	(DEG)	
.2060	0.	0.	0.	0.	0.	0.	0.	-.1027	.0004	.0110	.0332	.0115	.0920	0.
.2070	0.	0.	0.	0.	0.	0.	0.	-.1008	-.0013	.0118	.0217	.0301	.0932	0.
.2080	0.	0.	0.	0.	0.	0.	0.	-.0984	-.0042	.0122	.0096	.0472	.0948	0.
.2090	0.	0.	0.	0.	0.	0.	0.	-.0955	-.0081	.0121	.0002	.0594	.0957	0.
.2100	0.	0.	0.	0.	0.	0.	0.	-.0922	-.0130	.0117	-.0049	.0641	.0942	0.
.2110	0.	0.	0.	0.	0.	0.	0.	-.0885	-.0184	.0110	-.0060	.0613	.0898	0.
.2120	0.	0.	0.	0.	0.	0.	0.	-.0846	-.0244	.0100	-.0049	.0532	.0839	0.
.2130	0.	0.	0.	0.	0.	0.	0.	-.0804	-.0305	.0088	-.0042	.0431	.0783	0.
.2140	0.	0.	0.	0.	0.	0.	0.	-.0760	-.0366	.0075	-.0060	.0334	.0745	0.
.2150	0.	0.	0.	0.	0.	0.	0.	-.0716	-.0424	.0061	-.0119	.0259	.0731	0.
.2160	0.	0.	0.	0.	0.	0.	0.	-.0671	-.0476	.0047	-.0218	.0214	.0742	0.
.2170	0.	0.	0.	0.	0.	0.	0.	-.0627	-.0522	.0033	-.0338	.0183	.0770	0.
.2180	0.	0.	0.	0.	0.	0.	0.	-.0584	-.0560	.0022	-.0450	.0141	.0798	0.
.2190	0.	0.	0.	0.	0.	0.	0.	-.0541	-.0589	.0012	-.0526	.0065	.0813	0.
.2200	0.	0.	0.	0.	0.	0.	0.	-.0499	-.0608	.0006	-.0554	-.0048	.0807	0.
.2210	0.	0.	0.	0.	0.	0.	0.	-.0459	-.0617	.0003	-.0535	-.0190	.0783	0.
.2220	0.	0.	0.	0.	0.	0.	0.	-.0420	-.0615	.0004	-.0481	-.0338	.0749	0.
.2230	0.	0.	0.	0.	0.	0.	0.	-.0381	-.0604	.0008	-.0415	-.0467	.0717	0.
.2240	0.	0.	0.	0.	0.	0.	0.	-.0343	-.0584	.0017	-.0361	-.0546	.0696	0.
.2250	0.	0.	0.	0.	0.	0.	0.	-.0306	-.0555	.0029	-.0332	-.0561	.0687	0.
.2260	0.	0.	0.	0.	0.	0.	0.	-.0268	-.0519	.0045	-.0323	-.0520	.0683	0.
.2270	0.	0.	0.	0.	0.	0.	0.	-.0231	-.0477	.0064	-.0314	-.0444	.0676	0.
.2280	0.	0.	0.	0.	0.	0.	0.	-.0192	-.0431	.0086	-.0278	-.0358	.0660	0.
.2290	0.	0.	0.	0.	0.	0.	0.	-.0152	-.0382	.0111	-.0195	-.0285	.0626	0.
.2300	0.	0.	0.	0.	0.	0.	0.	-.0112	-.0332	.0138	-.0062	-.0237	.0561	0.
.2310	0.	0.	0.	0.	0.	0.	0.	-.0069	-.0282	.0167	.0110	-.0214	.0467	0.
.2320	0.	0.	0.	0.	0.	0.	0.	-.0026	-.0233	.0196	.0303	-.0200	.0354	0.
.2330	0.	0.	0.	0.	0.	0.	0.	.0020	-.0186	.0224	.0490	-.0174	.0242	0.
.2340	0.	0.	0.	0.	0.	0.	0.	.0067	-.0141	.0252	.0650	-.0120	.0141	0.
.2350	0.	0.	0.	0.	0.	0.	0.	.0115	-.0100	.0277	.0768	-.0033	.0056	0.
.2360	0.	0.	0.	0.	0.	0.	0.	.0164	-.0063	.0301	.0840	.0084	-.0011	0.
.2370	0.	0.	0.	0.	0.	0.	0.	.0215	-.0030	.0322	.0875	.0217	-.0060	0.
.2380	0.	0.	0.	0.	0.	0.	0.	.0266	-.0000	.0339	.0885	.0348	-.0098	0.
.2390	0.	0.	0.	0.	0.	0.	0.	.0317	.0026	.0353	.0886	.0455	-.0134	0.
.2400	0.	0.	0.	0.	0.	0.	0.	.0370	.0048	.0363	.0883	.0527	-.0176	0.
.2410	0.	0.	0.	0.	0.	0.	0.	.0422	.0068	.0370	.0880	.0562	-.0224	0.
.2420	0.	0.	0.	0.	0.	0.	0.	.0474	.0086	.0373	.0874	.0559	-.0277	0.
.2430	0.	0.	0.	0.	0.	0.	0.	.0525	.0103	.0373	.0862	.0525	-.0332	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.53.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.2330	0.	0.	0.	0.	0.	0.	0.	.0020	-.0186	.0224	.0490	-.0174	.0242	0.
.2340	0.	0.	0.	0.	0.	0.	0.	.0067	-.0141	.0252	.0650	-.0120	.0141	0.
.2350	0.	0.	0.	0.	0.	0.	0.	.0115	-.0100	.0277	.0768	-.0033	.0056	0.
.2360	0.	0.	0.	0.	0.	0.	0.	.0164	-.0063	.0301	.0840	.0084	-.0011	0.
.2370	0.	0.	0.	0.	0.	0.	0.	.0215	-.0030	.0322	.0875	.0217	-.0060	0.
.2380	0.	0.	0.	0.	0.	0.	0.	.0266	-.0000	.0339	.0885	.0348	-.0098	0.
.2390	0.	0.	0.	0.	0.	0.	0.	.0317	.0026	.0353	.0886	.0455	-.0134	0.
.2400	0.	0.	0.	0.	0.	0.	0.	.0370	.0048	.0363	.0883	.0527	-.0176	0.
.2410	0.	0.	0.	0.	0.	0.	0.	.0422	.0068	.0370	.0880	.0562	-.0224	0.
.2420	0.	0.	0.	0.	0.	0.	0.	.0474	.0086	.0373	.0874	.0559	-.0277	0.
.2430	0.	0.	0.	0.	0.	0.	0.	.0525	.0103	.0373	.0862	.0523	-.0332	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.29.53.

S/RV PIPING KEWAUNEE CKW00F 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	68	MEMBER	2	SEQUENCE	833	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2440	0.	0.	0.	0.	0.	0.	0.	.0577	.0119	.0370	.0838	.0467	-.0389	0.	
.2450	0.	0.	0.	0.	0.	0.	0.	.0628	.0136	.0364	.0800	.0391	-.0450	0.	
.2460	0.	0.	0.	0.	0.	0.	0.	.0678	.0154	.0355	.0750	.0299	-.0518	0.	
.2470	0.	0.	0.	0.	0.	0.	0.	.0727	.0173	.0345	.0695	.0190	-.0596	0.	
.2480	0.	0.	0.	0.	0.	0.	0.	.0775	.0195	.0334	.0643	.0068	-.0683	0.	
.2490	0.	0.	0.	0.	0.	0.	0.	.0822	.0219	.0322	.0599	-.0065	-.0787	0.	
.2500	0.	0.	0.	0.	0.	0.	0.	.0868	.0245	.0309	.0564	-.0202	-.0891	0.	
.2510	0.	0.	0.	0.	0.	0.	0.	.0913	.0273	.0297	.0535	-.0336	-.1019	0.	
.2520	0.	0.	0.	0.	0.	0.	0.	.0956	.0303	.0285	.0509	-.0458	-.1167	0.	
.2530	0.	0.	0.	0.	0.	0.	0.	.0997	.0335	.0274	.0483	-.0556	-.1301	0.	
.2540	0.	0.	0.	0.	0.	0.	0.	.1036	.0366	.0264	.0459	-.0625	-.1443	0.	
.2550	0.	0.	0.	0.	0.	0.	0.	.1073	.0398	.0255	.0438	-.0665	-.1584	0.	
.2560	0.	0.	0.	0.	0.	0.	0.	.1108	.0428	.0247	.0417	-.0669	-.1723	0.	
.2570	0.	0.	0.	0.	0.	0.	0.	.1139	.0456	.0240	.0399	-.0645	-.1862	0.	
.2580	0.	0.	0.	0.	0.	0.	0.	.1167	.0481	.0235	.0387	-.0594	-.1997	0.	
.2590	0.	0.	0.	0.	0.	0.	0.	.1191	.0501	.0230	.0384	-.0520	-.2121	0.	
.2600	0.	0.	0.	0.	0.	0.	0.	.1211	.0517	.0226	.0389	-.0428	-.2230	0.	
.2610	0.	0.	0.	0.	0.	0.	0.	.1226	.0528	.0221	.0401	-.0320	-.2322	0.	
.2620	0.	0.	0.	0.	0.	0.	0.	.1235	.0533	.0217	.0415	-.0202	-.2395	0.	
.2630	0.	0.	0.	0.	0.	0.	0.	.1239	.0531	.0213	.0431	-.0080	-.2447	0.	
.2640	0.	0.	0.	0.	0.	0.	0.	.1237	.0523	.0207	.0450	.0040	-.2470	0.	
.2650	0.	0.	0.	0.	0.	0.	0.	.1227	.0509	.0201	.0472	.0152	-.2462	0.	
.2660	0.	0.	0.	0.	0.	0.	0.	.1211	.0489	.0193	.0497	.0250	-.2423	0.	
.2670	0.	0.	0.	0.	0.	0.	0.	.1188	.0464	.0184	.0523	.0332	-.2353	0.	
.2680	0.	0.	0.	0.	0.	0.	0.	.1158	.0435	.0173	.0548	.0393	-.2251	0.	
.2690	0.	0.	0.	0.	0.	0.	0.	.1120	.0401	.0160	.0571	.0434	-.2112	0.	
.2700	0.	0.	0.	0.	0.	0.	0.	.1076	.0364	.0145	.0589	.0455	-.1939	0.	
.2710	0.	0.	0.	0.	0.	0.	0.	.1025	.0326	.0129	.0597	.0456	-.1737	0.	
.2720	0.	0.	0.	0.	0.	0.	0.	.0969	.0286	.0111	.0594	.0438	-.1509	0.	
.2730	0.	0.	0.	0.	0.	0.	0.	.0908	.0246	.0092	.0585	.0402	-.1256	0.	
.2740	0.	0.	0.	0.	0.	0.	0.	.0842	.0206	.0071	.0574	.0345	-.0985	0.	
.2750	0.	0.	0.	0.	0.	0.	0.	.0773	.0168	.0049	.0563	.0266	-.0705	0.	
.2760	0.	0.	0.	0.	0.	0.	0.	.0701	.0132	.0027	.0552	.0169	-.0430	0.	
.2770	0.	0.	0.	0.	0.	0.	0.	.0628	.0097	.0004	.0540	.0058	-.0163	0.	
.2780	0.	0.	0.	0.	0.	0.	0.	.0555	.0065	-.0019	.0531	-.0059	.0099	0.	
.2790	0.	0.	0.	0.	0.	0.	0.	.0483	.0036	-.0042	.0522	-.0176	.0350	0.	
.2800	0.	0.	0.	0.	0.	0.	0.	.0412	.0010	-.0065	.0506	-.0284	.0583	0.	
.2810	0.	0.	0.	0.	0.	0.	0.	.0345	-.0013	-.0086	.0478	-.0373	.0789	0.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.53.

S/RV PIPING KEWAUNEE CKW00F 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

.2720	0.	0.	0.	0.	0.	0.	0.	.0969	.0286	.0111	.0594	.0438	-.1509	0.
.2730	0.	0.	0.	0.	0.	0.	0.	.0908	.0246	.0092	.0585	.0402	-.1256	0.
.2740	0.	0.	0.	0.	0.	0.	0.	.0842	.0206	.0071	.0574	.0345	-.0985	0.
.2750	0.	0.	0.	0.	0.	0.	0.	.0773	.0168	.0049	.0563	.0266	-.0705	0.
.2760	0.	0.	0.	0.	0.	0.	0.	.0701	.0132	.0027	.0552	.0169	-.0430	0.
.2770	0.	0.	0.	0.	0.	0.	0.	.0628	.0097	.0004	.0540	.0058	-.0163	0.
.2780	0.	0.	0.	0.	0.	0.	0.	.0555	.0065	-.0019	.0531	-.0059	.0099	0.
.2790	0.	0.	0.	0.	0.	0.	0.	.0483	.0036	-.0042	.0522	-.0176	.0350	0.
.2800	0.	0.	0.	0.	0.	0.	0.	.0412	.0010	-.0065	.0506	-.0284	.0583	0.
.2810	0.	0.	0.	0.	0.	0.	0.	.0345	-.0013	-.0086	.0478	-.0375	.0789	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.53.

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	MEMBER	SEQUENCE	LOCATION	DIS	TYPE	VA	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)
.2820	0.	0.	0.	0.	0.	0.	.0280	-.0034	-.0108	.0440	-.0445	.0968	0.
.2830	0.	0.	0.	0.	0.	0.	.0219	-.0052	-.0128	.0400	-.0497	.1119	0.
.2840	0.	0.	0.	0.	0.	0.	.0163	-.0066	-.0146	.0364	-.0536	.1235	0.
.2850	0.	0.	0.	0.	0.	0.	.0111	-.0079	-.0164	.0334	-.0566	.1306	0.
.2860	0.	0.	0.	0.	0.	0.	.0064	-.0089	-.0180	.0312	-.0586	.1334	0.
.2870	0.	0.	0.	0.	0.	0.	.0021	-.0096	-.0195	.0300	-.0597	.1323	0.
.2880	0.	0.	0.	0.	0.	0.	-.0017	-.0100	-.0209	.0294	-.0598	.1281	0.
.2890	0.	0.	0.	0.	0.	0.	-.0051	-.0102	-.0222	.0282	-.0579	.1213	0.
.2900	0.	0.	0.	0.	0.	0.	-.0082	-.0101	-.0233	.0250	-.0529	.1128	0.
.2910	0.	0.	0.	0.	0.	0.	-.0110	-.0096	-.0244	.0191	-.0446	.1032	0.
.2920	0.	0.	0.	0.	0.	0.	-.0136	-.0088	-.0253	.0106	-.0335	.0953	0.
.2930	0.	0.	0.	0.	0.	0.	-.0160	-.0076	-.0262	.0003	-.0204	.0837	0.
.2940	0.	0.	0.	0.	0.	0.	-.0184	-.0060	-.0271	-.0114	-.0066	.0741	0.
.2950	0.	0.	0.	0.	0.	0.	-.0207	-.0042	-.0279	-.0234	.0064	.0640	0.
.2960	0.	0.	0.	0.	0.	0.	-.0230	-.0020	-.0286	-.0346	.0168	.0531	0.
.2970	0.	0.	0.	0.	0.	0.	-.0254	.0006	-.0293	-.0443	.0239	.0422	0.
.2980	0.	0.	0.	0.	0.	0.	-.0279	.0033	-.0300	-.0523	.0277	.0321	0.
.2990	0.	0.	0.	0.	0.	0.	-.0305	.0063	-.0307	-.0595	.0286	.0230	0.
.3000	0.	0.	0.	0.	0.	0.	-.0333	.0094	-.0313	-.0669	.0274	.0150	0.
.3010	0.	0.	0.	0.	0.	0.	-.0362	.0126	-.0319	-.0750	.0249	.0089	0.
.3020	0.	0.	0.	0.	0.	0.	-.0393	.0157	-.0325	-.0840	.0220	.0057	0.
.3030	0.	0.	0.	0.	0.	0.	-.0426	.0188	-.0331	-.0934	.0187	.0057	0.
.3040	0.	0.	0.	0.	0.	0.	-.0459	.0216	-.0336	-.1029	.0146	.0081	0.
.3050	0.	0.	0.	0.	0.	0.	-.0493	.0243	-.0341	-.1118	.0094	.0120	0.
.3060	0.	0.	0.	0.	0.	0.	-.0528	.0266	-.0345	-.1194	.0031	.0176	0.
.3070	0.	0.	0.	0.	0.	0.	-.0563	.0285	-.0348	-.1250	-.0043	.0249	0.
.3080	0.	0.	0.	0.	0.	0.	-.0597	.0301	-.0350	-.1286	-.0124	.0335	0.
.3090	0.	0.	0.	0.	0.	0.	-.0630	.0313	-.0350	-.1306	-.0206	.0428	0.
.3100	0.	0.	0.	0.	0.	0.	-.0661	.0321	-.0349	-.1318	-.0277	.0527	0.
.3110	0.	0.	0.	0.	0.	0.	-.0691	.0325	-.0347	-.1320	-.0330	.0632	0.
.3120	0.	0.	0.	0.	0.	0.	-.0718	.0326	-.0343	-.1309	-.0365	.0745	0.
.3130	0.	0.	0.	0.	0.	0.	-.0742	.0325	-.0336	-.1281	-.0385	.0858	0.
.3140	0.	0.	0.	0.	0.	0.	-.0762	.0321	-.0328	-.1237	-.0389	.0964	0.
.3150	0.	0.	0.	0.	0.	0.	-.0779	.0316	-.0318	-.1175	-.0379	.1057	0.
.3160	0.	0.	0.	0.	0.	0.	-.0793	.0310	-.0307	-.1093	-.0359	.1135	0.
.3170	0.	0.	0.	0.	0.	0.	-.0802	.0304	-.0294	-.0990	-.0331	.1201	0.
.3180	0.	0.	0.	0.	0.	0.	-.0808	.0297	-.0279	-.0872	-.0292	.1256	0.
.3190	0.	0.	0.	0.	0.	0.	-.0810	.0291	-.0264	-.0750	-.0238	.1297	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.53.

S/RV PIPING KEWAUNEE GKWOBF 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

.3090	0.	0.	0.	0.	0.	0.	0.	-.0630	.0313	-.0350	-.1306	-.0206	.0428	0.
.3100	0.	0.	0.	0.	0.	0.	0.	-.0661	.0321	-.0349	-.1318	-.0277	.0527	0.
.3110	0.	0.	0.	0.	0.	0.	0.	-.0691	.0325	-.0347	-.1320	-.0330	.0632	0.
.3120	0.	0.	0.	0.	0.	0.	0.	-.0718	.0326	-.0343	-.1309	-.0365	.0745	0.
.3130	0.	0.	0.	0.	0.	0.	0.	-.0742	.0325	-.0336	-.1281	-.0385	.0858	0.
.3140	0.	0.	0.	0.	0.	0.	0.	-.0762	.0321	-.0328	-.1237	-.0389	.0964	0.
.3150	0.	0.	0.	0.	0.	0.	0.	-.0779	.0316	-.0318	-.1175	-.0379	.1057	0.
.3160	0.	0.	0.	0.	0.	0.	0.	-.0793	.0310	-.0307	-.1093	-.0359	.1155	0.
.3170	0.	0.	0.	0.	0.	0.	0.	-.0802	.0304	-.0294	-.0990	-.0331	.1201	0.
.3180	0.	0.	0.	0.	0.	0.	0.	-.0808	.0297	-.0279	-.0872	-.0292	.1256	0.
.3190	0.	0.	0.	0.	0.	0.	0.	-.0810	.0291	-.0264	-.0750	-.0238	.1297	0.

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ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE CKN00F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

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ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	DIS	TYPE	VA	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	FX	FY	FZ	STRESS
TIME	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)						
.3200	0.	0.	0.	0.	0.	0.	-.0807	.0286	-.0249	-.0630	-.0170	.1321	0.						
.3210	0.	0.	0.	0.	0.	0.	-.0801	.0280	-.0233	-.0513	-.0092	.1332	0.						
.3220	0.	0.	0.	0.	0.	0.	-.0791	.0275	-.0218	-.0402	-.0007	.1336	0.						
.3230	0.	0.	0.	0.	0.	0.	-.0777	.0269	-.0204	-.0296	.0081	.1352	0.						
.3240	0.	0.	0.	0.	0.	0.	-.0760	.0261	-.0191	-.0201	.0164	.1315	0.						
.3250	0.	0.	0.	0.	0.	0.	-.0739	.0252	-.0181	-.0118	.0238	.1283	0.						
.3260	0.	0.	0.	0.	0.	0.	-.0715	.0240	-.0172	-.0051	.0302	.1243	0.						
.3270	0.	0.	0.	0.	0.	0.	-.0688	.0225	-.0167	-.0000	.0356	.1201	0.						
.3280	0.	0.	0.	0.	0.	0.	-.0659	.0205	-.0164	.0031	.0398	.1156	0.						
.3290	0.	0.	0.	0.	0.	0.	-.0626	.0180	-.0165	.0039	.0426	.1106	0.						
.3300	0.	0.	0.	0.	0.	0.	-.0592	.0149	-.0168	.0023	.0443	.1051	0.						
.3310	0.	0.	0.	0.	0.	0.	-.0555	.0113	-.0175	-.0014	.0447	.0995	0.						
.3320	0.	0.	0.	0.	0.	0.	-.0516	.0071	-.0185	-.0065	.0435	.0939	0.						
.3330	0.	0.	0.	0.	0.	0.	-.0475	.0024	-.0196	-.0128	.0406	.0880	0.						
.3340	0.	0.	0.	0.	0.	0.	-.0434	-.0028	-.0210	-.0204	.0365	.0814	0.						
.3350	0.	0.	0.	0.	0.	0.	-.0391	-.0084	-.0226	-.0290	.0314	.0743	0.						
.3360	0.	0.	0.	0.	0.	0.	-.0347	-.0144	-.0242	-.0382	.0259	.0670	0.						
.3370	0.	0.	0.	0.	0.	0.	-.0302	-.0206	-.0258	-.0475	.0199	.0596	0.						
.3380	0.	0.	0.	0.	0.	0.	-.0258	-.0268	-.0274	-.0568	.0141	.0519	0.						
.3390	0.	0.	0.	0.	0.	0.	-.0214	-.0330	-.0288	-.0658	.0085	.0436	0.						
.3400	0.	0.	0.	0.	0.	0.	-.0170	-.0390	-.0301	-.0740	.0035	.0346	0.						
.3410	0.	0.	0.	0.	0.	0.	-.0127	-.0447	-.0311	-.0804	-.0018	.0249	0.						
.3420	0.	0.	0.	0.	0.	0.	-.0086	-.0500	-.0318	-.0848	-.0066	.0148	0.						
.3430	0.	0.	0.	0.	0.	0.	-.0046	-.0548	-.0322	-.0871	-.0106	.0043	0.						
.3440	0.	0.	0.	0.	0.	0.	-.0008	-.0589	-.0322	-.0877	-.0135	-.0065	0.						
.3450	0.	0.	0.	0.	0.	0.	.0028	-.0624	-.0318	-.0868	-.0149	-.0175	0.						
.3460	0.	0.	0.	0.	0.	0.	.0062	-.0653	-.0310	-.0847	-.0144	-.0281	0.						
.3470	0.	0.	0.	0.	0.	0.	.0092	-.0675	-.0299	-.0815	-.0119	-.0377	0.						
.3480	0.	0.	0.	0.	0.	0.	.0120	-.0691	-.0283	-.0772	-.0076	-.0465	0.						
.3490	0.	0.	0.	0.	0.	0.	.0145	-.0702	-.0265	-.0718	-.0020	-.0547	0.						
.3500	0.	0.	0.	0.	0.	0.	.0167	-.0708	-.0244	-.0653	.0043	-.0622	0.						
.3510	0.	0.	0.	0.	0.	0.	.0186	-.0710	-.0220	-.0573	.0108	-.0687	0.						
.3520	0.	0.	0.	0.	0.	0.	.0202	-.0710	-.0194	-.0480	.0172	-.0739	0.						
.3530	0.	0.	0.	0.	0.	0.	.0216	-.0708	-.0167	-.0377	.0232	-.0779	0.						
.3540	0.	0.	0.	0.	0.	0.	.0226	-.0706	-.0139	-.0270	.0287	-.0805	0.						
.3550	0.	0.	0.	0.	0.	0.	.0234	-.0704	-.0110	-.0166	.0340	-.0816	0.						
.3560	0.	0.	0.	0.	0.	0.	.0240	-.0704	-.0082	-.0068	.0390	-.0806	0.						
.3570	0.	0.	0.	0.	0.	0.	.0244	-.0706	-.0054	.0025	.0434	-.0776	0.						

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.29.53.

S/RV PIPING KEWAUNEE CKN00F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING

.3470	0.	0.	0.	0.	0.	0.	0.	0.	.0092	-.0675	-.0299	-.0815	-.0119	-.0377	0.
.3480	0.	0.	0.	0.	0.	0.	0.	0.	.120	-.0691	-.0283	-.0772	-.0076	-.0465	0.
.3490	0.	0.	0.	0.	0.	0.	0.	0.	.145	-.0702	-.0265	-.0718	-.0020	-.0547	0.
.3500	0.	0.	0.	0.	0.	0.	0.	0.	.0167	-.0708	-.0244	-.0653	.0043	-.0622	0.
.3510	0.	0.	0.	0.	0.	0.	0.	0.	.0186	-.0710	-.0220	-.0573	.0108	-.0687	0.
.3520	0.	0.	0.	0.	0.	0.	0.	0.	.0202	-.0710	-.0194	-.0480	.0172	-.0739	0.
.3530	0.	0.	0.	0.	0.	0.	0.	0.	.0216	-.0708	-.0167	-.0377	.0232	-.0779	0.
.3540	0.	0.	0.	0.	0.	0.	0.	0.	.0226	-.0706	-.0139	-.0270	.0287	-.0805	0.
.3550	0.	0.	0.	0.	0.	0.	0.	0.	.0234	-.0704	-.0110	-.0166	.0340	-.0816	0.
.3560	0.	0.	0.	0.	0.	0.	0.	0.	.0240	-.0704	-.0082	-.0068	.0390	-.0806	0.
.3570	0.	0.	0.	0.	0.	0.	0.	0.	.0244	-.0706	-.0054	.0025	.0434	-.0776	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	68	MEMBER	2	SEQUENCE	833	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3580	0.	0.	0.	0.	0.	0.	.0245	-.0710	-.0027	.0110	.0468	-.0729	0.		
.3590	0.	0.	0.	0.	0.	0.	.0245	-.0718	-.0002	.0188	.0489	-.0668	0.		
.3600	0.	0.	0.	0.	0.	0.	.0244	-.0728	.0023	.0262	.0495	-.0598	0.		
.3610	0.	0.	0.	0.	0.	0.	.0241	-.0742	.0046	.0335	.0480	-.0518	0.		
.3620	0.	0.	0.	0.	0.	0.	.0238	-.0758	.0067	.0408	.0446	-.0430	0.		
.3630	0.	0.	0.	0.	0.	0.	.0233	-.0776	.0088	.0478	.0397	-.0336	0.		
.3640	0.	0.	0.	0.	0.	0.	.0229	-.0795	.0107	.0539	.0340	-.0237	0.		
.3650	0.	0.	0.	0.	0.	0.	.0223	-.0814	.0126	.0587	.0281	-.0136	0.		
.3660	0.	0.	0.	0.	0.	0.	.0218	-.0832	.0143	.0623	.0225	-.0030	0.		
.3670	0.	0.	0.	0.	0.	0.	.0212	-.0849	.0161	.0647	.0174	.0078	0.		
.3680	0.	0.	0.	0.	0.	0.	.0206	-.0862	.0178	.0661	.0130	.0184	0.		
.3690	0.	0.	0.	0.	0.	0.	.0200	-.0871	.0196	.0671	.0090	.0281	0.		
.3700	0.	0.	0.	0.	0.	0.	.0194	-.0875	.0215	.0681	.0050	.0364	0.		
.3710	0.	0.	0.	0.	0.	0.	.0188	-.0872	.0235	.0699	.0009	.0430	0.		
.3720	0.	0.	0.	0.	0.	0.	.0183	-.0863	.0256	.0728	-.0035	.0478	0.		
.3730	0.	0.	0.	0.	0.	0.	.0177	-.0846	.0278	.0767	-.0080	.0507	0.		
.3740	0.	0.	0.	0.	0.	0.	.0171	-.0821	.0302	.0814	-.0121	.0514	0.		
.3750	0.	0.	0.	0.	0.	0.	.0165	-.0787	.0327	.0862	-.0154	.0502	0.		
.3760	0.	0.	0.	0.	0.	0.	.0159	-.0745	.0354	.0908	-.0171	.0478	0.		
.3770	0.	0.	0.	0.	0.	0.	.0152	-.0695	.0382	.0949	-.0169	.0444	0.		
.3780	0.	0.	0.	0.	0.	0.	.0146	-.0637	.0411	.0983	-.0149	.0402	0.		
.3790	0.	0.	0.	0.	0.	0.	.0138	-.0572	.0441	.1008	-.0111	.0350	0.		
.3800	0.	0.	0.	0.	0.	0.	.0131	-.0501	.0471	.1027	-.0060	.0289	0.		
.3810	0.	0.	0.	0.	0.	0.	.0123	-.0425	.0501	.1043	-.0002	.0221	0.		
.3820	0.	0.	0.	0.	0.	0.	.0115	-.0345	.0531	.1061	.0056	.0149	0.		
.3830	0.	0.	0.	0.	0.	0.	.0106	-.0263	.0559	.1081	.0110	.0070	0.		
.3840	0.	0.	0.	0.	0.	0.	.0097	-.0180	.0586	.1101	.0156	-.0014	0.		
.3850	0.	0.	0.	0.	0.	0.	.0088	-.0097	.0611	.1120	.0195	-.0100	0.		
.3860	0.	0.	0.	0.	0.	0.	.0079	-.0017	.0634	.1137	.0224	-.0185	0.		
.3870	0.	0.	0.	0.	0.	0.	.0069	.0059	.0653	.1148	.0245	-.0262	0.		
.3880	0.	0.	0.	0.	0.	0.	.0060	.0129	.0669	.1153	.0257	-.0330	0.		
.3890	0.	0.	0.	0.	0.	0.	.0050	.0193	.0680	.1149	.0259	-.0389	0.		
.3900	0.	0.	0.	0.	0.	0.	.0040	.0249	.0688	.1135	.0251	-.0440	0.		
.3910	0.	0.	0.	0.	0.	0.	.0031	.0296	.0691	.1116	.0230	-.0479	0.		
.3920	0.	0.	0.	0.	0.	0.	.0021	.0333	.0690	.1094	.0195	-.0502	0.		
.3930	0.	0.	0.	0.	0.	0.	.0012	.0359	.0683	.1068	.0146	-.0513	0.		
.3940	0.	0.	0.	0.	0.	0.	.0002	.0375	.0673	.1037	.0085	-.0514	0.		
.3950	0.	0.	0.	0.	0.	0.	-.0006	.0381	.0657	.1000	.0015	-.0506	0.		

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18.29.54.

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

.3860	0.	0.	0.	0.	0.	0.	0.	.0079	-.0017	.0634	.1137	.0224	-.0185	0.
.3870	0.	0.	0.	0.	0.	0.	0.	.0069	.0059	.0653	.1148	.0245	-.0262	0.
.3880	0.	0.	0.	0.	0.	0.	0.	.0060	.0129	.0669	.1153	.0257	-.0330	0.
.3890	0.	0.	0.	0.	0.	0.	0.	.0050	.0193	.0680	.1149	.0254	-.0389	0.
.3900	0.	0.	0.	0.	0.	0.	0.	.0040	.0249	.0688	.1135	.0251	-.0440	0.
.3910	0.	0.	0.	0.	0.	0.	0.	.0031	.0296	.0691	.1116	.0230	-.0479	0.
.3920	0.	0.	0.	0.	0.	0.	0.	.0021	.0333	.0690	.1094	.0195	-.0507	0.
.3930	0.	0.	0.	0.	0.	0.	0.	.0012	.0359	.0683	.1068	.0146	-.0513	0.
.3940	0.	0.	0.	0.	0.	0.	0.	.0002	.0375	.0673	.1037	.0085	-.0514	0.
.3950	0.	0.	0.	0.	0.	0.	0.	-.0006	.0381	.0657	.1000	.0015	-.0506	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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

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ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	DIS	TYPE	VA	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
TIME (SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.3960	0.	0.	0.	0.	0.	0.	-.0015	.0376	.0638	.0957	-.0061	-.0487	0.	0.	0.	0.	0.	0.	0.
.3970	0.	0.	0.	0.	0.	0.	-.0023	.0362	.0614	.0908	-.0137	-.0454	0.	0.	0.	0.	0.	0.	0.
.3980	0.	0.	0.	0.	0.	0.	-.0031	.0340	.0587	.0853	-.0214	-.0411	0.	0.	0.	0.	0.	0.	0.
.3990	0.	0.	0.	0.	0.	0.	-.0039	.0311	.0557	.0792	-.0287	-.0365	0.	0.	0.	0.	0.	0.	0.
.4000	0.	0.	0.	0.	0.	0.	-.0046	.0276	.0524	.0725	-.0355	-.0316	0.	0.	0.	0.	0.	0.	0.

MAXIMUM VALUE OF DISCONTINUITY FORCE 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)	FORCE (LB)
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.00	0.0000	0.0000	0.

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	VA	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
TIME (SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(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	-0.	-0.	0.	-0.	0.	0.	-.0000	-.0000	.0000	.0000	-.0000	.0000	-.0000	-.0000	.0000	-.0000	.0000	.0000	0.
.0020	-0.	-0.	0.	-0.	0.	0.	-.0000	-.0000	.0000	.0000	-.0000	.0000	-.0000	-.0000	.0000	-.0000	.0000	.0000	0.
.0030	-0.	-0.	0.	-0.	0.	0.	-.0000	-.0000	.0000	.0000	-.0000	.0000	-.0000	-.0000	.0000	-.0000	.0000	.0000	0.
.0040	-0.	-0.	0.	-0.	0.	0.	-.0000	-.0000	.0000	.0000	-.0000	.0000	-.0000	-.0000	.0000	-.0000	.0000	.0000	0.
.0050	-0.	-0.	0.	-0.	0.	0.	-.0000	-.0000	.0000	.0000	-.0000	.0000	-.0000	-.0000	.0000	-.0000	.0000	.0000	0.
.0060	0.	-0.	0.	-0.	0.	0.	-.0000	.0000	-.0000	.0001	-.0001	-.0001	0.	0.	0.	0.	0.	0.	0.
.0070	1.	-0.	0.	-0.	0.	0.	-.0000	-.0000	-.0000	.0003	-.0003	-.0002	0.	0.	0.	0.	0.	0.	0.
.0080	2.	-2.	1.	-0.	0.	0.	-.0000	-.0000	-.0000	.0006	-.0007	-.0005	0.	0.	0.	0.	0.	0.	0.
.0090	3.	-2.	2.	-0.	0.	0.	-.0000	-.0000	-.0000	.0012	-.0014	-.0010	0.	0.	0.	0.	0.	0.	0.
.0100	4.	-2.	3.	-0.	0.	0.	-.0000	-.0000	-.0000	.0022	-.0024	-.0018	0.	0.	0.	0.	0.	0.	0.
.0110	10.	-0.	4.	-0.	0.	0.	-.0000	-.0000	-.0000	.0035	-.0039	-.0029	0.	0.	0.	0.	0.	0.	0.
.0120	15.	0.	6.	-0.	0.	-0.	-.0000	-.0000	-.0000	.0053	-.0061	-.0044	0.	0.	0.	0.	0.	0.	0.
.0130	27.	0.	9.	-0.	0.	-0.	-.0001	-.0000	-.0000	.0076	-.0090	-.0066	0.	0.	0.	0.	0.	0.	0.
.0140	35.	1.	11.	-0.	0.	-0.	-.0001	-.0000	-.0001	.0105	-.0127	-.0095	0.	0.	0.	0.	0.	0.	0.
.0150	48.	3.	13.	-0.	0.	-0.	-.0002	-.0000	-.0001	.0137	-.0170	-.0129	0.	0.	0.	0.	0.	0.	0.
.0160	60.	8.	16.	-0.	0.	-0.	-.0003	-.0000	-.0001	.0171	-.0214	-.0163	0.	0.	0.	0.	0.	0.	0.
.0170	62.	13.	19.	-0.	0.	-0.	-.0005	-.0000	-.0002	.0201	-.0253	-.0192	0.	0.	0.	0.	0.	0.	0.
.0180	69.	13.	22.	-0.	0.	-0.	-.0007	-.0001	-.0003	.0222	-.0279	-.0210	0.	0.	0.	0.	0.	0.	0.
.0190	63.	9.	24.	-0.	0.	-0.	-.0010	-.0001	-.0003	.0222	-.0285	-.0212	0.	0.	0.	0.	0.	0.	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/3/12/02. 18.29.54.

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

.0090	7.	-2.	2.	-0.	0.	0.	-0.0000	-0.0000	-0.0000	.0006	-0.0007	-0.0005	0.
.0100	6.	-2.	3.	-0.	0.	0.	-0.0000	-0.0000	-0.0000	.0022	-0.0024	-0.0018	0.
.0110	10.	-0.	4.	-0.	0.	0.	-0.0000	-0.0000	-0.0000	.0035	-0.0039	-0.0029	0.
.0120	15.	0.	6.	-0.	0.	-0.	-0.0000	-0.0000	-0.0000	.0053	-0.0061	-0.0044	0.
.0130	21.	0.	9.	-0.	0.	-0.	-0.0001	-0.0000	-0.0000	.0076	-0.0090	-0.0066	0.
.0140	35.	1.	11.	-0.	0.	-0.	-0.0001	-0.0000	-0.0001	.0105	-0.0127	-0.0095	0.
.0150	48.	3.	13.	-0.	0.	-0.	-0.0002	-0.0000	-0.0001	.0137	-0.0170	-0.0129	0.
.0160	60.	8.	16.	-0.	0.	-0.	-0.0003	-0.0000	-0.0001	.0171	-0.0214	-0.0163	0.
.0170	60.	13.	19.	0.	0.	-0.	-0.0005	-0.0000	-0.0002	.0201	-0.0253	-0.0192	0.
.0180	69.	13.	22.	0.	0.	-0.	-0.0007	-0.0001	-0.0003	.0222	-0.0279	-0.0210	0.
.0190	63.	9.	24.	0.	0.	-0.	-0.0010	-0.0001	-0.0003	.0222	-0.0283	-0.0212	0.

ADLPIPE PAGE 2756

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/3/12/02.

18.29.54.

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	68	MEMBER	2	SEQUENCE	833	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.0200	49.	1.	23.	0.	0.	-0.		-0.0013	-0.0001	-0.0005	.0194	-0.0255	-0.0195	0.	
.0210	30.	3.	18.	0.	0.	-0.		-0.0017	-0.0001	-0.0006	.0134	-0.0191	-0.0155	0.	
.0220	9.	33.	8.	-0.	0.	-0.		-0.0021	-0.0002	-0.0007	.0042	-0.0092	-0.0095	0.	
.0230	-13.	74.	-5.	-0.	0.	-0.		-0.0025	-0.0003	-0.0009	-0.0070	.0030	-0.0021	0.	
.0240	-32.	112.	-18.	-0.	0.	-0.		-0.0029	-0.0005	-0.0010	-0.0185	.0155	.0052	0.	
.0250	-45.	129.	-31.	0.	0.	-0.		-0.0032	-0.0007	-0.0011	-0.0284	.0262	.0111	0.	
.0260	-54.	123.	-40.	0.	0.	-0.		-0.0035	-0.0011	-0.0012	-0.0352	.0338	.0154	0.	
.0270	-63.	151.	-43.	0.	0.	-0.		-0.0038	-0.0016	-0.0013	-0.0381	.0379	.0188	0.	
.0280	-81.	195.	-35.	0.	0.	-0.		-0.0040	-0.0022	-0.0013	-0.0361	.0385	.0221	0.	
.0290	-103.	160.	-21.	0.	0.	-0.		-0.0042	-0.0038	-0.0013	-0.0309	.0357	.0243	0.	
.0300	-107.	82.	-18.	0.	0.	-0.		-0.0042	-0.0038	-0.0013	-0.0269	.0324	.0242	0.	
.0310	-87.	60.	-27.	0.	0.	-0.		-0.0042	-0.0047	-0.0013	-0.0260	.0322	.0244	0.	
.0320	-93.	49.	-29.	0.	-0.	0.		-0.0041	-0.0056	-0.0012	-0.0270	.0358	.0293	0.	
.0330	-121.	-6.	-28.	-0.	-0.	0.		-0.0039	-0.0065	-0.0011	-0.0300	.0423	.0383	0.	
.0340	-122.	-52.	-41.	-0.	-0.	0.		-0.0037	-0.0075	-0.0010	-0.0360	.0506	.0455	0.	
.0350	-80.	-67.	-69.	-0.	-0.	0.		-0.0033	-0.0083	-0.0009	-0.0422	.0571	.0474	0.	
.0360	-36.	-120.	-87.	-0.	-0.	0.		-0.0029	-0.0091	-0.0007	-0.0417	.0563	.0459	0.	
.0370	-25.	-221.	-81.	-0.	-0.	0.		-0.0024	-0.0098	-0.0005	-0.0304	.0453	.0432	0.	
.0380	-31.	-209.	-56.	-0.	-0.	0.		-0.0019	-0.0103	-0.0001	-0.0096	.0258	.0381	0.	
.0390	-19.	-354.	-27.	-0.	-0.	0.		-0.0015	-0.0106	.0002	.0154	.0006	.0284	0.	
.0400	17.	-485.	-8.	-0.	-0.	0.		-0.0009	-0.0105	.0006	.0383	-0.0255	.0152	0.	
.0410	42.	-603.	-4.	-0.	-0.	0.		-0.0004	-0.0101	.0010	.0534	-0.0441	.0047	0.	
.0420	27.	-616.	-1.	-0.	-0.	0.		.0000	-0.0092	.0014	.0584	-0.0489	.0040	0.	
.0430	-30.	-581.	5.	-0.	-0.	0.		.0005	-0.0078	.0018	.0531	-0.0407	.0128	0.	
.0440	-72.	-567.	-8.	-0.	-0.	0.		.0009	-0.0059	.0022	.0368	-0.0236	.0232	0.	
.0450	-54.	-495.	-48.	-0.	-0.	0.		.0014	-0.0036	.0026	.0129	-0.0019	.0282	0.	
.0460	-17.	-336.	-82.	-0.	-0.	0.		.0020	-0.0010	.0030	-0.0071	.0159	.0282	0.	
.0470	-31.	-215.	-71.	-0.	-0.	0.		.0026	.0019	.0035	-0.0117	.0197	.0270	0.	
.0480	-87.	-185.	-21.	-0.	-0.	0.		.0032	.0050	.0041	-0.0006	.0088	.0227	0.	
.0490	-110.	-136.	34.	-0.	-0.	0.		.0038	.0082	.0046	.0172	-0.0098	.0100	0.	
.0500	-71.	-15.	72.	0.	-0.	0.		.0046	.0114	.0052	.0338	-0.0302	-0.0103	0.	
.0510	-27.	108.	102.	0.	-0.	-0.		.0054	.0147	.0056	.0457	-0.0473	-0.0297	0.	
.0520	-20.	204.	133.	0.	-0.	-0.		.0062	.0178	.0060	.0497	-0.0533	-0.0400	0.	
.0530	-44.	327.	158.	0.	0.	-0.		.0070	.0208	.0063	.0423	-0.0442	-0.0414	0.	
.0540	-43.	509.	156.	0.	0.	-0.		.0079	.0235	.0064	.0233	-0.0245	-0.0401	0.	
.0550	-29.	701.	130.	0.	0.	-0.		.0088	.0257	.0065	-0.0019	-0.0013	-0.0402	0.	
.0560	39.	824.	105.	0.	0.	-0.		.0097	.0274	.0064	-0.0243	.0196	-0.0415	0.	
.0570	51.	861.	103.	0.	0.	-0.		.0105	.0284	.0062	-0.0359	.0314	-0.0438	0.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/3/12/02.

18.29.54.

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

.0470	-31.	-215.	-71.	-0.	-0.	0.	.0026	.0019	.0035	-.0117	.0197	.0270	0.
.0480	-87.	-105.	-21.	-0.	-0.	0.	.0032	.0050	.0041	-.0006	.0088	.0227	0.
.0490	-110.	-136.	34.	-0.	-0.	0.	.0038	.0082	.0046	.0172	-.0098	.0100	0.
.0500	-71.	-15.	72.	0.	-0.	0.	.0046	.0114	.0052	.0338	-.0302	-.0103	0.
.0510	-21.	108.	102.	0.	-0.	-0.	.0054	.0147	.0056	.0457	-.0473	-.0297	0.
.0520	-20.	204.	133.	0.	-0.	-0.	.0062	.0178	.0060	.0497	-.0533	-.0400	0.
.0530	-44.	327.	158.	0.	0.	-0.	.0070	.0208	.0063	.0423	-.0442	-.0414	0.
.0540	-43.	509.	156.	0.	0.	-0.	.0079	.0235	.0064	.0233	-.0245	-.0401	0.
.0550	-2.	701.	130.	0.	0.	-0.	.0088	.0257	.0065	-.0019	-.0013	-.0402	0.
.0560	39.	824.	105.	0.	0.	-0.	.0097	.0274	.0064	-.0243	.0196	-.0415	0.
.0570	51.	861.	103.	0.	0.	-0.	.0105	.0284	.0062	-.0359	.0314	-.0438	0.

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D10/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/31/02.

18.29.54.

S/RV PIPING KEWAUNEE GKWOOD 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	GS	MEMBER	2	SEQUENCE	833	LOCATION	END	TYPE	VA					STRESS
TIME	FX	FY	FZ	FX	MY	MZ			DY	DZ	RX	RY	RZ	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)			(IN)	(IN)	(DEG)	(DEG)	(DEG)	
.0580	59.	865.	117.	0.	0.	-0.	.0113	.0287	.0060	-.0346	.0291	-.0503	0.	
.0590	99.	855.	128.	0.	0.	-0.	.0121	.0283	.0056	-.0250	.0158	-.0633	0.	
.0600	158.	787.	131.	0.	0.	-0.	.0128	.0272	.0052	-.0136	.0001	-.0793	0.	
.0610	199.	666.	128.	0.	0.	-0.	.0133	.0255	.0047	-.0051	-.0115	-.0910	0.	
.0620	206.	578.	117.	0.	0.	-0.	.0137	.0233	.0040	-.0038	-.0146	-.0933	0.	
.0630	196.	524.	88.	0.	0.	-0.	.0139	.0206	.0033	-.0138	-.0047	-.0866	0.	
.0640	194.	416.	34.	0.	0.	-0.	.0139	.0176	.0025	-.0361	.0176	-.0752	0.	
.0650	215.	278.	-40.	0.	0.	-0.	.0138	.0142	.0017	-.0648	.0446	-.0631	0.	
.0660	249.	229.	-111.	0.	0.	-0.	.0135	.0106	.0009	-.0895	.0666	-.0522	0.	
.0670	262.	219.	-154.	0.	0.	-0.	.0130	.0069	.0002	-.1004	.0766	-.0433	0.	
.0680	247.	93.	-164.	0.	0.	-0.	.0123	.0030	-.0003	-.0937	.0698	-.0392	0.	
.0690	242.	-114.	-156.	0.	0.	-0.	.0114	-.0009	-.0007	-.0721	.0462	-.0434	0.	
.0700	272.	-252.	-146.	0.	0.	-0.	.0104	-.0047	-.0010	-.0424	.0125	-.0546	0.	
.0710	307.	-379.	-132.	0.	0.	0.	.0091	-.0083	-.0012	-.0122	-.0209	-.0654	0.	
.0720	292.	-458.	-116.	-0.	-0.	0.	.0075	-.0116	-.0013	.0110	-.0446	-.0679	0.	
.0730	246.	-523.	-108.	-0.	-0.	0.	.0057	-.0146	-.0012	.0212	-.0524	-.0596	0.	
.0740	207.	-451.	-119.	-0.	-0.	0.	.0038	-.0171	-.0011	.0162	-.0434	-.0435	0.	
.0750	169.	-354.	-149.	-0.	-0.	0.	.0017	-.0192	-.0009	-.0005	-.0224	-.0233	0.	
.0760	126.	-338.	-182.	-0.	-0.	0.	-.0006	-.0211	-.0006	-.0204	.0021	-.0018	0.	
.0770	65.	-316.	-196.	-0.	-0.	0.	-.0029	-.0226	-.0001	-.0333	.0213	.0187	0.	
.0780	-5.	-272.	-179.	-0.	-0.	0.	-.0052	-.0239	.0005	-.0320	.0278	.0351	0.	
.0790	-71.	-155.	-138.	-0.	-0.	0.	-.0076	-.0251	.0013	-.0160	.0192	.0443	0.	
.0800	-119.	-183.	-87.	-0.	-0.	0.	-.0098	-.0261	.0022	.0097	-.0004	.0456	0.	
.0810	-146.	-216.	-35.	-0.	-0.	0.	-.0120	-.0269	.0031	.0384	-.0233	.0426	0.	
.0820	-170.	-195.	14.	-0.	-0.	0.	-.0141	-.0276	.0041	.0635	-.0420	.0414	0.	
.0830	-212.	-172.	53.	-0.	-0.	0.	-.0159	-.0281	.0050	.0790	-.0493	.0468	0.	
.0840	-268.	-169.	76.	-0.	-0.	0.	-.0177	-.0285	.0059	.0811	-.0411	.0594	0.	
.0850	-316.	-136.	80.	-0.	-0.	0.	-.0191	-.0288	.0067	.0709	-.0197	.0763	0.	
.0860	-348.	-62.	70.	-0.	-0.	0.	-.0204	-.0289	.0075	.0543	.0071	.0942	0.	
.0870	-377.	-16.	59.	-0.	-0.	0.	-.0213	-.0290	.0082	.0385	.0322	.1105	0.	
.0880	-415.	-41.	59.	-0.	-0.	0.	-.0219	-.0291	.0089	.0295	.0508	.1235	0.	
.0890	-448.	-102.	73.	-0.	-0.	0.	-.0222	-.0291	.0095	.0295	.0591	.1310	0.	
.0900	-461.	-158.	89.	-0.	-0.	0.	-.0221	-.0290	.0100	.0363	.0578	.1322	0.	
.0910	-452.	-215.	101.	0.	-0.	0.	-.0217	-.0288	.0105	.0448	.0528	.1292	0.	
.0920	-440.	-288.	107.	0.	0.	-0.	-.0209	-.0285	.0109	.0500	.0502	.1257	0.	
.0930	-425.	-348.	105.	0.	0.	-0.	-.0197	-.0278	.0112	.0495	.0523	.1239	0.	
.0940	-397.	-348.	88.	0.	0.	-0.	-.0183	-.0269	.0114	.0427	.0584	.1224	0.	
.0950	-335.	-311.	60.	0.	0.	-0.	-.0165	-.0257	.0115	.0322	.0661	.1183	0.	

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D10/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/31/02.

18.29.54.

S/RV PIPING KEWAUNEE GKWOOD 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

.0850	-318.	-136.	80.	-0.	-0.	0.	-.0204	-.0289	.0075	.0543	-.0197	.0763	0.
.0860	-348.	-62.	70.	-0.	-0.	0.	-.0213	-.0290	.0082	.0385	.0322	.1105	0.
.0870	-377.	-16.	59.	-0.	-0.	0.	-.0219	-.0291	.0089	.0295	.0508	.1235	0.
.0880	-415.	-41.	50.	-0.	-0.	0.	-.0222	-.0291	.0095	.0295	.0591	.1310	0.
.0890	-448.	-102.	73.	-0.	-0.	0.	-.0221	-.0290	.0100	.0363	.0578	.1322	0.
.0900	-461.	-158.	89.	-0.	-0.	0.	-.0217	-.0288	.0105	.0448	.0528	.1292	0.
.0910	-452.	-215.	101.	0.	-0.	0.	-.0209	-.0285	.0109	.0500	.0502	.1257	0.
.0920	-440.	-288.	107.	0.	0.	-0.	-.0197	-.0278	.0112	.0495	.0523	.1239	0.
.0930	-425.	-348.	105.	0.	0.	-0.	-.0183	-.0269	.0114	.0427	.0584	.1224	0.
.0940	-397.	-348.	88.	0.	0.	-0.	-.0165	-.0257	.0115	.0322	.0661	.1183	0.
.0950	-335.	-311.	60.	0.	0.	-0.							0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.54.

S/RV PIPING KEWAUNEE GKWOOD 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	68	MEMBER	2	SEQUENCE	833	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.0960	-263.	-297.	30.	0.	0.	-0.		-.0144	-.0243	.0116	.0238	.0696	.1097	0.	
.0970	-193.	-310.	13.	0.	0.	-0.		-.0121	-.0226	.0117	.0242	.0624	.0959	0.	
.0980	-131.	-315.	15.	0.	0.	-0.		-.0097	-.0206	.0118	.0359	.0425	.0768	0.	
.0990	-74.	-328.	31.	0.	0.	-0.		-.0072	-.0184	.0118	.0562	.0133	.0529	0.	
.1000	-14.	-382.	47.	0.	0.	-0.		-.0047	-.0159	.0119	.0787	-.0195	.0256	0.	
.1010	51.	-430.	54.	0.	0.	-0.		-.0021	-.0130	.0118	.0967	-.0492	-.0017	0.	
.1020	112.	-403.	49.	0.	-0.	-0.		.0003	-.0099	.0118	.1056	-.0694	-.0250	0.	
.1030	150.	-331.	36.	0.	-0.	-0.		.0027	-.0064	.0117	.1037	-.0772	-.0413	0.	
.1040	165.	-271.	16.	0.	-0.	-0.		.0050	-.0026	.0116	.0921	-.0745	-.0512	0.	
.1050	175.	-192.	-10.	0.	-0.	-0.		.0072	.0014	.0114	.0740	-.0646	-.0577	0.	
.1060	188.	-66.	-38.	0.	-0.	-0.		.0091	.0055	.0113	.0538	-.0529	-.0636	0.	
.1070	192.	47.	-56.	0.	-0.	-0.		.0110	.0097	.0112	.0358	-.0432	-.0694	0.	
.1080	180.	88.	-61.	0.	-0.	-0.		.0127	.0138	.0112	.0223	-.0371	-.0748	0.	
.1090	166.	119.	-57.	0.	-0.	-0.		.0142	.0178	.0112	.0115	-.0331	-.0803	0.	
.1100	178.	277.	-59.	0.	-0.	-0.		.0156	.0217	.0112	.0005	-.0284	-.0865	0.	
.1110	192.	400.	-61.	-0.	-0.	0.		.0168	.0254	.0113	-.0110	-.0221	-.0912	0.	
.1120	197.	410.	-55.	-0.	-0.	0.		.0179	.0287	.0114	-.0220	-.0147	-.0935	0.	
.1130	212.	488.	-51.	-0.	-0.	0.		.0189	.0317	.0116	-.0318	-.0072	-.0955	0.	
.1140	246.	654.	-47.	-0.	-0.	0.		.0196	.0343	.0118	-.0377	-.0026	-.0982	0.	
.1150	255.	696.	-29.	-0.	-0.	0.		.0202	.0363	.0121	-.0363	-.0035	-.0998	0.	
.1160	232.	594.	5.	-0.	-0.	0.		.0205	.0378	.0124	-.0277	-.0095	-.0999	0.	
.1170	218.	546.	40.	-0.	-0.	0.		.0207	.0388	.0126	-.0156	-.0177	-.0998	0.	
.1180	220.	582.	59.	-0.	-0.	0.		.0207	.0394	.0129	-.0053	-.0244	-.0984	0.	
.1190	188.	462.	71.	-0.	-0.	0.		.0206	.0396	.0130	.0002	-.0244	-.0904	0.	
.1200	108.	219.	80.	-0.	-0.	0.		.0203	.0394	.0132	-.0020	-.0134	-.0728	0.	
.1210	32.	155.	71.	-0.	-0.	0.		.0199	.0390	.0132	-.0133	.0083	-.0485	0.	
.1220	-20.	250.	47.	-0.	-0.	0.		.0195	.0385	.0132	-.0300	.0348	-.0213	0.	
.1230	-98.	210.	23.	-0.	-0.	0.		.0191	.0379	.0132	-.0453	.0591	.0057	0.	
.1240	-178.	-4.	14.	-0.	-0.	0.		.0189	.0371	.0131	-.0515	.0735	.0282	0.	
.1250	-226.	-114.	21.	-0.	-0.	0.		.0188	.0363	.0131	-.0437	.0714	.0417	0.	
.1260	-242.	-75.	41.	-0.	-0.	0.		.0188	.0356	.0130	-.0217	.0518	.0460	0.	
.1270	-281.	-183.	81.	-0.	-0.	0.		.0191	.0350	.0128	.0103	.0222	.0465	0.	
.1280	-347.	-431.	130.	-0.	-0.	0.		.0196	.0346	.0126	.0430	-.0071	.0472	0.	
.1290	-386.	-496.	162.	-0.	-0.	0.		.0204	.0346	.0123	.0673	-.0286	.0490	0.	
.1300	-379.	-339.	166.	-0.	-0.	0.		.0215	.0349	.0119	.0777	-.0383	.0523	0.	
.1310	-370.	-273.	147.	-0.	-0.	0.		.0229	.0355	.0113	.0743	-.0348	.0585	0.	
.1320	-379.	-383.	126.	-0.	-0.	0.		.0246	.0364	.0106	.0632	-.0225	.0666	0.	
.1330	-362.	-335.	106.	-0.	0.	0.		.0266	.0375	.0098	.0524	-.0117	.0715	0.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.54.

S/RV PIPING KEWAUNEE GKWOOD 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

.1230	-98.	210.	23.	-0.	-0.	0.	.191	.0379	.0132	-.0453	.0591	.0057	0.
.1240	-178.	-4.	14.	-0.	-0.	0.	.189	.0371	.0131	-.0515	.0735	.0282	0.
.1250	-226.	-114.	21.	-0.	-0.	0.	.0188	.0363	.0131	-.0437	.0714	.0417	0.
.1260	-247.	-75.	41.	-0.	-0.	0.	.0108	.0356	.0130	-.0217	.0518	.0460	0.
.1270	-281.	-183.	81.	-0.	-0.	0.	.0191	.0350	.0128	.0103	.0222	.0465	0.
.1280	-347.	-401.	130.	-0.	-0.	0.	.0196	.0346	.0126	.0430	-.0071	.0472	0.
.1290	-386.	-496.	162.	-0.	-0.	0.	.0204	.0346	.0123	.0677	-.0286	.0490	0.
.1300	-379.	-339.	166.	-0.	-0.	0.	.0215	.0349	.0119	.0777	-.0383	.0523	0.
.1310	-370.	-273.	147.	-0.	-0.	0.	.0229	.0355	.0113	.0743	-.0348	.0585	0.
.1320	-370.	-383.	126.	-0.	-0.	0.	.0246	.0364	.0106	.0632	-.0225	.0666	0.
.1330	-362.	-335.	106.	-0.	-0.	0.	.0266	.0375	.0098	.0524	-.0117	.0715	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02. 18.29.54.

S/RV PIPING KEWAUNEE GKW00F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	68	MEMBER	2	SEQUENCE	833	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.1340	-307.	-65.	95.	0.	0.	-0.		.0289	.0389	.0089	.0487	-.0104	.0693	0.	
.1350	-262.	55.	102.	0.	0.	-0.		.0314	.0404	.0080	.0551	-.0198	.0603	0.	
.1360	-238.	-87.	126.	0.	0.	-0.		.0341	.0418	.0070	.0698	-.0376	.0451	0.	
.1370	-183.	-151.	151.	0.	0.	-0.		.0370	.0433	.0058	.0872	-.0605	.0240	0.	
.1380	-76.	26.	157.	0.	0.	-0.		.0400	.0449	.0046	.0997	-.0807	-.0002	0.	
.1390	17.	135.	150.	0.	0.	-0.		.0431	.0464	.0032	.1016	-.0896	-.0205	0.	
.1400	60.	58.	139.	0.	0.	-0.		.0461	.0479	.0017	.0914	-.0834	-.0325	0.	
.1410	100.	128.	117.	0.	0.	-0.		.0491	.0493	.0001	.0710	-.0665	-.0387	0.	
.1420	166.	408.	83.	0.	0.	-0.		.0520	.0506	-.0016	.0451	-.0453	-.0440	0.	
.1430	229.	519.	44.	0.	0.	-0.		.0547	.0515	-.0033	.0185	-.0246	-.0511	0.	
.1440	269.	339.	14.	0.	0.	-0.		.0573	.0521	-.0051	-.0033	-.0088	-.0611	0.	
.1450	317.	262.	-2.	0.	0.	-0.		.0596	.0524	-.0069	-.0164	-.0020	-.0745	0.	
.1460	384.	451.	-9.	0.	0.	-0.		.0617	.0525	-.0087	-.0212	-.0041	-.0902	0.	
.1470	422.	513.	-6.	0.	0.	-0.		.0634	.0522	-.0104	-.0220	-.0090	-.1049	0.	
.1480	430.	293.	-8.	0.	0.	-0.		.0648	.0515	-.0122	-.0255	-.0103	-.1173	0.	
.1490	458.	144.	-29.	0.	0.	-0.		.0658	.0506	-.0139	-.0359	-.0058	-.1275	0.	
.1500	510.	237.	-69.	0.	0.	-0.		.0665	.0496	-.0157	-.0532	.0046	-.1337	0.	
.1510	530.	266.	-110.	0.	0.	0.		.0667	.0484	-.0173	-.0752	.0210	-.1332	0.	
.1520	498.	70.	-143.	0.	0.	0.		.0665	.0470	-.0189	-.0981	.0400	-.1273	0.	
.1530	481.	-32.	-175.	-0.	0.	0.		.0659	.0456	-.0203	-.1173	.0542	-.1224	0.	
.1540	505.	75.	-208.	-0.	-0.	0.		.0650	.0442	-.0216	-.1286	.0574	-.1229	0.	
.1550	519.	63.	-230.	-0.	-0.	0.		.0636	.0428	-.0227	-.1299	.0497	-.1271	0.	
.1560	488.	-201.	-234.	-0.	-0.	0.		.0618	.0414	-.0236	-.1218	.0339	-.1321	0.	
.1570	445.	-409.	-224.	-0.	-0.	0.		.0596	.0401	-.0244	-.1070	.0123	-.1373	0.	
.1580	433.	-360.	-217.	-0.	-0.	0.		.0571	.0391	-.0249	-.0908	-.0117	-.1432	0.	
.1590	423.	-312.	-218.	-0.	-0.	0.		.0542	.0385	-.0253	-.0786	-.0317	-.1476	0.	
.1600	380.	-448.	-217.	-0.	-0.	0.		.0511	.0381	-.0255	-.0718	-.0436	-.1474	0.	
.1610	326.	-527.	-214.	-0.	-0.	0.		.0476	.0381	-.0256	-.0692	-.0496	-.1432	0.	
.1620	290.	-373.	-215.	-0.	-0.	0.		.0438	.0385	-.0254	-.0695	-.0525	-.1373	0.	
.1630	245.	-234.	-211.	-0.	-0.	0.		.0399	.0392	-.0251	-.0707	-.0522	-.1302	0.	
.1640	171.	-275.	-195.	-0.	-0.	0.		.0353	.0401	-.0247	-.0711	-.0496	-.1223	0.	
.1650	97.	-264.	-169.	-0.	-0.	0.		.0315	.0412	-.0240	-.0687	-.0477	-.1150	0.	
.1660	42.	-33.	-133.	-0.	-0.	0.		.0272	.0424	-.0233	-.0631	-.0475	-.1087	0.	
.1670	-7.	220.	-90.	-0.	-0.	0.		.0228	.0437	-.0224	-.0564	-.0465	-.1032	0.	
.1680	-66.	297.	-41.	-0.	-0.	0.		.0185	.0448	-.0215	-.0502	-.0428	-.0981	0.	
.1690	-105.	388.	7.	-0.	-0.	0.		.0143	.0456	-.0206	-.0447	-.0379	-.0942	0.	
.1700	-113.	666.	55.	-0.	-0.	0.		.0101	.0461	-.0197	-.0386	-.0332	-.0913	0.	
.1710	-121.	933.	111.	-0.	-0.	0.		.0061	.0461	-.0188	-.0312	-.0283	-.0876	0.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02. 18.29.54.

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

.1610	220.	-373.	-215.	-0.	-0.	0.	.0470	.0381	-.0250	-.0692	-.0490	-.1452	0.
.1620	290.	-373.	-215.	-0.	-0.	0.	.0438	.0385	-.0254	-.0695	-.0525	-.1373	0.
.1630	245.	-234.	-211.	-0.	-0.	0.	.0399	.0392	-.0251	-.0707	-.0522	-.1302	0.
.1640	171.	-275.	-195.	-0.	-0.	0.	.0358	.0401	-.0247	-.0711	-.0496	-.1223	0.
.1650	97.	-264.	-167.	-0.	-0.	0.	.0315	.0412	-.0240	-.0687	-.0477	-.1150	0.
.1660	42.	-33.	-133.	-0.	-0.	0.	.0272	.0424	-.0235	-.0631	-.0475	-.1087	0.
.1670	-7.	220.	-90.	-0.	-0.	0.	.0228	.0437	-.0224	-.0564	-.0465	-.1032	0.
.1680	-66.	297.	-41.	-0.	-0.	0.	.0185	.0448	-.0215	-.0502	-.0428	-.0981	0.
.1690	-105.	388.	7.	-0.	-0.	0.	.0143	.0456	-.0206	-.0447	-.0379	-.0942	0.
.1700	-113.	666.	55.	-0.	-0.	0.	.0101	.0461	-.0197	-.0386	-.0332	-.0913	0.
.1710	-121.	933.	111.	-0.	-0.	0.	.0061	.0461	-.0188	-.0312	-.0283	-.0876	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.54.

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	68	MEMBER	2	SEQUENCE	833	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1720	-146.	1016.	160.	-0.	-0.	0.	.0021	.0453	-.0180	-.0231	-.0228	-.0830	0.		
.1730	-158.	1056.	220.	-0.	-0.	-0.	-.0017	.0436	-.0174	-.0148	-.0176	-.0789	0.		
.1740	-133.	1221.	250.	0.	-0.	-0.	-.0054	.0412	-.0170	-.0072	-.0127	-.0758	0.		
.1750	-95.	1349.	281.	0.	-0.	-0.	-.0090	.0377	-.0167	-.0018	-.0066	-.0721	0.		
.1760	-77.	1250.	292.	0.	-0.	-0.	-.0125	.0332	-.0167	.0006	.0028	-.0651	0.		
.1770	-61.	1085.	287.	0.	-0.	-0.	-.0159	.0277	-.0170	-.0007	.0153	-.0551	0.		
.1780	-25.	1023.	264.	0.	-0.	-0.	-.0193	.0214	-.0174	-.0054	.0294	-.0432	0.		
.1790	18.	943.	222.	0.	-0.	-0.	-.0227	.0142	-.0181	-.0133	.0443	-.0294	0.		
.1800	42.	666.	168.	0.	-0.	-0.	-.0261	.0064	-.0189	-.0231	.0595	-.0136	0.		
.1810	59.	291.	106.	0.	-0.	-0.	-.0295	-.0019	-.0198	-.0330	.0728	.0030	0.		
.1820	96.	18.	30.	0.	-0.	-0.	-.0329	-.0103	-.0209	-.0423	.0817	.0183	0.		
.1830	139.	-229.	-54.	0.	-0.	-0.	-.0364	-.0188	-.0219	-.0502	.0862	.0323	0.		
.1840	157.	-600.	-137.	0.	-0.	-0.	-.0401	-.0270	-.0229	-.0564	.0877	.0464	0.		
.1850	157.	-1000.	-215.	0.	-0.	-0.	-.0438	-.0346	-.0238	-.0609	.0862	.0604	0.		
.1860	163.	-1258.	-291.	0.	-0.	-0.	-.0477	-.0414	-.0244	-.0640	.0809	.0730	0.		
.1870	173.	-1414.	-364.	0.	-0.	-0.	-.0517	-.0471	-.0249	-.0661	.0728	.0836	0.		
.1880	161.	-1626.	-422.	0.	-0.	-0.	-.0558	-.0517	-.0250	-.0666	.0627	.0929	0.		
.1890	130.	-1830.	-462.	0.	-0.	-0.	-.0601	-.0549	-.0248	-.0643	.0498	.1005	0.		
.1900	98.	-1860.	-484.	0.	-0.	0.	-.0644	-.0566	-.0242	-.0587	.0334	.1058	0.		
.1910	56.	-1762.	-485.	0.	-0.	0.	-.0688	-.0569	-.0235	-.0501	.0151	.1093	0.		
.1920	-11.	-1682.	-465.	-0.	-0.	0.	-.0732	-.0557	-.0219	-.0405	-.0021	.1121	0.		
.1930	-98.	-1592.	-429.	-0.	-0.	0.	-.0776	-.0532	-.0202	-.0315	-.0162	.1150	0.		
.1940	-187.	-1354.	-380.	-0.	-0.	0.	-.0819	-.0494	-.0181	-.0248	-.0256	.1182	0.		
.1950	-273.	-1000.	-322.	-0.	-0.	0.	-.0860	-.0446	-.0158	-.0215	-.0292	.1218	0.		
.1960	-367.	-673.	-255.	-0.	-0.	0.	-.0899	-.0391	-.0132	-.0214	-.0268	.1259	0.		
.1970	-462.	-362.	-178.	-0.	-0.	0.	-.0934	-.0330	-.0104	-.0224	-.0208	.1295	0.		
.1980	-540.	40.	-90.	-0.	-0.	0.	-.0966	-.0267	-.0075	-.0216	-.0150	.1309	0.		
.1990	-603.	480.	8.	-0.	-0.	0.	-.0993	-.0205	-.0045	-.0166	-.0120	.1294	0.		
.2000	-664.	806.	115.	-0.	-0.	0.	-.1016	-.0147	-.0016	-.0066	-.0125	.1248	0.		
.2010	-716.	1018.	224.	-0.	-0.	0.	-.1032	-.0096	.0012	.0069	-.0156	.1173	0.		
.2020	-741.	1234.	323.	-0.	-0.	0.	-.1043	-.0053	.0038	.0214	-.0196	.1080	0.		
.2030	-747.	1453.	400.	-0.	-0.	0.	-.1048	-.0021	.0062	.0336	-.0211	.0992	0.		
.2040	-751.	1567.	475.	-0.	-0.	0.	-.1047	.0000	.0082	.0405	-.0166	.0937	0.		
.2050	-748.	1570.	518.	-0.	-0.	0.	-.1040	.0008	.0098	.0402	-.0051	.0918	0.		
.2060	-722.	1556.	533.	-0.	-0.	0.	-.1027	.0004	.0110	.0332	.0115	.0920	0.		
.2070	-670.	1524.	521.	-0.	-0.	0.	-.1008	-.0013	.0118	.0217	.0301	.0932	0.		
.2080	-611.	1384.	493.	-0.	-0.	0.	-.0984	-.0042	.0122	.0096	.0472	.0948	0.		
.2090	-551.	1136.	454.	-0.	-0.	0.	-.0955	-.0081	.0121	.0002	.0594	.0957	0.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.54.

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	-603.	400.	8.	0.	0.	0.	0.	-.0993	-.0205	-.0045	-.0166	-.0150	.1309	0.
.2000	-664.	806.	115.	0.	0.	0.	0.	-.1016	-.0147	-.0016	-.0066	-.0125	.1248	0.
.2010	-716.	1018.	224.	0.	0.	0.	0.	-.1032	-.0096	.0012	.0069	-.0156	.1173	0.
.2020	-741.	1234.	323.	0.	0.	0.	0.	-.1043	-.0053	.0038	.0214	-.0196	.1080	0.
.2030	-747.	1453.	400.	0.	0.	0.	0.	-.1048	-.0021	.0062	.0336	-.0211	.0992	0.
.2040	-751.	1567.	475.	0.	0.	0.	0.	-.1047	.0000	.0082	.0405	-.0166	.0937	0.
.2050	-748.	1570.	518.	0.	0.	0.	0.	-.1040	.0008	.0098	.0402	-.0051	.0918	0.
.2060	-722.	1556.	533.	0.	0.	0.	0.	-.1027	.0004	.0110	.0332	.0115	.0920	0.
.2070	-670.	1524.	521.	0.	0.	0.	0.	-.1008	-.0013	.0118	.0217	.0301	.0932	0.
.2080	-611.	1304.	493.	0.	0.	0.	0.	-.0984	-.0042	.0122	.0096	.0472	.0948	0.
.2090	-551.	1136.	454.	0.	0.	0.	0.	-.0955	-.0081	.0121	.0002	.0594	.0957	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.54.

S/RV PIPING KEWAUNEE GKWOOF 2 RUP DISK
2 SAFETY COLD FKW245--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	60	MEMBER	2	SEQUENCE	833	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ			DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)			(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2100	-477.	878.	406.	0.	0.	0.			-.0922	-.0130	.0117	-.0049	.0641	.0942	0.
.2110	-385.	635.	347.	0.	0.	0.			-.0885	-.0184	.0110	-.0060	.0613	.0898	0.
.2120	-291.	337.	278.	0.	0.	0.			-.0846	-.0244	.0100	-.0049	.0532	.0839	0.
.2130	-204.	-18.	200.	0.	0.	0.			-.0804	-.0305	.0088	-.0042	.0431	.0783	0.
.2140	-122.	-335.	112.	0.	0.	0.			-.0760	-.0366	.0075	-.0060	.0334	.0745	0.
.2150	-45.	-569.	16.	0.	0.	0.			-.0716	-.0424	.0061	-.0119	.0259	.0731	0.
.2160	19.	-772.	-85.	0.	0.	0.			-.0671	-.0476	.0047	-.0218	.0214	.0742	0.
.2170	66.	-970.	-183.	0.	0.	0.			-.0627	-.0522	.0033	-.0338	.0183	.0770	0.
.2180	100.	-1110.	-274.	0.	0.	0.			-.0584	-.0560	.0022	-.0450	.0141	.0798	0.
.2190	125.	-1175.	-352.	0.	0.	0.			-.0541	-.0589	.0012	-.0526	.0065	.0813	0.
.2200	135.	-1219.	-413.	0.	0.	0.			-.0499	-.0608	.0006	-.0554	-.0048	.0807	0.
.2210	128.	-1264.	-455.	0.	0.	0.			-.0459	-.0617	.0003	-.0535	-.0190	.0783	0.
.2220	109.	-1255.	-479.	0.	0.	0.			-.0420	-.0615	.0004	-.0481	-.0338	.0749	0.
.2230	81.	-1165.	-487.	0.	0.	0.			-.0381	-.0604	.0008	-.0415	-.0467	.0717	0.
.2240	42.	-1043.	-480.	0.	0.	0.			-.0343	-.0584	.0017	-.0361	-.0546	.0696	0.
.2250	-4.	-922.	-463.	0.	0.	0.			-.0306	-.0555	.0029	-.0332	-.0561	.0687	0.
.2260	-47.	-768.	-436.	0.	0.	0.			-.0268	-.0519	.0045	-.0323	-.0520	.0683	0.
.2270	-84.	-562.	-397.	0.	0.	0.			-.0231	-.0477	.0064	-.0314	-.0444	.0676	0.
.2280	-121.	-357.	-341.	0.	0.	0.			-.0192	-.0431	.0086	-.0278	-.0358	.0660	0.
.2290	-160.	-193.	-268.	0.	0.	0.			-.0152	-.0382	.0111	-.0195	-.0285	.0626	0.
.2300	-189.	-45.	-182.	0.	0.	0.			-.0112	-.0332	.0138	-.0062	-.0237	.0561	0.
.2310	-201.	110.	-88.	0.	0.	0.			-.0069	-.0282	.0167	.0110	-.0214	.0467	0.
.2320	-200.	239.	10.	0.	0.	0.			-.0026	-.0233	.0196	.0303	-.0200	.0354	0.
.2330	-195.	319.	107.	0.	0.	0.			.0020	-.0186	.0224	.0490	-.0174	.0242	0.
.2340	-182.	380.	197.	0.	0.	0.			.0067	-.0141	.0252	.0650	-.0120	.0141	0.
.2350	-159.	448.	275.	0.	0.	0.			.0115	-.0100	.0277	.0768	-.0033	.0056	0.
.2360	-132.	494.	339.	0.	0.	0.			.0164	-.0063	.0301	.0840	.0084	-.0011	0.
.2370	-106.	490.	389.	0.	0.	0.			.0215	-.0030	.0322	.0875	.0217	-.0060	0.
.2380	-81.	454.	424.	0.	0.	0.			.0266	-.0000	.0339	.0885	.0348	-.0098	0.
.2390	-55.	411.	444.	0.	0.	0.			.0317	.0026	.0353	.0886	.0455	-.0134	0.
.2400	-28.	347.	450.	0.	0.	0.			.0370	.0048	.0363	.0883	.0527	-.0176	0.
.2410	-3.	250.	442.	0.	0.	0.			.0422	.0068	.0370	.0880	.0562	-.0224	0.
.2420	20.	142.	422.	0.	0.	0.			.0474	.0086	.0373	.0874	.0559	-.0277	0.
.2430	40.	48.	390.	0.	0.	0.			.0525	.0103	.0373	.0862	.0525	-.0332	0.
.2440	58.	-38.	347.	0.	0.	0.			.0577	.0119	.0370	.0838	.0467	-.0389	0.
.2450	73.	-130.	295.	0.	0.	0.			.0628	.0136	.0364	.0800	.0391	-.0450	0.
.2460	89.	-213.	235.	0.	0.	0.			.0678	.0154	.0355	.0750	.0299	-.0518	0.
.2470	107.	-262.	172.	0.	0.	0.			.0727	.0173	.0345	.0695	.0190	-.0596	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.54.

S/RV PIPING KEWAUNEE GKWOOF 2 RUP DISK
2 SAFETY COLD FKW245--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.2370	-106.	490.	489.	-0.	-0.	0.	.0215	-.0030	.0322	.0875	.0217	-.0060	0.
.2380	-81.	454.	424.	-0.	-0.	0.	.0266	-.0000	.0339	.0885	.0348	-.0098	0.
.2390	-55.	411.	444.	-0.	-0.	0.	.0317	.0026	.0353	.0886	.0455	-.0134	0.
.2400	-20.	347.	450.	-0.	-0.	0.	.0370	.0048	.0363	.0883	.0527	-.0176	0.
.2410	-7.	290.	442.	-0.	-0.	0.	.0422	.0068	.0370	.0880	.0562	-.0224	0.
.2420	20.	142.	422.	-0.	-0.	0.	.0474	.0086	.0373	.0874	.0559	-.0277	0.
.2430	40.	48.	390.	-0.	-0.	0.	.0525	.0103	.0373	.0862	.0525	-.0332	0.
.2440	58.	-78.	347.	-0.	-0.	0.	.0577	.0119	.0370	.0838	.0467	-.0389	0.
.2450	73.	-130.	295.	-0.	-0.	0.	.0628	.0136	.0364	.0800	.0391	-.0450	0.
.2460	89.	-213.	235.	-0.	-0.	0.	.0678	.0154	.0355	.0750	.0299	-.0518	0.
.2470	107.	-262.	172.	-0.	-0.	0.	.0727	.0173	.0345	.0695	.0190	-.0596	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.29.54.

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	CB	MEMBER	2	SEQUENCE	833	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2480	123.	-282.	109.	-0.	-0.	0.	.0775	.0195	.0334	.0643	.0068	-.0683	0.		
.2490	136.	-290.	49.	-0.	-0.	0.	.0822	.0219	.0322	.0599	-.0065	-.0781	0.		
.2500	150.	-281.	-4.	-0.	-0.	0.	.0868	.0245	.0309	.0564	-.0202	-.0891	0.		
.2510	171.	-241.	-51.	0.	-0.	-0.	.0913	.0273	.0297	.0535	-.0336	-.1017	0.		
.2520	200.	-174.	-91.	0.	-0.	-0.	.0956	.0303	.0285	.0509	-.0458	-.1157	0.		
.2530	233.	-94.	-120.	0.	-0.	-0.	.0997	.0335	.0274	.0483	-.0556	-.1301	0.		
.2540	267.	-0.	-137.	0.	-0.	-0.	.1036	.0366	.0264	.0459	-.0625	-.1443	0.		
.2550	306.	119.	-142.	0.	-0.	-0.	.1073	.0398	.0255	.0438	-.0663	-.1584	0.		
.2560	353.	250.	-137.	0.	0.	-0.	.1108	.0428	.0247	.0417	-.0669	-.1723	0.		
.2570	406.	365.	-123.	0.	0.	-0.	.1139	.0456	.0240	.0399	-.0645	-.1862	0.		
.2580	465.	463.	-101.	0.	0.	-0.	.1167	.0481	.0235	.0387	-.0594	-.1997	0.		
.2590	526.	560.	-70.	0.	0.	-0.	.1191	.0501	.0230	.0384	-.0520	-.2121	0.		
.2600	588.	648.	-34.	0.	0.	-0.	.1211	.0517	.0226	.0389	-.0428	-.2230	0.		
.2610	649.	711.	8.	0.	0.	-0.	.1226	.0528	.0221	.0401	-.0320	-.2322	0.		
.2620	711.	749.	49.	0.	0.	-0.	.1235	.0533	.0217	.0415	-.0202	-.2395	0.		
.2630	770.	765.	89.	0.	0.	-0.	.1239	.0531	.0213	.0431	-.0080	-.2447	0.		
.2640	821.	755.	127.	0.	0.	-0.	.1237	.0523	.0207	.0450	.0040	-.2470	0.		
.2650	859.	715.	162.	0.	0.	-0.	.1227	.0509	.0201	.0472	.0152	-.2462	0.		
.2660	883.	653.	191.	0.	0.	-0.	.1211	.0489	.0193	.0497	.0250	-.2423	0.		
.2670	895.	577.	212.	0.	0.	-0.	.1188	.0464	.0184	.0523	.0332	-.2353	0.		
.2680	889.	489.	225.	0.	0.	-0.	.1158	.0435	.0173	.0548	.0393	-.2251	0.		
.2690	861.	384.	230.	0.	0.	-0.	.1120	.0401	.0160	.0571	.0434	-.2112	0.		
.2700	812.	269.	226.	0.	0.	-0.	.1076	.0364	.0145	.0589	.0455	-.1939	0.		
.2710	746.	156.	213.	0.	0.	-0.	.1025	.0326	.0129	.0597	.0456	-.1737	0.		
.2720	665.	54.	192.	0.	0.	-0.	.0969	.0286	.0111	.0594	.0438	-.1509	0.		
.2730	566.	-44.	164.	0.	0.	-0.	.0908	.0246	.0092	.0585	.0402	-.1256	0.		
.2740	449.	-138.	134.	0.	0.	-0.	.0842	.0206	.0071	.0574	.0345	-.0985	0.		
.2750	324.	-210.	102.	0.	0.	-0.	.0773	.0168	.0049	.0563	.0266	-.0705	0.		
.2760	199.	-255.	66.	0.	0.	-0.	.0701	.0132	.0027	.0552	.0169	-.0430	0.		
.2770	73.	-295.	28.	0.	0.	-0.	.0628	.0097	.0004	.0540	.0058	-.0163	0.		
.2780	-55.	-338.	-8.	0.	0.	-0.	.0555	.0065	-.0019	.0531	-.0059	.0099	0.		
.2790	-181.	-360.	-39.	0.	0.	-0.	.0483	.0036	-.0042	.0522	-.0176	.0350	0.		
.2800	-293.	-349.	-69.	0.	0.	-0.	.0412	.0010	-.0065	.0506	-.0284	.0583	0.		
.2810	-387.	-335.	-96.	-0.	0.	0.	.0345	-.0013	-.0086	.0478	-.0375	.0789	0.		
.2820	-465.	-342.	-121.	-0.	0.	0.	.0280	-.0034	-.0108	.0440	-.0445	.0968	0.		
.2830	-525.	-346.	-139.	-0.	0.	0.	.0219	-.0052	-.0128	.0400	-.0497	.1119	0.		
.2840	-561.	-324.	-151.	-0.	0.	0.	.0163	-.0066	-.0146	.0364	-.0536	.1235	0.		
.2850	-573.	-302.	-150.	-0.	0.	0.	.0111	-.0079	-.0164	.0334	-.0566	.1306	0.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.54.

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

.2760	199.	-255.	66.	0.	0.	-0.	.773	.0132	.0027	.0552	.0169	-.0430	0.
.2770	73.	-295.	28.	0.	0.	-0.	.0628	.0097	.0004	.0540	.0058	-.0163	0.
.2780	-55.	-338.	-8.	0.	0.	-0.	.0555	.0065	-.0019	.0531	-.0059	.0099	0.
.2790	-181.	-360.	-39.	0.	0.	-0.	.0483	.0036	-.0042	.0522	-.0176	.0350	0.
.2800	-293.	-349.	-68.	0.	0.	-0.	.0412	.0010	-.0065	.0506	-.0284	.0583	0.
.2810	-387.	-335.	-96.	-0.	0.	0.	.0345	-.0013	-.0086	.0478	-.0375	.0789	0.
.2820	-465.	-342.	-121.	-0.	0.	0.	.0280	-.0034	-.0108	.0440	-.0445	.0968	0.
.2830	-525.	-346.	-139.	-0.	0.	0.	.0219	-.0052	-.0128	.0400	-.0497	.1119	0.
.2840	-561.	-324.	-151.	-0.	0.	0.	.0163	-.0066	-.0146	.0364	-.0536	.1235	0.
.2850	-577.	-302.	-158.	-0.	0.	0.	.0111	-.0079	-.0164	.0334	-.0566	.1306	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.54.

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	68	MEMBER	2	SEQUENCE	833	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2860	-562.	-317.	-160.	-0.	0.	0.		.0064	-.0089	-.0100	.0312	-.0586	.1334	0.	
.2870	-537.	-348.	-155.	-0.	0.	0.		.0021	-.0096	-.0195	.0300	-.0597	.1323	0.	
.2880	-488.	-361.	-144.	-0.	0.	0.		-.0017	-.0100	-.0209	.0294	-.0598	.1281	0.	
.2890	-428.	-371.	-129.	-0.	0.	0.		-.0051	-.0102	-.0222	.0282	-.0579	.1213	0.	
.2900	-359.	-407.	-115.	-0.	0.	0.		-.0082	-.0101	-.0233	.0250	-.0529	.1128	0.	
.2910	-282.	-451.	-101.	-0.	0.	0.		-.0110	-.0096	-.0244	.0191	-.0446	.1032	0.	
.2920	-201.	-462.	-89.	-0.	0.	0.		-.0136	-.0088	-.0253	.0106	-.0335	.0933	0.	
.2930	-123.	-446.	-77.	-0.	0.	0.		-.0160	-.0076	-.0262	.0003	-.0204	.0837	0.	
.2940	-52.	-438.	-65.	-0.	0.	0.		-.0184	-.0060	-.0271	-.0114	-.0066	.0741	0.	
.2950	14.	-433.	-56.	-0.	0.	0.		-.0207	-.0042	-.0279	-.0234	.0064	.0640	0.	
.2960	77.	-394.	-48.	-0.	0.	0.		-.0230	-.0020	-.0286	-.0346	.0168	.0531	0.	
.2970	131.	-325.	-39.	-0.	-0.	0.		-.0254	.0006	-.0293	-.0443	.0239	.0422	0.	
.2980	166.	-265.	-30.	-0.	-0.	0.		-.0279	.0033	-.0300	-.0523	.0277	.0321	0.	
.2990	186.	-209.	-21.	-0.	-0.	-0.		-.0305	.0063	-.0307	-.0595	.0286	.0230	0.	
.3000	199.	-120.	-19.	-0.	-0.	-0.		-.0333	.0094	-.0313	-.0669	.0274	.0150	0.	
.3010	203.	-2.	-23.	-0.	-0.	-0.		-.0362	.0126	-.0319	-.0750	.0249	.0089	0.	
.3020	188.	101.	-32.	-0.	-0.	-0.		-.0393	.0157	-.0325	-.0840	.0220	.0057	0.	
.3030	155.	182.	-45.	-0.	-0.	-0.		-.0426	.0188	-.0331	-.0934	.0187	.0057	0.	
.3040	112.	277.	-63.	-0.	-0.	-0.		-.0459	.0216	-.0336	-.1029	.0146	.0081	0.	
.3050	66.	380.	-86.	-0.	-0.	-0.		-.0493	.0243	-.0341	-.1118	.0094	.0120	0.	
.3060	12.	444.	-113.	-0.	-0.	-0.		-.0528	.0266	-.0345	-.1194	.0031	.0176	0.	
.3070	-53.	460.	-137.	-0.	-0.	-0.		-.0563	.0285	-.0348	-.1250	-.0043	.0249	0.	
.3080	-121.	468.	-160.	-0.	-0.	-0.		-.0597	.0301	-.0350	-.1286	-.0124	.0335	0.	
.3090	-183.	478.	-183.	-0.	-0.	-0.		-.0630	.0313	-.0350	-.1306	-.0206	.0428	0.	
.3100	-241.	454.	-204.	-0.	-0.	-0.		-.0661	.0321	-.0349	-.1318	-.0277	.0527	0.	
.3110	-297.	387.	-222.	-0.	-0.	-0.		-.0691	.0325	-.0347	-.1320	-.0330	.0632	0.	
.3120	-348.	320.	-233.	-0.	-0.	-0.		-.0718	.0326	-.0343	-.1309	-.0365	.0745	0.	
.3130	-393.	269.	-237.	-0.	-0.	-0.		-.0742	.0325	-.0336	-.1281	-.0385	.0858	0.	
.3140	-430.	202.	-233.	-0.	-0.	-0.		-.0762	.0321	-.0328	-.1237	-.0389	.0964	0.	
.3150	-459.	110.	-221.	-0.	-0.	-0.		-.0779	.0316	-.0318	-.1175	-.0379	.1057	0.	
.3160	-478.	34.	-198.	-0.	-0.	-0.		-.0793	.0310	-.0307	-.1093	-.0359	.1135	0.	
.3170	-489.	-9.	-164.	-0.	-0.	-0.		-.0802	.0304	-.0294	-.0990	-.0331	.1201	0.	
.3180	-497.	-32.	-112.	-0.	-0.	-0.		-.0808	.0297	-.0279	-.0872	-.0292	.1256	0.	
.3190	-499.	-59.	-67.	-0.	-0.	-0.		-.0810	.0291	-.0264	-.0750	-.0238	.1297	0.	
.3200	-492.	-54.	-10.	-0.	-0.	-0.		-.0807	.0286	-.0249	-.0630	-.0170	.1321	0.	
.3210	-474.	-3.	50.	-0.	-0.	-0.		-.0801	.0280	-.0233	-.0513	-.0092	.1332	0.	
.3220	-461.	65.	113.	-0.	-0.	0.		-.0791	.0275	-.0218	-.0402	-.0007	.1336	0.	
.3230	-449.	130.	177.	-0.	-0.	0.		-.0777	.0269	-.0204	-.0296	.0081	.1332	0.	

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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

.3140	-430.	202.	33.	0.	-0.	-0.	-0.	-0.0762	.0321	-0.0328	-0.1237	-0.0389	.0964	0.
.3150	-459.	110.	-221.	0.	-0.	-0.	-0.	-0.0779	.0316	-0.0318	-0.1175	-0.0379	.1057	0.
.3160	-470.	34.	-198.	0.	-0.	-0.	-0.	-0.0793	.0310	-0.0307	-0.1093	-0.0359	.1135	0.
.3170	-480.	-5.	-164.	0.	-0.	-0.	-0.	-0.0802	.0304	-0.0294	-0.0990	-0.0331	.1201	0.
.3180	-497.	-32.	-110.	0.	-0.	-0.	-0.	-0.0808	.0297	-0.0279	-0.0872	-0.0292	.1256	0.
.3190	-499.	-59.	-67.	0.	-0.	-0.	-0.	-0.0810	.0291	-0.0264	-0.0750	-0.0238	.1297	0.
.3200	-492.	-54.	-10.	0.	-0.	-0.	-0.	-0.0807	.0286	-0.0249	-0.0630	-0.0170	.1321	0.
.3210	-476.	-3.	50.	-0.	-0.	-0.	-0.	-0.0801	.0280	-0.0233	-0.0513	-0.0092	.1332	0.
.3220	-461.	65.	117.	-0.	-0.	-0.	-0.	-0.0791	.0275	-0.0218	-0.0402	-0.0007	.1336	0.
.3230	-449.	130.	177.	-0.	-0.	-0.	-0.	-0.0777	.0269	-0.0204	-0.0296	.0081	.1332	0.

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2 SAFETY COLD FKW24F--2 PSV

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LOADS

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ENGLISH UNITS

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

SECTION	68	MEMBER	2	SEQUENCE	833	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3240	-432.	215.	237.	-0.	-0.	0.	-0.0760	.0261	-0.0191	-0.0201	.0164	.1315	0.		
.3250	-407.	331.	289.	-0.	-0.	0.	-0.0739	.0252	-0.0181	-0.0118	.0238	.1283	0.		
.3260	-381.	442.	332.	-0.	-0.	0.	-0.0715	.0240	-0.0172	-0.0051	.0302	.1243	0.		
.3270	-361.	523.	366.	-0.	-0.	0.	-0.0688	.0225	-0.0167	-0.0000	.0356	.1201	0.		
.3280	-341.	594.	388.	-0.	-0.	0.	-0.0659	.0205	-0.0164	.0031	.0398	.1156	0.		
.3290	-314.	670.	393.	-0.	-0.	0.	-0.0626	.0180	-0.0165	.0039	.0426	.1106	0.		
.3300	-284.	720.	382.	-0.	-0.	0.	-0.0592	.0149	-0.0168	.0023	.0443	.1051	0.		
.3310	-255.	716.	356.	-0.	-0.	0.	-0.0555	.0113	-0.0175	-0.0014	.0447	.0995	0.		
.3320	-228.	680.	316.	-0.	-0.	0.	-0.0516	.0071	-0.0185	-0.0065	.0435	.0939	0.		
.3330	-196.	632.	262.	-0.	-0.	0.	-0.0475	.0024	-0.0196	-0.0128	.0406	.0880	0.		
.3340	-159.	554.	196.	-0.	-0.	0.	-0.0434	-0.0028	-0.0210	-0.0204	.0365	.0814	0.		
.3350	-120.	425.	119.	-0.	-0.	0.	-0.0391	-0.0084	-0.0226	-0.0290	.0314	.0743	0.		
.3360	-80.	270.	37.	-0.	-0.	0.	-0.0347	-0.0144	-0.0242	-0.0382	.0259	.0670	0.		
.3370	-39.	121.	-49.	-0.	-0.	0.	-0.0302	-0.0206	-0.0258	-0.0475	.0199	.0596	0.		
.3380	5.	-32.	-134.	0.	0.	0.	-0.0258	-0.0268	-0.0274	-0.0568	.0141	.0519	0.		
.3390	48.	-205.	-217.	0.	0.	-0.	-0.0214	-0.0330	-0.0288	-0.0658	.0085	.0436	0.		
.3400	94.	-376.	-294.	0.	0.	-0.	-0.0170	-0.0390	-0.0301	-0.0740	.0033	.0346	0.		
.3410	141.	-514.	-361.	0.	0.	-0.	-0.0127	-0.0447	-0.0311	-0.0804	-0.0018	.0249	0.		
.3420	184.	-624.	-414.	0.	0.	-0.	-0.0086	-0.0500	-0.0318	-0.0848	-0.0066	.0148	0.		
.3430	221.	-725.	-451.	0.	0.	-0.	-0.0046	-0.0548	-0.0322	-0.0871	-0.0106	.0043	0.		
.3440	256.	-801.	-474.	0.	0.	-0.	-0.0008	-0.0589	-0.0322	-0.0877	-0.0135	-0.0065	0.		
.3450	290.	-828.	-483.	0.	0.	-0.	.0028	-0.0624	-0.0318	-0.0868	-0.0149	-0.0175	0.		
.3460	319.	-811.	-476.	0.	0.	-0.	.0062	-0.0653	-0.0310	-0.0847	-0.0144	-0.0281	0.		
.3470	338.	-774.	-454.	0.	0.	-0.	.0092	-0.0675	-0.0299	-0.0815	-0.0119	-0.0377	0.		
.3480	350.	-713.	-419.	0.	0.	-0.	.0120	-0.0691	-0.0283	-0.0772	-0.0076	-0.0465	0.		
.3490	359.	-612.	-373.	0.	0.	-0.	.0145	-0.0702	-0.0265	-0.0718	-0.0020	-0.0547	0.		
.3500	364.	-482.	-319.	0.	0.	-0.	.0167	-0.0708	-0.0244	-0.0653	.0043	-0.0622	0.		
.3510	362.	-351.	-257.	0.	0.	-0.	.0186	-0.0710	-0.0220	-0.0573	.0108	-0.0687	0.		
.3520	351.	-226.	-190.	0.	0.	-0.	.0202	-0.0710	-0.0194	-0.0480	.0172	-0.0739	0.		
.3530	335.	-93.	-122.	0.	0.	-0.	.0216	-0.0708	-0.0167	-0.0377	.0232	-0.0779	0.		
.3540	317.	42.	-57.	0.	0.	-0.	.0226	-0.0706	-0.0139	-0.0270	.0287	-0.0805	0.		
.3550	295.	155.	3.	0.	0.	-0.	.0234	-0.0704	-0.0110	-0.0166	.0340	-0.0816	0.		
.3560	268.	238.	57.	0.	0.	-0.	.0240	-0.0704	-0.0082	-0.0068	.0390	-0.0806	0.		
.3570	238.	307.	101.	0.	0.	-0.	.0244	-0.0706	-0.0054	.0025	.0434	-0.0776	0.		
.3580	208.	361.	134.	0.	0.	-0.	.0245	-0.0710	-0.0027	.0110	.0468	-0.0729	0.		
.3590	179.	379.	156.	0.	0.	-0.	.0245	-0.0718	-0.0002	.0188	.0489	-0.0668	0.		
.3600	151.	357.	167.	0.	0.	-0.	.0244	-0.0728	.0023	.0262	.0495	-0.0598	0.		
.3610	124.	311.	167.	-0.	0.	-0.	.0241	-0.0742	.0046	.0335	.0480	-0.0518	0.		

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2 SAFETY COLD FKW24F--2 PSV

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FORCES AND MOMENTS ACT ON THE PIPING

.3520	351.	-226.	-190.	0.	0.	-0.	.0202	-.0710	-.0270	-.0573	.0108	-.0687	0.
.3530	335.	-93.	-122.	0.	0.	-0.	.0216	-.0708	-.0167	-.0377	.0232	-.0779	0.
.3540	317.	42.	-57.	0.	0.	-0.	.0226	-.0706	-.0139	-.0270	.0287	-.0805	0.
.3550	295.	155.	3.	0.	0.	-0.	.0234	-.0704	-.0110	-.0166	.0340	-.0816	0.
.3560	260.	238.	57.	0.	0.	-0.	.0240	-.0704	-.0082	-.0068	.0390	-.0806	0.
.3570	230.	307.	101.	0.	0.	-0.	.0244	-.0706	-.0054	.0025	.0434	-.0776	0.
.3580	200.	361.	134.	0.	0.	-0.	.0245	-.0710	-.0027	.0110	.0468	-.0729	0.
.3590	179.	379.	156.	0.	0.	-0.	.0245	-.0718	-.0002	.0188	.0489	-.0668	0.
.3600	151.	357.	167.	0.	0.	-0.	.0244	-.0728	.0023	.0262	.0495	-.0598	0.
.3610	124.	311.	167.	-0.	0.	-0.	.0241	-.0742	.0046	.0335	.0480	-.0518	0.

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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	GS	MEMBER	2	SEQUENCE	813	LOCATION	END	TYPE	VA							
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3620	99.	246.	158.	-0.	0.	0.		.0238	-.0758	.0067	.0408	.0446	-.0430	0.		
.3630	75.	153.	139.	-0.	0.	0.		.0233	-.0776	.0088	.0478	.0397	-.0336	0.		
.3640	54.	31.	113.	-0.	0.	0.		.0229	-.0795	.0107	.0539	.0340	-.0237	0.		
.3650	38.	-102.	78.	-0.	0.	0.		.0223	-.0814	.0126	.0587	.0281	-.0136	0.		
.3660	26.	-233.	39.	-0.	0.	0.		.0218	-.0832	.0143	.0623	.0225	-.0030	0.		
.3670	14.	-370.	-4.	-0.	0.	0.		.0212	-.0849	.0161	.0647	.0174	.0078	0.		
.3680	3.	-514.	-46.	-0.	0.	0.		.0206	-.0862	.0178	.0661	.0130	.0184	0.		
.3690	-3.	-647.	-88.	-0.	0.	0.		.0200	-.0871	.0196	.0671	.0090	.0281	0.		
.3700	-2.	-760.	-126.	-0.	0.	0.		.0194	-.0875	.0215	.0681	.0050	.0364	0.		
.3710	-0.	-861.	-157.	-0.	0.	0.		.0188	-.0872	.0235	.0699	.0009	.0430	0.		
.3720	2.	-953.	-179.	-0.	-0.	0.		.0183	-.0863	.0256	.0728	-.0035	.0478	0.		
.3730	6.	-1023.	-191.	-0.	-0.	0.		.0177	-.0846	.0278	.0767	-.0080	.0507	0.		
.3740	14.	-1058.	-192.	-0.	-0.	0.		.0171	-.0821	.0302	.0814	-.0121	.0514	0.		
.3750	24.	-1064.	-185.	-0.	-0.	0.		.0165	-.0787	.0327	.0862	-.0154	.0502	0.		
.3760	33.	-1049.	-167.	-0.	-0.	0.		.0159	-.0745	.0354	.0908	-.0171	.0478	0.		
.3770	38.	-1005.	-139.	-0.	-0.	0.		.0152	-.0695	.0382	.0949	-.0169	.0444	0.		
.3780	42.	-924.	-102.	-0.	-0.	0.		.0146	-.0637	.0411	.0983	-.0149	.0402	0.		
.3790	46.	-810.	-59.	-0.	-0.	0.		.0138	-.0572	.0441	.1008	-.0111	.0350	0.		
.3800	49.	-675.	-9.	-0.	-0.	0.		.0131	-.0501	.0471	.1027	-.0060	.0289	0.		
.3810	49.	-523.	47.	-0.	-0.	0.		.0123	-.0425	.0501	.1043	-.0002	.0221	0.		
.3820	45.	-347.	109.	-0.	-0.	0.		.0115	-.0345	.0531	.1061	.0056	.0149	0.		
.3830	40.	-152.	174.	0.	-0.	-0.		.0106	-.0263	.0559	.1081	.0110	.0070	0.		
.3840	35.	44.	241.	0.	-0.	-0.		.0097	-.0180	.0586	.1101	.0156	-.0014	0.		
.3850	30.	239.	306.	0.	-0.	-0.		.0088	-.0097	.0611	.1120	.0195	-.0100	0.		
.3860	24.	437.	368.	0.	-0.	-0.		.0079	-.0017	.0634	.1137	.0224	-.0185	0.		
.3870	17.	632.	426.	0.	-0.	-0.		.0069	.0059	.0653	.1148	.0245	-.0262	0.		
.3880	8.	808.	478.	0.	-0.	-0.		.0060	.0129	.0669	.1153	.0257	-.0330	0.		
.3890	1.	964.	520.	0.	-0.	-0.		.0050	.0193	.0680	.1149	.0259	-.0389	0.		
.3900	-4.	1103.	550.	0.	-0.	-0.		.0040	.0249	.0688	.1135	.0251	-.0440	0.		
.3910	-8.	1213.	570.	0.	-0.	-0.		.0031	.0296	.0691	.1116	.0230	-.0479	0.		
.3920	-16.	1279.	580.	0.	-0.	-0.		.0021	.0333	.0690	.1094	.0195	-.0502	0.		
.3930	-26.	1303.	579.	0.	-0.	-0.		.0012	.0359	.0683	.1068	.0146	-.0513	0.		
.3940	-31.	1299.	566.	0.	-0.	-0.		.0002	.0375	.0673	.1037	.0085	-.0514	0.		
.3950	-33.	1262.	540.	0.	-0.	-0.		-.0006	.0381	.0657	.1000	.0015	-.0506	0.		
.3960	-34.	1182.	505.	0.	0.	-0.		-.0015	.0376	.0638	.0957	-.0061	-.0487	0.		
.3970	-38.	1064.	461.	0.	0.	-0.		-.0023	.0362	.0614	.0908	-.0137	-.0454	0.		
.3980	-41.	926.	410.	0.	0.	-0.		-.0031	.0340	.0587	.0853	-.0214	-.0411	0.		
.3990	-40.	774.	353.	0.	0.	-0.		-.0039	.0311	.0557	.0792	-.0287	-.0365	0.		

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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

.3890	1.	964.	520.	0.	-0.	-0.	.0050	.0193	.0680	.1149	.0259	-.0389	0.
.3900	-4.	1103.	550.	0.	-0.	-0.	.0040	.0249	.0688	.1135	.0251	-.0440	0.
.3910	-8.	1213.	570.	0.	-0.	-0.	.0031	.0296	.0691	.1116	.0230	-.0479	0.
.3920	-16.	1279.	580.	0.	-0.	-0.	.0021	.0333	.0690	.1094	.0195	-.0502	0.
.3930	-26.	1303.	570.	0.	-0.	-0.	.0012	.0359	.0683	.1068	.0146	-.0513	0.
.3940	-31.	1299.	566.	0.	-0.	-0.	.0002	.0375	.0673	.1037	.0085	-.0514	0.
.3950	-33.	1262.	540.	0.	-0.	-0.	-.0006	.0381	.0657	.1000	.0015	-.0506	0.
.3960	-34.	1182.	505.	0.	0.	-0.	-.0015	.0376	.0638	.0957	-.0061	-.0487	0.
.3970	-38.	1064.	461.	0.	0.	-0.	-.0023	.0362	.0614	.0908	-.0137	-.0454	0.
.3980	-41.	926.	410.	0.	0.	-0.	-.0031	.0340	.0587	.0853	-.0214	-.0411	0.
.3990	-40.	774.	357.	0.	0.	-0.	-.0039	.0311	.0557	.0792	-.0287	-.0365	0.

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ADLPIPE STRESS ANALYSIS

8/12/02. 18.29.54.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	65	MEMBER	2	SEQUENCE	833	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.4000	-36.	600.	290.	0.	0.	-0.		-.0046	.0276	.0524	.0725	-.0355	-.0316	0.	

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)
.0610	199.	666.	128.	0.	0.	-0.		.0133	.0255	.0047	-.0051	-.0115	-.0910	0.

SECTION	69	MEMBER	1	SEQUENCE	101	LOCATION	BEG	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
0.0000	0.	0.	0.	0.	0.	0.		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.	
.0010	-0.	-0.	0.	0.	0.	0.		-.0000	-.0000	-.0000	-.0000	-.0000	-.0000	0.	
.0020	-0.	-0.	0.	0.	0.	0.		-.0000	-.0000	-.0000	-.0000	-.0000	-.0000	1.	
.0030	-0.	-0.	0.	0.	-0.	0.		.0000	.0000	.0000	-.0000	.0000	-.0000	1.	
.0040	0.	-0.	-0.	0.	-0.	0.		-.0000	.0000	.0000	-.0000	.0000	-.0000	1.	
.0050	1.	-0.	-0.	0.	-0.	0.		-.0000	.0000	-.0000	.0000	-.0000	-.0000	1.	
.0060	2.	0.	-0.	0.	-0.	-0.		-.0000	.0000	-.0000	.0001	-.0001	-.0000	2.	
.0070	5.	1.	-1.	1.	-1.	-1.		-.0001	-.0000	-.0001	.0002	-.0003	-.0001	5.	
.0080	9.	1.	-1.	2.	-1.	-2.		-.0002	-.0000	-.0003	.0005	-.0007	-.0002	9.	
.0090	15.	3.	-0.	3.	-1.	-5.		-.0005	-.0000	-.0006	.0010	-.0014	-.0005	17.	
.0100	23.	6.	1.	4.	-1.	-9.		-.0008	-.0000	-.0011	.0017	-.0024	-.0008	31.	
.0110	35.	11.	3.	6.	-1.	-16.		-.0013	-.0000	-.0018	.0028	-.0039	-.0013	51.	
.0120	50.	17.	6.	9.	-1.	-24.		-.0020	-.0000	-.0027	.0043	-.0061	-.0020	80.	
.0130	70.	26.	11.	13.	-1.	-38.		-.0030	-.0000	-.0040	.0063	-.0090	-.0028	121.	
.0140	93.	40.	18.	16.	1.	-57.		-.0043	-.0000	-.0055	.0087	-.0127	-.0039	179.	
.0150	117.	56.	27.	18.	4.	-80.		-.0059	-.0000	-.0072	.0116	-.0170	-.0051	251.	
.0160	137.	71.	37.	20.	8.	-103.		-.0075	-.0000	-.0090	.0145	-.0214	-.0065	321.	
.0170	149.	80.	47.	23.	12.	-118.		-.0091	-.0000	-.0106	.0170	-.0253	-.0082	367.	
.0180	140.	76.	57.	26.	17.	-118.		-.0102	-.0001	-.0117	.0185	-.0279	-.0098	371.	
.0190	132.	61.	63.	28.	21.	-104.		-.0108	-.0001	-.0118	.0183	-.0283	-.0111	335.	
.0200	97.	36.	64.	28.	24.	-78.		-.0106	-.0001	-.0104	.0158	-.0255	-.0115	262.	
.0210	47.	11.	57.	22.	26.	-47.		-.0093	-.0001	-.0074	.0105	-.0191	-.0106	178.	
.0220	-19.	0.	43.	3.	26.	-29.		-.0070	-.0002	-.0028	.0029	-.0092	-.0080	119.	
.0230	-87.	-4.	24.	-22.	22.	-16.		-.0040	-.0003	.0028	-.0063	.0030	-.0042	107.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.0130	70.	26.	11.	13.	-1.	-38.	-.0030	-.0000	-.0040	.0063	-.0090	-.0028	121.
.0140	97.	40.	18.	16.	1.	-57.	-.0043	-.0000	-.0055	.0087	-.0127	-.0039	179.
.0150	117.	56.	27.	18.	4.	-80.	-.0059	-.0000	-.0072	.0116	-.0170	-.0051	251.
.0160	137.	71.	37.	20.	6.	-103.	-.0075	-.0000	-.0090	.0145	-.0214	-.0065	321.
.0170	149.	80.	47.	23.	12.	-118.	-.0091	-.0000	-.0106	.0170	-.0253	-.0082	367.
.0180	149.	76.	57.	26.	17.	-118.	-.0102	-.0001	-.0117	.0185	-.0274	-.0098	371.
.0190	132.	61.	63.	28.	21.	-104.	-.0108	-.0001	-.0118	.0183	-.0283	-.0111	335.
.0200	97.	36.	64.	28.	24.	-78.	-.0106	-.0001	-.0104	.0158	-.0253	-.0115	262.
.0210	47.	11.	57.	22.	26.	-47.	-.0093	-.0001	-.0074	.0105	-.0191	-.0106	178.
.0220	-19.	0.	43.	3.	26.	-29.	-.0070	-.0002	-.0028	.0029	-.0092	-.0080	119.
.0230	-87.	-4.	24.	-22.	22.	-16.	-.0040	-.0003	.0028	-.0063	.0030	-.0042	107.

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ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.54.

S/RV PIPING KEWAUNEE GKW00F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	59	MEMBER	1	SEQUENCE	101	LOCATION	BEG	TYPE	VA					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.0240	-139.	-4.	-3.	-47.	16.	-8.	-.0009	-.0005	.0086	-.0155	.0155	-.0000	154.	
.0250	-181.	-8.	-20.	-64.	12.	2.	.0016	-.0008	.0135	-.0234	.0262	.0039	199.	
.0260	-235.	-20.	-41.	-69.	18.	21.	.0033	-.0011	.0169	-.0288	.0338	.0067	225.	
.0270	-297.	-17.	-41.	-77.	28.	27.	.0047	-.0016	.0183	-.0312	.0374	.0086	262.	
.0280	-325.	-21.	-38.	-78.	29.	44.	.0057	-.0022	.0174	-.0304	.0385	.0089	286.	
.0290	-327.	-74.	-31.	-51.	26.	110.	.0061	-.0029	.0150	-.0275	.0357	.0076	377.	
.0300	-382.	-116.	-9.	-30.	42.	163.	.0060	-.0038	.0129	-.0239	.0324	.0075	520.	
.0310	-434.	-96.	-2.	-35.	58.	160.	.0066	-.0047	.0122	-.0216	.0322	.0104	527.	
.0320	-434.	-100.	-17.	-32.	47.	183.	.0092	-.0056	.0127	-.0223	.0358	.0143	583.	
.0330	-424.	-159.	-36.	-18.	18.	256.	.0135	-.0065	.0145	-.0255	.0423	.0188	783.	
.0340	-395.	-167.	-68.	-27.	-11.	276.	.0177	-.0075	.0175	-.0293	.0506	.0258	844.	
.0350	-307.	-84.	-125.	-57.	-35.	208.	.0203	-.0083	.0202	-.0310	.0571	.0346	665.	
.0360	-207.	-25.	-159.	-68.	-52.	161.	.0211	-.0091	.0196	-.0276	.0563	.0400	555.	
.0370	-138.	-55.	-141.	-50.	-65.	197.	.0204	-.0098	.0138	-.0173	.0453	.0391	649.	
.0380	-36.	-103.	-102.	-23.	-82.	248.	.0180	-.0103	.0035	-.0006	.0258	.0332	798.	
.0390	105.	-119.	-60.	9.	-91.	264.	.0135	-.0105	-.0090	.0198	.0006	.0253	850.	
.0400	178.	-144.	7.	48.	-70.	280.	.0077	-.0104	-.0206	.0397	-.0255	.0173	891.	
.0410	176.	-162.	72.	62.	-43.	289.	.0033	-.0100	-.0283	.0541	-.0441	.0115	909.	
.0420	228.	-176.	74.	53.	-58.	305.	.0030	-.0091	-.0306	.0586	-.0484	.0084	958.	
.0430	312.	-220.	35.	39.	-110.	352.	.0066	-.0077	-.0271	.0524	-.0407	.0079	1129.	
.0440	330.	-250.	-8.	9.	-151.	372.	.0116	-.0058	-.0182	.0382	-.0236	.0116	1222.	
.0450	355.	-154.	-84.	-56.	-170.	260.	.0153	-.0036	-.0059	.0208	-.0019	.0194	961.	
.0460	437.	16.	-173.	-126.	-182.	73.	.0169	-.0009	.0045	.0062	.0159	.0255	710.	
.0470	467.	60.	-180.	-138.	-185.	1.	.0164	.0019	.0078	-.0001	.0197	.0220	701.	
.0480	419.	-39.	-104.	-87.	-169.	59.	.0131	.0050	.0038	.0028	.0088	.0086	606.	
.0490	422.	-84.	-31.	-27.	-133.	62.	.0062	.0082	-.0038	.0118	-.0098	-.0078	455.	
.0500	436.	2.	33.	10.	-70.	-68.	-.0031	.0114	-.0112	.0222	-.0302	-.0218	298.	
.0510	361.	96.	124.	37.	8.	-213.	-.0115	.0147	-.0164	.0293	-.0473	-.0334	657.	
.0520	287.	109.	184.	70.	52.	-272.	-.0162	.0178	-.0173	.0282	-.0533	-.0431	869.	
.0530	298.	106.	159.	96.	52.	-302.	-.0169	.0207	-.0123	.0168	-.0442	-.0486	976.	
.0540	273.	183.	109.	81.	52.	-405.	-.0152	.0234	-.0018	-.0019	-.0243	-.0470	1265.	
.0550	162.	325.	74.	32.	75.	-571.	-.0132	.0256	.0112	-.0229	-.0013	-.0405	1754.	
.0560	104.	427.	21.	0.	80.	-689.	-.0119	.0272	.0227	-.0413	.0196	-.0352	2112.	
.0570	114.	432.	-26.	12.	83.	-700.	-.0120	.0282	.0288	-.0526	.0314	-.0357	2143.	
.0580	58.	397.	5.	40.	100.	-671.	-.0145	.0285	.0282	-.0536	.0291	-.0407	2066.	
.0590	-47.	391.	87.	63.	145.	-670.	-.0197	.0281	.0230	-.0458	.0158	-.0473	2094.	
.0600	-97.	390.	143.	94.	193.	-664.	-.0261	.0271	.0164	-.0347	.0001	-.0538	2124.	
.0610	-143.	342.	180.	130.	227.	-600.	-.0308	.0254	.0111	-.0258	-.0115	-.0589	1992.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.54.

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

.0510	361.	96.	124.	17.	8.	-213.	-.115	.0147	-.0164	.0293	-.0473	-.0334	657.
.0520	287.	109.	184.	70.	52.	-272.	-.162	.0178	-.0173	.0282	-.0533	-.0431	869.
.0530	298.	106.	159.	96.	52.	-302.	-.0169	.0207	-.0123	.0168	-.0442	-.0486	976.
.0540	273.	103.	109.	71.	52.	-405.	-.0152	.0234	-.0018	-.0019	-.0243	-.0470	1265.
.0550	162.	325.	74.	32.	75.	-571.	-.0132	.0256	.0112	-.0229	-.0013	-.0405	1754.
.0560	104.	427.	21.	0.	80.	-639.	-.0119	.0272	.0227	-.0413	.0196	-.0352	2112.
.0570	114.	432.	-26.	12.	82.	-700.	-.0120	.0282	.0288	-.0526	.0314	-.0357	2143.
.0580	58.	397.	5.	40.	100.	-671.	-.0145	.0285	.0282	-.0536	.0291	-.0407	2066.
.0590	-47.	391.	87.	63.	145.	-670.	-.0197	.0281	.0230	-.0458	.0158	-.0473	2094.
.0600	-97.	390.	143.	94.	192.	-664.	-.0261	.0271	.0164	-.0347	.0001	-.0538	2124.
.0610	-143.	342.	180.	130.	227.	-600.	-.0308	.0254	.0111	-.0258	-.0115	-.0589	1992.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.54.

S/RV PIPING KEWAUNEE CKW00F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	VA	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)
.0620	-248.	271.	221.	140.	241.	-502.	-.0314	.0232	.0094	-.0227	-.0146	-.0600	1745.
.0630	-324.	214.	209.	116.	219.	-401.	-.0278	.0205	.0134	-.0281	-.0047	-.0549	1433.
.0640	-327.	163.	118.	79.	172.	-295.	-.0216	.0175	.0232	-.0416	.0176	-.0439	1068.
.0650	-337.	143.	10.	26.	131.	-225.	-.0145	.0142	.0360	-.0584	.0446	-.0284	796.
.0660	-363.	191.	-70.	-48.	98.	-228.	-.0079	.0106	.0466	-.0715	.0666	-.0119	769.
.0670	-335.	223.	-124.	-100.	61.	-218.	-.0031	.0068	.0507	-.0755	.0766	-.0009	752.
.0680	-282.	140.	-132.	-27.	32.	-100.	-.0020	.0030	.0462	-.0672	.0698	.0008	417.
.0690	-269.	17.	-72.	-41.	41.	42.	-.0053	-.0009	.0342	-.0468	.0462	-.0042	218.
.0700	-254.	-16.	22.	-8.	75.	87.	-.0117	-.0047	.0180	-.0188	.0125	-.0106	348.
.0710	-208.	-14.	104.	21.	106.	90.	-.0180	-.0083	.0017	.0092	-.0209	-.0164	427.
.0720	-182.	-84.	163.	57.	120.	158.	-.0213	-.0116	-.0106	.0298	-.0446	-.0208	627.
.0730	-175.	-159.	181.	68.	108.	231.	-.0198	-.0145	-.0159	.0387	-.0524	-.0198	803.
.0740	-140.	-134.	136.	24.	71.	209.	-.0142	-.0170	-.0134	.0355	-.0434	-.0107	677.
.0750	-99.	-64.	46.	-45.	26.	144.	-.0063	-.0192	-.0049	.0236	-.0224	.0039	467.
.0760	-85.	-46.	-52.	-106.	-16.	129.	.0020	-.0210	.0054	.0090	.0021	.0185	509.
.0770	-59.	-56.	-133.	-149.	-57.	140.	.0092	-.0226	.0125	-.0016	.0213	.0293	646.
.0780	-18.	-54.	-167.	-176.	-89.	139.	.0138	-.0239	.0129	-.0031	.0278	.0343	733.
.0790	-13.	-81.	-134.	-171.	-92.	155.	.0146	-.0251	.0061	.0063	.0192	.0328	757.
.0800	-21.	-142.	-62.	-135.	-69.	199.	.0117	-.0261	-.0056	.0237	-.0004	.0264	761.
.0810	11.	-178.	4.	-94.	-42.	218.	.0071	-.0269	-.0188	.0440	-.0233	.0190	734.
.0820	46.	-177.	63.	-69.	-24.	208.	.0037	-.0276	-.0302	.0613	-.0420	.0139	671.
.0830	46.	-196.	101.	-58.	-22.	227.	.0036	-.0281	-.0366	.0704	-.0493	.0125	716.
.0840	60.	-236.	77.	-61.	-48.	280.	.0071	-.0285	-.0362	.0687	-.0411	.0161	883.
.0850	101.	-237.	-4.	-87.	-94.	306.	.0135	-.0287	-.0297	.0580	-.0197	.0251	1010.
.0860	104.	-191.	-88.	-137.	-137.	292.	.0211	-.0289	-.0202	.0430	.0071	.0378	1066.
.0870	67.	-165.	-152.	-181.	-172.	299.	.0283	-.0290	-.0112	.0291	.0322	.0495	1184.
.0880	52.	-200.	-206.	-191.	-205.	371.	.0337	-.0291	-.0056	.0199	.0508	.0565	1414.
.0890	36.	-268.	-224.	-173.	-225.	473.	.0365	-.0291	-.0046	.0178	.0591	.0585	1677.
.0900	-34.	-317.	-186.	-147.	-217.	550.	.0369	-.0290	-.0073	.0219	.0578	.0577	1854.
.0910	-106.	-344.	-137.	-120.	-197.	602.	.0360	-.0288	-.0111	.0284	.0528	.0560	1960.
.0920	-120.	-375.	-121.	-86.	-189.	657.	.0352	-.0284	-.0134	.0327	.0502	.0546	2096.
.0930	-111.	-398.	-125.	-60.	-195.	699.	.0358	-.0278	-.0129	.0326	.0523	.0552	2215.
.0940	-96.	-364.	-140.	-59.	-205.	678.	.0374	-.0269	-.0094	.0284	.0584	.0588	2163.
.0950	-32.	-271.	-181.	-72.	-219.	594.	.0386	-.0257	-.0043	.0225	.0661	.0641	1937.
.0960	66.	-175.	-227.	-76.	-226.	500.	.0380	-.0242	-.0005	.0190	.0696	.0672	1684.
.0970	133.	-114.	-226.	-56.	-213.	430.	.0347	-.0225	-.0011	.0221	.0624	.0647	1471.
.0980	172.	-77.	-171.	-16.	-184.	377.	.0285	-.0206	-.0074	.0335	.0423	.0557	1278.
.0990	226.	-62.	-92.	45.	-144.	342.	.0195	-.0183	-.0180	.0512	.0133	.0410	1138.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.55.

S/RV PIPING KEWAUNEE CKW00F 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

.0900	-34.	-317.	-186.	-147.	-217.	550.	.0369	-.0290	-.0073	.0219	.0578	.0577	1854.
.0910	-106.	-344.	-137.	-120.	-197.	602.	.0360	-.0288	-.0111	.0284	.0528	.0560	1960.
.0920	-120.	-375.	-121.	-86.	-189.	657.	.0352	-.0284	-.0134	.0327	.0502	.0546	2096.
.0930	-111.	-398.	-125.	-60.	-195.	699.	.0358	-.0278	-.0129	.0326	.0523	.0552	2215.
.0940	-96.	-364.	-140.	-59.	-205.	678.	.0374	-.0269	-.0094	.0284	.0584	.0588	2163.
.0950	-32.	-271.	-181.	-73.	-219.	594.	.0386	-.0257	-.0043	.0225	.0661	.0641	1937.
.0960	66.	-175.	-227.	-76.	-226.	500.	.0380	-.0242	-.0005	.0190	.0696	.0672	1684.
.0970	133.	-114.	-226.	-56.	-213.	430.	.0347	-.0225	-.0011	.0221	.0624	.0647	1471.
.0980	173.	-77.	-171.	-16.	-184.	377.	.0285	-.0206	-.0074	.0355	.0425	.0557	1278.
.0990	226.	-62.	-92.	45.	-144.	342.	.0195	-.0183	-.0180	.0512	.0133	.0410	1138.

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DIS/ADLPIPE
S/RV PIPING KEWAUNEE GKW00F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.55.

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	VA	DX	DY	DZ	RX	RY	RZ	STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	Mx (FT-LB)	My (FT-LB)	Mz (FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.1000	265.	-70.	-3.	119.	-92.	324.	.0089	-.0158	-.0298	.0710	-.0195	.0233	1088.
.1010	272.	-65.	84.	100.	-33.	288.	-.0017	-.0130	-.0395	.0880	-.0492	.0065	1039.
.1020	281.	-17.	136.	210.	14.	212.	-.0101	-.0098	-.0445	.0977	-.0694	-.0070	908.
.1030	297.	32.	143.	217.	38.	137.	-.0155	-.0063	-.0440	.0979	-.0772	-.0170	789.
.1040	278.	44.	123.	214.	51.	96.	-.0182	-.0025	-.0383	.0896	-.0743	-.0244	730.
.1050	220.	61.	92.	194.	65.	49.	-.0194	.0014	-.0293	.0757	-.0646	-.0295	639.
.1060	145.	110.	59.	157.	85.	-32.	-.0202	.0055	-.0191	.0598	-.0529	-.0333	551.
.1070	41.	134.	45.	126.	112.	-95.	-.0214	.0097	-.0100	.0449	-.0432	-.0383	589.
.1080	-95.	85.	59.	120.	147.	-95.	-.0231	.0138	-.0027	.0321	-.0371	-.0458	647.
.1090	-229.	26.	84.	124.	187.	-90.	-.0250	.0178	.0032	.0207	-.0331	-.0536	734.
.1100	-342.	82.	100.	82.	225.	-198.	-.0266	.0217	.0092	.0101	-.0284	-.0578	946.
.1110	-431.	127.	106.	44.	256.	-298.	-.0275	.0253	.0156	-.0012	-.0221	-.0602	1203.
.1120	-482.	97.	99.	37.	274.	-328.	-.0276	.0286	.0219	-.0131	-.0147	-.0622	1305.
.1130	-487.	139.	74.	8.	282.	-423.	-.0273	.0316	.0276	-.0236	-.0072	-.0613	1545.
.1140	-475.	263.	57.	-51.	290.	-586.	-.0270	.0342	.0311	-.0301	-.0026	-.0585	1994.
.1150	-491.	286.	68.	-74.	298.	-638.	-.0271	.0362	.0311	-.0316	-.0035	-.0587	2155.
.1160	-497.	191.	91.	-48.	298.	-563.	-.0274	.0377	.0276	-.0285	-.0095	-.0623	1944.
.1170	-463.	151.	113.	-33.	292.	-527.	-.0276	.0387	.0223	-.0221	-.0177	-.0646	1835.
.1180	-478.	201.	148.	-61.	292.	-562.	-.0267	.0393	.0174	-.0148	-.0244	-.0628	1936.
.1190	-509.	132.	165.	-61.	277.	-464.	-.0234	.0395	.0150	-.0112	-.0244	-.0600	1655.
.1200	-490.	-50.	124.	-30.	224.	-238.	-.0164	.0393	.0165	-.0149	-.0134	-.0553	999.
.1210	-455.	-108.	47.	-58.	152.	-119.	-.0057	.0390	.0225	-.0247	.0083	-.0434	612.
.1220	-415.	-38.	-42.	-138.	72.	-113.	.0071	.0385	.0309	-.0376	.0348	-.0258	585.
.1230	-354.	-50.	-133.	-185.	-9.	-23.	.0195	.0378	.0386	-.0489	.0591	-.0101	568.
.1240	-220.	-175.	-224.	-167.	-90.	176.	.0292	.0371	.0416	-.0537	.0735	-.0005	787.
.1250	-67.	-212.	-250.	-147.	-144.	277.	.0351	.0363	.0375	-.0471	.0714	.0051	1050.
.1260	8.	-139.	-196.	-146.	-153.	256.	.0370	.0356	.0259	-.0282	.0518	.0069	1010.
.1270	79.	-199.	-103.	-78.	-148.	355.	.0365	.0351	.0095	-.0028	.0222	.0010	1193.
.1280	185.	-382.	-32.	43.	-151.	565.	.0355	.0347	-.0072	.0220	-.0071	-.0089	1785.
.1290	294.	-426.	19.	114.	-158.	629.	.0361	.0347	-.0198	.0410	-.0286	-.0134	2003.
.1300	378.	-281.	47.	103.	-166.	496.	.0392	.0350	-.0258	.0509	-.0383	-.0090	1623.
.1310	469.	-181.	19.	91.	-191.	398.	.0443	.0356	-.0251	.0506	-.0348	-.0013	1372.
.1320	623.	-211.	-73.	125.	-237.	418.	.0502	.0364	-.0204	.0430	-.0225	.0054	1511.
.1330	736.	-139.	-141.	129.	-268.	319.	.0553	.0376	-.0158	.0352	-.0117	.0130	1327.
.1340	761.	79.	-135.	89.	-263.	60.	.0580	.0389	-.0149	.0333	-.0104	.0197	863.
.1350	765.	173.	-96.	104.	-239.	-85.	.0568	.0403	-.0192	.0386	-.0198	.0179	834.
.1360	781.	71.	-47.	197.	-207.	-46.	.0519	.0418	-.0275	.0494	-.0376	.0066	879.
.1370	788.	38.	27.	276.	-150.	-83.	.0449	.0433	-.0375	.0628	-.0603	-.0056	999.

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DIS/ADLPIPE
S/RV PIPING KEWAUNEE GKW00F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.55.

CONDITION 24
LOADS
SHOCK
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ENGLISH UNITS

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

.1260	0.	-139.	196.	-146.	-153.	-1370	256.	.0356	.0259	-.0282	.0518	.0069	1010.
.1270	79.	-199.	-103.	-78.	-148.	355.	.0365	.0351	.0095	-.0028	.0222	.0010	1193.
.1280	185.	-382.	-32.	43.	-151.	565.	.0355	.0347	-.0072	.0220	-.0071	-.0089	1785.
.1290	294.	-426.	19.	114.	-158.	629.	.0361	.0347	-.0198	.0410	-.0286	-.0134	2003.
.1300	378.	-281.	47.	103.	-166.	496.	.0392	.0350	-.0258	.0509	-.0383	-.0090	1623.
.1310	469.	-181.	19.	91.	-191.	398.	.0443	.0356	-.0251	.0506	-.0348	-.0013	1372.
.1320	623.	-211.	-73.	129.	-237.	418.	.0502	.0364	-.0204	.0430	-.0225	.0054	1511.
.1330	736.	-139.	-141.	129.	-268.	319.	.0553	.0376	-.0158	.0352	-.0117	.0130	1327.
.1340	761.	79.	-135.	89.	-263.	60.	.0580	.0389	-.0149	.0333	-.0104	.0197	863.
.1350	765.	173.	-96.	104.	-239.	-85.	.0568	.0403	-.0192	.0386	-.0198	.0179	834.
.1360	781.	71.	-47.	107.	-207.	-46.	.0519	.0418	-.0275	.0494	-.0376	.0066	879.
.1370	788.	38.	27.	276.	-158.	-83.	.0449	.0433	-.0375	.0628	-.0603	-.0056	999.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.55.

S/RV PIPING KEWAUNEE GKW00F 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	69	MEMBER	1	SEQUENCE	101	LOCATION	BEG	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	FX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1380	732.	203.	125.	274.	-90.	-319.	.0377	.0449	-.0454	.0743	-.0807	-.0120	1309.		
.1390	672.	311.	175.	274.	-34.	-494.	.0324	.0464	-.0480	.0774	-.0896	-.0177	1722.		
.1400	640.	248.	150.	315.	-9.	-488.	.0301	.0479	-.0442	.0689	-.0834	-.0228	1766.		
.1410	572.	261.	107.	304.	3.	-544.	.0308	.0493	-.0354	.0521	-.0665	-.0226	1897.		
.1420	469.	431.	72.	225.	16.	-741.	.0327	.0505	-.0239	.0317	-.0453	-.0172	2355.		
.1430	361.	506.	29.	175.	33.	-832.	.0333	.0515	-.0122	.0114	-.0246	-.0141	2588.		
.1440	274.	387.	-24.	203.	53.	-723.	.0316	.0520	-.0029	-.0056	-.0088	-.0177	2291.		
.1450	164.	330.	-30.	223.	88.	-674.	.0279	.0524	.0020	-.0161	-.0020	-.0233	2175.		
.1460	-7.	438.	32.	189.	142.	-785.	.0233	.0524	.0026	-.0197	-.0041	-.0282	2494.		
.1470	-159.	440.	95.	198.	188.	-783.	.0181	.0521	.0014	-.0210	-.0090	-.0367	2523.		
.1480	-267.	264.	113.	264.	217.	-593.	.0130	.0515	.0015	-.0242	-.0103	-.0478	2083.		
.1490	-354.	178.	105.	290.	236.	-482.	.0092	.0506	.0048	-.0311	-.0058	-.0535	1854.		
.1500	-447.	281.	94.	234.	244.	-546.	.0080	.0496	.0114	-.0421	.0046	-.0512	1954.		
.1510	-518.	317.	59.	180.	229.	-540.	.0091	.0484	.0207	-.0574	.0210	-.0475	1867.		
.1520	-521.	171.	-20.	186.	185.	-352.	.0112	.0470	.0306	-.0750	.0400	-.0467	1335.		
.1530	-502.	104.	-82.	165.	146.	-249.	.0128	.0456	.0388	-.0890	.0542	-.0447	1011.		
.1540	-497.	217.	-85.	88.	130.	-333.	.0122	.0442	.0427	-.0950	.0574	-.0412	1118.		
.1550	-469.	254.	-61.	43.	122.	-346.	.0090	.0428	.0417	-.0927	.0497	-.0432	1123.		
.1560	-383.	92.	-39.	68.	104.	-166.	.0036	.0414	.0362	-.0840	.0339	-.0532	631.		
.1570	-251.	-51.	-5.	92.	80.	-13.	-.0027	.0402	.0277	-.0708	.0123	-.0653	374.		
.1580	-148.	-8.	66.	47.	70.	-56.	-.0088	.0392	.0185	-.0557	-.0117	-.0733	308.		
.1590	-46.	46.	121.	-10.	59.	-122.	-.0143	.0386	.0114	-.0433	-.0317	-.0792	413.		
.1600	131.	-36.	110.	-23.	24.	-58.	-.0187	.0382	.0075	-.0367	-.0436	-.0861	203.		
.1610	313.	-99.	84.	-49.	-23.	-19.	-.0214	.0382	.0062	-.0346	-.0496	-.0906	176.		
.1620	414.	-11.	90.	-140.	-58.	-137.	-.0229	.0386	.0064	-.0347	-.0525	-.0904	621.		
.1630	510.	56.	82.	-217.	-91.	-235.	-.0242	.0392	.0075	-.0366	-.0522	-.0905	1012.		
.1640	615.	-19.	46.	-231.	-124.	-194.	-.0262	.0401	.0086	-.0396	-.0496	-.0946	992.		
.1650	658.	-81.	37.	-239.	-139.	-175.	-.0285	.0412	.0087	-.0414	-.0477	-.0993	994.		
.1660	653.	-7.	63.	-276.	-136.	-295.	-.0310	.0424	.0074	-.0417	-.0475	-.1019	1297.		
.1670	644.	78.	83.	-301.	-126.	-426.	-.0337	.0437	.0058	-.0419	-.0465	-.1044	1632.		
.1680	651.	48.	74.	-268.	-116.	-440.	-.0369	.0448	.0047	-.0436	-.0428	-.1087	1605.		
.1690	626.	45.	68.	-232.	-92.	-474.	-.0402	.0456	.0040	-.0457	-.0379	-.1112	1629.		
.1700	569.	180.	81.	-230.	-55.	-638.	-.0430	.0460	.0030	-.0475	-.0332	-.1095	2069.		
.1710	517.	298.	90.	-208.	-20.	-772.	-.0453	.0459	.0014	-.0491	-.0283	-.1072	2432.		
.1720	426.	284.	95.	-137.	18.	-763.	-.0474	.0451	-.0006	-.0502	-.0228	-.1066	2359.		
.1730	326.	259.	102.	-55.	60.	-730.	-.0493	.0435	-.0031	-.0503	-.0176	-.1045	2235.		
.1740	209.	355.	121.	-11.	108.	-803.	-.0506	.0409	-.0057	-.0490	-.0127	-.0973	2464.		
.1750	73.	453.	141.	23.	152.	-861.	-.0511	.0375	-.0077	-.0472	-.0066	-.0874	2661.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02.

18.29.55.

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

.1650	650.	-81.	37.	-279.	-139.	-175.	-.285	.0412	.0087	-.0414	-.0477	-.0993	997.
.1660	653.	-7.	63.	-276.	-136.	-295.	-.0310	.0424	.0074	-.0417	-.0475	-.1019	1297.
.1670	644.	78.	87.	-301.	-126.	-426.	-.0337	.0437	.0058	-.0419	-.0465	-.1044	1632.
.1680	651.	48.	74.	-268.	-116.	-440.	-.0369	.0448	.0047	-.0436	-.0428	-.1087	1605.
.1690	626.	45.	68.	-270.	-92.	-474.	-.0402	.0456	.0040	-.0457	-.0379	-.1112	1629.
.1700	569.	180.	81.	-270.	-55.	-678.	-.0430	.0460	.0030	-.0475	-.0332	-.1095	2069.
.1710	513.	298.	90.	-208.	-20.	-772.	-.0453	.0459	.0014	-.0491	-.0283	-.1072	2432.
.1720	426.	284.	95.	-137.	18.	-763.	-.0474	.0451	-.0006	-.0502	-.0228	-.1066	2359.
.1730	326.	259.	102.	-55.	60.	-730.	-.0493	.0435	-.0031	-.0503	-.0176	-.1045	2235.
.1740	209.	355.	121.	-11.	109.	-803.	-.0506	.0409	-.0057	-.0490	-.0127	-.0973	2464.
.1750	73.	453.	141.	23.	152.	-861.	-.0511	.0375	-.0077	-.0472	-.0066	-.0874	2661.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.55.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	VA	DX	DY	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)							
.1760	-44.	404.	131.	97.	178.	-754.	-.0503	.0330	-.0087	-.0466	.0028	-.0775	2375.
.1770	-155.	321.	104.	165.	188.	-597.	-.0478	.0275	-.0084	-.0471	.0153	-.0651	1968.
.1780	-269.	333.	78.	183.	188.	-518.	-.0437	.0212	-.0069	-.0480	.0294	-.0473	1766.
.1790	-393.	353.	53.	174.	179.	-436.	-.0383	.0141	-.0045	-.0491	.0443	-.0265	1527.
.1800	-482.	249.	5.	187.	150.	-221.	-.0323	.0063	-.0015	-.0502	.0595	-.0067	992.
.1810	-512.	90.	-59.	208.	103.	54.	-.0261	-.0019	.0012	-.0501	.0728	.0125	724.
.1820	-553.	24.	-95.	178.	59.	233.	-.0202	-.0104	.0031	-.0471	.0817	.0338	911.
.1830	-584.	-14.	-115.	127.	16.	377.	-.0148	-.0187	.0040	-.0414	.0862	.0548	1212.
.1840	-562.	-146.	-147.	101.	-39.	606.	-.0102	-.0269	.0040	-.0343	.0877	.0718	1874.
.1850	-505.	-314.	-180.	82.	-99.	857.	-.0063	-.0344	.0034	-.0261	.0862	.0858	2637.
.1860	-437.	-393.	-193.	30.	-154.	1002.	-.0032	-.0412	.0022	-.0169	.0809	.0994	3084.
.1870	-360.	-405.	-194.	-48.	-201.	1062.	-.0011	-.0469	.0008	-.0073	.0728	.1115	3290.
.1880	-232.	-475.	-212.	-97.	-249.	1159.	-.0005	-.0514	-.0007	.0017	.0627	.1189	3620.
.1890	-93.	-570.	-223.	-129.	-291.	1260.	-.0014	-.0546	-.0028	.0104	.0498	.1215	3954.
.1900	14.	-578.	-201.	-181.	-312.	1251.	-.0038	-.0563	-.0060	.0196	.0334	.1216	5961.
.1910	108.	-535.	-164.	-235.	-319.	1171.	-.0075	-.0566	-.0097	.0282	.0151	.1184	5762.
.1920	186.	-543.	-130.	-257.	-315.	1125.	-.0123	-.0554	-.0131	.0347	-.0021	.1104	3639.
.1930	235.	-580.	-97.	-258.	-301.	1094.	-.0176	-.0529	-.0152	.0378	-.0162	.0991	3539.
.1940	256.	-540.	-63.	-276.	-279.	976.	-.0226	-.0492	-.0154	.0366	-.0256	.0880	3201.
.1950	260.	-438.	-39.	-306.	-252.	791.	-.0272	-.0445	-.0132	.0306	-.0292	.0777	2691.
.1960	255.	-368.	-36.	-316.	-224.	632.	-.0315	-.0389	-.0088	.0199	-.0268	.0666	2256.
.1970	242.	-315.	-46.	-310.	-193.	491.	-.0359	-.0329	-.0032	.0063	-.0208	.0548	1861.
.1980	212.	-202.	-45.	-313.	-153.	292.	-.0405	-.0267	.0018	-.0071	-.0150	.0436	1383.
.1990	162.	-62.	-26.	-315.	-104.	73.	-.0459	-.0206	.0048	-.0179	-.0120	.0318	1033.
.2000	107.	6.	3.	-284.	-51.	-63.	-.0524	-.0148	.0053	-.0253	-.0125	.0174	897.
.2010	49.	13.	36.	-226.	5.	-126.	-.0596	-.0097	.0038	-.0292	-.0156	.0016	786.
.2020	-26.	52.	79.	-100.	63.	-204.	-.0665	-.0055	.0014	-.0308	-.0196	-.0119	848.
.2030	-117.	117.	120.	-153.	115.	-291.	-.0719	-.0023	-.0005	-.0324	-.0211	-.0215	1058.
.2040	-199.	127.	135.	-122.	140.	-304.	-.0750	-.0003	-.0003	-.0363	-.0166	-.0276	1093.
.2050	-262.	90.	114.	-93.	157.	-249.	-.0752	.0005	.0027	-.0436	-.0051	-.0292	939.
.2060	-322.	84.	73.	-93.	150.	-206.	-.0730	.0001	.0081	-.0530	.0115	-.0246	827.
.2070	-380.	108.	25.	-119.	136.	-178.	-.0690	-.0016	.0148	-.0625	.0301	-.0150	770.
.2080	-418.	86.	-30.	-135.	109.	-90.	-.0641	-.0044	.0210	-.0700	.0472	-.0040	595.
.2090	-435.	5.	-80.	-132.	76.	61.	-.0590	-.0083	.0250	-.0732	.0594	.0065	499.
.2100	-450.	-63.	-104.	-131.	46.	201.	-.0544	-.0131	.0260	-.0705	.0641	.0170	743.
.2110	-463.	-96.	-101.	-136.	25.	304.	-.0505	-.0185	.0242	-.0621	.0613	.0275	1017.
.2120	-456.	-150.	-90.	-129.	7.	426.	-.0470	-.0244	.0207	-.0499	.0532	.0369	1354.
.2130	-428.	-238.	-81.	-108.	-15.	578.	-.0434	-.0305	.0168	-.0365	.0431	.0453	1790.

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ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.55.

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

.2030	-117.	117.	120.	-152.	115.	-291.	-.0719	-.0023	-.0005	-.0324	-.0211	-.0215	1058.
.2040	-199.	127.	135.	-122.	148.	-304.	-.0750	-.0003	-.0003	-.0363	-.0166	-.0276	1093.
.2050	-262.	90.	114.	-93.	157.	-249.	-.0752	.0005	.0027	-.0436	-.0051	-.0292	939.
.2060	-322.	84.	73.	-93.	152.	-206.	-.0730	.0001	.0081	-.0530	.0115	-.0246	827.
.2070	-380.	108.	25.	-119.	136.	-178.	-.0690	-.0016	.0148	-.0625	.0301	-.0150	770.
.2080	-418.	86.	-30.	-133.	109.	-90.	-.0641	-.0044	.0210	-.0700	.0472	-.0040	595.
.2090	-435.	5.	-80.	-172.	76.	41.	-.0590	-.0082	.0250	-.0732	.0594	.0065	499.
.2100	-450.	-63.	-104.	-131.	46.	201.	-.0544	-.0131	.0260	-.0705	.0641	.0170	743.
.2110	-463.	-96.	-101.	-136.	25.	304.	-.0505	-.0185	.0242	-.0621	.0615	.0275	1017.
.2120	-456.	-150.	-90.	-109.	7.	426.	-.0470	-.0244	.0207	-.0499	.0532	.0369	1354.
.2130	-428.	-238.	-81.	-108.	-15.	578.	-.0434	-.0305	.0168	-.0365	.0431	.0453	1790.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.55.

S/RV PIPING KEWAUNEE GKW00F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	69	MEMBER	1	SEQUENCE	101	LOCATION	BEG	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2140	-292.	-304.	-75.	-97.	-40.	702.	-.0388	-.0365	.0140	-.0241	.0334	.0547	2160.		
.2150	-349.	-320.	-75.	-107.	-67.	769.	-.0329	-.0423	.0130	-.0144	.0259	.0659	2371.		
.2160	-295.	-328.	-80.	-120.	-97.	820.	-.0261	-.0475	.0141	-.0081	.0214	.0773	2538.		
.2170	-233.	-350.	-112.	-128.	-127.	874.	-.0188	-.0520	.0166	-.0042	.0183	.0876	2715.		
.2180	-173.	-355.	-128.	-138.	-151.	899.	-.0119	-.0558	.0189	-.0006	.0141	.0960	2804.		
.2190	-118.	-332.	-126.	-149.	-164.	883.	-.0061	-.0587	.0199	.0043	.0065	.1015	2768.		
.2200	-71.	-320.	-109.	-146.	-165.	865.	-.0020	-.0605	.0191	.0114	-.0048	.1026	2715.		
.2210	-33.	-336.	-80.	-125.	-155.	862.	.0006	-.0614	.0165	.0201	-.0190	.0991	2691.		
.2220	-0.	-343.	-41.	-100.	-136.	840.	.0021	-.0613	.0130	.0293	-.0338	.0926	2605.		
.2230	2.	-321.	1.	-83.	-114.	781.	.0034	-.0602	.0096	.0371	-.0467	.0848	2414.		
.2240	9.	-299.	29.	-69.	-94.	717.	.0049	-.0582	.0077	.0416	-.0546	.0764	2209.		
.2250	18.	-288.	33.	-54.	-80.	661.	.0068	-.0553	.0078	.0417	-.0561	.0681	2051.		
.2260	26.	-256.	20.	-48.	-69.	582.	.0091	-.0518	.0097	.0382	-.0520	.0607	1789.		
.2270	24.	-193.	2.	-55.	-58.	471.	.0115	-.0476	.0122	.0327	-.0444	.0541	1454.		
.2280	15.	-140.	-14.	-55.	-47.	371.	.0134	-.0430	.0141	.0274	-.0358	.0464	1151.		
.2290	4.	-122.	-25.	-37.	-33.	307.	.0144	-.0382	.0142	.0238	-.0285	.0367	946.		
.2300	-14.	-109.	-23.	-11.	-13.	248.	.0141	-.0352	.0121	.0231	-.0237	.0255	756.		
.2310	-38.	-75.	-7.	14.	14.	171.	.0128	-.0282	.0081	.0252	-.0214	.0142	524.		
.2320	-57.	-44.	12.	43.	41.	100.	.0111	-.0233	.0033	.0287	-.0200	.0030	353.		
.2330	-66.	-34.	24.	77.	62.	56.	.0096	-.0186	-.0013	.0318	-.0174	-.0073	345.		
.2340	-69.	-24.	26.	105.	75.	17.	.0092	-.0142	-.0048	.0333	-.0120	-.0153	395.		
.2350	-71.	7.	19.	116.	81.	-35.	.0100	-.0101	-.0064	.0324	-.0033	-.0202	442.		
.2360	-69.	39.	0.	117.	78.	-81.	.0121	-.0064	-.0061	.0292	.0084	-.0224	494.		
.2370	-60.	48.	-28.	117.	67.	-96.	.0152	-.0030	-.0045	.0247	.0217	-.0231	505.		
.2380	-46.	45.	-56.	114.	50.	-94.	.0189	-.0001	-.0024	.0201	.0348	-.0229	474.		
.2390	-29.	46.	-77.	104.	31.	-92.	.0228	.0025	-.0004	.0168	.0455	-.0223	433.		
.2400	-4.	44.	-89.	93.	13.	-85.	.0266	.0048	.0009	.0156	.0527	-.0221	385.		
.2410	31.	26.	-94.	86.	-5.	-63.	.0299	.0068	.0016	.0165	.0562	-.0228	325.		
.2420	76.	4.	-91.	79.	-22.	-39.	.0328	.0086	.0016	.0192	.0559	-.0245	277.		
.2430	133.	-7.	-82.	68.	-40.	-26.	.0356	.0103	.0013	.0232	.0525	-.0267	253.		
.2440	202.	-14.	-70.	55.	-50.	-19.	.0381	.0119	.0011	.0277	.0467	-.0295	250.		
.2450	283.	-24.	-59.	45.	-75.	-13.	.0403	.0136	.0011	.0323	.0391	-.0331	268.		
.2460	370.	-26.	-47.	26.	-88.	-20.	.0420	.0154	.0013	.0369	.0299	-.0374	295.		
.2470	455.	-9.	-29.	26.	-95.	-52.	.0432	.0174	.0015	.0417	.0190	-.0424	339.		
.2480	531.	17.	-5.	21.	-95.	-100.	.0437	.0196	.0014	.0467	.0068	-.0485	424.		
.2490	598.	39.	24.	25.	-88.	-149.	.0435	.0220	.0009	.0519	-.0065	-.0561	533.		
.2500	657.	62.	57.	29.	-73.	-206.	.0424	.0246	-.0000	.0571	-.0202	-.0649	676.		
.2510	690.	102.	94.	56.	-48.	-286.	.0406	.0274	-.0010	.0618	-.0336	-.0741	898.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKW00F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

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ENGLISH UNITS

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