

50-305

RESPONSE TO NUREG-0737 ITEM II.D.1

Docket # *50-305*

Control # *8403280048*

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

.0180	827.	0.	16.	0.	0.	0.	0.	.0023	-.0110	-.0135	.0284	-.0761	-.0054	0.
.0890	87.	0.	160.	0.	0.	0.	0.	.0095	-.0072	-.0065	.0308	-.0788	-.0083	0.
.0900	-725.	0.	-1334.	0.	0.	0.	0.	.0168	-.0030	.0017	.0300	-.0785	-.0085	0.
.0910	-1486.	0.	-2736.	0.	0.	0.	0.	.0225	.0012	.0099	.0266	-.0739	-.0042	0.
.0920	-2050.	0.	-3776.	0.	0.	0.	0.	.0253	.0053	.0168	.0206	-.0669	.0020	0.
.0930	-2302.	0.	-4240.	0.	0.	0.	0.	.0247	.0094	.0209	.0125	-.0598	.0057	0.
.0940	-2200.	0.	-4051.	0.	0.	0.	0.	.0206	.0136	.0216	.0035	-.0521	.0048	0.
.0950	-1773.	0.	-3266.	0.	0.	0.	0.	.0138	.0176	.0189	-.0052	-.0431	.0015	0.
.0960	-1112.	0.	-2048.	0.	0.	0.	0.	.0056	.0214	.0135	-.0134	-.0336	-.0008	0.
.0970	-332.	0.	-611.	0.	0.	0.	0.	-.0027	.0251	.0064	-.0215	-.0237	.0011	0.
.0980	470.	0.	866.	0.	0.	0.	0.	-.0100	.0287	-.0016	-.0305	-.0125	.0076	0.
.0990	1247.	0.	2297.	0.	0.	0.	0.	-.0154	.0325	-.0102	-.0419	.0003	.0165	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.36.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	32	MEMBER	1	SEQUENCE	57	LOCATION	DIS	TYPE	RU					STRESS
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	
.1000	2001.	0.	3685.	0.	0.	0.		-.0191	.0365	-.0194	-.0554	.0137	.0242	0.
.1010	2752.	0.	5069.	0.	0.	0.		-.0212	.0409	-.0295	-.0691	.0256	.0275	0.
.1020	3507.	0.	6458.	0.	0.	0.		-.0217	.0453	-.0405	-.0802	.0325	.0248	0.
.1030	4228.	0.	7786.	0.	0.	0.		-.0205	.0494	-.0519	-.0859	.0317	.0176	0.
.1040	4822.	0.	8880.	0.	0.	0.		-.0177	.0524	-.0622	-.0850	.0234	.0095	0.
.1050	5168.	0.	9517.	0.	0.	0.		-.0129	.0538	-.0700	-.0787	.0104	.0028	0.
.1060	5162.	0.	9506.	0.	0.	0.		-.0059	.0536	-.0737	-.0704	-.0032	-.0025	0.
.1070	4772.	0.	8787.	0.	0.	0.		.0028	.0517	-.0726	-.0631	-.0132	-.0067	0.
.1080	4058.	0.	7472.	0.	0.	0.		.0122	.0481	-.0671	-.0586	-.0189	-.0111	0.
.1090	3144.	0.	5790.	0.	0.	0.		.0208	.0434	-.0582	-.0545	-.0200	-.0149	0.
.1100	2193.	0.	4039.	0.	0.	0.		.0267	.0386	-.0472	-.0474	-.0071	-.0155	0.
.1110	1418.	0.	2612.	0.	0.	0.		.0300	.0329	-.0374	-.0429	.0070	-.0190	0.
.1120	937.	0.	1725.	0.	0.	0.		.0309	.0255	-.0307	-.0408	.0134	-.0256	0.
.1130	693.	0.	1277.	0.	0.	0.		.0290	.0178	-.0261	-.0311	.0190	-.0283	0.
.1140	556.	0.	1024.	0.	0.	0.		.0254	.0120	-.0221	-.0118	.0268	-.0266	0.
.1150	398.	0.	733.	0.	0.	0.		.0222	.0081	-.0180	.0069	.0336	-.0254	0.
.1160	96.	0.	177.	0.	0.	0.		.0206	.0055	-.0126	.0175	.0415	-.0242	0.
.1170	-438.	0.	-807.	0.	0.	0.		.0209	.0045	-.0048	.0201	.0522	-.0210	0.
.1180	-1186.	0.	-2104.	0.	0.	0.		.0227	.0060	.0054	.0177	.0553	-.0141	0.
.1190	-1972.	0.	-3631.	0.	0.	0.		.0265	.0089	.0150	.0052	.0627	-.0105	0.
.1200	-2628.	0.	-4837.	0.	0.	0.		.0309	.0121	.0223	-.0123	.0442	-.0060	0.
.1210	-3071.	0.	-5655.	0.	0.	0.		.0334	.0163	.0277	-.0222	.0252	.0076	0.
.1220	-3252.	0.	-5988.	0.	0.	0.		.0346	.0229	.0297	-.0277	.0036	.0192	0.
.1230	-3190.	0.	-5875.	0.	0.	0.		.0350	.0313	.0285	-.0340	-.0176	.0238	0.
.1240	-2973.	0.	-5476.	0.	0.	0.		.0350	.0394	.0253	-.0439	-.0360	.0234	0.
.1250	-2730.	0.	-5028.	0.	0.	0.		.0346	.0469	.0219	-.0548	-.0463	.0250	0.
.1260	-2534.	0.	-4667.	0.	0.	0.		.0336	.0541	.0195	-.0654	-.0467	.0328	0.
.1270	-2333.	0.	-4296.	0.	0.	0.		.0331	.0602	.0168	-.0823	-.0502	.0415	0.
.1280	-2069.	0.	-3810.	0.	0.	0.		.0310	.0638	.0140	-.1000	-.0518	.0567	0.
.1290	-1685.	0.	-3104.	0.	0.	0.		.0263	.0652	.0108	-.1125	-.0499	.0761	0.
.1300	-1133.	0.	-2087.	0.	0.	0.		.0192	.0655	.0065	-.1208	-.0506	.0893	0.
.1310	-410.	0.	-754.	0.	0.	0.		.0100	.0643	.0007	-.1283	-.0555	.0924	0.
.1320	424.	0.	781.	0.	0.	0.		.0001	.0606	-.0064	-.1393	-.0588	.0849	0.
.1330	1225.	0.	2252.	0.	0.	0.		-.0098	.0546	-.0129	-.1489	-.0800	.0775	0.
.1340	1872.	0.	3448.	0.	0.	0.		-.0185	.0475	-.0179	-.1559	-.0861	.0743	0.
.1350	2330.	0.	4290.	0.	0.	0.		-.0245	.0391	-.0214	-.1613	-.0886	.0747	0.
.1360	2605.	0.	4796.	0.	0.	0.		-.0282	.0288	-.0235	-.1633	-.0849	.0782	0.
.1370	2759.	0.	5082.	0.	0.	0.		-.0287	.0175	-.0255	-.1641	-.0816	.0751	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.36.

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

CONDITION 24

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ENGLISH UNITS

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

.1270	-2333.	0.	-4296.	0.	0.	0.	0.	.0336	.0541	.0195	-.0654	-.0467	.0328	0.
.1280	-2069.	0.	-3810.	0.	0.	0.	0.	.0710	.0638	.0140	-.1000	-.0518	.0567	0.
.1290	-1685.	0.	-3104.	0.	0.	0.	0.	.0263	.0652	.0108	-.1125	-.0499	.0761	0.
.1300	-1123.	0.	-2087.	0.	0.	0.	0.	.0192	.0655	.0065	-.1208	-.0506	.0893	0.
.1310	-410.	0.	-754.	0.	0.	0.	0.	.0100	.0643	.0007	-.1283	-.0555	.0924	0.
.1320	424.	0.	731.	0.	0.	0.	0.	.0001	.0606	-.0064	-.1393	-.0688	.0849	0.
.1330	1223.	0.	2252.	0.	0.	0.	0.	-.0098	.0546	-.0129	-.1489	-.0800	.0775	0.
.1340	1872.	0.	3448.	0.	0.	0.	0.	-.0185	.0475	-.0179	-.1559	-.0861	.0743	0.
.1350	2320.	0.	4290.	0.	0.	0.	0.	-.0245	.0391	-.0214	-.1613	-.0886	.0747	0.
.1360	2605.	0.	4796.	0.	0.	0.	0.	-.0282	.0288	-.0235	-.1633	-.0849	.0782	0.
.1370	2759.	0.	5082.	0.	0.	0.	0.	-.0287	.0175	-.0255	-.1641	-.0816	.0751	0.

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

CONDITION 24
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ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	DIS	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.1380	2864.	0.	5275.	0.	0.	0.	.1380	2864.	0.	5275.	0.	0.	0.	-.0268	.0070	-.0281	-.1623	-.0778	.0636	0.
.1390	2987.	0.	5502.	0.	0.	0.	.1390	2987.	0.	5502.	0.	0.	0.	-.0230	-.0022	-.0321	-.1594	-.0786	.0452	0.
.1400	3135.	0.	5774.	0.	0.	0.	.1400	3135.	0.	5774.	0.	0.	0.	-.0179	-.0105	-.0370	-.1540	-.0845	.0278	0.
.1410	3244.	0.	5974.	0.	0.	0.	.1410	3244.	0.	5974.	0.	0.	0.	-.0121	-.0177	-.0417	-.1433	-.0895	.0191	0.
.1420	3252.	0.	5988.	0.	0.	0.	.1420	3252.	0.	5988.	0.	0.	0.	-.0045	-.0227	-.0460	-.1334	-.0995	.0122	0.
.1430	3090.	0.	5691.	0.	0.	0.	.1430	3090.	0.	5691.	0.	0.	0.	.0049	-.0256	-.0487	-.1254	-.1108	.0057	0.
.1440	2717.	0.	5004.	0.	0.	0.	.1440	2717.	0.	5004.	0.	0.	0.	.0152	-.0270	-.0487	-.1177	-.1182	-.0000	0.
.1450	2179.	0.	3920.	0.	0.	0.	.1450	2179.	0.	3920.	0.	0.	0.	.0255	-.0263	-.0456	-.1078	-.1164	-.0044	0.
.1460	1382.	0.	2545.	0.	0.	0.	.1460	1382.	0.	2545.	0.	0.	0.	.0349	-.0230	-.0395	-.0955	-.1048	-.0077	0.
.1470	586.	0.	1079.	0.	0.	0.	.1470	586.	0.	1079.	0.	0.	0.	.0432	-.0173	-.0322	-.0850	-.0954	-.0140	0.
.1480	-186.	0.	-342.	0.	0.	0.	.1480	-186.	0.	-342.	0.	0.	0.	.0487	-.0104	-.0237	-.0729	-.0873	-.0162	0.
.1490	-883.	0.	-1625.	0.	0.	0.	.1490	-883.	0.	-1625.	0.	0.	0.	.0509	-.0023	-.0145	-.0590	-.0812	-.0131	0.
.1500	-1480.	0.	-2725.	0.	0.	0.	.1500	-1480.	0.	-2725.	0.	0.	0.	.0501	.0072	-.0051	-.0462	-.0785	-.0087	0.
.1510	-1985.	0.	-3655.	0.	0.	0.	.1510	-1985.	0.	-3655.	0.	0.	0.	.0461	.0174	.0046	-.0353	-.0732	-.0030	0.
.1520	-2411.	0.	-4440.	0.	0.	0.	.1520	-2411.	0.	-4440.	0.	0.	0.	.0399	.0272	.0143	-.0290	-.0656	.0005	0.
.1530	-2779.	0.	-5118.	0.	0.	0.	.1530	-2779.	0.	-5118.	0.	0.	0.	.0323	.0362	.0239	-.0253	-.0516	.0033	0.
.1540	-3081.	0.	-5674.	0.	0.	0.	.1540	-3081.	0.	-5674.	0.	0.	0.	.0244	.0445	.0327	-.0233	-.0351	.0045	0.
.1550	-3289.	0.	-6056.	0.	0.	0.	.1550	-3289.	0.	-6056.	0.	0.	0.	.0164	.0516	.0401	-.0193	-.0167	.0088	0.
.1560	-3367.	0.	-6200.	0.	0.	0.	.1560	-3367.	0.	-6200.	0.	0.	0.	.0075	.0567	.0461	-.0097	.0080	.0218	0.
.1570	-3264.	0.	-6011.	0.	0.	0.	.1570	-3264.	0.	-6011.	0.	0.	0.	-.0012	.0599	.0493	-.0001	.0307	.0345	0.
.1580	-2983.	0.	-5493.	0.	0.	0.	.1580	-2983.	0.	-5493.	0.	0.	0.	-.0097	.0614	.0497	.0088	.0518	.0433	0.
.1590	-2561.	0.	-4716.	0.	0.	0.	.1590	-2561.	0.	-4716.	0.	0.	0.	-.0185	.0607	.0482	.0177	.0727	.0482	0.
.1600	-2048.	0.	-3772.	0.	0.	0.	.1600	-2048.	0.	-3772.	0.	0.	0.	-.0265	.0574	.0449	.0232	.0372	.0461	0.
.1610	-1528.	0.	-2814.	0.	0.	0.	.1610	-1528.	0.	-2814.	0.	0.	0.	-.0331	.0518	.0407	.0259	.0951	.0402	0.
.1620	-1095.	0.	-2017.	0.	0.	0.	.1620	-1095.	0.	-2017.	0.	0.	0.	-.0384	.0446	.0372	.0300	.1028	.0380	0.
.1630	-782.	0.	-1439.	0.	0.	0.	.1630	-782.	0.	-1439.	0.	0.	0.	-.0413	.0362	.0341	.0328	.1047	.0374	0.
.1640	-585.	0.	-1078.	0.	0.	0.	.1640	-585.	0.	-1078.	0.	0.	0.	-.0421	.0267	.0316	.0346	.1023	.0384	0.
.1650	-473.	0.	-871.	0.	0.	0.	.1650	-473.	0.	-871.	0.	0.	0.	-.0415	.0166	.0296	.0368	.0991	.0402	0.
.1660	-377.	0.	-695.	0.	0.	0.	.1660	-377.	0.	-695.	0.	0.	0.	-.0394	.0067	.0270	.0375	.0920	.0366	0.
.1670	-245.	0.	-452.	0.	0.	0.	.1670	-245.	0.	-452.	0.	0.	0.	-.0372	-.0025	.0239	.0391	.0854	.0297	0.
.1680	-35.	0.	-65.	0.	0.	0.	.1680	-35.	0.	-65.	0.	0.	0.	-.0355	-.0106	.0198	.0414	.0784	.0204	0.
.1690	245.	0.	451.	0.	0.	0.	.1690	245.	0.	451.	0.	0.	0.	-.0348	-.0172	.0152	.0454	.0731	.0119	0.
.1700	557.	0.	1026.	0.	0.	0.	.1700	557.	0.	1026.	0.	0.	0.	-.0347	-.0217	.0105	.0497	.0681	.0038	0.
.1710	845.	0.	1557.	0.	0.	0.	.1710	845.	0.	1557.	0.	0.	0.	-.0346	-.0240	.0062	.0526	.0604	-.0053	0.
.1720	1036.	0.	1907.	0.	0.	0.	.1720	1036.	0.	1907.	0.	0.	0.	-.0354	-.0243	.0038	.0573	.0584	-.0093	0.
.1730	1102.	0.	2029.	0.	0.	0.	.1730	1102.	0.	2029.	0.	0.	0.	-.0361	-.0225	.0032	.0600	.0577	-.0133	0.
.1740	1035.	0.	1907.	0.	0.	0.	.1740	1035.	0.	1907.	0.	0.	0.	-.0363	-.0186	.0043	.0598	.0581	-.0192	0.
.1750	856.	0.	1576.	0.	0.	0.	.1750	856.	0.	1576.	0.	0.	0.	-.0364	-.0128	.0070	.0590	.0502	-.0248	0.

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

CONDITION 24
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FORCES AND MOMENTS ACT ON THE PIPING

.1660	-377.	0.	-695.	0.	0.	0.	0.	-.0394	.0067	.0270	.0375	.0920	.0366	0.
.1670	-245.	0.	-452.	0.	0.	0.	0.	-.0372	-.0025	.0239	.0391	.0854	.0297	0.
.1680	-35.	0.	-65.	0.	0.	0.	0.	-.0355	-.0106	.0198	.0414	.0784	.0204	0.
.1690	245.	0.	451.	0.	0.	0.	0.	-.0348	-.0172	.0152	.0454	.0731	.0119	0.
.1700	557.	0.	1026.	0.	0.	0.	0.	-.0347	-.0217	.0105	.0497	.0681	.0032	0.
.1710	845.	0.	1557.	0.	0.	0.	0.	-.0346	-.0240	.0062	.0526	.0604	-.0053	0.
.1720	1036.	0.	1907.	0.	0.	0.	0.	-.0354	-.0243	.0038	.0573	.0584	-.0093	0.
.1730	1102.	0.	2029.	0.	0.	0.	0.	-.0361	-.0225	.0032	.0600	.0577	-.0133	0.
.1740	1035.	0.	1907.	0.	0.	0.	0.	-.0363	-.0186	.0043	.0598	.0581	-.0192	0.
.1750	856.	0.	1576.	0.	0.	0.	0.	-.0264	-.0128	.0070	.0590	.0502	-.0248	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.36.

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

SECTION	J2	MEMBER	1	SEQUENCE	57	LOCATION	DIS	TYPE	RU					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.1760	615.	0.	1132.	0.	0.	0.	-.0359	-.0056	.0104	.0573	.0575	-.0312	0.	
.1770	346.	0.	637.	0.	0.	0.	-.0353	.0025	.0140	.0577	.0514	-.0345	0.	
.1780	77.	0.	141.	0.	0.	0.	-.0341	.0112	.0174	.0599	.0390	-.0358	0.	
.1790	-191.	0.	-352.	0.	0.	0.	-.0327	.0201	.0206	.0645	.0240	-.0340	0.	
.1800	-456.	0.	-841.	0.	0.	0.	-.0310	.0286	.0236	.0691	.0075	-.0311	0.	
.1810	-718.	0.	-1322.	0.	0.	0.	-.0285	.0363	.0262	.0701	-.0125	-.0312	0.	
.1820	-987.	0.	-1817.	0.	0.	0.	-.0262	.0427	.0289	.0714	-.0271	-.0286	0.	
.1830	-1229.	0.	-2263.	0.	0.	0.	-.0244	.0477	.0315	.0719	-.0380	-.0240	0.	
.1840	-1386.	0.	-2553.	0.	0.	0.	-.0231	.0507	.0332	.0704	-.0472	-.0182	0.	
.1850	-1405.	0.	-2587.	0.	0.	0.	-.0229	.0516	.0333	.0677	-.0546	-.0116	0.	
.1860	-1249.	0.	-2301.	0.	0.	0.	-.0237	.0507	.0315	.0650	-.0508	-.0055	0.	
.1870	-921.	0.	-1697.	0.	0.	0.	-.0263	.0480	.0280	.0655	-.0621	.0015	0.	
.1880	-442.	0.	-815.	0.	0.	0.	-.0298	.0437	.0228	.0669	-.0627	.0052	0.	
.1890	117.	0.	215.	0.	0.	0.	-.0339	.0379	.0167	.0693	-.0613	.0058	0.	
.1900	667.	0.	1228.	0.	0.	0.	-.0382	.0309	.0108	.0728	-.0559	.0049	0.	
.1910	1137.	0.	2094.	0.	0.	0.	-.0418	.0232	.0058	.0755	-.0499	.0021	0.	
.1920	1478.	0.	2721.	0.	0.	0.	-.0452	.0148	.0025	.0786	-.0413	.0016	0.	
.1930	1682.	0.	3098.	0.	0.	0.	-.0485	.0061	.0012	.0819	-.0308	.0033	0.	
.1940	1779.	0.	3277.	0.	0.	0.	-.0515	-.0022	.0014	.0841	-.0199	.0044	0.	
.1950	1810.	0.	3334.	0.	0.	0.	-.0545	-.0096	.0026	.0854	-.0085	.0028	0.	
.1960	1814.	0.	3340.	0.	0.	0.	-.0577	-.0160	.0043	.0867	.0037	-.0021	0.	
.1970	1809.	0.	3332.	0.	0.	0.	-.0609	-.0211	.0061	.0881	.0164	-.0097	0.	
.1980	1789.	0.	3294.	0.	0.	0.	-.0634	-.0246	.0078	.0902	.0306	-.0183	0.	
.1990	1727.	0.	3180.	0.	0.	0.	-.0648	-.0265	.0095	.0929	.0464	-.0256	0.	
.2000	1597.	0.	2941.	0.	0.	0.	-.0645	-.0269	.0113	.0955	.0626	-.0310	0.	
.2010	1380.	0.	2542.	0.	0.	0.	-.0621	-.0258	.0132	.0972	.0781	-.0352	0.	
.2020	1074.	0.	1978.	0.	0.	0.	-.0577	-.0231	.0153	.0978	.0931	-.0385	0.	
.2030	700.	0.	1289.	0.	0.	0.	-.0517	-.0190	.0176	.0970	.1073	-.0417	0.	
.2040	298.	0.	550.	0.	0.	0.	-.0444	-.0138	.0197	.0935	.1182	-.0461	0.	
.2050	-95.	0.	-174.	0.	0.	0.	-.0364	-.0077	.0212	.0879	.1243	-.0514	0.	
.2060	-460.	0.	-847.	0.	0.	0.	-.0283	-.0012	.0222	.0819	.1257	-.0558	0.	
.2070	-790.	0.	-1455.	0.	0.	0.	-.0205	.0054	.0229	.0769	.1232	-.0583	0.	
.2080	-1085.	0.	-1998.	0.	0.	0.	-.0133	.0118	.0234	.0722	.1176	-.0596	0.	
.2090	-1352.	0.	-2491.	0.	0.	0.	-.0069	.0178	.0239	.0677	.1113	-.0602	0.	
.2100	-1603.	0.	-2952.	0.	0.	0.	-.0017	.0232	.0248	.0641	.1072	-.0597	0.	
.2110	-1832.	0.	-3374.	0.	0.	0.	.0020	.0279	.0262	.0617	.1055	-.0581	0.	
.2120	-2019.	0.	-3718.	0.	0.	0.	.0040	.0317	.0279	.0602	.1048	-.0554	0.	
.2130	-2140.	0.	-3940.	0.	0.	0.	.0041	.0344	.0297	.0595	.1037	-.0512	0.	

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ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSVCONDITION 24
LOADS
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.2030	700.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
.2040	298.	0.	-550.	0.	0.	0.	0.	-0.444	-0.0138	.0197	.0935	.1182	-0.0461	0.	0.
.2050	-95.	0.	-174.	0.	0.	0.	0.	-0.364	-0.0077	.0212	.0879	.1243	-0.0514	0.	0.
.2060	-460.	0.	-347.	0.	0.	0.	0.	-0.283	-0.0012	.0222	.0819	.1257	-0.0558	0.	0.
.2070	-790.	0.	-1455.	0.	0.	0.	0.	-0.205	.0054	.0229	.0769	.1232	-0.0583	0.	0.
.2080	-1085.	0.	-1998.	0.	0.	0.	0.	-0.133	.0112	.0234	.0722	.1176	-0.0596	0.	0.
.2090	-1352.	0.	-2491.	0.	0.	0.	0.	-0.069	.0178	.0239	.0677	.1113	-0.0602	0.	0.
.2100	-1603.	0.	-2952.	0.	0.	0.	0.	-0.017	.0232	.0248	.0641	.1072	-0.0597	0.	0.
.2110	-1832.	0.	-3374.	0.	0.	0.	0.	.0020	.0279	.0262	.0617	.1055	-0.0581	0.	0.
.2120	-2019.	0.	-3718.	0.	0.	0.	0.	.0040	.0317	.0279	.0602	.1048	-0.0554	0.	0.
.2130	-2140.	0.	-3940.	0.	0.	0.	0.	.0041	.0344	.0297	.0595	.1037	-0.0512	0.	0.

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ADLPIPE STRESS ANALYSIS

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

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

SECTION	32	MEMBER	1	SEQUENCE	57	LOCATION	DIS	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2140	-2173.	0.	-4002.	0.	0.	0.	.0023	.0359	.0311	.0595	.1017	-.0449	0.		
.2150	-2110.	0.	-3885.	0.	0.	0.	-.0011	.0362	.0321	.0596	.0978	-.0370	0.		
.2160	-1957.	0.	-3605.	0.	0.	0.	-.0059	.0354	.0324	.0596	.0920	-.0285	0.		
.2170	-1742.	0.	-3208.	0.	0.	0.	-.0112	.0335	.0321	.0594	.0848	-.0206	0.		
.2180	-1498.	0.	-2758.	0.	0.	0.	-.0163	.0309	.0312	.0586	.0767	-.0145	0.		
.2190	-1254.	0.	-2310.	0.	0.	0.	-.0203	.0278	.0297	.0564	.0683	-.0105	0.		
.2200	-1029.	0.	-1895.	0.	0.	0.	-.0228	.0242	.0277	.0531	.0598	-.0074	0.		
.2210	-825.	0.	-1520.	0.	0.	0.	-.0236	.0202	.0251	.0489	.0512	-.0043	0.		
.2220	-630.	0.	-1160.	0.	0.	0.	-.0227	.0160	.0217	.0439	.0415	-.0016	0.		
.2230	-422.	0.	-778.	0.	0.	0.	-.0202	.0120	.0173	.0376	.0302	-.0002	0.		
.2240	-184.	0.	-338.	0.	0.	0.	-.0166	.0081	.0118	.0295	.0169	-.0012	0.		
.2250	92.	0.	170.	0.	0.	0.	-.0123	.0047	.0053	.0191	.0018	-.0049	0.		
.2260	395.	0.	728.	0.	0.	0.	-.0075	.0020	-.0018	.0068	-.0141	-.0103	0.		
.2270	705.	0.	1298.	0.	0.	0.	-.0025	.0001	-.0091	-.0070	-.0299	-.0159	0.		
.2280	999.	0.	1839.	0.	0.	0.	.0024	-.0011	-.0162	-.0218	-.0451	-.0206	0.		
.2290	1257.	0.	2316.	0.	0.	0.	.0070	-.0016	-.0225	-.0368	-.0593	-.0234	0.		
.2300	1460.	0.	2704.	0.	0.	0.	.0109	-.0013	-.0278	-.0511	-.0712	-.0242	0.		
.2310	1628.	0.	2999.	0.	0.	0.	.0137	-.0002	-.0317	-.0642	-.0800	-.0234	0.		
.2320	1740.	0.	3204.	0.	0.	0.	.0152	.0015	-.0342	-.0764	-.0860	-.0221	0.		
.2330	1800.	0.	3315.	0.	0.	0.	.0152	.0039	-.0351	-.0873	-.0897	-.0207	0.		
.2340	1798.	0.	3312.	0.	0.	0.	.0136	.0067	-.0342	-.0968	-.0915	-.0187	0.		
.2350	1719.	0.	3166.	0.	0.	0.	.0108	.0098	-.0315	-.1050	-.0923	-.0156	0.		
.2360	1546.	0.	2848.	0.	0.	0.	.0072	.0131	-.0270	-.1123	-.0927	-.0113	0.		
.2370	1266.	0.	2332.	0.	0.	0.	.0034	.0165	-.0207	-.1184	-.0921	-.0057	0.		
.2380	879.	0.	1618.	0.	0.	0.	-.0003	.0198	-.0130	-.1229	-.0895	.0008	0.		
.2390	404.	0.	744.	0.	0.	0.	-.0032	.0229	-.0043	-.1259	-.0849	.0073	0.		
.2400	-120.	0.	-221.	0.	0.	0.	-.0053	.0256	.0047	-.1272	-.0783	.0132	0.		
.2410	-645.	0.	-1188.	0.	0.	0.	-.0065	.0279	.0131	-.1266	-.0599	.0182	0.		
.2420	-1122.	0.	-2067.	0.	0.	0.	-.0068	.0296	.0204	-.1240	-.0601	.0227	0.		
.2430	-1511.	0.	-2783.	0.	0.	0.	-.0064	.0308	.0260	-.1196	-.0494	.0269	0.		
.2440	-1791.	0.	-3299.	0.	0.	0.	-.0055	.0314	.0297	-.1136	-.0380	.0309	0.		
.2450	-1960.	0.	-3609.	0.	0.	0.	-.0042	.0313	.0315	-.1066	-.0263	.0342	0.		
.2460	-2027.	0.	-3732.	0.	0.	0.	-.0024	.0304	.0315	-.0996	-.0149	.0359	0.		
.2470	-2003.	0.	-3688.	0.	0.	0.	-.0001	.0290	.0299	-.0937	-.0041	.0363	0.		
.2480	-1903.	0.	-3504.	0.	0.	0.	.0025	.0268	.0270	-.0887	.0061	.0366	0.		
.2490	-1740.	0.	-3204.	0.	0.	0.	.0054	.0241	.0230	-.0841	.0156	.0373	0.		
.2500	-1520.	0.	-2800.	0.	0.	0.	.0084	.0209	.0181	-.0801	.0236	.0375	0.		
.2510	-1248.	0.	-2298.	0.	0.	0.	.0118	.0174	.0122	-.0768	.0292	.0364	0.		

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2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
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.2400	-120.	0.	-120.	0.	0.	0.	0.	0.	-0.053	.0256	.0047	-0.1272	-0.0783	.0132	0.
.2410	-647.	0.	-1188.	0.	0.	0.	0.	0.	-0.065	.0279	.0131	-0.1266	-0.0599	.0182	0.
.2420	-1122.	0.	-2067.	0.	0.	0.	0.	0.	-0.068	.0296	.0204	-0.1240	-0.0501	.0227	0.
.2430	-1511.	0.	-2783.	0.	0.	0.	0.	0.	-0.064	.0308	.0260	-0.1196	-0.0494	.0269	0.
.2440	-1751.	0.	-3299.	0.	0.	0.	0.	0.	-0.055	.0314	.0297	-0.1136	-0.0380	.0309	0.
.2450	-1980.	0.	-3639.	0.	0.	0.	0.	0.	-0.042	.0313	.0315	-0.1066	-0.0263	.0342	0.
.2460	-2027.	0.	-3737.	0.	0.	0.	0.	0.	-0.024	.0304	.0315	-0.0996	-0.0149	.0359	0.
.2470	-2003.	0.	-3688.	0.	0.	0.	0.	0.	-0.001	.0290	.0299	-0.0937	-0.0041	.0363	0.
.2480	-1903.	0.	-3534.	0.	0.	0.	0.	0.	.0025	.0268	.0270	-0.0887	.0061	.0366	0.
.2490	-1740.	0.	-3204.	0.	0.	0.	0.	0.	.0054	.0241	.0230	-0.0841	.0156	.0373	0.
.2500	-1520.	0.	-2800.	0.	0.	0.	0.	0.	.0084	.0207	.0181	-0.0801	.0236	.0375	0.
.2510	-1248.	0.	-2293.	0.	0.	0.	0.	0.	.0118	.0174	.0122	-0.0768	.0292	.0364	0.

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

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

SECTION	32	MEMBER	1	SEQUENCE	57	LOCATION	DIS	TYPE	RU						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)		DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.2520	-930.	0.	-1713.	0.	0.	0.		.0153	.0136	.0055	-.0740	.0325	.0342	0.	
.2530	-582.	0.	-1071.	0.	0.	0.		.0189	.0098	-.0016	-.0711	.0332	.0314	0.	
.2540	-224.	0.	-412.	0.	0.	0.		.0225	.0061	-.0089	-.0685	.0318	.0286	0.	
.2550	119.	0.	220.	0.	0.	0.		.0260	.0026	-.0159	-.0666	.0285	.0258	0.	
.2560	424.	0.	782.	0.	0.	0.		.0297	-.0006	-.0224	-.0661	.0239	.0228	0.	
.2570	675.	0.	1243.	0.	0.	0.		.0333	-.0034	-.0281	-.0671	.0181	.0195	0.	
.2580	862.	0.	1587.	0.	0.	0.		.0369	-.0059	-.0329	-.0691	.0118	.0161	0.	
.2590	987.	0.	1818.	0.	0.	0.		.0402	-.0080	-.0366	-.0716	.0052	.0129	0.	
.2600	1064.	0.	1959.	0.	0.	0.		.0434	-.0101	-.0394	-.0744	-.0018	.0100	0.	
.2610	1108.	0.	2040.	0.	0.	0.		.0462	-.0121	-.0416	-.0778	-.0094	.0073	0.	
.2620	1131.	0.	2083.	0.	0.	0.		.0487	-.0141	-.0433	-.0814	-.0174	.0050	0.	
.2630	1142.	0.	2103.	0.	0.	0.		.0508	-.0160	-.0446	-.0847	-.0256	.0035	0.	
.2640	1147.	0.	2112.	0.	0.	0.		.0526	-.0179	-.0456	-.0879	-.0341	.0028	0.	
.2650	1149.	0.	2116.	0.	0.	0.		.0541	-.0198	-.0465	-.0911	-.0428	.0031	0.	
.2660	1147.	0.	2113.	0.	0.	0.		.0555	-.0217	-.0472	-.0942	-.0514	.0041	0.	
.2670	1140.	0.	2099.	0.	0.	0.		.0567	-.0236	-.0478	-.0970	-.0598	.0059	0.	
.2680	1125.	0.	2073.	0.	0.	0.		.0578	-.0253	-.0481	-.0990	-.0680	.0085	0.	
.2690	1107.	0.	2039.	0.	0.	0.		.0587	-.0270	-.0484	-.1002	-.0759	.0118	0.	
.2700	1091.	0.	2009.	0.	0.	0.		.0593	-.0286	-.0484	-.1008	-.0837	.0157	0.	
.2710	1083.	0.	1994.	0.	0.	0.		.0595	-.0298	-.0484	-.1010	-.0910	.0200	0.	
.2720	1084.	0.	1996.	0.	0.	0.		.0592	-.0304	-.0483	-.1005	-.0970	.0244	0.	
.2730	1096.	0.	2018.	0.	0.	0.		.0582	-.0305	-.0480	-.0991	-.1016	.0289	0.	
.2740	1121.	0.	2064.	0.	0.	0.		.0566	-.0306	-.0475	-.0971	-.1052	.0332	0.	
.2750	1154.	0.	2125.	0.	0.	0.		.0545	-.0308	-.0468	-.0942	-.1077	.0372	0.	
.2760	1187.	0.	2186.	0.	0.	0.		.0516	-.0308	-.0457	-.0897	-.1085	.0412	0.	
.2770	1215.	0.	2237.	0.	0.	0.		.0482	-.0306	-.0443	-.0838	-.1079	.0453	0.	
.2780	1237.	0.	2277.	0.	0.	0.		.0442	-.0304	-.0424	-.0767	-.1062	.0496	0.	
.2790	1257.	0.	2314.	0.	0.	0.		.0396	-.0303	-.0402	-.0692	-.1036	.0541	0.	
.2800	1280.	0.	2357.	0.	0.	0.		.0344	-.0300	-.0378	-.0615	-.1003	.0583	0.	
.2810	1315.	0.	2422.	0.	0.	0.		.0287	-.0295	-.0352	-.0537	-.0961	.0616	0.	
.2820	1371.	0.	2525.	0.	0.	0.		.0228	-.0287	-.0328	-.0457	-.0914	.0639	0.	
.2830	1455.	0.	2679.	0.	0.	0.		.0167	-.0281	-.0307	-.0377	-.0860	.0654	0.	
.2840	1563.	0.	2879.	0.	0.	0.		.0108	-.0276	-.0292	-.0293	-.0800	.0656	0.	
.2850	1685.	0.	3103.	0.	0.	0.		.0057	-.0269	-.0282	-.0203	-.0734	.0644	0.	
.2860	1804.	0.	3321.	0.	0.	0.		.0016	-.0259	-.0278	-.0109	-.0665	.0616	0.	
.2870	1904.	0.	3506.	0.	0.	0.		-.0010	-.0247	-.0278	-.0015	-.0595	.0577	0.	
.2880	1972.	0.	3631.	0.	0.	0.		-.0019	-.0234	-.0264	.0072	-.0529	.0524	0.	
.2890	1999.	0.	3682.	0.	0.	0.		-.0009	-.0217	-.0293	.0147	-.0473	.0458	0.	

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

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

.2790	1257.	0.	2314.	0.	0.	0.	.0442	-.0304	-.0424	-.0767	-.1036	.0496	0.
.2800	1280.	0.	2357.	0.	0.	0.	.0344	-.0300	-.0378	-.0615	-.1003	.0583	0.
.2810	1315.	0.	2422.	0.	0.	0.	.0287	-.0295	-.0352	-.0537	-.0961	.0616	0.
.2820	1371.	0.	2525.	0.	0.	0.	.0228	-.0287	-.0328	-.0457	-.0914	.0639	0.
.2830	1455.	0.	2679.	0.	0.	0.	.0167	-.0281	-.0307	-.0377	-.0860	.0654	0.
.2840	1563.	0.	2879.	0.	0.	0.	.0103	-.0276	-.0292	-.0293	-.0800	.0656	0.
.2850	1685.	0.	3103.	0.	0.	0.	.0057	-.0269	-.0282	-.0203	-.0734	.0644	0.
.2860	1804.	0.	3321.	0.	0.	0.	.0016	-.0259	-.0278	-.0109	-.0665	.0616	0.
.2870	1904.	0.	3506.	0.	0.	0.	-.0010	-.0247	-.0278	-.0015	-.0595	.0577	0.
.2880	1972.	0.	3631.	0.	0.	0.	-.0019	-.0234	-.0254	.0072	-.0529	.0524	0.
.2890	1996.	0.	3682.	0.	0.	0.	-.0009	-.0217	-.0293	.0147	-.0473	.0458	0.

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ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.36.

S/RV PIPING KEWAUNEE GKWOBF 2 RUP DISK
2 SAFETY COLD FKM24F--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	32	MEMBER	1	SEQUENCE	57	LOCATION	DIS	TYPE	RU						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)		
.2900	1986.	0.	3657.	0.	0.	0.	.0018	-.0197	-.0305	.0210	-.0431	.0379	0.		
.2910	1936.	0.	3565.	0.	0.	0.	.0060	-.0173	-.0321	.0261	-.0407	.0292	0.		
.2920	1857.	0.	3421.	0.	0.	0.	.0115	-.0149	-.0339	.0303	-.0401	.0199	0.		
.2930	1754.	0.	3229.	0.	0.	0.	.0179	-.0123	-.0359	.0339	-.0409	.0102	0.		
.2940	1627.	0.	2996.	0.	0.	0.	.0248	-.0098	-.0377	.0372	-.0424	.0007	0.		
.2950	1477.	0.	2719.	0.	0.	0.	.0316	-.0073	-.0392	.0405	-.0435	-.0080	0.		
.2960	1302.	0.	2398.	0.	0.	0.	.0380	-.0047	-.0400	.0437	-.0434	-.0154	0.		
.2970	1105.	0.	2035.	0.	0.	0.	.0435	-.0023	-.0401	.0472	-.0414	-.0211	0.		
.2980	892.	0.	1642.	0.	0.	0.	.0477	-.0001	-.0392	.0506	-.0375	-.0249	0.		
.2990	674.	0.	1242.	0.	0.	0.	.0504	.0016	-.0374	.0539	-.0320	-.0268	0.		
.3000	461.	0.	849.	0.	0.	0.	.0513	.0027	-.0347	.0576	-.0251	-.0268	0.		
.3010	258.	0.	475.	0.	0.	0.	.0504	.0034	-.0312	.0619	-.0172	-.0251	0.		
.3020	66.	0.	121.	0.	0.	0.	.0480	.0035	-.0270	.0667	-.0091	-.0219	0.		
.3030	-120.	0.	-221.	0.	0.	0.	.0442	.0029	-.0222	.0720	-.0011	-.0174	0.		
.3040	-309.	0.	-569.	0.	0.	0.	.0394	.0016	-.0168	.0775	.0069	-.0117	0.		
.3050	-510.	0.	-940.	0.	0.	0.	.0341	-.0001	-.0109	.0830	.0150	-.0049	0.		
.3060	-726.	0.	-1336.	0.	0.	0.	.0285	-.0022	-.0047	.0881	.0232	.0026	0.		
.3070	-946.	0.	-1742.	0.	0.	0.	.0230	-.0048	.0016	.0925	.0311	.0103	0.		
.3080	-1157.	0.	-2132.	0.	0.	0.	.0177	-.0079	.0076	.0958	.0384	.0178	0.		
.3090	-1342.	0.	-2471.	0.	0.	0.	.0128	-.0112	.0131	.0982	.0448	.0244	0.		
.3100	-1484.	0.	-2732.	0.	0.	0.	.0081	-.0146	.0177	.0997	.0498	.0299	0.		
.3110	-1572.	0.	-2895.	0.	0.	0.	.0039	-.0178	.0213	.1001	.0532	.0339	0.		
.3120	-1607.	0.	-2960.	0.	0.	0.	.0000	-.0208	.0239	.0994	.0548	.0368	0.		
.3130	-1597.	0.	-2942.	0.	0.	0.	-.0033	-.0235	.0256	.0976	.0548	.0385	0.		
.3140	-1554.	0.	-2861.	0.	0.	0.	-.0062	-.0256	.0265	.0947	.0535	.0394	0.		
.3150	-1485.	0.	-2734.	0.	0.	0.	-.0087	-.0271	.0269	.0905	.0511	.0395	0.		
.3160	-1396.	0.	-2570.	0.	0.	0.	-.0109	-.0280	.0267	.0855	.0479	.0389	0.		
.3170	-1288.	0.	-2371.	0.	0.	0.	-.0128	-.0283	.0262	.0801	.0440	.0375	0.		
.3180	-1158.	0.	-2132.	0.	0.	0.	-.0148	-.0279	.0253	.0748	.0394	.0354	0.		
.3190	-1005.	0.	-1850.	0.	0.	0.	-.0168	-.0269	.0241	.0700	.0340	.0325	0.		
.3200	-833.	0.	-1534.	0.	0.	0.	-.0191	-.0253	.0228	.0659	.0279	.0287	0.		
.3210	-655.	0.	-1207.	0.	0.	0.	-.0216	-.0231	.0215	.0627	.0217	.0241	0.		
.3220	-487.	0.	-897.	0.	0.	0.	-.0242	-.0205	.0204	.0602	.0155	.0190	0.		
.3230	-344.	0.	-633.	0.	0.	0.	-.0267	-.0177	.0196	.0581	.0098	.0134	0.		
.3240	-238.	0.	-438.	0.	0.	0.	-.0291	-.0151	.0193	.0563	.0050	.0075	0.		
.3250	-175.	0.	-323.	0.	0.	0.	-.0310	-.0125	.0195	.0549	.0015	.0015	0.		
.3260	-152.	0.	-280.	0.	0.	0.	-.0325	-.0103	.0199	.0539	-.0009	-.0047	0.		
.3270	-157.	0.	-290.	0.	0.	0.	-.0333	-.0087	.0204	.0534	-.0026	-.0108	0.		

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ADLPIPE STRESS ANALYSIS

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

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

.3170	-1288.	0.	-171.	0.	0.	0.	0.	-.128	-.0283	.0262	.0201	.0440	.0375	0.
.3180	-1158.	0.	-2132.	0.	0.	0.	0.	-.148	-.0279	.0253	.0748	.0394	.0354	0.
.3190	-1005.	0.	-1850.	0.	0.	0.	0.	-.0168	-.0269	.0241	.0700	.0340	.0325	0.
.3200	-833.	0.	-1534.	0.	0.	0.	0.	-.0191	-.0250	.0228	.0659	.0279	.0287	0.
.3210	-655.	0.	-1207.	0.	0.	0.	0.	-.0216	-.0231	.0215	.0627	.0217	.0241	0.
.3220	-487.	0.	-897.	0.	0.	0.	0.	-.0242	-.0205	.0204	.0602	.0155	.0190	0.
.3230	-344.	0.	-633.	0.	0.	0.	0.	-.0267	-.0177	.0196	.0581	.0098	.0134	0.
.3240	-238.	0.	-438.	0.	0.	0.	0.	-.0291	-.0151	.0193	.0563	.0050	.0075	0.
.3250	-175.	0.	-323.	0.	0.	0.	0.	-.0310	-.0125	.0195	.0549	.0015	.0015	0.
.3260	-152.	0.	-280.	0.	0.	0.	0.	-.0325	-.0107	.0199	.0539	-.0009	-.0047	0.
.3270	-157.	0.	-290.	0.	0.	0.	0.	-.0333	-.0087	.0204	.0534	-.0026	-.0108	0.

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ADLPIPE STRESS ANALYSIS

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2 SAFETY COLD FKW24F--2 PSV

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

SECTION	32	MEMBER	1	SEQUENCE	57	LOCATION	DIS	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3280	-182.	0.	-335.	0.	0.	0.	-.0334	-.0078	.0209	.0537	-.0037	-.0168	0.		
.3290	-219.	0.	-403.	0.	0.	0.	-.0328	-.0076	.0211	.0546	-.0043	-.0224	0.		
.3300	-265.	0.	-488.	0.	0.	0.	-.0315	-.0082	.0211	.0559	-.0044	-.0279	0.		
.3310	-321.	0.	-592.	0.	0.	0.	-.0295	-.0096	.0208	.0572	-.0042	-.0330	0.		
.3320	-392.	0.	-723.	0.	0.	0.	-.0267	-.0119	.0204	.0581	-.0035	-.0373	0.		
.3330	-480.	0.	-884.	0.	0.	0.	-.0234	-.0150	.0199	.0585	-.0020	-.0408	0.		
.3340	-583.	0.	-1074.	0.	0.	0.	-.0197	-.0189	.0194	.0582	.0002	-.0433	0.		
.3350	-692.	0.	-1275.	0.	0.	0.	-.0157	-.0233	.0188	.0572	.0031	-.0448	0.		
.3360	-797.	0.	-1468.	0.	0.	0.	-.0117	-.0281	.0182	.0558	.0066	-.0453	0.		
.3370	-887.	0.	-1633.	0.	0.	0.	-.0079	-.0331	.0175	.0542	.0105	-.0449	0.		
.3380	-953.	0.	-1756.	0.	0.	0.	-.0044	-.0380	.0166	.0525	.0147	-.0437	0.		
.3390	-996.	0.	-1834.	0.	0.	0.	-.0014	-.0426	.0156	.0509	.0193	-.0418	0.		
.3400	-1017.	0.	-1874.	0.	0.	0.	.0011	-.0469	.0146	.0491	.0243	-.0394	0.		
.3410	-1026.	0.	-1890.	0.	0.	0.	.0030	-.0507	.0137	.0471	.0297	-.0366	0.		
.3420	-1031.	0.	-1898.	0.	0.	0.	.0044	-.0538	.0130	.0449	.0356	-.0334	0.		
.3430	-1037.	0.	-1910.	0.	0.	0.	.0053	-.0562	.0126	.0423	.0417	-.0300	0.		
.3440	-1047.	0.	-1929.	0.	0.	0.	.0056	-.0578	.0126	.0394	.0479	-.0267	0.		
.3450	-1060.	0.	-1953.	0.	0.	0.	.0056	-.0585	.0128	.0361	.0540	-.0239	0.		
.3460	-1074.	0.	-1978.	0.	0.	0.	.0051	-.0584	.0132	.0327	.0598	-.0217	0.		
.3470	-1085.	0.	-1998.	0.	0.	0.	.0044	-.0575	.0138	.0291	.0649	-.0204	0.		
.3480	-1092.	0.	-2012.	0.	0.	0.	.0035	-.0560	.0144	.0253	.0693	-.0200	0.		
.3490	-1097.	0.	-2021.	0.	0.	0.	.0027	-.0540	.0149	.0213	.0728	-.0207	0.		
.3500	-1101.	0.	-2028.	0.	0.	0.	.0021	-.0517	.0153	.0172	.0754	-.0224	0.		
.3510	-1104.	0.	-2033.	0.	0.	0.	.0020	-.0490	.0154	.0128	.0771	-.0251	0.		
.3520	-1104.	0.	-2034.	0.	0.	0.	.0024	-.0462	.0152	.0086	.0779	-.0285	0.		
.3530	-1098.	0.	-2021.	0.	0.	0.	.0034	-.0434	.0145	.0045	.0775	-.0325	0.		
.3540	-1078.	0.	-1985.	0.	0.	0.	.0049	-.0406	.0134	.0008	.0760	-.0369	0.		
.3550	-1038.	0.	-1912.	0.	0.	0.	.0069	-.0379	.0118	-.0024	.0734	-.0418	0.		
.3560	-975.	0.	-1795.	0.	0.	0.	.0091	-.0354	.0096	-.0052	.0696	-.0467	0.		
.3570	-886.	0.	-1632.	0.	0.	0.	.0114	-.0331	.0070	-.0073	.0649	-.0516	0.		
.3580	-774.	0.	-1425.	0.	0.	0.	.0137	-.0311	.0041	-.0088	.0596	-.0562	0.		
.3590	-642.	0.	-1182.	0.	0.	0.	.0156	-.0294	.0011	-.0099	.0539	-.0604	0.		
.3600	-497.	0.	-915.	0.	0.	0.	.0170	-.0278	-.0018	-.0103	.0479	-.0639	0.		
.3610	-345.	0.	-635.	0.	0.	0.	.0178	-.0263	-.0045	-.0101	.0418	-.0665	0.		
.3620	-192.	0.	-353.	0.	0.	0.	.0178	-.0249	-.0068	-.0093	.0356	-.0680	0.		
.3630	-42.	0.	-78.	0.	0.	0.	.0169	-.0234	-.0086	-.0079	.0292	-.0683	0.		
.3640	101.	0.	186.	0.	0.	0.	.0151	-.0219	-.0097	-.0061	.0224	-.0674	0.		
.3650	236.	0.	435.	0.	0.	0.	.0123	-.0202	-.0102	-.0043	.0153	-.0653	0.		

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ADLPIPE STRESS ANALYSIS

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

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

.3550	-1037.	0.	-1712.	0.	0.	0.	0.	.069	-.0379	.0118	-.0024	.0734	-.0418	0.
.3560	-975.	0.	-1795.	0.	0.	0.	0.	.091	-.0354	.0096	-.0052	.0596	-.0467	0.
.3570	-926.	0.	-1632.	0.	0.	0.	0.	.114	-.0331	.0070	-.0073	.0649	-.0516	0.
.3580	-774.	0.	-1425.	0.	0.	0.	0.	.137	-.0311	.0041	-.0088	.0596	-.0562	0.
.3590	-642.	0.	-1182.	0.	0.	0.	0.	.156	-.0294	.0011	-.0099	.0539	-.0604	0.
.3600	-497.	0.	-915.	0.	0.	0.	0.	.170	-.0278	-.0018	-.0103	.0479	-.0639	0.
.3610	-345.	0.	-635.	0.	0.	0.	0.	.178	-.0263	-.0045	-.0101	.0418	-.0665	0.
.3620	-192.	0.	-353.	0.	0.	0.	0.	.178	-.0249	-.0068	-.0093	.0356	-.0680	0.
.3630	-42.	0.	-78.	0.	0.	0.	0.	.169	-.0234	-.0086	-.0079	.0292	-.0683	0.
.3640	101.	0.	186.	0.	0.	0.	0.	.151	-.0219	-.0097	-.0061	.0224	-.0674	0.
.3650	236.	0.	405.	0.	0.	0.	0.	.123	-.0202	-.0102	-.0043	.0153	-.0653	0.

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ADLPIPE STRESS ANALYSIS

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

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

SECTION	32	MEMBER	1	SEQUENCE	57	LOCATION	DIS	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3660	363.	0.	668.	0.	0.	0.	.0086	-.0183	-.0101	-.0026	.0080	-.0620	0.		
.3670	481.	0.	886.	0.	0.	0.	.0040	-.0162	-.0094	-.0013	.0005	-.0577	0.		
.3680	593.	0.	1092.	0.	0.	0.	-.0011	-.0138	-.0082	-.0005	-.0068	-.0524	0.		
.3690	700.	0.	1290.	0.	0.	0.	-.0066	-.0112	-.0068	-.0004	-.0139	-.0463	0.		
.3700	806.	0.	1484.	0.	0.	0.	-.0122	-.0084	-.0054	-.0009	-.0203	-.0398	0.		
.3710	912.	0.	1679.	0.	0.	0.	-.0176	-.0054	-.0040	-.0018	-.0259	-.0331	0.		
.3720	1018.	0.	1875.	0.	0.	0.	-.0225	-.0023	-.0030	-.0032	-.0307	-.0265	0.		
.3730	1123.	0.	2069.	0.	0.	0.	-.0266	.0006	-.0023	-.0050	-.0349	-.0203	0.		
.3740	1225.	0.	2256.	0.	0.	0.	-.0296	.0033	-.0022	-.0073	-.0384	-.0148	0.		
.3750	1318.	0.	2428.	0.	0.	0.	-.0314	.0057	-.0026	-.0103	-.0415	-.0103	0.		
.3760	1397.	0.	2572.	0.	0.	0.	-.0318	.0076	-.0036	-.0139	-.0444	-.0068	0.		
.3770	1454.	0.	2678.	0.	0.	0.	-.0308	.0089	-.0049	-.0181	-.0473	-.0044	0.		
.3780	1486.	0.	2736.	0.	0.	0.	-.0285	.0096	-.0066	-.0227	-.0504	-.0030	0.		
.3790	1488.	0.	2740.	0.	0.	0.	-.0250	.0094	-.0086	-.0275	-.0534	-.0024	0.		
.3800	1459.	0.	2687.	0.	0.	0.	-.0206	.0084	-.0106	-.0324	-.0563	-.0027	0.		
.3810	1401.	0.	2581.	0.	0.	0.	-.0154	.0067	-.0125	-.0370	-.0588	-.0036	0.		
.3820	1317.	0.	2425.	0.	0.	0.	-.0099	.0044	-.0143	-.0412	-.0604	-.0049	0.		
.3830	1210.	0.	2229.	0.	0.	0.	-.0044	.0015	-.0156	-.0447	-.0609	-.0064	0.		
.3840	1086.	0.	2001.	0.	0.	0.	.0006	-.0018	-.0165	-.0477	-.0602	-.0077	0.		
.3850	952.	0.	1753.	0.	0.	0.	.0049	-.0054	-.0168	-.0499	-.0581	-.0085	0.		
.3860	811.	0.	1493.	0.	0.	0.	.0082	-.0091	-.0165	-.0513	-.0545	-.0088	0.		
.3870	666.	0.	1227.	0.	0.	0.	.0103	-.0130	-.0155	-.0519	-.0492	-.0083	0.		
.3880	522.	0.	962.	0.	0.	0.	.0111	-.0169	-.0138	-.0515	-.0427	-.0069	0.		
.3890	381.	0.	702.	0.	0.	0.	.0108	-.0207	-.0115	-.0503	-.0349	-.0046	0.		
.3900	246.	0.	452.	0.	0.	0.	.0093	-.0240	-.0087	-.0482	-.0260	-.0014	0.		
.3910	117.	0.	215.	0.	0.	0.	.0069	-.0265	-.0055	-.0452	-.0163	.0027	0.		
.3920	-1.	0.	-2.	0.	0.	0.	.0038	-.0280	-.0020	-.0413	-.0060	.0076	0.		
.3930	-104.	0.	-192.	0.	0.	0.	.0001	-.0287	.0015	-.0367	.0042	.0132	0.		
.3940	-188.	0.	-345.	0.	0.	0.	-.0039	-.0284	.0049	-.0316	.0142	.0192	0.		
.3950	-247.	0.	-455.	0.	0.	0.	-.0080	-.0271	.0030	-.0262	.0237	.0252	0.		
.3960	-281.	0.	-517.	0.	0.	0.	-.0120	-.0249	.0107	-.0207	.0324	.0309	0.		
.3970	-288.	0.	-529.	0.	0.	0.	-.0158	-.0219	.0129	-.0152	.0401	.0360	0.		
.3980	-269.	0.	-496.	0.	0.	0.	-.0192	-.0181	.0145	-.0100	.0467	.0406	0.		
.3990	-230.	0.	-424.	0.	0.	0.	-.0222	-.0136	.0155	-.0050	.0518	.0446	0.		
.4000	-175.	0.	-323.	0.	0.	0.	-.0245	-.0086	.0159	-.0006	.0556	.0480	0.		

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

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

.3920	-1.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
.3930	-104.	0.	-192.	0.	0.	0.	.0001	-.0289	-.0020	-.0413	-.0060	.0076	0.	0.	0.
.3940	-188.	0.	-345.	0.	0.	0.	-.0039	-.0284	.0049	-.0316	.0142	.0192	0.	0.	0.
.3950	-247.	0.	-455.	0.	0.	0.	-.0080	-.0271	.0080	-.0262	.0237	.0252	0.	0.	0.
.3960	-281.	0.	-517.	0.	0.	0.	-.0120	-.0249	.0107	-.0207	.0324	.0309	0.	0.	0.
.3970	-208.	0.	-529.	0.	0.	0.	-.0158	-.0219	.0129	-.0152	.0401	.0360	0.	0.	0.
.3980	-269.	0.	-496.	0.	0.	0.	-.0192	-.0181	.0145	-.0100	.0467	.0406	0.	0.	0.
.3990	-230.	0.	-424.	0.	0.	0.	-.0222	-.0136	.0155	-.0050	.0518	.0446	0.	0.	0.
.4000	-175.	0.	-323.	0.	0.	0.	-.0245	-.0086	.0159	-.0006	.0556	.0480	0.	0.	0.

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

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)
.1050	5160.	0.	9517.	0.	0.	0.	-.0129	.0538	-.0700	-.0787	.0104	.0028	10830.

SECTION	32	MEMBER	1	SEQUENCE	57	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
0.0000	0.	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	-.0000	-.0000	-.0000	-.0000	0.
.0020	-1.	-1.	-0.	3.	-0.	-3.	-.0000	-.0000	-.0000	-.0000	-.0000	-.0000	-.0000	-.0000	-.0000	-.0000	-.0000	-.0000	-.0000	-.0000	-.0000	-.0000	2.
.0030	0.	1.	3.	10.	-1.	-13.	-.0000	-.0000	-.0000	-.0001	-.0001	-.0001	-.0001	-.0001	-.0001	-.0001	-.0001	-.0001	-.0001	-.0001	-.0001	-.0001	7.
.0040	8.	12.	15.	26.	-4.	-40.	-.0001	-.0000	-.0001	-.0003	-.0003	-.0003	-.0003	-.0003	-.0003	-.0003	-.0003	-.0003	-.0003	-.0003	-.0003	-.0003	19.
.0050	28.	37.	34.	54.	-11.	-92.	-.0002	-.0000	-.0002	-.0006	-.0006	-.0006	-.0006	-.0006	-.0006	-.0006	-.0006	-.0006	-.0006	-.0006	-.0006	-.0006	43.
.0060	64.	73.	50.	99.	-21.	-169.	-.0005	-.0001	-.0004	-.0011	-.0011	-.0011	-.0011	-.0011	-.0011	-.0011	-.0011	-.0011	-.0011	-.0011	-.0011	-.0011	79.
.0070	102.	110.	60.	169.	-33.	-263.	-.0009	-.0001	-.0007	-.0018	-.0018	-.0018	-.0018	-.0018	-.0018	-.0018	-.0018	-.0018	-.0018	-.0018	-.0018	-.0018	126.
.0080	126.	140.	63.	262.	-46.	-384.	-.0015	-.0002	-.0012	-.0027	-.0027	-.0027	-.0027	-.0027	-.0027	-.0027	-.0027	-.0027	-.0027	-.0027	-.0027	-.0027	188.
.0090	164.	176.	49.	366.	-65.	-556.	-.0024	-.0003	-.0019	-.0038	-.0038	-.0038	-.0038	-.0038	-.0038	-.0038	-.0038	-.0038	-.0038	-.0038	-.0038	-.0038	269.
.0100	257.	244.	-0.	465.	-100.	-799.	-.0038	-.0004	-.0026	-.0047	-.0047	-.0047	-.0047	-.0047	-.0047	-.0047	-.0047	-.0047	-.0047	-.0047	-.0047	-.0047	373.
.0110	405.	351.	-87.	565.	-156.	-1084.	-.0058	-.0006	-.0033	-.0054	-.0054	-.0054	-.0054	-.0054	-.0054	-.0054	-.0054	-.0054	-.0054	-.0054	-.0054	-.0054	495.
.0120	552.	469.	-199.	710.	-233.	-1321.	-.0082	-.0008	-.0039	-.0062	-.0062	-.0062	-.0062	-.0062	-.0062	-.0062	-.0062	-.0062	-.0062	-.0062	-.0062	-.0062	609.
.0130	612.	557.	-301.	952.	-323.	-1402.	-.0110	-.0010	-.0044	-.0077	-.0077	-.0077	-.0077	-.0077	-.0077	-.0077	-.0077	-.0077	-.0077	-.0077	-.0077	-.0077	692.
.0140	526.	600.	-345.	1312.	-411.	-1263.	-.0138	-.0013	-.0048	-.0103	-.0103	-.0103	-.0103	-.0103	-.0103	-.0103	-.0103	-.0103	-.0103	-.0103	-.0103	-.0103	749.
.0150	306.	617.	-326.	1740.	-482.	-913.	-.0162	-.0016	-.0053	-.0138	-.0138	-.0138	-.0138	-.0138	-.0138	-.0138	-.0138	-.0138	-.0138	-.0138	-.0138	-.0138	812.
.0160	26.	603.	-312.	2123.	-517.	-413.	-.0177	-.0019	-.0056	-.0172	-.0172	-.0172	-.0172	-.0172	-.0172	-.0172	-.0172	-.0172	-.0172	-.0172	-.0172	-.0172	892.
.0170	-269.	490.	-389.	2327.	-501.	162.	-.0178	-.0021	-.0058	-.0190	-.0190	-.0190	-.0190	-.0190	-.0190	-.0190	-.0190	-.0190	-.0190	-.0190	-.0190	-.0190	957.
.0180	-558.	223.	-602.	2233.	-440.	747.	-.0159	-.0022	-.0054	-.0180	-.0180	-.0180	-.0180	-.0180	-.0180	-.0180	-.0180	-.0180	-.0180	-.0180	-.0180	-.0180	961.
.0190	-810.	-150.	-893.	1796.	-363.	1297.	-.0120	-.0021	-.0040	-.0138	-.0138	-.0138	-.0138	-.0138	-.0138	-.0138	-.0138	-.0138	-.0138	-.0138	-.0138	-.0138	901.
.0200	-1038.	-538.	-1080.	1045.	-308.	1727.	-.0060	-.0019	-.0012	-.0071	-.0071	-.0071	-.0071	-.0071	-.0071	-.0071	-.0071	-.0071	-.0071	-.0071	-.0071	-.0071	819.
.0210	-1136.	-804.	-979.	79.	-326.	1923.	.0017	-.0015	.0033	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	783.
.0220	-749.	-666.	-571.	-865.	-496.	1909.	.0097	-.0010	.0094	.0086	.0086	.0086	.0086	.0086	.0086	.0086	.0086	.0086	.0086	.0086	.0086	.0086	864.
.0230	-156.	-145.	305.	-1486.	-776.	1873.	.0177	-.0006	.0160	.0129	.0129	.0129	.0129	.0129	.0129	.0129	.0129	.0129	.0129	.0129	.0129	.0129	1009.
.0240	18.	349.	1634.	-1581.	-1009.	2154.	.0255	-.0005	.0215	.0108	.0108	.0108	.0108	.0108	.0108	.0108	.0108	.0108	.0108	.0108	.0108	.0108	1146.
.0250	-456.	242.	2826.	-1468.	-1066.	2673.	.0330	-.0004	.0247	.0063	.0063	.0063	.0063	.0063	.0063	.0063	.0063	.0063	.0063	.0063	.0063	.0063	1296.
.0260	-825.	-435.	2897.	-1864.	-982.	2921.	.0389	-.0001	.0264	.0094	.0094	.0094	.0094	.0094	.0094	.0094	.0094	.0094	.0094	.0094	.0094	.0094	1445.
.0270	-297.	-890.	1621.	-2884.	-857.	3393.	.0420	.0008	.0276	.0233	.0233	.0233	.0233	.0233	.0233	.0233	.0233	.0233	.0233	.0233	.0233	.0233	1675.
.0280	-154.	-1070.	554.	-3857.	-570.	3654.	.0443	.0021	.0272	.0343	.0343	.0343	.0343	.0343	.0343	.0343	.0343	.0343	.0343	.0343	.0343	.0343	1988.
.0290	-1706.	-1436.	576.	-4469.	-35.	3335.	.0471	.0036	.0252	.0354	.0354	.0354	.0354	.0354	.0354	.0354	.0354	.0354	.0354	.0354	.0354	.0354	2238.
.0300	-1292.	-1785.	13.	-5071.	453.	3098.	.0472	.0049	.0251	.0414	.0414	.0414	.0414	.0414	.0414	.0414	.0414	.0414	.0414	.0414	.0414	.0414	2392.

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18.27.37.

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

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

.0100	-558.	223.	-602.	2233.	-440.	747.	-.0159	-.0022	-.0054	-.0180	.0454	.0030	961.
.0190	-210.	-150.	-223.	1796.	-363.	1297.	-.0120	-.0021	-.0040	-.0132	.0484	-.0040	901.
.0200	-1038.	-538.	-1080.	1045.	-308.	1727.	-.0060	-.0019	-.0012	-.0071	.0508	-.0117	819.
.0210	-1136.	-804.	-979.	79.	-326.	1923.	.0017	-.0015	.0033	.0007	.0548	-.0187	783.
.0220	-749.	-666.	-571.	-665.	-496.	1909.	.0097	-.0010	.0094	.0086	.0650	-.0219	864.
.0230	-156.	-145.	305.	-1486.	-776.	1873.	.0177	-.0006	.0160	.0129	.0783	-.0238	1009.
.0240	18.	349.	1634.	-1581.	-1009.	2154.	.0255	-.0005	.0215	.0108	.0572	-.0295	1146.
.0250	-456.	242.	2826.	-1468.	-1066.	2673.	.0330	-.0004	.0247	.0063	.0856	-.0400	1296.
.0260	-325.	-435.	2897.	-1864.	-982.	2921.	.0389	-.0001	.0264	.0094	.0774	-.0473	1445.
.0270	-257.	-890.	1621.	-2874.	-857.	2373.	.0420	.0008	.0276	.0233	.0732	-.0455	1675.
.0280	-154.	-1070.	554.	-3857.	-570.	3054.	.0443	.0021	.0272	.0343	.0659	-.0455	1988.
.0290	-1706.	-1476.	576.	-4469.	-35.	3335.	.0471	.0036	.0252	.0354	.0443	-.0541	2238.
.0300	-1292.	-1785.	13.	-5071.	457.	3078.	.0472	.0049	.0251	.0414	.0249	-.0523	2392.

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
32	1	57					.0310	274.	-2086.	-1170.	-5545.	769.	2237.	.0439	.0060	.0278	.0526	.0143	-.0367	2419.
							.0320	1321.	-2439.	-1122.	-5193.	889.	1223.	.0389	.0070	.0306	.0530	.0023	-.0228	2170.
							.0330	1375.	-2261.	484.	-3797.	713.	565.	.0322	.0080	.0318	.0391	-.0100	-.0162	1567.
							.0340	1474.	-1435.	2128.	-1946.	325.	245.	.0227	.0091	.0311	.0217	-.0169	-.0101	798.
							.0350	1562.	-935.	2731.	-376.	36.	-60.	.0112	.0101	.0275	.0088	-.0268	-.0035	154.
							.0360	1262.	-1229.	2076.	517.	-15.	-500.	-.0006	.0112	.0203	.0034	-.0463	.0021	289.
							.0370	1129.	-1558.	207.	702.	94.	-904.	-.0125	.0123	.0111	.0070	-.0641	.0098	461.
							.0380	1034.	-1391.	-2005.	498.	400.	-910.	-.0228	.0135	.0015	.0134	-.0714	.0162	446.
							.0390	-101.	-1040.	-3037.	386.	1007.	-455.	-.0287	.0145	-.0079	.0114	-.0787	.0117	470.
							.0400	-1485.	-660.	-2722.	578.	1726.	-388.	-.0308	.0148	-.0161	.0004	-.0940	.0043	747.
							.0410	-643.	-49.	-2898.	826.	2168.	-1204.	-.0327	.0141	-.0203	-.0039	-.1009	.0141	1049.
							.0420	1386.	235.	-3143.	1471.	2200.	-2537.	-.0346	.0127	-.0219	-.0063	-.0998	.0343	1471.
							.0430	1755.	159.	-2323.	2204.	1873.	-3098.	-.0344	.0115	-.0222	-.0123	-.1022	.0393	1701.
							.0440	845.	898.	-413.	3087.	1141.	-2782.	-.0333	.0103	-.0226	-.0234	-.1057	.0303	1729.
							.0450	441.	2264.	851.	3679.	263.	-2170.	-.0336	.0085	-.0225	-.0293	-.1009	.0227	1717.
							.0460	447.	2700.	743.	3735.	-338.	-1561.	-.0343	.0063	-.0217	-.0261	-.0933	.0184	1630.
							.0470	-34.	1921.	330.	3602.	-504.	-979.	-.0337	.0039	-.0217	-.0221	-.0941	.0127	1511.
							.0480	-401.	1244.	53.	3253.	-306.	-577.	-.0321	.0012	-.0215	-.0194	-.0957	.0097	1331.
							.0490	62.	1278.	-657.	2142.	168.	-456.	-.0305	-.0014	-.0192	-.0111	-.0834	.0132	882.
							.0500	557.	1468.	-1337.	522.	703.	-484.	-.0285	-.0036	-.0148	-.0002	-.0605	.0166	402.
							.0510	357.	1578.	-1357.	-1008.	997.	-254.	-.0260	-.0053	-.0091	.0085	-.0366	.0130	578.
							.0520	-107.	1772.	-996.	-2255.	912.	271.	-.0238	-.0071	-.0022	.0162	-.0126	.0060	982.
							.0530	-290.	1847.	-641.	-3262.	469.	643.	-.0225	-.0090	.0058	.0248	.0124	.0010	1348.
							.0540	-132.	1710.	-31.	-3938.	-300.	560.	-.0218	-.0105	.0141	.0317	.0358	-.0008	1601.
							.0550	199.	1713.	1080.	-4275.	-1229.	222.	-.0210	-.0112	.0216	.0345	.0563	-.0013	1787.
							.0560	430.	1826.	2209.	-4536.	-1982.	48.	-.0196	-.0114	.0280	.0353	.0747	-.0032	1986.
							.0570	327.	1393.	2580.	-4965.	-2347.	372.	-.0168	-.0111	.0334	.0394	.0919	-.0086	2209.
							.0580	-180.	128.	2088.	-5606.	-2303.	1307.	-.0123	-.0097	.0380	.0481	.1075	-.0189	2488.
							.0590	-1014.	-1351.	1350.	-6476.	-1866.	2593.	-.0056	-.0074	.0416	.0577	.1205	-.0332	2898.
							.0600	-1763.	-2225.	811.	-7599.	-1177.	3703.	.0029	-.0046	.0445	.0663	.1317	-.0469	3425.
							.0610	-1881.	-2433.	570.	-8691.	-578.	4159.	.0121	-.0019	.0472	.0739	.1406	-.0533	3873.
							.0620	-1285.	-2573.	585.	-9384.	-322.	3979.	.0209	.0011	.0497	.0808	.1453	-.0512	4092.
							.0630	-531.	-2950.	938.	-9525.	-406.	3552.	.0285	.0044	.0515	.0848	.1432	-.0460	4083.
							.0640	-47.	-3087.	1723.	-9079.	-799.	3252.	.0343	.0076	.0519	.0839	.1352	-.0431	3883.
							.0650	131.	-2561.	2895.	-8035.	-1460.	3255.	.0376	.0106	.0503	.0772	.1254	-.0433	3528.
							.0660	-87.	-1800.	4068.	-6727.	-2122.	3567.	.0385	.0137	.0463	.0676	.1160	-.0460	3172.
							.0670	-645.	-1373.	4573.	-5739.	-2443.	3928.	.0374	.0167	.0401	.0606	.1060	-.0487	2958.
							.0680	-929.	-1122.	3000.	-5476.	-2305.	4030.	.0347	.0190	.0326	.0618	.0963	-.0465	2881.

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

.0570	327.	1343.	1721.	-4975.	-2347.	372.	-.0168	-.0111	.0334	.0394	.0919	-.0086	2209.
.0580	-180.	128.	2088.	-5606.	-2303.	1307.	-.0123	-.0097	.0380	.0481	.1075	-.0189	2488.
.0590	-1014.	-1351.	1350.	-6476.	-1866.	2593.	-.0056	-.0074	.0416	.0577	.1205	-.0332	2898.
.0600	-1763.	-2225.	811.	-7599.	-1177.	3703.	.0029	-.0046	.0445	.0663	.1317	-.0469	3425.
.0610	-1881.	-2473.	570.	-8691.	-570.	4159.	.0121	-.0019	.0472	.0739	.1406	-.0533	3873.
.0620	-1285.	-2573.	585.	-9364.	-322.	3579.	.0209	.0011	.0497	.0808	.1453	-.0512	4092.
.0630	-531.	-2950.	938.	-9525.	-406.	3552.	.0295	.0044	.0515	.0848	.1432	-.0460	4083.
.0640	-47.	-3087.	1723.	-9079.	-799.	3252.	.0343	.0076	.0519	.0839	.1352	-.0431	3883.
.0650	121.	-2561.	2895.	-8035.	-1460.	3255.	.0276	.0106	.0503	.0772	.1254	-.0433	3528.
.0660	-87.	-1800.	4068.	-6727.	-2122.	3567.	.0385	.0137	.0463	.0676	.1160	-.0460	3172.
.0670	-645.	-1373.	4573.	-5779.	-2443.	3928.	.0374	.0167	.0401	.0606	.1060	-.0487	2958.
.0680	-929.	-1122.	3000.	-5476.	-2305.	4630.	.0347	.0190	.0326	.0618	.0963	-.0465	2881.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.37.

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	32	MEMBER	1	SEQUENCE	57	LOCATION	END	TYPE	RU					
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.0690	-663.	-724.	1974.	-5820.	-1730.	3855.		.0307	.0202	.0248	.0702	.0890	-.0388	2886.
.0700	-516.	-327.	186.	-6268.	-792.	3581.		.0265	.0204	.0171	.0772	.0818	-.0319	2914.
.0710	-760.	62.	-888.	-6403.	196.	3239.		.0224	.0197	.0098	.0785	.0741	-.0284	2880.
.0720	-699.	770.	-1484.	-6053.	790.	2729.		.0173	.0177	.0043	.0773	.0688	-.0236	2683.
.0730	-215.	1596.	-1700.	-5082.	848.	2089.		.0109	.0148	.0005	.0742	.0641	-.0170	2231.
.0740	-73.	1931.	-1207.	-3404.	550.	1446.		.0046	.0114	-.0032	.0651	.0513	-.0145	1501.
.0750	-283.	1873.	-259.	-1290.	43.	768.		-.0011	.0075	-.0076	.0514	.0285	-.0159	603.
.0760	-114.	1954.	310.	656.	-536.	-98.		-.0065	.0031	-.0121	.0408	.0021	-.0147	342.
.0770	408.	2041.	144.	1980.	-900.	-1147.		-.0112	-.0016	-.0168	.0363	-.0230	-.0098	987.
.0780	678.	1697.	-526.	2623.	-834.	-2164.		-.0144	-.0059	-.0215	.0358	-.0456	-.0052	1405.
.0790	702.	1182.	-1514.	2735.	-388.	-2908.		-.0161	-.0097	-.0254	.0379	-.0611	-.0025	1610.
.0800	707.	1006.	-2562.	2552.	297.	-3233.		-.0168	-.0132	-.0278	.0405	-.0660	-.0012	1657.
.0810	419.	1045.	-3118.	2366.	1091.	-3197.		-.0164	-.0161	-.0290	.0394	-.0640	-.0027	1655.
.0820	-124.	987.	-3033.	2340.	1739.	-3073.		-.0153	-.0182	-.0292	.0345	-.0601	-.0056	1700.
.0830	-256.	958.	-2776.	2395.	1969.	-3135.		-.0142	-.0193	-.0282	.0306	-.0548	-.0041	1769.
.0840	92.	1071.	-2547.	2450.	1781.	-3357.		-.0134	-.0195	-.0264	.0288	-.0503	.0013	1815.
.0850	203.	1070.	-2081.	2549.	1374.	-3446.		-.0116	-.0188	-.0246	.0262	-.0527	.0040	1806.
.0860	-87.	797.	-1495.	2636.	909.	-3179.		-.0082	-.0171	-.0225	.0235	-.0619	.0015	1697.
.0870	-280.	361.	-1247.	2489.	534.	-2589.		-.0036	-.0144	-.0190	.0245	-.0708	-.0023	1457.
.0880	-256.	-197.	-1275.	2039.	435.	-1853.		.0023	-.0110	-.0135	.0284	-.0761	-.0054	1119.
.0890	-193.	-893.	-1087.	1493.	673.	-1161.		.0095	-.0072	-.0065	.0308	-.0788	-.0083	806.
.0900	115.	-1584.	-550.	1088.	1115.	-690.		.0168	-.0030	.0017	.0300	-.0785	-.0085	684.
.0910	865.	-2139.	106.	933.	1566.	-518.		.0225	.0012	.0099	.0266	-.0739	-.0042	760.
.0920	1671.	-2620.	755.	1107.	1824.	-486.		.0253	.0053	.0168	.0206	-.0669	.0020	878.
.0930	1984.	-3100.	1351.	1654.	1714.	-304.		.0247	.0094	.0209	.0125	-.0598	.0057	964.
.0940	1644.	-3490.	1733.	2446.	1224.	163.		.0206	.0136	.0216	.0035	-.0521	.0048	1099.
.0950	869.	-3631.	1773.	3251.	544.	759.		.0138	.0176	.0189	-.0052	-.0431	.0015	1357.
.0960	57.	-3422.	1498.	3931.	-98.	1195.		.0056	.0214	.0135	-.0134	-.0336	-.0008	1649.
.0970	-432.	-2979.	1019.	4501.	-526.	1266.		-.0027	.0251	.0064	-.0215	-.0237	.0011	1888.
.0980	-527.	-2535.	498.	5045.	-620.	939.		-.0100	.0287	-.0016	-.0305	-.0125	.0076	2074.
.0990	-400.	-2087.	138.	5641.	-400.	352.		-.0154	.0325	-.0102	-.0419	.0003	.0165	2274.
.1000	-266.	-1399.	49.	6329.	-62.	-236.		-.0191	.0365	-.0194	-.0554	.0137	.0242	2542.
.1010	-366.	-496.	110.	7061.	190.	-564.		-.0212	.0409	-.0295	-.0691	.0256	.0275	2844.
.1020	-899.	231.	48.	7703.	270.	-540.		-.0217	.0453	-.0405	-.0802	.0325	.0248	3101.
.1030	-1734.	610.	-358.	8099.	146.	-310.		-.0205	.0494	-.0519	-.0859	.0317	.0176	3253.
.1040	-2431.	921.	-1107.	8110.	-151.	-116.		-.0177	.0524	-.0622	-.0850	.0234	.0095	3255.
.1050	-2724.	1209.	-1947.	7734.	-464.	-132.		-.0129	.0538	-.0700	-.0787	.0104	.0028	3110.
.1060	-2636.	1284.	-2503.	7125.	-632.	-334.		-.0059	.0536	-.0737	-.0704	-.0032	-.0025	2874.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.37.

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

.0750	76.	-7571.	77.	2251.	544.	759.	.0138	.0176	.0189	-.0052	-.0431	.0015	1157.
.0960	57.	-3422.	1498.	3931.	-98.	1195.	.0556	.0214	.0135	-.0134	-.0336	-.0008	1649.
.0970	-432.	-2979.	1019.	4501.	-526.	1266.	-.0027	.0251	.0064	-.0215	-.0237	.0011	1888.
.0980	-527.	-2535.	498.	5045.	-620.	939.	-.0100	.0287	-.0016	-.0305	-.0125	.0076	2074.
.0990	-400.	-2027.	138.	5641.	-400.	352.	-.0154	.0325	-.0102	-.0419	.0003	.0165	2274.
.1000	-266.	-1399.	49.	6329.	-62.	-276.	-.0191	.0365	-.0194	-.0554	.0137	.0242	2542.
.1010	-766.	-496.	110.	7061.	190.	-564.	-.0212	.0409	-.0295	-.0691	.0256	.0275	2844.
.1020	-899.	231.	48.	7703.	270.	-540.	-.0217	.0453	-.0405	-.0802	.0325	.0248	3101.
.1030	-1734.	610.	-358.	8099.	146.	-310.	-.0205	.0494	-.0519	-.0859	.0317	.0176	3253.
.1040	-2431.	921.	-1107.	8110.	-151.	-116.	-.0177	.0524	-.0622	-.0850	.0234	.0095	3255.
.1050	-2724.	1209.	-1947.	7774.	-464.	-132.	-.0129	.0538	-.0700	-.0787	.0104	.0028	3110.
.1060	-2636.	1284.	-2503.	7129.	-632.	-334.	-.0059	.0536	-.0737	-.0704	-.0032	-.0025	2874.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.37.

S/RV PIPING KEMAUNEE GKW08F 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	32	MEMBER	1	SEQUENCE	57	LOCATION	END	TYPE	RU						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)		
.1070	-2190.	1274.	-2487.	6536.	-639.	-553.	.0028	.0517	-.0726	-.0631	-.0132	-.0067	2645.		
.1080	-1568.	1555.	-1755.	6024.	-530.	-670.	.0122	.0481	-.0671	-.0586	-.0189	-.0111	2445.		
.1090	-910.	1954.	-657.	5400.	-369.	-830.	.0208	.0434	-.0582	-.0545	-.0200	-.0149	2197.		
.1100	-0.	1478.	-20.	4781.	-350.	-900.	.0267	.0386	-.0472	-.0474	-.0071	-.0155	1957.		
.1110	278.	1154.	801.	4169.	-516.	-836.	.0300	.0329	-.0374	-.0429	.0070	-.0190	1719.		
.1120	-91.	2236.	1748.	3281.	-786.	-681.	.0309	.0255	-.0307	-.0408	.0134	-.0256	1381.		
.1130	-297.	3289.	1425.	1809.	-1031.	-615.	.0290	.0178	-.0261	-.0311	.0190	-.0283	871.		
.1140	-357.	2641.	-410.	-162.	-1165.	-683.	.0254	.0120	-.0221	-.0118	.0268	-.0266	546.		
.1150	-701.	1545.	-2229.	-2260.	-1160.	-701.	.0222	.0081	-.0180	.0069	.0336	-.0254	1058.		
.1160	-953.	1947.	-2941.	-4138.	-983.	-538.	.0206	.0055	-.0126	.0175	.0415	-.0242	1721.		
.1170	-852.	2793.	-2712.	-5497.	-604.	-309.	.0209	.0045	-.0048	.0201	.0522	-.0210	2223.		
.1180	-216.	2145.	-2236.	-5908.	-198.	-22.	.0227	.0060	.0054	.0177	.0653	-.0141	2372.		
.1190	-34.	491.	-883.	-5364.	172.	312.	.0265	.0089	.0150	.0052	.0627	-.0105	2157.		
.1200	232.	-166.	900.	-4478.	399.	563.	.0309	.0121	.0223	-.0123	.0442	-.0060	1818.		
.1210	1534.	-80.	1596.	-3814.	322.	589.	.0334	.0163	.0277	-.0222	.0252	.0076	1554.		
.1220	2210.	-1246.	1549.	-3348.	25.	607.	.0346	.0229	.0297	-.0277	.0036	.0192	1365.		
.1230	1906.	-2595.	1383.	-2961.	-388.	1089.	.0350	.0313	.0285	-.0340	-.0176	.0238	1276.		
.1240	1072.	-2581.	1471.	-2709.	-628.	2042.	.0350	.0394	.0253	-.0439	-.0360	.0234	1384.		
.1250	466.	-2116.	1380.	-2551.	-481.	3021.	.0346	.0469	.0219	-.0548	-.0463	.0250	1598.		
.1260	509.	-2550.	928.	-2230.	11.	3658.	.0336	.0541	.0195	-.0654	-.0467	.0328	1719.		
.1270	351.	-3352.	1212.	-1728.	777.	3727.	.0331	.0602	.0168	-.0823	-.0502	.0415	1678.		
.1280	958.	-2506.	1796.	-1343.	1480.	3184.	.0310	.0638	.0140	-.1000	-.0518	.0567	1508.		
.1290	2113.	-843.	1992.	-1131.	1875.	2226.	.0263	.0652	.0108	-.1125	-.0499	.0761	1253.		
.1300	2620.	-249.	1753.	-745.	1840.	1416.	.0192	.0655	.0065	-.1208	-.0506	.0893	979.		
.1310	2373.	-134.	1322.	112.	1343.	1284.	.0100	.0643	.0007	-.1283	-.0555	.0924	747.		
.1320	1307.	450.	1288.	1358.	654.	1662.	.0001	.0606	-.0064	-.1393	-.0688	.0849	900.		
.1330	588.	1236.	1129.	2760.	0.	1934.	-.0098	.0546	-.0129	-.1489	-.0300	.0775	1352.		
.1340	352.	1074.	827.	4095.	-373.	1632.	-.0185	.0475	-.0179	-.1559	-.0861	.0743	1775.		
.1350	519.	604.	662.	5119.	-366.	767.	-.0245	.0391	-.0214	-.1613	-.0886	.0747	2082.		
.1360	1361.	1209.	413.	5710.	-62.	-261.	-.0282	.0288	-.0235	-.1633	-.0849	.0782	2294.		
.1370	1705.	1893.	210.	6022.	495.	-993.	-.0287	.0175	-.0255	-.1641	-.0816	.0751	2457.		
.1380	1343.	1653.	-216.	6277.	1028.	-1164.	-.0268	.0070	-.0281	-.1623	-.0778	.0636	2595.		
.1390	298.	968.	-576.	6397.	1292.	-1023.	-.0230	-.0022	-.0321	-.1594	-.0786	.0452	2651.		
.1400	-640.	1070.	-833.	6147.	1177.	-1095.	-.0179	-.0105	-.0370	-.1540	-.0845	.0278	2549.		
.1410	-618.	1829.	-1357.	5571.	769.	-1619.	-.0121	-.0177	-.0417	-.1433	-.0895	.0191	2348.		
.1420	-665.	1729.	-1584.	4946.	386.	-2402.	-.0045	-.0227	-.0460	-.1334	-.0995	.0122	2122.		
.1430	-752.	1177.	-1461.	4311.	120.	-3104.	.0049	-.0256	-.0487	-.1254	-.1108	.0057	2312.		
.1440	-693.	1168.	-1097.	3406.	67.	-3561.	.0152	-.0270	-.0487	-.1177	-.1182	-.0000	1977.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.37.

S/RV PIPING KEMAUNEE GKW08F 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.1340	352.	1074.	827.	4095.	-373.	1632.	-1185.	.0475	-.0179	-.1559	-.0861	.0743	1775.
.1350	519.	604.	662.	5119.	-266.	767.	-.0245	.0391	-.0214	-.1613	-.0886	.0747	2082.
.1360	1761.	1209.	413.	5710.	-62.	-261.	-.0282	.0288	-.0235	-.1633	-.0849	.0782	2294.
.1370	1705.	1593.	210.	6022.	495.	-993.	-.0287	.0175	-.0255	-.1641	-.0816	.0751	2457.
.1380	1747.	1653.	-216.	6277.	1028.	-1164.	-.0268	.0070	-.0281	-.1623	-.0778	.0636	2595.
.1390	292.	968.	-576.	6397.	1292.	-1023.	-.0230	-.0022	-.0321	-.1594	-.0786	.0452	2651.
.1400	-640.	1070.	-853.	6147.	1177.	-1095.	-.0179	-.0105	-.0370	-.1540	-.0845	.0278	2549.
.1410	-618.	1829.	-1357.	5571.	769.	-1619.	-.0121	-.0177	-.0417	-.1433	-.0895	.0191	2348.
.1420	-665.	1729.	-1584.	4946.	286.	-2402.	-.0045	-.0227	-.0460	-.1334	-.0795	.0122	2212.
.1430	-752.	1177.	-1461.	4311.	120.	-3104.	.0049	-.0256	-.0487	-.1254	-.1108	.0057	2132.
.1440	-697.	1168.	-1097.	3406.	67.	-3561.	.0152	-.0270	-.0487	-.1177	-.1182	-.0000	1977.

ADLPIPE PAGE 1389

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.37.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	32	MEMBER	1	SEQUENCE	57	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ				DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.1450	-465.	1502.	-763.	2106.	261.	-3675.	.0255	-.0263	-.0456	-.1078	-.1164	-.0044	1703.		
.1460	-187.	1449.	-604.	611.	648.	-3345.	.0349	-.0230	-.0395	-.0955	-.1048	-.0077	1389.		
.1470	-495.	859.	-193.	-925.	1149.	-2693.	.0432	-.0173	-.0322	-.0850	-.0954	-.0140	1232.		
.1480	-397.	650.	-41.	-2473.	1550.	-1968.	.0487	-.0104	-.0237	-.0729	-.0873	-.0162	1413.		
.1490	154.	403.	-231.	-3910.	1800.	-1359.	.0509	-.0023	-.0145	-.0590	-.0312	-.0131	1811.		
.1500	571.	-598.	-372.	-5004.	1839.	-827.	.0501	.0072	-.0051	-.0462	-.0785	-.0087	2165.		
.1510	1046.	-1545.	-319.	-5664.	1516.	-197.	.0461	.0174	.0046	-.0353	-.0732	-.0030	2354.		
.1520	1257.	-1739.	272.	-5996.	963.	608.	.0399	.0272	.0143	-.0290	-.0556	.0005	2449.		
.1530	1429.	-1368.	1065.	-6093.	404.	1560.	.0323	.0362	.0239	-.0253	-.0516	.0033	2529.		
.1540	1243.	-1416.	1922.	-6126.	68.	2407.	.0244	.0445	.0327	-.0233	-.0351	.0045	2641.		
.1550	1142.	-1619.	2456.	-6417.	-51.	2824.	.0164	.0516	.0401	-.0193	-.0167	.0088	2813.		
.1560	1904.	-1003.	2258.	-7099.	-81.	2740.	.0075	.0567	.0461	-.0097	.0080	.0218	3054.		
.1570	2373.	-220.	1982.	-7910.	24.	2365.	-.0012	.0599	.0493	-.0001	.0307	.0345	3313.		
.1580	2358.	192.	1583.	-8490.	114.	2073.	-.0097	.0614	.0497	.0088	.0518	.0433	3507.		
.1590	2121.	514.	940.	-8660.	8.	2104.	-.0185	.0607	.0482	.0177	.0727	.0482	3576.		
.1600	1322.	932.	529.	-8337.	-263.	2476.	-.0265	.0574	.0449	.0232	.0872	.0461	3491.		
.1610	253.	1366.	461.	-7563.	-623.	2962.	-.0331	.0518	.0407	.0259	.0951	.0402	3269.		
.1620	-168.	1682.	312.	-6494.	-1039.	3230.	-.0384	.0446	.0372	.0300	.1028	.0380	2940.		
.1630	-377.	1594.	424.	-5300.	-1345.	3056.	-.0413	.0362	.0341	.0328	.1047	.0374	2514.		
.1640	-223.	1649.	725.	-4101.	-1529.	2535.	-.0421	.0267	.0316	.0346	.1023	.0384	2030.		
.1650	282.	1945.	978.	-2908.	-1602.	1958.	-.0415	.0166	.0296	.0368	.0991	.0402	1547.		
.1660	255.	1738.	1289.	-1727.	-1506.	1540.	-.0394	.0067	.0270	.0375	.0920	.0366	1108.		
.1670	4.	1342.	1291.	-676.	-1377.	1335.	-.0372	-.0025	.0239	.0391	.0854	.0297	816.		
.1680	-442.	1226.	1108.	74.	-1292.	1211.	-.0355	-.0106	.0198	.0414	.0784	.0204	711.		
.1690	-732.	1485.	657.	508.	-1264.	1038.	-.0348	-.0172	.0152	.0454	.0731	.0119	687.		
.1700	-1065.	1465.	60.	737.	-1193.	734.	-.0347	-.0217	.0105	.0497	.0681	.0038	635.		
.1710	-1675.	947.	-408.	787.	-1043.	270.	-.0346	-.0240	.0062	.0526	.0504	-.0053	535.		
.1720	-1558.	878.	-1056.	654.	-964.	-259.	-.0354	-.0243	.0038	.0573	.0584	-.0093	479.		
.1730	-1409.	997.	-1340.	439.	-840.	-731.	-.0361	-.0225	.0032	.0600	.0577	-.0133	481.		
.1740	-1461.	896.	-1229.	291.	-640.	-1007.	-.0363	-.0186	.0043	.0598	.0581	-.0192	493.		
.1750	-1420.	672.	-1012.	234.	-464.	-1030.	-.0364	-.0128	.0070	.0590	.0502	-.0248	463.		
.1760	-1519.	366.	-621.	169.	-310.	-899.	-.0359	-.0056	.0104	.0573	.0575	-.0312	388.		
.1770	-1312.	115.	-459.	9.	-180.	-747.	-.0353	.0025	.0140	.0577	.0514	-.0345	308.		
.1780	-1093.	-486.	-477.	-275.	-2.	-681.	-.0341	.0112	.0174	.0599	.0390	-.0358	295.		
.1790	-618.	-1155.	-756.	-625.	141.	-626.	-.0327	.0201	.0206	.0645	.0240	-.0340	360.		
.1800	-95.	-1602.	-1004.	-908.	231.	-435.	-.0310	.0286	.0236	.0691	.0075	-.0311	414.		
.1810	-110.	-2094.	-798.	-1025.	369.	-91.	-.0285	.0363	.0262	.0701	-.0125	-.0312	439.		
.1820	134.	-2445.	-624.	-973.	492.	309.	-.0262	.0427	.0289	.0714	-.0271	-.0286	455.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.37.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.1710	-1675.	747.	-407.	797.	-1043.	270.	-.0146	-.0240	.0062	.0526	.0504	-.0053	535.
.1720	-1558.	878.	-1056.	654.	-964.	-259.	-.0354	-.0243	.0038	.0573	.0584	-.0093	479.
.1730	-1409.	997.	-1340.	439.	-840.	-731.	-.0361	-.0225	.0032	.0600	.0577	-.0133	481.
.1740	-1461.	896.	-1229.	291.	-640.	-1007.	-.0363	-.0186	.0043	.0598	.0581	-.0192	493.
.1750	-1420.	672.	-1012.	274.	-474.	-1030.	-.0364	-.0128	.0070	.0590	.0502	-.0248	463.
.1760	-1519.	366.	-621.	169.	-310.	-899.	-.0359	-.0056	.0104	.0573	.0575	-.0312	388.
.1770	-1312.	115.	-459.	9.	-180.	-747.	-.0353	.0025	.0140	.0577	.0514	-.0345	308.
.1780	-1093.	-486.	-477.	-275.	-2.	-681.	-.0341	.0112	.0174	.0599	.0390	-.0358	295.
.1790	-618.	-1155.	-756.	-625.	141.	-626.	-.0327	.0201	.0206	.0645	.0240	-.0340	360.
.1800	-95.	-1602.	-1004.	-908.	231.	-435.	-.0310	.0286	.0236	.0691	.0075	-.0311	414.
.1810	-110.	-2024.	-798.	-1025.	369.	-91.	-.0285	.0363	.0262	.0701	-.0125	-.0312	439.
.1820	134.	-2445.	-624.	-973.	492.	309.	-.0262	.0427	.0289	.0714	-.0271	-.0286	455.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.37.

S/RV PIPING KEWAUNEE GKMORF 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU								
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.1830	493.	-2716.	-363.	-778.	611.	622.	-.0244	.0477	.0315	.0719	-.0380	-.0240	469.	
.1840	827.	-2724.	83.	-427.	705.	796.	-.0231	.0507	.0332	.0704	-.0472	-.0182	460.	
.1850	1117.	-2470.	564.	62.	748.	826.	-.0229	.0516	.0333	.0677	-.0546	-.0116	448.	
.1860	1157.	-2293.	913.	575.	751.	696.	-.0237	.0507	.0315	.0650	-.0608	-.0055	471.	
.1870	1274.	-2026.	753.	1000.	660.	477.	-.0263	.0480	.0280	.0655	-.0621	.0015	517.	
.1880	1003.	-1715.	382.	1308.	536.	269.	-.0298	.0437	.0228	.0669	-.0627	.0052	577.	
.1890	492.	-1292.	-154.	1547.	414.	151.	-.0339	.0379	.0167	.0693	-.0613	.0058	645.	
.1900	-5.	-905.	-825.	1769.	345.	69.	-.0382	.0309	.0108	.0728	-.0559	.0049	724.	
.1910	-622.	-780.	-1304.	1977.	392.	-158.	-.0418	.0232	.0058	.0755	-.0499	.0021	811.	
.1920	-801.	-529.	-1671.	2151.	452.	-650.	-.0452	.0148	.0025	.0786	-.0413	.0016	920.	
.1930	-546.	-121.	-1849.	2327.	464.	-1361.	-.0485	.0061	.0012	.0819	-.0308	.0033	1098.	
.1940	-227.	169.	-1769.	2590.	410.	-2070.	-.0515	-.0022	.0014	.0841	-.0199	.0044	1341.	
.1950	-57.	275.	-1544.	2946.	249.	-2533.	-.0545	-.0096	.0026	.0854	-.0085	.0028	1562.	
.1960	-76.	366.	-1326.	3297.	-52.	-2636.	-.0577	-.0160	.0043	.0867	.0037	-.0021	1694.	
.1970	-313.	469.	-1188.	3509.	-422.	-2429.	-.0609	-.0211	.0061	.0881	.0164	-.0097	1721.	
.1980	-670.	510.	-1180.	3468.	-740.	-2051.	-.0634	-.0246	.0078	.0902	.0306	-.0183	1644.	
.1990	-945.	562.	-1319.	3117.	-928.	-1634.	-.0648	-.0265	.0095	.0929	.0464	-.0256	1460.	
.2000	-1072.	707.	-1503.	2468.	-957.	-1251.	-.0645	-.0269	.0113	.0955	.0626	-.0310	1175.	
.2010	-1114.	848.	-1628.	1597.	-823.	-914.	-.0621	-.0258	.0132	.0972	.0781	-.0352	809.	
.2020	-1076.	881.	-1672.	622.	-590.	-591.	-.0577	-.0231	.0153	.0978	.0931	-.0385	418.	
.2030	-1007.	861.	-1559.	-309.	-385.	-213.	-.0517	-.0190	.0176	.0970	.1073	-.0417	216.	
.2040	-1061.	878.	-1144.	-1067.	-312.	265.	-.0444	-.0138	.0197	.0935	.1182	-.0461	459.	
.2050	-1238.	878.	-491.	-1613.	-398.	797.	-.0364	-.0077	.0212	.0879	.1243	-.0514	740.	
.2060	-1355.	713.	129.	-1991.	-607.	1281.	-.0283	-.0012	.0222	.0819	.1257	-.0558	981.	
.2070	-1341.	342.	571.	-2264.	-864.	1659.	-.0205	.0054	.0229	.0769	.1232	-.0583	1179.	
.2080	-1310.	-123.	916.	-2476.	-1090.	1966.	-.0133	.0118	.0234	.0722	.1176	-.0596	1342.	
.2090	-1314.	-574.	1217.	-2664.	-1216.	2263.	-.0069	.0178	.0239	.0577	.1113	-.0602	1485.	
.2100	-1299.	-993.	1403.	-2869.	-1201.	2571.	-.0017	.0232	.0248	.0641	.1072	-.0597	1619.	
.2110	-1272.	-1395.	1453.	-3104.	-1046.	2870.	.0020	.0279	.0262	.0617	.1055	-.0581	1748.	
.2120	-1245.	-1731.	1409.	-3343.	-812.	3123.	.0040	.0317	.0279	.0602	.1048	-.0554	1865.	
.2130	-1166.	-1964.	1297.	-3534.	-595.	3271.	.0041	.0344	.0297	.0595	.1037	-.0512	1947.	
.2140	-998.	-2093.	1141.	-3629.	-468.	3249.	.0023	.0359	.0311	.0595	.1017	-.0449	1964.	
.2150	-754.	-2066.	983.	-3616.	-437.	3042.	-.0011	.0362	.0321	.0596	.0978	-.0370	1906.	
.2160	-463.	-1823.	830.	-3509.	-294.	2714.	-.0059	.0354	.0324	.0596	.0920	-.0285	1796.	
.2170	-192.	-1461.	648.	-3314.	-795.	2382.	-.0112	.0335	.0321	.0594	.0848	-.0206	1668.	
.2180	-46.	-1160.	447.	-3038.	-964.	2134.	-.0163	.0309	.0312	.0586	.0767	-.0145	1539.	
.2190	-27.	-930.	269.	-2725.	-1008.	1960.	-.0203	.0278	.0297	.0564	.0683	-.0105	1407.	
.2200	12.	-636.	109.	-2450.	-897.	1768.	-.0228	.0242	.0277	.0531	.0598	-.0074	1265.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.37.

S/RV PIPING KEWAUNEE GKMORF 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

.2110	-1272.	-1395.	1453.	-3104.	-1046.	2870.	-.017	.0232	.0248	.0617	.1055	-.0581	1748.
.2120	-1245.	-1731.	1409.	-3343.	-812.	3123.	.0040	.0317	.0279	.0602	.1048	-.0554	1865.
.2130	-1166.	-1964.	1297.	-7534.	-195.	7271.	.0041	.0344	.0277	.0595	.1037	-.0512	1947.
.2140	-958.	-2073.	1141.	-7629.	-468.	7249.	.0023	.0359	.0311	.0595	.1017	-.0449	1964.
.2150	-754.	-2066.	983.	-7616.	-467.	7042.	-.0011	.0262	.0321	.0596	.0978	-.0370	1906.
.2160	-463.	-1823.	830.	-7509.	-594.	2714.	-.0059	.0354	.0324	.0596	.0920	-.0285	1796.
.2170	-152.	-1461.	648.	-3314.	-795.	2382.	-.0112	.0335	.0321	.0594	.0848	-.0206	1668.
.2180	-46.	-1160.	447.	-3038.	-964.	2134.	-.0163	.0309	.0312	.0586	.0767	-.0145	1539.
.2190	-27.	-930.	269.	-2729.	-1008.	1960.	-.0203	.0278	.0297	.0564	.0683	-.0105	1407.
.2200	12.	-576.	109.	-2450.	-.097.	1768.	-.0228	.0242	.0277	.0531	.0598	-.0074	1265.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.37.

S/RV PIPING KEWAUNEE GKWC0F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU								STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	(PSI)	
.2210	168.	-270.	-77.	-2255.	-647.	1462.	-.0236	.0202	.0251	.0489	.0512	-.0043	1109.	
.2220	389.	36.	-307.	-2114.	-302.	1036.	-.0227	.0160	.0217	.0439	.0415	-.0016	952.	
.2230	563.	240.	-549.	-1947.	55.	578.	-.0202	.0120	.0173	.0376	.0302	-.0002	815.	
.2240	598.	413.	-735.	-1681.	331.	190.	-.0166	.0081	.0118	.0295	.0169	-.0012	692.	
.2250	450.	587.	-811.	-1289.	474.	-93.	-.0123	.0047	.0053	.0191	.0018	-.0049	552.	
.2260	174.	737.	-778.	-791.	495.	-310.	-.0075	.0020	-.0018	.0068	-.0141	-.0103	395.	
.2270	-115.	862.	-671.	-249.	452.	-524.	-.0025	.0001	-.0091	-.0070	-.0299	-.0159	295.	
.2280	-338.	974.	-525.	260.	418.	-787.	.0024	-.0011	-.0162	-.0218	-.0451	-.0206	373.	
.2290	-454.	1051.	-400.	652.	459.	-1118.	.0070	-.0016	-.0225	-.0368	-.0593	-.0234	551.	
.2300	-440.	1077.	-367.	868.	603.	-1479.	.0109	-.0013	-.0278	-.0511	-.0712	-.0242	730.	
.2310	-356.	1079.	-433.	900.	826.	-1786.	.0137	-.0002	-.0317	-.0642	-.0800	-.0234	868.	
.2320	-317.	1082.	-536.	790.	1065.	-1944.	.0152	.0015	-.0342	-.0764	-.0860	-.0221	944.	
.2330	-352.	1062.	-644.	597.	1244.	-1913.	.0152	.0039	-.0351	-.0873	-.0897	-.0207	946.	
.2340	-384.	972.	-751.	376.	1313.	-1723.	.0136	.0067	-.0342	-.0968	-.0915	-.0187	882.	
.2350	-342.	812.	-791.	172.	1266.	-1441.	.0108	.0098	-.0315	-.1050	-.0923	-.0156	773.	
.2360	-192.	625.	-681.	-1.	1116.	-1129.	.0072	.0131	-.0270	-.1123	-.0927	-.0113	637.	
.2370	99.	433.	-410.	-158.	894.	-813.	.0034	.0165	-.0207	-.1184	-.0921	-.0057	489.	
.2380	504.	209.	-23.	-332.	649.	-482.	-.0003	.0198	-.0130	-.1229	-.0895	.0008	351.	
.2390	929.	-35.	446.	-553.	433.	-110.	-.0032	.0229	-.0043	-.1259	-.0949	.0073	285.	
.2400	1304.	-218.	948.	-847.	268.	315.	-.0053	.0256	.0047	-.1272	-.0783	.0132	378.	
.2410	1610.	-311.	1404.	-1222.	148.	766.	-.0065	.0279	.0131	-.1266	-.0699	.0182	582.	
.2420	1830.	-372.	1753.	-1657.	53.	1179.	-.0068	.0296	.0204	-.1240	-.0601	.0227	816.	
.2430	1963.	-433.	1968.	-2114.	-41.	1497.	-.0064	.0308	.0260	-.1196	-.0494	.0269	1040.	
.2440	2026.	-434.	2038.	-2551.	-161.	1719.	-.0055	.0314	.0297	-.1136	-.0380	.0309	1236.	
.2450	1993.	-340.	2010.	-2902.	-309.	1893.	-.0042	.0313	.0315	-.1066	-.0263	.0342	1396.	
.2460	1804.	-216.	1968.	-3083.	-468.	2062.	-.0024	.0304	.0315	-.0996	-.0149	.0359	1500.	
.2470	1494.	-111.	1978.	-3024.	-616.	2205.	-.0001	.0290	.0299	-.0937	-.0041	.0363	1522.	
.2480	1200.	-17.	2004.	-2732.	-744.	2265.	.0025	.0268	.0270	-.0887	.0061	.0366	1455.	
.2490	984.	68.	1979.	-1274.	-842.	2225.	.0054	.0241	.0230	-.0841	.0156	.0373	1321.	
.2500	773.	153.	1908.	-1702.	-895.	2125.	.0084	.0209	.0181	-.0801	.0236	.0375	1150.	
.2510	495.	246.	1793.	-1066.	-898.	2014.	.0118	.0174	.0122	-.0768	.0292	.0364	983.	
.2520	169.	322.	1591.	-423.	-863.	1895.	.0153	.0136	.0055	-.0740	.0325	.0342	853.	
.2530	-145.	368.	1273.	167.	-811.	1727.	.0189	.0098	-.0016	-.0711	.0332	.0314	768.	
.2540	-391.	431.	881.	674.	-757.	1473.	.0225	.0061	-.0089	-.0685	.0318	.0286	718.	
.2550	-552.	547.	504.	1108.	-704.	1140.	.0260	.0026	-.0159	-.0666	.0285	.0258	698.	
.2560	-652.	702.	226.	1493.	-648.	762.	.0297	-.0006	-.0224	-.0661	.0239	.0228	721.	
.2570	-708.	889.	81.	1832.	-504.	375.	.0333	-.0034	-.0281	-.0671	.0181	.0195	786.	
.2580	-702.	1045.	13.	2109.	-509.	-3.	.0369	-.0059	-.0329	-.0691	.0118	.0161	871.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.37.

S/RV PIPING KEWAUNEE GKWC0F 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

.2470	1494.	-111.	1977.	-3024.	-616.	2209.	-.0001	.0290	.0299	-.0937	-.0041	.0363	1522.
.2480	1200.	-17.	2004.	-2732.	-744.	2265.	.0025	.0268	.0270	-.0887	.0061	.0366	1455.
.2490	984.	68.	1979.	-2274.	-842.	2225.	.0054	.0241	.0230	-.0841	.0156	.0373	1321.
.2500	773.	153.	1908.	-1702.	-895.	2125.	.0084	.0209	.0181	-.0801	.0236	.0375	1150.
.2510	495.	246.	1797.	-1066.	-908.	2014.	.0118	.0174	.0122	-.0768	.0292	.0364	983.
.2520	169.	322.	1591.	-423.	-963.	1895.	.0153	.0136	.0055	-.0740	.0325	.0342	853.
.2530	-145.	368.	1277.	167.	-911.	1727.	.0189	.0092	-.0016	-.0711	.0332	.0314	768.
.2540	-391.	431.	881.	674.	-757.	1473.	.0225	.0061	-.0089	-.0685	.0318	.0286	718.
.2550	-552.	547.	504.	1108.	-704.	1146.	.0260	.0026	-.0159	-.0666	.0285	.0258	698.
.2560	-652.	702.	226.	1493.	-648.	762.	.0297	-.0006	-.0224	-.0661	.0239	.0228	721.
.2570	-708.	889.	81.	1832.	-584.	375.	.0333	-.0034	-.0281	-.0671	.0181	.0195	786.
.2580	-762.	1045.	13.	2109.	-509.	-3.	.0369	-.0059	-.0329	-.0691	.0118	.0161	871.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.37.

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME	FX	FY	FZ	HX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
32	1	57					(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.2590	-625.	1121.	-45.	2313.	-421.	-360.	.0402	-.0080	-.0366	-.0716	.0052	.0129	954.							
.2600	-507.	1200.	-85.	2446.	-323.	-690.	.0434	-.0101	-.0394	-.0744	-.0018	.0100	1028.							
.2610	-383.	1340.	-82.	2524.	-222.	-986.	.0462	-.0121	-.0416	-.0778	-.0094	.0073	1091.							
.2620	-257.	1444.	-80.	2567.	-122.	-1250.	.0487	-.0141	-.0433	-.0814	-.0174	.0050	1147.							
.2630	-130.	1436.	-120.	2594.	-23.	-1485.	.0508	-.0160	-.0446	-.0847	-.0256	.0035	1199.							
.2640	-6.	1366.	-180.	2637.	80.	-1693.	.0526	-.0179	-.0456	-.0879	-.0341	.0028	1258.							
.2650	107.	1265.	-229.	2725.	188.	-1872.	.0541	-.0198	-.0465	-.0911	-.0428	.0031	1329.							
.2660	210.	1148.	-252.	2859.	308.	-2017.	.0555	-.0217	-.0472	-.0942	-.0514	.0041	1410.							
.2670	300.	993.	-256.	3031.	443.	-2133.	.0567	-.0236	-.0478	-.0970	-.0598	.0059	1498.							
.2680	381.	772.	-274.	3235.	593.	-2215.	.0578	-.0253	-.0481	-.0990	-.0680	.0085	1591.							
.2690	467.	577.	-300.	3469.	752.	-2259.	.0587	-.0270	-.0484	-.1002	-.0759	.0118	1688.							
.2700	554.	490.	-289.	3738.	911.	-2265.	.0593	-.0286	-.0484	-.1008	-.0837	.0157	1792.							
.2710	626.	429.	-231.	4049.	1056.	-2246.	.0595	-.0298	-.0484	-.1010	-.0910	.0200	1906.							
.2720	672.	203.	-173.	4401.	1175.	-2206.	.0592	-.0304	-.0483	-.1005	-.0970	.0244	2031.							
.2730	679.	-158.	-131.	4780.	1262.	-2140.	.0582	-.0305	-.0480	-.0991	-.1016	.0289	2162.							
.2740	650.	-357.	-60.	5141.	1327.	-2049.	.0566	-.0306	-.0475	-.0971	-.1052	.0332	2284.							
.2750	610.	-312.	18.	5431.	1388.	-1959.	.0545	-.0308	-.0468	-.0942	-.1077	.0372	2383.							
.2760	579.	-290.	22.	5630.	1450.	-1904.	.0516	-.0308	-.0457	-.0897	-.1085	.0412	2455.							
.2770	559.	-455.	-67.	5747.	1505.	-1915.	.0482	-.0306	-.0443	-.0838	-.1079	.0453	2505.							
.2780	584.	-581.	-172.	5801.	1542.	-1997.	.0442	-.0304	-.0424	-.0767	-.1062	.0496	2538.							
.2790	686.	-454.	-227.	5824.	1551.	-2139.	.0396	-.0303	-.0402	-.0692	-.1036	.0541	2566.							
.2800	821.	-292.	-247.	5867.	1517.	-2321.	.0344	-.0300	-.0378	-.0615	-.1003	.0583	2604.							
.2810	916.	-363.	-269.	5969.	1418.	-2516.	.0287	-.0295	-.0352	-.0537	-.0961	.0616	2661.							
.2820	968.	-522.	-297.	6109.	1247.	-2701.	.0228	-.0287	-.0328	-.0457	-.0914	.0639	2727.							
.2830	1002.	-472.	-331.	6238.	1030.	-2860.	.0167	-.0281	-.0307	-.0377	-.0860	.0654	2785.							
.2840	1006.	-258.	-408.	6312.	798.	-2983.	.0108	-.0276	-.0292	-.0293	-.0800	.0656	2820.							
.2850	917.	-147.	-585.	6307.	574.	-3067.	.0057	-.0269	-.0282	-.0203	-.0734	.0644	2824.							
.2860	767.	-169.	-862.	6203.	376.	-3111.	.0016	-.0259	-.0278	-.0109	-.0565	.0616	2789.							
.2870	606.	-126.	-1163.	6004.	218.	-3108.	-.0010	-.0247	-.0278	-.0015	-.0595	.0577	2714.							
.2880	433.	19.	-1403.	5755.	103.	-3053.	-.0019	-.0234	-.0284	.0072	-.0529	.0524	2615.							
.2890	231.	115.	-1555.	5508.	12.	-2948.	-.0009	-.0217	-.0293	.0147	-.0473	.0458	2507.							
.2900	18.	111.	-1617.	5279.	-81.	-2803.	.0018	-.0197	-.0305	.0210	-.0431	.0379	2399.							
.2910	-181.	93.	-1588.	5056.	-186.	-2625.	.0060	-.0173	-.0321	.0261	-.0407	.0292	2287.							
.2920	-380.	85.	-1488.	4827.	-302.	-2410.	.0115	-.0149	-.0339	.0303	-.0401	.0199	2168.							
.2930	-596.	41.	-1362.	4568.	-421.	-2156.	.0179	-.0123	-.0359	.0339	-.0409	.0102	2034.							
.2940	-812.	-7.	-1237.	4238.	-529.	-1878.	.0248	-.0098	-.0377	.0372	-.0424	.0007	1872.							
.2950	-995.	-8.	-1122.	3802.	-600.	-1601.	.0316	-.0073	-.0392	.0405	-.0435	-.0080	1673.							
.2960	-1131.	-24.	-1028.	3263.	-611.	-1336.	.0380	-.0047	-.0400	.0437	-.0434	-.0154	1436.							

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.37.

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

.2850	917.	-147.	-117.	6267.	374.	-3111.	.0016	-.0259	-.0273	-.0109	-.0565	.0616	2824.
.2860	767.	-169.	-862.	6203.	376.	-3111.	.0016	-.0259	-.0273	-.0109	-.0565	.0616	2789.
.2870	606.	-126.	-1167.	6004.	212.	-3108.	-.0010	-.0247	-.0278	-.0015	-.0595	.0577	2714.
.2880	433.	19.	-1403.	5755.	103.	-3053.	-.0019	-.0234	-.0284	.0072	-.0529	.0524	2615.
.2890	231.	115.	-1555.	5508.	17.	-2948.	-.0009	-.0217	-.0293	.0147	-.0473	.0458	2507.
.2900	18.	111.	-1617.	5179.	-81.	-2803.	.0018	-.0197	-.0305	.0210	-.0431	.0379	2399.
.2910	-181.	93.	-1518.	5056.	-186.	-2625.	.0060	-.0177	-.0321	.0261	-.0407	.0292	2287.
.2920	-380.	85.	-1488.	4827.	-302.	-2410.	.0115	-.0149	-.0339	.0303	-.0401	.0199	2168.
.2930	-596.	41.	-1362.	4568.	-421.	-2156.	.0179	-.0123	-.0359	.0339	-.0409	.0102	2034.
.2940	-812.	-7.	-1237.	4238.	-529.	-1878.	.0248	-.0098	-.0377	.0372	-.0424	.0007	1872.
.2950	-995.	-8.	-1122.	3802.	-600.	-1631.	.0316	-.0073	-.0392	.0405	-.0435	-.0080	1673.
.2960	-1131.	-24.	-1025.	3263.	-611.	-1336.	.0380	-.0047	-.0400	.0437	-.0474	-.0154	1436.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.37.

S/RV PIPING KEWAUNEE GKW03F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	TIME	MEMBER 1			SEQUENCE 57			LOCATION END			TYPE	RX	RY	RZ	STRESS
		FX	FY	FZ	MX	MY	MZ	DX	DY	DZ					
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2970	-1225.	-124.	-961.	2652.	-561.	-1079.	.0435	-.0023	-.0401	.0472	-.0414	-.0211	1171.		
.2980	-1276.	-222.	-893.	1995.	-468.	-823.	.0477	-.0001	-.0392	.0506	-.0375	-.0249	886.		
.2990	-1272.	-212.	-809.	1307.	-754.	-579.	.0504	.0016	-.0374	.0539	-.0320	-.0268	591.		
.3000	-1217.	-163.	-739.	604.	-244.	-355.	.0513	.0027	-.0347	.0576	-.0251	-.0268	298.		
.3010	-1140.	-197.	-718.	-98.	-166.	-146.	.0504	.0034	-.0312	.0619	-.0172	-.0251	97.		
.3020	-1055.	-259.	-731.	-790.	-142.	57.	.0480	.0035	-.0270	.0667	-.0091	-.0219	323.		
.3030	-940.	-209.	-737.	-1471.	-165.	248.	.0442	.0029	-.0222	.0720	-.0011	-.0174	602.		
.3040	-778.	-83.	-726.	-2135.	-207.	403.	.0394	.0016	-.0168	.0775	.0069	-.0117	876.		
.3050	-573.	-29.	-701.	-2768.	-251.	509.	.0341	-.0001	-.0109	.0830	.0150	-.0049	1134.		
.3060	-335.	-41.	-637.	-3353.	-290.	575.	.0285	-.0022	-.0047	.0881	.0232	.0026	1370.		
.3070	-77.	13.	-507.	-3871.	-321.	628.	.0230	-.0048	.0016	.0925	.0311	.0103	1579.		
.3080	169.	163.	-325.	-4309.	-342.	695.	.0177	-.0079	.0076	.0958	.0384	.0178	1757.		
.3090	357.	304.	-137.	-4652.	-363.	791.	.0128	-.0112	.0131	.0982	.0448	.0244	1899.		
.3100	466.	397.	24.	-4900.	-406.	925.	.0081	-.0146	.0177	.0997	.0498	.0299	2008.		
.3110	495.	493.	162.	-5050.	-481.	1099.	.0039	-.0178	.0213	.1001	.0532	.0339	2083.		
.3120	454.	602.	287.	-5095.	-578.	1300.	.0000	-.0208	.0239	.0994	.0548	.0368	2123.		
.3130	367.	684.	407.	-5031.	-682.	1501.	-.0033	-.0235	.0256	.0976	.0548	.0385	2124.		
.3140	273.	748.	535.	-4864.	-781.	1670.	-.0062	-.0256	.0265	.0947	.0535	.0394	2087.		
.3150	195.	827.	692.	-4611.	-859.	1789.	-.0087	-.0271	.0269	.0905	.0511	.0395	2015.		
.3160	130.	890.	865.	-4287.	-905.	1855.	-.0109	-.0280	.0267	.0855	.0479	.0389	1909.		
.3170	66.	892.	1013.	-3910.	-919.	1877.	-.0128	-.0283	.0262	.0801	.0440	.0377	1779.		
.3180	3.	865.	1100.	-3516.	-913.	1861.	-.0148	-.0279	.0253	.0748	.0394	.0354	1638.		
.3190	-56.	844.	1105.	-3136.	-894.	1809.	-.0168	-.0269	.0241	.0700	.0340	.0325	1496.		
.3200	-119.	764.	1013.	-2780.	-865.	1726.	-.0191	-.0253	.0228	.0659	.0279	.0287	1358.		
.3210	-194.	545.	830.	-2443.	-831.	1625.	-.0216	-.0231	.0215	.0627	.0217	.0241	1224.		
.3220	-263.	245.	598.	-2122.	-795.	1514.	-.0242	-.0205	.0204	.0602	.0155	.0190	1094.		
.3230	-301.	-12.	384.	-1823.	-756.	1390.	-.0267	-.0177	.0196	.0581	.0098	.0134	969.		
.3240	-295.	-223.	215.	-1555.	-700.	1246.	-.0291	-.0151	.0193	.0563	.0050	.0075	847.		
.3250	-260.	-469.	84.	-1324.	-626.	1084.	-.0310	-.0125	.0195	.0549	.0015	.0015	731.		
.3260	-218.	-743.	-14.	-1149.	-544.	917.	-.0325	-.0103	.0199	.0539	-.0009	-.0047	629.		
.3270	-174.	-930.	-88.	-1061.	-465.	754.	-.0333	-.0087	.0204	.0534	-.0026	-.0108	555.		
.3280	-124.	-990.	-167.	-1076.	-394.	598.	-.0334	-.0078	.0209	.0537	-.0037	-.0168	519.		
.3290	-90.	-1020.	-275.	-1185.	-331.	452.	-.0328	-.0076	.0211	.0546	-.0043	-.0224	526.		
.3300	-97.	-1077.	-400.	-1360.	-281.	335.	-.0315	-.0082	.0211	.0559	-.0044	-.0279	573.		
.3310	-135.	-1103.	-501.	-1562.	-245.	262.	-.0295	-.0096	.0208	.0572	-.0042	-.0330	643.		
.3320	-177.	-1037.	-545.	-1757.	-217.	136.	-.0267	-.0119	.0204	.0581	-.0035	-.0373	717.		
.3330	-211.	-920.	-518.	-1914.	-187.	247.	-.0234	-.0150	.0199	.0585	-.0020	-.0408	778.		
.3340	-242.	-822.	-422.	-2015.	-159.	282.	-.0197	-.0189	.0194	.0582	.0002	-.0433	819.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.37.

S/RV PIPING KEWAUNEE GKW03F 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

.3240	-295.	-222.	215.	-1555.	-700.	1246.	-.0291	-.0151	.0193	.0563	.0050	.0075	847.
.3250	-260.	-469.	84.	-1324.	-626.	1084.	-.0310	-.0125	.0195	.0549	.0015	.0015	731.
.3260	-218.	-743.	-14.	-1149.	-544.	917.	-.0325	-.0103	.0199	.0539	-.0009	-.0047	629.
.3270	-174.	-970.	-88.	-1061.	-465.	754.	-.0333	-.0087	.0204	.0534	-.0026	-.0108	555.
.3280	-124.	-990.	-167.	-1076.	-394.	598.	-.0334	-.0079	.0209	.0537	-.0037	-.0168	519.
.3290	-90.	-1020.	-275.	-1185.	-331.	452.	-.0328	-.0076	.0211	.0546	-.0043	-.0224	526.
.3300	-97.	-1077.	-400.	-1360.	-281.	335.	-.0315	-.0082	.0211	.0559	-.0044	-.0279	573.
.3310	-135.	-1103.	-501.	-1562.	-245.	262.	-.0295	-.0096	.0208	.0572	-.0042	-.0330	643.
.3320	-177.	-1037.	-545.	-1757.	-217.	236.	-.0267	-.0119	.0204	.0581	-.0035	-.0373	717.
.3330	-211.	-920.	-512.	-1714.	-187.	247.	-.0234	-.0150	.0199	.0585	-.0020	-.0408	778.
.3340	-242.	-822.	-422.	-2015.	-159.	282.	-.0197	-.0189	.0194	.0582	.0002	-.0433	819.

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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	32	MEMBER	1	SEQUENCE	57	LOCATION	END	TYPE	RU							STRESS										
TIME	(SEC)	FX	(LB)	FY	(LB)	FZ	(LB)	MX	(FT-LB)	MY	(FT-LB)	MZ	(FT-LB)	DX	(IN)	DY	(IN)	DZ	(IN)	RX	(DEG)	RY	(DEG)	RZ	(DEG)	(PSI)
.3350		-266.		-731.		-267.		-2063.		-145.		335.		-.0157		-.0233		.0188		.0572		.0031		-.0448		841.
.3360		-288.		-617.		-77.		-2071.		-147.		405.		-.0117		-.0281		.0182		.0558		.0066		-.0453		849.
.3370		-317.		-500.		108.		-2058.		-164.		484.		-.0079		-.0331		.0175		.0542		.0105		-.0449		851.
.3380		-357.		-409.		251.		-2044.		-199.		562.		-.0044		-.0380		.0166		.0525		.0147		-.0437		854.
.3390		-403.		-335.		344.		-2046.		-245.		629.		-.0014		-.0426		.0156		.0509		.0193		-.0418		865.
.3400		-447.		-257.		404.		-2071.		-288.		679.		.0011		-.0469		.0146		.0491		.0243		-.0394		882.
.3410		-477.		-171.		448.		-2115.		-313.		708.		.0030		-.0507		.0137		.0471		.0297		-.0366		904.
.3420		-476.		-81.		480.		-2176.		-318.		713.		.0044		-.0538		.0130		.0449		.0356		-.0334		928.
.3430		-432.		18.		508.		-2255.		-306.		696.		.0053		-.0562		.0126		.0423		.0417		-.0300		955.
.3440		-351.		123.		541.		-2345.		-277.		660.		.0056		-.0578		.0126		.0394		.0479		-.0267		984.
.3450		-249.		219.		579.		-2436.		-239.		619.		.0056		-.0585		.0128		.0361		.0540		-.0239		1013.
.3460		-142.		289.		612.		-2518.		-205.		592.		.0051		-.0584		.0132		.0327		.0598		-.0217		1041.
.3470		-41.		338.		633.		-2580.		-183.		590.		.0044		-.0575		.0138		.0291		.0649		-.0204		1065.
.3480		49.		380.		642.		-2613.		-168.		616.		.0035		-.0560		.0144		.0253		.0593		-.0200		1079.
.3490		124.		409.		647.		-2604.		-148.		666.		.0027		-.0540		.0149		.0213		.0728		-.0207		1080.
.3500		174.		399.		652.		-2543.		-113.		737.		.0021		-.0517		.0153		.0172		.0754		-.0224		1063.
.3510		198.		344.		661.		-2429.		-62.		820.		.0020		-.0490		.0154		.0128		.0771		-.0251		1029.
.3520		203.		268.		669.		-2267.		5.		900.		.0024		-.0462		.0152		.0086		.0779		-.0285		979.
.3530		191.		179.		669.		-2063.		88.		960.		.0034		-.0434		.0145		.0045		.0775		-.0325		914.
.3540		153.		67.		658.		-1820.		175.		985.		.0049		-.0406		.0134		.0008		.0760		-.0369		833.
.3550		79.		-68.		636.		-1539.		248.		971.		.0069		-.0379		.0118		-.0024		.0734		-.0418		737.
.3560		-27.		-209.		604.		-1219.		291.		914.		.0091		-.0354		.0096		-.0052		.0696		-.0467		622.
.3570		-162.		-329.		565.		-863.		303.		813.		.0114		-.0331		.0070		-.0073		.0649		-.0516		491.
.3580		-316.		-418.		520.		-478.		289.		670.		.0137		-.0311		.0041		-.0088		.0596		-.0562		350.
.3590		-482.		-479.		470.		-75.		258.		488.		.0156		-.0294		.0011		-.0099		.0539		-.0604		224.
.3600		-649.		-528.		409.		329.		220.		279.		.0170		-.0278		-.0018		-.0103		.0479		-.0639		194.
.3610		-803.		-576.		326.		719.		188.		50.		.0178		-.0263		-.0045		-.0101		.0418		-.0665		299.
.3620		-926.		-621.		213.		1082.		169.		-195.		.0178		-.0249		-.0068		-.0093		.0356		-.0680		446.
.3630		-1002.		-650.		72.		1411.		158.		-452.		.0169		-.0234		-.0086		-.0079		.0292		-.0683		598.
.3640		-1022.		-651.		-81.		1711.		148.		-720.		.0151		-.0219		-.0097		-.0061		.0224		-.0674		747.
.3650		-986.		-635.		-226.		1996.		131.		-993.		.0123		-.0202		-.0102		-.0043		.0153		-.0653		896.
.3660		-895.		-616.		-347.		2280.		97.		-1262.		.0086		-.0183		-.0101		-.0026		.0080		-.0620		1046.
.3670		-752.		-596.		-436.		2571.		44.		-1522.		.0040		-.0162		-.0094		-.0013		.0005		-.0577		1199.
.3680		-567.		-557.		-489.		2862.		-23.		-1774.		-.0011		-.0138		-.0082		-.0005		-.0068		-.0524		1351.
.3690		-347.		-484.		-511.		3136.		-89.		-2018.		-.0066		-.0112		-.0068		-.0004		-.0139		-.0463		1497.
.3700		-108.		-396.		-526.		3373.		-138.		-2246.		-.0122		-.0084		-.0054		-.0009		-.0203		-.0398		1627.
.3710		124.		-329.		-550.		3558.		-161.		-2447.		-.0176		-.0054		-.0040		-.0018		-.0259		-.0331		1734.
.3720		327.		-292.		-620.		3684.		-150.		-2611.		-.0225		-.0023		-.0030		-.0032		-.0307		-.0265		1813.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.37.

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

.3610	-802.	-578.	113.	1082.	169.	-195.	.178	-.0249	-.0068	-.0093	.0356	-.0680	446.
.3620	-926.	-621.	72.	1411.	158.	-452.	.0169	-.0234	-.0086	-.0079	.0292	-.0683	598.
.3630	-1002.	-650.	-81.	1711.	148.	-720.	.0151	-.0219	-.0097	-.0061	.0224	-.0674	747.
.3640	-1022.	-651.	-81.	1711.	148.	-720.	.0151	-.0219	-.0097	-.0061	.0224	-.0674	747.
.3650	-984.	-635.	-226.	1996.	131.	-993.	.0123	-.0202	-.0102	-.0043	.0153	-.0653	896.
.3660	-895.	-616.	-347.	2280.	97.	-1262.	.0066	-.0183	-.0101	-.0026	.0080	-.0620	1046.
.3670	-752.	-598.	-436.	2571.	44.	-1522.	.0040	-.0162	-.0094	-.0013	.0005	-.0577	1199.
.3680	-567.	-557.	-489.	2862.	-23.	-1774.	-.0011	-.0138	-.0082	-.0005	-.0068	-.0524	1351.
.3690	-347.	-484.	-511.	3176.	-89.	-2018.	-.0066	-.0112	-.0068	-.0004	-.0139	-.0463	1497.
.3700	-108.	-396.	-526.	3373.	-138.	-2246.	-.0122	-.0084	-.0054	-.0009	-.0203	-.0398	1627.
.3710	124.	-329.	-556.	3558.	-161.	-2447.	-.0176	-.0054	-.0040	-.0018	-.0259	-.0331	1734.
.3720	327.	-292.	-620.	3684.	-150.	-2611.	-.0225	-.0023	-.0030	-.0032	-.0307	-.0265	1813.

ADLPIPE PAGE 1395

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.37.

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	32	MEMBER	1	SEQUENCE	57	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3730	495.	-248.	-708.	3752.	-102.	-2737.	-.0266	.0006	-.0023	-.0050	-.0349	-.0203	1864.		
.3740	627.	-169.	-801.	3772.	-22.	-2827.	-.0296	.0033	-.0022	-.0073	-.0384	-.0148	1891.		
.3750	714.	-94.	-878.	3767.	76.	-2879.	-.0314	.0057	-.0026	-.0103	-.0415	-.0103	1903.		
.3760	748.	-75.	-923.	3761.	174.	-2895.	-.0318	.0076	-.0036	-.0139	-.0444	-.0068	1906.		
.3770	739.	-100.	-926.	3763.	263.	-2878.	-.0308	.0089	-.0049	-.0181	-.0473	-.0044	1904.		
.3780	705.	-121.	-881.	3768.	343.	-2842.	-.0285	.0096	-.0066	-.0227	-.0504	-.0030	1899.		
.3790	656.	-125.	-792.	3762.	416.	-2795.	-.0250	.0094	-.0086	-.0275	-.0534	-.0024	1888.		
.3800	591.	-134.	-676.	3731.	485.	-2734.	-.0206	.0084	-.0106	-.0324	-.0563	-.0027	1866.		
.3810	515.	-131.	-542.	3659.	552.	-2654.	-.0154	.0067	-.0125	-.0370	-.0588	-.0036	1827.		
.3820	428.	-132.	-412.	3538.	625.	-2551.	-.0099	.0044	-.0143	-.0412	-.0604	-.0049	1768.		
.3830	335.	-145.	-299.	3366.	704.	-2430.	-.0044	.0015	-.0156	-.0447	-.0609	-.0064	1690.		
.3840	252.	-132.	-196.	3114.	780.	-2300.	.0006	-.0018	-.0165	-.0477	-.0602	-.0077	1594.		
.3850	184.	-99.	-98.	2880.	843.	-2167.	.0049	-.0054	-.0168	-.0499	-.0581	-.0085	1485.		
.3860	127.	-96.	-12.	2590.	883.	-2034.	.0082	-.0091	-.0165	-.0513	-.0545	-.0088	1368.		
.3870	85.	-108.	61.	2285.	892.	-1905.	.0103	-.0130	-.0155	-.0519	-.0492	-.0083	1246.		
.3880	72.	-39.	133.	1967.	867.	-1790.	.0111	-.0169	-.0138	-.0515	-.0427	-.0069	1123.		
.3890	96.	146.	214.	1635.	814.	-1695.	.0108	-.0207	-.0115	-.0503	-.0349	-.0046	1000.		
.3900	144.	343.	295.	1299.	740.	-1618.	.0093	-.0240	-.0087	-.0482	-.0260	-.0014	884.		
.3910	199.	448.	359.	974.	647.	-1553.	.0069	-.0265	-.0055	-.0452	-.0163	.0027	780.		
.3920	267.	493.	406.	666.	543.	-1499.	.0038	-.0280	-.0020	-.0413	-.0060	.0076	693.		
.3930	360.	568.	442.	381.	441.	-1454.	.0001	-.0287	.0015	-.0367	.0042	.0132	629.		
.3940	468.	676.	467.	171.	350.	-1411.	-.0039	-.0284	.0049	-.0316	.0142	.0192	586.		
.3950	554.	737.	475.	-63.	265.	-1349.	-.0080	-.0271	.0080	-.0262	.0237	.0252	552.		
.3960	595.	730.	467.	-187.	182.	-1243.	-.0120	-.0249	.0107	-.0207	.0324	.0309	510.		
.3970	589.	718.	453.	-241.	100.	-1087.	-.0158	-.0219	.0129	-.0152	.0401	.0360	449.		
.3980	551.	739.	440.	-231.	25.	-893.	-.0192	-.0181	.0145	-.0100	.0467	.0406	370.		
.3990	492.	765.	431.	-164.	-40.	-683.	-.0222	-.0136	.0155	-.0050	.0518	.0446	283.		
.4000	415.	743.	425.	-52.	-94.	-472.	-.0245	-.0086	.0159	-.0006	.0556	.0480	194.		

MAXIMUM VALUE OF STRESS OCCURS AT

TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.0620	-1285.	-2573.	585.	-9384.	-322.	3979.	.0209	.0011	.0497	.0808	.1453	-.0512	4092.

SECTION	32	MEMBER	2	SEQUENCE	815	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.37.

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

4000 415. 743. 425. -52. -94. -472. -10245 -10086 .0159 -1.0006 .0556 .0480 194.

MAXIMUM VALUE OF STRESS OCCURS AT

Table with 14 columns: 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). Row 1: .0620, -1285., -2573., 585., -9384., -722., 3979., .0209, .0011, .0497, .0808, .1453, -.0512, 4092.

Table with 14 columns: SECTION, TIME (SEC), FX (LB), FY (LB), FZ (LB), MX (FT-LB), MY (FT-LB), MZ (FT-LB), DX (IN), DY (IN), DZ (IN), RX (DEG), RY (DEG), RZ (DEG), STRESS (PSI). Row 1: 32, .0620, -1285., -2573., 585., -9384., -722., 3979., .0209, .0011, .0497, .0808, .1453, -.0512, 4092.

ADLPIPE PAGE 1396 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.27.37.

S/RV PIPING KEVAUNEE 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

Large table with 14 columns: SECTION, TIME (SEC), FX (LB), FY (LB), FZ (LB), MX (FT-LB), MY (FT-LB), MZ (FT-LB), DX (IN), DY (IN), DZ (IN), RX (DEG), RY (DEG), RZ (DEG), STRESS (PSI). Rows range from 0.0000 to 0.3700.

ADLPIPE PAGE 1397 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.27.37.

S/RV PIPING KEVAUNEE 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

.0270	-297.	-890.	1631.	-1061.	-857.	3227.	.0320	.0008	.0230	.0190	.0708	-.0388	1406.
.0280	-154.	-1030.	554.	-3234.	-570.	3227.	.0343	.0021	.0201	.0266	.0643	-.0387	1848.
.0290	-1306.	-1436.	576.	-3821.	-35.	4804.	.0350	.0036	.0180	.0264	.0442	-.0452	2463.
.0300	-1292.	-1785.	13.	-5056.	453.	4552.	.0355	.0048	.0167	.0304	.0262	-.0440	2736.
.0310	274.	-2086.	-1170.	-6861.	769.	1929.	.0359	.0059	.0167	.0390	.0164	-.0322	2877.
.0320	1321.	-2439.	-1122.	-6455.	889.	-263.	.0340	.0069	.0193	.0402	.0348	-.0218	2617.
.0330	1375.	-2261.	484.	-3253.	713.	-982.	.0287	.0079	.0236	.0313	-.0080	-.0167	1393.
.0340	1474.	-1435.	2128.	448.	325.	-1413.	.0205	.0090	.0268	.0201	-.0160	-.0114	609.
.0350	1562.	-935.	2731.	2696.	36.	-1818.	.0106	.0101	.0259	.0114	-.0267	-.0056	1305.
.0360	1762.	-1229.	2076.	2853.	-15.	-1919.	-.0001	.0111	.0196	.0071	-.0464	-.0005	1380.
.0370	1129.	-1558.	207.	934.	94.	-2174.	-.0103	.0122	.0093	.0088	-.0538	.0065	950.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.37.

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	32	MEMBER	2	SEQUENCE	815	LOCATION	END	TYPE	RU					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.0380	1034.	-1391.	-2005.	-1758.	400.	-2074.	-.0191	.0134	-.0020	.0121	-.0703	.0129	1103.	
.0390	-101.	-1040.	-3037.	-3030.	1007.	-341.	-.0261	.0145	-.0111	.0085	-.0759	.0108	1289.	
.0400	-1485.	-660.	-2722.	-2484.	1726.	1282.	-.0301	.0148	-.0167	-.0017	-.0891	.0053	1318.	
.0410	-643.	-49.	-2898.	-2434.	2168.	-481.	-.0297	.0141	-.0200	-.0057	-.0947	.0123	1322.	
.0420	1386.	235.	-3143.	-2065.	2200.	-4096.	-.0270	.0127	-.0211	-.0070	-.0935	.0271	2042.	
.0430	1755.	159.	-2323.	-410.	1873.	-5072.	-.0257	.0115	-.0201	-.0103	-.0968	.0303	2176.	
.0440	845.	898.	-413.	2623.	1141.	-3733.	-.0268	.0103	-.0179	-.0172	-.1025	.0232	1887.	
.0450	441.	2264.	851.	4637.	263.	-2667.	-.0287	.0086	-.0164	-.0202	-.1002	.0174	2149.	
.0460	447.	2700.	743.	4570.	-338.	-2063.	-.0303	.0065	-.0165	-.0170	-.0942	.0145	2017.	
.0470	-34.	1921.	330.	3973.	-504.	-941.	-.0310	.0040	-.0173	-.0139	-.0955	.0106	1651.	
.0480	-401.	1244.	53.	3312.	-306.	-126.	-.0301	.0013	-.0178	-.0122	-.0966	.0089	1336.	
.0490	62.	1278.	-657.	1403.	168.	-526.	-.0275	-.0013	-.0172	-.0072	-.0829	.0122	605.	
.0500	557.	1468.	-1337.	-983.	703.	-1110.	-.0247	-.0035	-.0150	-.0007	-.0585	.0148	659.	
.0510	357.	1578.	-1357.	-2535.	997.	-656.	-.0230	-.0053	-.0110	.0046	-.0338	.0120	1124.	
.0520	-107.	1772.	-996.	-3375.	912.	391.	-.0224	-.0070	-.0055	.0101	-.0100	.0067	1412.	
.0530	-290.	1847.	-641.	-3984.	469.	969.	-.0221	-.0089	.0008	.0168	.0137	.0028	1656.	
.0540	-132.	1710.	-31.	-3973.	-300.	709.	-.0218	-.0104	.0076	.0230	.0349	.0006	1624.	
.0550	199.	1713.	1080.	-3060.	-1229.	-2.	-.0212	-.0112	.0147	.0265	.0528	-.0010	1323.	
.0560	430.	1826.	2209.	-2050.	-1982.	-436.	-.0202	-.0114	.0211	.0281	.0591	-.0036	1158.	
.0570	327.	1393.	2580.	-2062.	-2347.	5.	-.0187	-.0110	.0257	.0317	.0353	-.0082	1254.	
.0580	-180.	128.	2088.	-3257.	-2303.	1509.	-.0164	-.0097	.0284	.0384	.1009	-.0158	1712.	
.0590	-1014.	-1351.	1350.	-4957.	-1866.	3733.	-.0129	-.0074	.0298	.0452	.1152	-.0263	2601.	
.0600	-1763.	-2225.	811.	-6686.	-1177.	5686.	-.0074	-.0047	.0310	.0506	.1283	-.0366	3554.	
.0610	-1881.	-2433.	570.	-8050.	-578.	6275.	.0004	-.0020	.0321	.0556	.1390	-.0419	4102.	
.0620	-1285.	-2573.	585.	-8727.	-322.	5425.	.0097	.0010	.0332	.0610	.1444	-.0409	4125.	
.0630	-531.	-2950.	938.	-8469.	-406.	4149.	.0185	.0043	.0341	.0652	.1420	-.0376	3788.	
.0640	-47.	-3087.	1723.	-8141.	-799.	3305.	.0250	.0075	.0347	.0661	.1329	-.0359	3174.	
.0650	131.	-2561.	2895.	-4778.	-1460.	3108.	.0283	.0105	.0346	.0632	.1212	-.0363	2361.	
.0660	-87.	-1800.	4068.	-2150.	-2122.	3664.	.0285	.0136	.0326	.0579	.1099	-.0381	1906.	
.0670	-645.	-1373.	4573.	-594.	-2443.	4653.	.0269	.0166	.0278	.0537	.0990	-.0393	2123.	
.0680	-929.	-1122.	3800.	-1202.	-2305.	5075.	.0247	.0190	.0199	.0545	.0898	-.0365	2288.	
.0690	-663.	-724.	1974.	-3599.	-1730.	4601.	.0225	.0202	.0101	.0599	.0840	-.0295	2445.	
.0700	-516.	-327.	186.	-6058.	-792.	4162.	.0199	.0204	.0005	.0638	.0796	-.0235	2967.	
.0710	-760.	62.	-888.	-7402.	196.	4093.	.0165	.0197	-.0071	.0634	.0746	-.0204	3395.	
.0720	-699.	770.	-1484.	-7723.	790.	3516.	.0123	.0177	-.0125	.0623	.0711	-.0168	3420.	
.0730	-215.	1596.	-1700.	-6995.	848.	2332.	.0074	.0149	-.0159	.0610	.0665	-.0122	2978.	
.0740	-73.	1931.	-1207.	-4762.	550.	1528.	.0016	.0115	-.0179	.0561	.0529	-.0113	2019.	
.0750	-283.	1873.	-259.	-1581.	43.	1086.	-.0047	.0076	-.0194	.0483	.0286	-.0139	770.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.37.

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

.0640	-47.	-1387.	222.	-7141.	-799.	3305.	.0250	.0071	.0347	.0661	.1329	-.0359	3174.
.0650	131.	-2561.	2895.	-4778.	-1460.	3108.	.0283	.0105	.0346	.0632	.1212	-.0363	2361.
.0660	-87.	-1800.	4068.	-2150.	-2122.	3664.	.0285	.0136	.0326	.0579	.1099	-.0381	1906.
.0670	-645.	-1372.	4573.	-594.	-2442.	4653.	.0269	.0166	.0278	.0537	.0990	-.0393	2123.
.0680	-929.	-1122.	3800.	-1202.	-2305.	5075.	.0247	.0190	.0199	.0545	.0598	-.0365	2288.
.0690	-663.	-724.	1974.	-7599.	-1730.	4601.	.0225	.0202	.0101	.0599	.0340	-.0295	2445.
.0700	-516.	-327.	186.	-6052.	-792.	4162.	.0199	.0204	.0005	.0638	.0796	-.0235	2967.
.0710	-760.	62.	-888.	-7402.	196.	4093.	.0165	.0197	-.0071	.0634	.0746	-.0204	3395.
.0720	-699.	770.	-1484.	-7723.	790.	3510.	.0123	.0177	-.0125	.0623	.0711	-.0168	3420.
.0730	-215.	1596.	-1700.	-6995.	848.	2332.	.0074	.0149	-.0159	.0610	.0565	-.0122	2978.
.0740	-73.	1931.	-1207.	-4762.	550.	1528.	.0016	.0115	-.0179	.0561	.0529	-.0113	2019.
.0750	-263.	1073.	-259.	-1501.	43.	1056.	-.0047	.0076	-.0194	.0483	.0286	-.0139	770.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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

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

SECTION	32	MEMBER	2	SEQUENCE	015	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ				DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)			(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.0760	-114.	1954.	310.	1005.	-536.	30.			-.0100	.0031	-.0219	.0426	.0006	-.0148	457.
.0770	408.	2041.	144.	2142.	-900.	-1605.			-.0138	-.0015	-.0258	.0408	-.0256	-.0128	1133.
.0780	678.	1697.	-526.	2031.	-834.	-2928.			-.0161	-.0058	-.0306	.0409	-.0479	-.0108	1468.
.0790	702.	1182.	-1514.	1032.	-388.	-3697.			-.0173	-.0097	-.0352	.0420	-.0522	-.0097	1548.
.0800	707.	1006.	-2562.	-330.	297.	-4028.			-.0178	-.0132	-.0383	.0429	-.0552	-.0091	1626.
.0810	419.	1045.	-3118.	-1141.	1091.	-3668.			-.0179	-.0161	-.0393	.0407	-.0509	-.0103	1602.
.0820	-124.	987.	-3033.	-1072.	1739.	-2933.			-.0174	-.0181	-.0383	.0359	-.0552	-.0121	1434.
.0830	-256.	958.	-2776.	-728.	1969.	-2848.			-.0160	-.0192	-.0364	.0324	-.0492	-.0107	1420.
.0840	92.	1071.	-2547.	-415.	1781.	-3461.			-.0139	-.0195	-.0342	.0311	-.0452	-.0062	1571.
.0850	203.	1070.	-2081.	208.	1374.	-3674.			-.0115	-.0188	-.0317	.0292	-.0488	-.0038	1576.
.0860	-87.	797.	-1495.	954.	909.	-3080.			-.0087	-.0170	-.0289	.0274	-.0593	-.0053	1344.
.0870	-280.	361.	-1247.	1087.	534.	-2274.			-.0049	-.0144	-.0256	.0284	-.0593	-.0076	1034.
.0880	-256.	-197.	-1275.	604.	435.	-1565.			.0005	-.0110	-.0209	.0313	-.0749	-.0092	696.
.0890	-193.	-893.	-1087.	271.	673.	-944.			.0072	-.0072	-.0142	.0328	-.0769	-.0106	478.
.0900	115.	-1584.	-550.	468.	1115.	-820.			.0147	-.0031	-.0058	.0317	-.0753	-.0102	586.
.0910	865.	-2139.	106.	1052.	1566.	-1491.			.0215	.0011	.0034	.0287	-.0694	-.0064	965.
.0920	1671.	-2620.	755.	1956.	1824.	-2366.			.0259	.0052	.0117	.0240	-.0617	-.0011	1433.
.0930	1984.	-3100.	1351.	3174.	1714.	-2536.			.0262	.0093	.0177	.0177	-.0549	-.0025	1769.
.0940	1644.	-3420.	1733.	4395.	1224.	-1686.			.0220	.0134	.0203	.0110	-.0486	.0032	1952.
.0950	869.	-3631.	1773.	5246.	544.	-219.			.0145	.0175	.0195	.0041	-.0416	.0021	2118.
.0960	57.	-3422.	1498.	5616.	-98.	1131.			.0057	.0213	.0159	-.0030	-.0338	.0017	2299.
.0970	-432.	-2979.	1019.	5648.	-526.	1752.			-.0022	.0249	.0105	-.0104	-.0252	.0044	2382.
.0980	-527.	-2535.	498.	5605.	-620.	1532.			-.0080	.0286	.0044	-.0189	-.0143	.0103	2345.
.0990	-400.	-2087.	138.	5796.	-400.	802.			-.0115	.0324	-.0018	-.0294	-.0009	.0177	2354.
.1000	-266.	-1399.	49.	6384.	-62.	64.			-.0135	.0365	-.0080	-.0415	.0136	.0240	2562.
.1010	-766.	-496.	110.	7185.	190.	-151.			-.0149	.0408	-.0150	-.0536	.0261	.0267	2885.
.1020	-899.	231.	48.	7757.	270.	471.			-.0161	.0454	-.0236	-.0633	.0332	.0247	3120.
.1030	-1734.	610.	-358.	7697.	146.	1641.			-.0167	.0495	-.0337	-.0687	.0321	.0191	3159.
.1040	-2431.	921.	-1107.	6865.	-151.	2619.			-.0158	.0524	-.0444	-.0686	.0230	.0122	2949.
.1050	-2724.	1209.	-1947.	5547.	-464.	2932.			-.0126	.0538	-.0537	-.0642	.0091	.0058	2523.
.1060	-2636.	1284.	-2503.	4309.	-632.	2631.			-.0069	.0536	-.0593	-.0579	-.0050	.0000	2042.
.1070	-2190.	1274.	-2487.	3738.	-639.	1912.			.0008	.0517	-.0597	-.0519	-.0150	-.0052	1704.
.1080	-1568.	1555.	-1755.	4060.	-530.	1094.			.0092	.0482	-.0551	-.0475	-.0204	-.0106	1701.
.1090	-910.	1954.	-657.	4661.	-369.	194.			.0170	.0435	-.0468	-.0435	-.0210	-.0156	1878.
.1100	-0.	1478.	-20.	4758.	-350.	-900.			.0228	.0387	-.0372	-.0370	-.0081	-.0175	1948.
.1110	278.	1154.	801.	5070.	-516.	-1148.			.0253	.0330	-.0283	-.0328	.0055	-.0211	2096.
.1120	-51.	2276.	1743.	5247.	-786.	-579.			.0247	.0256	-.0217	-.0314	.0112	-.0269	2142.
.1130	-297.	3289.	1425.	3412.	-1031.	-231.			.0222	.0180	-.0191	-.0253	.0160	-.0293	1435.

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

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

.1030	-1734.	610.	-358.	7697.	146.	1641.	-.0167	.0495	-.0337	-.0687	.0321	.0191	3159.
.1040	-2431.	921.	-1107.	6865.	-151.	2619.	-.0158	.0524	-.0444	-.0686	.0230	.0122	2949.
.1050	-2724.	1209.	-1947.	5544.	-464.	2932.	-.0126	.0538	-.0537	-.0642	.0091	.0058	2523.
.1060	-2636.	1284.	-2503.	4309.	-632.	2631.	-.0069	.0536	-.0593	-.0579	-.0050	.0000	2042.
.1070	-2190.	1274.	-2487.	3778.	-639.	1912.	.0008	.0517	-.0597	-.0519	-.0150	-.0052	1704.
.1080	-1568.	1555.	-1755.	4960.	-530.	1094.	.0092	.0482	-.0551	-.0475	-.0204	-.0106	1701.
.1090	-910.	1954.	-657.	4661.	-369.	174.	.0170	.0435	-.0468	-.0435	-.0210	-.0156	1878.
.1100	-0.	1478.	-20.	4758.	-750.	-900.	.0228	.0387	-.0372	-.0370	-.0081	-.0175	1948.
.1110	278.	1154.	801.	5070.	-516.	-1148.	.0253	.0330	-.0283	-.0328	.0055	-.0211	2096.
.1120	-91.	2276.	1748.	5247.	-786.	-579.	.0247	.0256	-.0217	-.0314	.0112	-.0269	2142.
.1130	-297.	3289.	1425.	3412.	-1031.	-231.	.0222	.0180	-.0191	-.0253	.0160	-.0293	1435.

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ADLPIPE STRESS ANALYSIS

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2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

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

SECTION	32	MEMBER	2	SEQUENCE	815	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1140	-357.	2641.	-410.	-624.	-1165.	-282.	.0189	.0121	-.0193	-.0127	.0235	-.0276	542.		
.1150	-701.	1545.	-2229.	-4768.	-1160.	37.	.0160	.0082	-.0193	-.0008	.0303	-.0261	1969.		
.1160	-953.	1947.	-2941.	-7447.	-983.	534.	.0147	.0056	-.0161	.0048	.0387	-.0242	3022.		
.1170	-852.	2793.	-2712.	-8548.	-604.	650.	.0158	.0046	-.0085	.0047	.0505	-.0206	3449.		
.1180	-216.	2145.	-2236.	-8424.	-198.	221.	.0193	.0061	.0024	.0020	.0647	-.0139	3382.		
.1190	-34.	491.	-883.	-6357.	172.	350.	.0241	.0090	.0150	-.0076	.0632	-.0098	2556.		
.1200	232.	-166.	900.	-3466.	399.	302.	.0297	.0121	.0265	-.0210	.0453	-.0051	1405.		
.1210	1534.	-80.	1596.	-2018.	322.	-1137.	.0355	.0167	.0341	-.0286	.0261	.0070	939.		
.1220	2210.	-1246.	1549.	-1605.	25.	-1879.	.0395	.0229	.0373	-.0731	.0037	.0178	992.		
.1230	1906.	-2595.	1383.	-1406.	-388.	-1055.	.0411	.0312	.0375	-.0387	-.0187	.0239	722.		
.1240	1072.	-2581.	1471.	-1054.	-628.	836.	.0412	.0393	.0365	-.0481	-.0378	.0266	596.		
.1250	466.	-2116.	1380.	-999.	-481.	2497.	.0413	.0468	.0357	-.0587	-.0477	.0310	1096.		
.1260	509.	-2550.	928.	-1186.	11.	3085.	.0423	.0540	.0356	-.0691	-.0466	.0402	1326.		
.1270	351.	-3352.	1212.	-364.	777.	3332.	.0438	.0600	.0368	-.0846	-.0480	.0492	1381.		
.1280	958.	-2506.	1796.	678.	1480.	2106.	.0453	.0636	.0381	-.1007	-.0476	.0625	1068.		
.1290	2113.	-843.	1992.	1110.	1875.	-152.	.0451	.0651	.0379	-.1125	-.0446	.0784	876.		
.1300	2620.	-249.	1753.	1227.	1840.	-1531.	.0409	.0655	.0353	-.1203	-.0454	.0892	1079.		
.1310	2373.	-134.	1322.	1600.	1343.	-1386.	.0324	.0643	.0311	-.1264	-.0517	.0923	1006.		
.1320	1307.	450.	1288.	2807.	654.	191.	.0207	.0606	.0262	-.1347	-.0569	.0869	1159.		
.1330	588.	1236.	1129.	4030.	0.	1273.	.0090	.0547	.0216	-.1415	-.0800	.0810	1696.		
.1340	352.	1074.	827.	5025.	-373.	1236.	-.0005	.0475	.0179	-.1459	-.0871	.0775	2082.		
.1350	519.	604.	662.	5864.	-366.	183.	-.0067	.0391	.0154	-.1493	-.0896	.0757	2359.		
.1360	1361.	1209.	413.	6175.	-62.	-1792.	-.0097	.0288	.0136	-.1503	-.0851	.0759	2580.		
.1370	1705.	1893.	210.	6258.	495.	-2910.	-.0111	.0176	.0116	-.1507	-.0802	.0709	2777.		
.1380	1343.	1653.	-216.	6034.	1028.	-2676.	-.0120	.0071	.0085	-.1489	-.0749	.0594	2681.		
.1390	298.	968.	-576.	5750.	1292.	-1358.	-.0125	-.0021	.0038	-.1461	-.0749	.0426	2427.		
.1400	-640.	1070.	-833.	5209.	1177.	-375.	-.0117	-.0105	-.0024	-.1415	-.0811	.0262	2148.		
.1410	-618.	1829.	-1357.	4045.	769.	-923.	-.0081	-.0177	-.0096	-.1328	-.0873	.0163	1693.		
.1420	-665.	1729.	-1584.	3164.	386.	-1654.	-.0023	-.0227	-.0161	-.1245	-.0984	.0078	1441.		
.1430	-752.	1177.	-1461.	2667.	129.	-2258.	.0053	-.0256	-.0205	-.1177	-.1104	-.0002	1403.		
.1440	-693.	1168.	-1097.	2171.	67.	-2781.	.0142	-.0269	-.0220	-.1116	-.1180	-.0070	1416.		
.1450	-465.	1502.	-763.	1250.	261.	-3152.	.0235	-.0263	-.0208	-.1041	-.1157	-.0118	1365.		
.1460	-187.	1449.	-604.	-69.	648.	-3135.	.0322	-.0229	-.0173	-.0949	-.1029	-.0148	1285.		
.1470	-495.	859.	-193.	-1142.	1149.	-2136.	.0391	-.0173	-.0119	-.0872	-.0921	-.0193	1076.		
.1480	-397.	650.	-41.	-2519.	1550.	-1522.	.0443	-.0104	-.0059	-.0784	-.0828	-.0200	1335.		
.1490	154.	403.	-231.	-4170.	1800.	-1532.	.0474	-.0023	.0004	-.0678	-.0761	-.0163	1923.		
.1500	571.	-598.	-372.	-5422.	1839.	-1469.	.0479	.0072	.0070	-.0576	-.0732	-.0112	2372.		
.1510	1046.	-1545.	-319.	-6023.	1516.	-1374.	.0454	.0173	.0143	-.0481	-.0689	-.0048	2553.		

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

CONDITION 24

LOADS

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

.1410	-618.	1829.	-1557.	4045.	769.	-923.	-.0081	-.0177	-.0096	-.1328	-.0873	.0163	1693.
.1420	-665.	1729.	-1584.	3164.	386.	-1654.	-.0023	-.0227	-.0161	-.1245	-.0984	.0078	1441.
.1430	-752.	1177.	-1461.	2667.	129.	-2258.	.0053	-.0256	-.0205	-.1177	-.1104	-.0002	1403.
.1440	-693.	1168.	-1097.	2171.	67.	-2701.	.0142	-.0269	-.0220	-.1116	-.1180	-.0070	1416.
.1450	-465.	1502.	-763.	1250.	261.	-2152.	.0275	-.0263	-.0208	-.1041	-.1157	-.0118	1365.
.1460	-187.	1449.	-604.	-69.	648.	-2175.	.0222	-.0229	-.0173	-.0949	-.1029	-.0148	1285.
.1470	-495.	859.	-193.	-1142.	1149.	-2132.	.0391	-.0173	-.0119	-.0872	-.0921	-.0193	1076.
.1480	-397.	650.	-41.	-2519.	1550.	-1522.	.0443	-.0104	-.0059	-.0784	-.0828	-.0200	1335.
.1490	154.	403.	-231.	-4170.	1800.	-1522.	.0474	-.0023	.0004	-.0678	-.0761	-.0163	1923.
.1500	571.	-598.	-372.	-5422.	1039.	-1469.	.0479	.0072	.0070	-.0576	-.0732	-.0112	2372.
.1510	1046.	-1545.	-319.	-6023.	1516.	-1374.	.0454	.0172	.0143	-.0461	-.0639	-.0046	2553.

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

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
32	2	015					.1520	1257.	-1739.	272.	-5690.	963.	-806.	.0403	.0271	.0227	-.0418	-.0529	.0003	2338.
							.1530	1429.	-1368.	1065.	-4895.	404.	-48.	.0336	.0362	.0316	-.0373	-.0505	.0049	1971.
							.1540	1243.	-1416.	1922.	-3962.	68.	1008.	.0262	.0445	.0400	-.0344	-.0349	.0082	1641.
							.1550	1142.	-1619.	2456.	-3654.	-51.	1539.	.0194	.0516	.0466	-.0303	-.0169	.0136	1591.
							.1560	1904.	-1003.	2258.	-4559.	-81.	598.	.0136	.0567	.0505	-.0224	.0078	.0254	1845.
							.1570	2373.	-220.	1982.	-5680.	24.	-305.	.0079	.0599	.0516	-.0150	.0307	.0368	2283.
							.1580	2358.	192.	1583.	-6709.	114.	-580.	.0014	.0614	.0500	-.0078	.0522	.0450	2703.
							.1590	2121.	514.	940.	-7603.	8.	-282.	-.0063	.0607	.0464	-.0001	.0727	.0501	3053.
							.1600	1322.	932.	529.	-7741.	-263.	989.	-.0148	.0574	.0416	.0056	.0864	.0499	3134.
							.1610	253.	1366.	461.	-7044.	-623.	2678.	-.0228	.0519	.0366	.0099	.0934	.0463	3034.
							.1620	-168.	1682.	312.	-6143.	-1039.	3419.	-.0286	.0447	.0318	-.0162	.0998	.0453	2852.
							.1630	-377.	1594.	424.	-4823.	-1345.	3480.	-.0318	.0363	.0278	.0217	.1009	.0445	2447.
							.1640	-223.	1649.	725.	-3286.	-1529.	2786.	-.0324	.0268	.0246	.0266	.0990	.0443	1834.
							.1650	282.	1945.	978.	-1808.	-1602.	1641.	-.0315	.0167	.0218	.0316	.0946	.0442	1172.
							.1660	255.	1738.	1289.	-277.	-1506.	1253.	-.0303	.0068	.0188	.0353	.0877	.0397	794.
							.1670	4.	1342.	1291.	776.	-1377.	1331.	-.0299	-.0024	.0150	.0392	.0815	.0326	829.
							.1680	-442.	1226.	1108.	1320.	-1292.	1708.	-.0305	-.0106	.0102	.0429	.0747	.0236	1010.
							.1690	-732.	1485.	657.	1247.	-1264.	1861.	-.0318	-.0172	.0045	.0474	.0695	.0151	1032.
							.1700	-1065.	1465.	60.	804.	-1193.	1932.	-.0337	-.0217	-.0014	.0514	.0647	.0067	967.
							.1710	-1675.	947.	-408.	329.	-1043.	2155.	-.0360	-.0240	-.0065	.0538	.0574	-.0026	970.
							.1720	-1558.	878.	-1056.	-534.	-964.	1494.	-.0379	-.0243	-.0100	.0574	.0557	-.0079	745.
							.1730	-1409.	997.	-1340.	-1068.	-840.	854.	-.0396	-.0225	-.0112	.0593	.0553	-.0132	644.
							.1740	-1461.	896.	-1229.	-1092.	-640.	637.	-.0413	-.0186	-.0100	.0589	.0563	-.0196	568.
							.1750	-1420.	672.	-1012.	-904.	-464.	567.	-.0427	-.0128	-.0071	.0582	.0589	-.0253	467.
							.1760	-1519.	366.	-621.	-530.	-310.	809.	-.0437	-.0056	-.0033	.0569	.0566	-.0313	408.
							.1770	-1312.	115.	-459.	-507.	-180.	729.	-.0438	.0025	.0004	.0571	.0509	-.0345	364.
							.1780	-1093.	-486.	-477.	-811.	-2.	548.	-.0428	.0112	.0033	.0587	.0390	-.0360	393.
							.1790	-618.	-1155.	-756.	-1476.	141.	69.	-.0409	.0201	.0055	.0622	.0244	-.0346	596.
							.1800	-95.	-1602.	-1004.	-2037.	231.	-328.	-.0385	.0285	.0075	.0659	.0081	-.0319	833.
							.1810	-110.	-2094.	-798.	-1923.	369.	32.	-.0359	.0362	.0098	.0669	-.0114	-.0313	786.
							.1820	134.	-2445.	-624.	-1675.	492.	159.	-.0329	.0426	.0123	.0685	-.0257	-.0281	704.
							.1830	493.	-2710.	-363.	-1186.	611.	68.	-.0298	.0476	.0146	.0698	-.0362	-.0232	536.
							.1840	827.	-2724.	83.	-333.	705.	-134.	-.0271	.0506	.0167	.0696	-.0452	-.0175	317.
							.1850	1117.	-2470.	564.	696.	748.	-430.	-.0252	.0515	.0175	.0685	-.0525	-.0111	445.
							.1860	1157.	-2293.	913.	1602.	751.	-605.	-.0247	.0506	.0161	.0674	-.0587	-.0054	750.
							.1870	1274.	-2026.	753.	1847.	660.	-957.	-.0256	.0479	.0124	.0686	-.0603	.0009	876.
							.1880	1003.	-1715.	382.	1738.	536.	-860.	-.0284	.0436	.0067	.0703	-.0612	.0045	807.
							.1890	492.	-1292.	-154.	1374.	414.	-402.	-.0324	.0378	-.0001	.0725	-.0601	.0055	598.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.37.

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

.1720	-1051.	-476.	-477.	-111.	-1476.	141.	69.	-.409	.0201	.0055	.0622	.0244	-.0346	596.
.1790	-618.	-1155.	-756.	-1476.	-1476.	141.	69.	-.409	.0201	.0055	.0622	.0244	-.0346	596.
.1800	-95.	-1602.	-1004.	-2077.	-2077.	231.	-328.	-.0305	.0285	.0075	.0659	.0081	-.0319	833.
.1810	-110.	-2094.	-798.	-1923.	-1923.	369.	32.	-.0359	.0362	.0098	.0669	-.0114	-.0313	786.
.1820	134.	-2445.	-824.	-1671.	-1671.	491.	159.	-.0329	.0426	.0123	.0685	-.0257	-.0281	704.
.1830	493.	-2716.	-763.	-1106.	-1106.	611.	68.	-.0298	.0476	.0148	.0698	-.0362	-.0232	536.
.1840	827.	-2724.	87.	-337.	-337.	705.	-134.	-.0271	.0506	.0167	.0696	-.0452	-.0175	317.
.1850	1117.	-2470.	564.	696.	696.	748.	-430.	-.0252	.0519	.0175	.0685	-.0525	-.0111	445.
.1860	1157.	-2293.	913.	1602.	1602.	751.	-605.	-.0247	.0506	.0161	.0674	-.0587	-.0054	750.
.1870	1274.	-2026.	757.	1847.	1847.	660.	-957.	-.0256	.0479	.0124	.0686	-.0503	-.0009	876.
.1880	1003.	-1715.	340.	1738.	1738.	536.	-860.	-.0284	.0436	.0067	.0703	-.0612	.0045	807.
.1890	492.	-1292.	-154.	1374.	1374.	414.	-402.	-.0324	.0778	-.0001	.0725	-.0601	.0055	598.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.37.

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

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	DZ	RX	RY	RZ	STRESS		
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	(PSI)
.1900	-5.	-905.	-825.	840.	345.	75.	-.0370	.0309	-.0069	.0757	-.0549	.0050	366.
.1910	-622.	-780.	-1304.	511.	392.	541.	-.0415	.0231	-.0127	.0782	-.0488	.0025	337.
.1920	-801.	-529.	-1671.	272.	452.	251.	-.0451	.0147	-.0167	.0813	-.0400	.0012	235.
.1930	-546.	-121.	-1849.	246.	464.	-747.	-.0481	.0061	-.0189	.0847	-.0295	.0010	366.
.1940	-227.	169.	-1769.	600.	410.	-1815.	-.0510	-.0022	-.0193	.0876	-.0187	.0002	784.
.1950	-57.	275.	-1544.	1209.	249.	-2469.	-.0545	-.0096	-.0185	.0900	-.0078	-.0027	1108.
.1960	-76.	366.	-1326.	1805.	-52.	-2550.	-.0589	-.0160	-.0171	.0922	.0035	-.0078	1254.
.1970	-313.	469.	-1188.	2173.	-422.	-2077.	-.0638	-.0211	-.0157	.0943	.0152	-.0147	1218.
.1980	-670.	510.	-1180.	2140.	-740.	-1297.	-.0684	-.0246	-.0145	.0963	.0285	-.0219	1047.
.1990	-945.	562.	-1319.	1633.	-928.	-571.	-.0714	-.0265	-.0134	.0981	.0437	-.0280	788.
.2000	-1072.	707.	-1503.	778.	-957.	-44.	-.0723	-.0269	-.0121	.0991	.0599	-.0324	495.
.2010	-1114.	848.	-1628.	-234.	-823.	339.	-.0708	-.0258	-.0103	.0987	.0758	-.0358	369.
.2020	-1076.	881.	-1672.	-1260.	-590.	619.	-.0671	-.0231	-.0081	.0971	.0915	-.0385	611.
.2030	-1007.	861.	-1559.	-2062.	-385.	920.	-.0617	-.0190	-.0053	.0944	.1062	-.0409	919.
.2040	-1061.	878.	-1144.	-2354.	-512.	1459.	-.0553	-.0138	-.0023	.0898	.1173	-.0442	1118.
.2050	-1238.	878.	-491.	-2166.	-398.	2190.	-.0484	-.0077	.0008	.0837	.1231	-.0481	1246.
.2060	-1355.	713.	129.	-1846.	-607.	2806.	-.0412	-.0012	.0034	.0777	.1240	-.0513	1370.
.2070	-1341.	342.	571.	-1622.	-864.	3168.	-.0340	.0054	.0054	.0726	.1208	-.0530	1470.
.2080	-1310.	-123.	916.	-1445.	-1090.	3440.	-.0270	.0118	.0071	.0679	.1145	-.0537	1560.
.2090	-1314.	-574.	1217.	-1295.	-1216.	3742.	-.0207	.0177	.0088	.0633	.1076	-.0537	1662.
.2100	-1299.	-993.	1403.	-1290.	-1201.	4033.	-.0153	.0232	.0106	.0595	.1038	-.0525	1766.
.2110	-1272.	-1395.	1453.	-1469.	-1046.	4301.	-.0111	.0279	.0127	.0567	.1025	-.0503	1871.
.2120	-1245.	-1731.	1409.	-1758.	-812.	4524.	-.0084	.0317	.0148	.0546	.1024	-.0471	1975.
.2130	-1166.	-1964.	1297.	-2075.	-595.	4582.	-.0073	.0343	.0167	.0534	.1020	-.0426	2033.
.2140	-998.	-2093.	1141.	-2345.	-468.	4372.	-.0075	.0358	.0182	.0529	.1003	-.0366	2000.
.2150	-754.	-2066.	983.	-2510.	-467.	3891.	-.0092	.0361	.0191	.0529	.0965	-.0295	1867.
.2160	-463.	-1323.	830.	-2575.	-594.	3235.	-.0120	.0353	.0193	.0530	.0903	-.0220	1676.
.2170	-192.	-1461.	648.	-2584.	-795.	2598.	-.0155	.0335	.0190	.0530	.0825	-.0151	1505.
.2180	-46.	-1160.	447.	-2535.	-964.	2186.	-.0191	.0309	.0182	.0525	.0740	-.0098	1398.
.2190	-27.	-930.	269.	-2423.	-1008.	1991.	-.0223	.0278	.0172	.0508	.0654	-.0061	1322.
.2200	12.	-636.	109.	-2327.	-897.	1755.	-.0241	.0242	.0159	.0479	.0573	-.0035	1224.
.2210	168.	-270.	-77.	-2342.	-647.	1273.	-.0242	.0202	.0142	.0439	.0493	-.0013	1101.
.2220	389.	36.	-307.	-2459.	-302.	598.	-.0227	.0160	.0119	.0389	.0407	.0002	1023.
.2230	563.	240.	-549.	-2564.	55.	-56.	-.0200	.0120	.0088	.0327	.0303	.0004	1029.
.2240	598.	413.	-735.	-2509.	331.	-482.	-.0168	.0081	.0052	.0249	.0178	-.0015	1034.
.2250	450.	587.	-811.	-2201.	474.	-600.	-.0134	.0048	.0010	.0153	.0031	-.0056	935.
.2260	174.	737.	-778.	-1667.	495.	-506.	-.0099	.0021	-.0033	.0041	-.0127	-.0112	727.
.2270	-115.	862.	-671.	-1004.	452.	-394.	-.0064	.0001	-.0075	-.0084	-.0286	-.0170	469.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.37.

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

.2170	-487.	-1373.	20.	-1575.	-594.	2598.	-0155	.0335	.0190	.0530	.0925	-.0151	1505.
.2180	-46.	-1160.	447.	-2535.	-964.	2186.	-.0191	.0309	.0182	.0525	.0740	-.0098	1398.
.2190	-27.	-970.	269.	-2423.	-1008.	1991.	-.0223	.0278	.0172	.0508	.0554	-.0061	1322.
.2200	12.	-636.	109.	-2327.	-697.	1755.	-.0241	.0242	.0159	.0479	.0573	-.0035	1224.
.2210	168.	-270.	-77.	-2341.	-647.	1273.	-.0242	.0207	.0142	.0439	.0493	-.0013	1101.
.2220	389.	36.	-307.	-2459.	-302.	59.	-.0227	.0160	.0119	.0389	.0407	.0002	1023.
.2230	563.	240.	-549.	-2564.	55.	-56.	-.0200	.0120	.0088	.0327	.0303	.0004	1029.
.2240	558.	413.	-735.	-2509.	331.	-482.	-.0168	.0081	.0052	.0249	.0178	-.0015	1034.
.2250	450.	537.	-811.	-2201.	474.	-600.	-.0134	.0048	.0010	.0153	.0031	-.0056	935.
.2260	174.	737.	-778.	-1667.	495.	-506.	-.0099	.0021	-.0033	.0041	-.0127	-.0112	727.
.2270	-115.	862.	-671.	-1004.	452.	-394.	-.0064	.0001	-.0075	-.0084	-.0286	-.0170	469.

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ADLPIPE STRESS ANALYSIS

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

CONDITION 24

LOADS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.2280	32	2	815					-338.	974.	-525.	-330.	418.	-407.	-.0027	-.0011	-.0112	-.0219	-.0439	-.0219	269.
.2290								-454.	1051.	-400.	202.	459.	-607.	.0011	-.0015	-.0141	-.0358	-.0580	-.0253	316.
.2300								-440.	1077.	-367.	455.	603.	-985.	.0047	-.0012	-.0160	-.0496	-.0695	-.0269	428.
.2310								-356.	1079.	-433.	413.	826.	-1385.	.0077	-.0001	-.0169	-.0628	-.0777	-.0269	668.
.2320								-317.	1082.	-536.	187.	1065.	-1587.	.0095	.0016	-.0165	-.0753	-.0830	-.0260	771.
.2330								-352.	1062.	-644.	-128.	1244.	-1516.	.0098	.0039	-.0147	-.0868	-.0861	-.0244	789.
.2340								-384.	972.	-751.	-468.	1313.	-1291.	.0087	.0067	-.0116	-.0969	-.0878	-.0220	762.
.2350								-342.	812.	-791.	-718.	1266.	-1056.	.0067	.0098	-.0069	-.1056	-.0887	-.0184	721.
.2360								-192.	625.	-681.	-767.	1116.	-913.	.0042	.0131	-.0006	-.1131	-.0895	-.0136	655.
.2370								99.	433.	-410.	-619.	894.	-924.	.0018	.0165	.0072	-.1192	-.0895	-.0076	573.
.2380								504.	209.	-23.	-357.	649.	-1049.	-.0001	.0198	.0161	-.1237	-.0877	-.0009	515.
.2390								929.	-35.	446.	-51.	433.	-1156.	-.0014	.0229	.0256	-.1265	-.0836	.0060	496.
.2400								1304.	-218.	948.	220.	268.	-1152.	-.0020	.0256	.0350	-.1278	-.0775	.0122	483.
.2410								1610.	-311.	1404.	358.	148.	-1045.	-.0018	.0279	.0434	-.1275	-.0594	.0179	447.
.2420								1830.	-372.	1753.	315.	53.	-680.	-.0009	.0296	.0503	-.1255	-.0599	.0230	376.
.2430								1963.	-433.	1968.	100.	-41.	-711.	.0006	.0308	.0550	-.1218	-.0495	.0278	289.
.2440								2026.	-434.	2038.	-258.	-161.	-559.	.0025	.0314	.0574	-.1167	-.0384	.0322	256.
.2450								1993.	-340.	2010.	-641.	-309.	-349.	.0046	.0313	.0576	-.1104	-.0272	.0359	318.
.2460								1804.	-216.	1968.	-868.	-468.	33.	.0069	.0304	.0560	-.1039	-.0162	.0382	396.
.2470								1494.	-111.	1978.	-798.	-616.	525.	.0092	.0289	.0530	-.0979	-.0059	.0393	456.
.2480								1200.	-17.	2004.	-478.	-744.	915.	.0119	.0268	.0488	-.0922	.0039	.0401	511.
.2490								984.	68.	1979.	-47.	-842.	1117.	.0148	.0241	.0437	-.0867	.0132	.0409	562.
.2500								773.	153.	1908.	444.	-895.	1255.	.0179	.0209	.0376	-.0815	.0210	.0412	644.
.2510								495.	246.	1793.	951.	-898.	1457.	.0210	.0174	.0308	-.0770	.0267	.0402	786.
.2520								169.	322.	1591.	1367.	-863.	1705.	.0239	.0136	.0233	-.0729	.0300	.0381	943.
.2530								-145.	368.	1273.	1598.	-811.	1890.	.0267	.0098	.0153	-.0692	.0309	.0353	1045.
.2540								-391.	431.	881.	1665.	-757.	1913.	.0295	.0061	.0072	-.0659	.0296	.0323	1062.
.2550								-552.	547.	504.	1676.	-704.	1751.	.0323	.0026	-.0004	-.0636	.0265	.0290	1016.
.2560								-652.	702.	226.	1747.	-648.	1496.	.0351	-.0006	-.0072	-.0625	.0220	.0253	959.
.2570								-708.	839.	81.	1923.	-584.	1171.	.0379	-.0034	-.0128	-.0630	.0165	.0212	934.
.2580								-702.	1045.	13.	2124.	-509.	788.	.0406	-.0058	-.0171	-.0645	.0103	.0169	932.
.2590								-625.	1121.	-45.	2261.	-421.	343.	.0431	-.0080	-.0203	-.0666	.0040	.0129	933.
.2600								-507.	1200.	-85.	2351.	-323.	-120.	.0455	-.0100	-.0225	-.0692	-.0027	.0091	953.
.2610								-383.	1340.	-82.	2432.	-222.	-556.	.0476	-.0121	-.0239	-.0724	-.0101	.0056	1005.
.2620								-257.	1444.	-80.	2477.	-122.	-960.	.0495	-.0140	-.0248	-.0759	-.0177	.0026	1067.
.2630								-130.	1436.	-120.	2459.	-23.	-1339.	.0512	-.0159	-.0253	-.0792	-.0256	.0004	1123.
.2640								-6.	1366.	-180.	2434.	80.	-1687.	.0528	-.0178	-.0256	-.0824	-.0339	-.0009	1189.
.2650								107.	1265.	-229.	2466.	188.	-1992.	.0544	-.0198	-.0258	-.0855	-.0423	-.0012	1275.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.38.

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

.2550	-552.	547.	304.	1676.	-704.	1751.	.0323	.0026	-.0004	-.0636	.0265	.0290	1016.
.2560	-652.	702.	226.	1747.	-648.	1496.	.0351	-.0006	-.0072	-.0625	.0220	.0253	959.
.2570	-708.	839.	31.	1923.	-584.	1171.	.0379	-.0034	-.0128	-.0630	.0165	.0212	934.
.2580	-762.	1045.	13.	2124.	-509.	788.	.0406	-.0058	-.0171	-.0645	.0103	.0169	932.
.2590	-825.	1121.	-49.	2261.	-421.	343.	.0431	-.0080	-.0203	-.0666	.0040	.0129	933.
.2600	-907.	1200.	-65.	2351.	-323.	-120.	.0455	-.0100	-.0225	-.0692	-.0027	.0091	953.
.2610	-983.	1340.	-82.	2472.	-222.	-556.	.0476	-.0121	-.0239	-.0724	-.0101	.0056	1003.
.2620	-1257.	1444.	-80.	2477.	-122.	-960.	.0495	-.0140	-.0248	-.0759	-.0177	.0026	1007.
.2630	-130.	1436.	-120.	2459.	-23.	-1339.	.0512	-.0159	-.0253	-.0792	-.0256	.0004	1123.
.2640	-6.	1366.	-180.	2434.	30.	-1687.	.0528	-.0178	-.0256	-.0824	-.0339	-.0009	1189.
.2650	107.	1265.	-229.	2466.	188.	-1992.	.0544	-.0198	-.0258	-.0855	-.0423	-.0012	1275.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.38.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU								
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.2660	210.	1148.	-252.	2575.	308.	-2253.	.0560	-.0217	-.0258	-.0883	-.0506	-.0006	1379.	
.2670	300.	993.	-256.	2743.	443.	-2470.	.0576	-.0235	-.0257	-.0907	-.0586	.0009	1492.	
.2680	381.	772.	-274.	2926.	593.	-2644.	.0593	-.0253	-.0257	-.0923	-.0663	.0032	1600.	
.2690	467.	577.	-300.	3131.	752.	-2784.	.0609	-.0270	-.0257	-.0930	-.0737	.0063	1708.	
.2700	554.	490.	-289.	3413.	911.	-2888.	.0625	-.0286	-.0257	-.0930	-.0811	.0101	1831.	
.2710	626.	429.	-231.	3789.	1056.	-2951.	.0637	-.0298	-.0257	-.0924	-.0880	.0143	1973.	
.2720	672.	203.	-173.	4207.	1175.	-2982.	.0645	-.0304	-.0258	-.0911	-.0937	.0188	2118.	
.2730	679.	-158.	-131.	4633.	1262.	-2903.	.0646	-.0305	-.0259	-.0888	-.0980	.0234	2252.	
.2740	650.	-357.	-60.	5073.	1327.	-2780.	.0640	-.0306	-.0259	-.0859	-.1014	.0279	2382.	
.2750	610.	-312.	18.	5451.	1388.	-2645.	.0628	-.0308	-.0260	-.0822	-.1037	.0322	2494.	
.2760	579.	-290.	22.	5654.	1450.	-2556.	.0609	-.0308	-.0260	-.0774	-.1044	.0364	2557.	
.2770	559.	-455.	-67.	5671.	1505.	-2544.	.0585	-.0306	-.0260	-.0713	-.1036	.0405	2566.	
.2780	584.	-581.	-172.	5608.	1542.	-2653.	.0554	-.0304	-.0259	-.0642	-.1018	.0446	2565.	
.2790	686.	-454.	-227.	5569.	1551.	-2911.	.0518	-.0303	-.0254	-.0568	-.0992	.0486	2597.	
.2800	821.	-292.	-247.	5589.	1517.	-3244.	.0476	-.0300	-.0248	-.0490	-.0959	.0522	2664.	
.2810	916.	-363.	-269.	5666.	1418.	-3546.	.0427	-.0295	-.0241	-.0410	-.0921	.0550	2742.	
.2820	968.	-522.	-297.	5775.	1247.	-3791.	.0372	-.0287	-.0236	-.0327	-.0878	.0568	2817.	
.2830	1008.	-472.	-331.	5865.	1030.	-3995.	.0314	-.0281	-.0235	-.0244	-.0830	.0579	2878.	
.2840	1006.	-258.	-408.	5853.	798.	-4115.	.0256	-.0276	-.0240	-.0160	-.0777	.0579	2889.	
.2850	917.	-147.	-505.	5649.	574.	-4099.	.0202	-.0269	-.0251	-.0073	-.0718	.0565	2810.	
.2860	767.	-169.	-862.	5233.	376.	-3974.	.0154	-.0259	-.0269	.0016	-.0654	.0539	2641.	
.2870	606.	-126.	-1163.	4696.	218.	-3790.	.0119	-.0248	-.0292	.0102	-.0588	.0501	2423.	
.2880	433.	19.	-1403.	4176.	103.	-3540.	.0097	-.0234	-.0317	.0180	-.0526	.0452	2197.	
.2890	231.	115.	-1555.	3759.	12.	-3207.	.0091	-.0217	-.0344	.0248	-.0472	.0390	1983.	
.2900	18.	111.	-1617.	3460.	-81.	-2823.	.0100	-.0197	-.0371	.0306	-.0433	.0318	1792.	
.2910	-181.	93.	-1588.	3270.	-186.	-2421.	.0122	-.0173	-.0398	.0352	-.0412	.0237	1634.	
.2920	-380.	85.	-1488.	3153.	-302.	-1982.	.0155	-.0149	-.0425	.0390	-.0410	.0151	1499.	
.2930	-596.	41.	-1362.	3036.	-421.	-1485.	.0197	-.0123	-.0452	.0422	-.0421	.0062	1367.	
.2940	-812.	-7.	-1237.	2846.	-529.	-964.	.0243	-.0098	-.0477	.0450	-.0439	-.0024	1224.	
.2950	-995.	-8.	-1122.	2539.	-600.	-481.	.0292	-.0073	-.0498	.0474	-.0452	-.0103	1065.	
.2960	-1131.	-24.	-1028.	2106.	-611.	-64.	.0339	-.0047	-.0513	.0496	-.0451	-.0169	880.	
.2970	-1225.	-124.	-961.	1571.	-561.	299.	.0381	-.0023	-.0520	.0518	-.0430	-.0219	680.	
.2980	-1276.	-222.	-893.	991.	-468.	612.	.0415	-.0001	-.0518	.0538	-.0388	-.0252	504.	
.2990	-1272.	-212.	-809.	397.	-354.	852.	.0438	.0016	-.0506	.0558	-.0330	-.0265	403.	
.3000	-1217.	-163.	-739.	-228.	-244.	1015.	.0447	.0027	-.0486	.0580	-.0258	-.0261	429.	
.3010	-1140.	-197.	-718.	-906.	-166.	1137.	.0444	.0034	-.0459	.0608	-.0177	-.0240	587.	
.3020	-1055.	-259.	-731.	-1612.	-142.	1244.	.0427	.0035	-.0426	.0641	-.0095	-.0205	819.	
.3030	-940.	-209.	-737.	-2300.	-165.	1306.	.0400	.0029	-.0389	.0679	-.0016	-.0157	1063.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.38.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.2930	-596.	41.	-1362.	2036.	-421.	-1475.	.0197	-.0127	-.0452	.0422	-.0421	.0062	1367.
.2940	-817.	-7.	-1237.	2346.	-529.	-964.	.0243	-.0098	-.0477	.0450	-.0439	-.0024	1224.
.2950	-995.	-8.	-1122.	2529.	-600.	-481.	.0292	-.0073	-.0498	.0474	-.0452	-.0103	1065.
.2960	-1131.	-24.	-1028.	2106.	-611.	-84.	.0379	-.0047	-.0513	.0496	-.0451	-.0169	880.
.2970	-1225.	-124.	-921.	1571.	-561.	299.	.0381	-.0027	-.0520	.0518	-.0430	-.0219	680.
.2980	-1276.	-222.	-797.	991.	-468.	612.	.0415	-.0001	-.0518	.0538	-.0388	-.0252	504.
.2990	-1272.	-212.	-809.	397.	-354.	652.	.0438	.0016	-.0506	.0558	-.0330	-.0265	403.
.3000	-1217.	-163.	-739.	-228.	-244.	1015.	.0447	.0024	-.0486	.0580	-.0258	-.0261	429.
.3010	-1140.	-197.	-710.	-906.	-166.	1137.	.0444	.0024	-.0459	.0608	-.0177	-.0240	587.
.3020	-1055.	-259.	-731.	-1612.	-142.	1244.	.0427	.0035	-.0426	.0641	-.0095	-.0205	819.
.3030	-940.	-209.	-737.	-2300.	-165.	1306.	.0400	.0029	-.0389	.0679	-.0016	-.0157	1063.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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

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

SECTION	32	MEMBER	2	SEQUENCE	R15	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3040	-772.	-83.	-726.	-2953.	-207.	1279.	.0367	.0016	-.0346	.0719	.0063	-.0098	1294.		
.3050	-573.	-29.	-701.	-3557.	-251.	1153.	.0330	-.0001	-.0298	.0760	.0143	-.0031	1504.		
.3060	-335.	-41.	-637.	-4069.	-290.	951.	.0292	-.0022	-.0246	.0800	.0223	.0042	1681.		
.3070	-77.	13.	-507.	-4442.	-321.	714.	.0256	-.0048	-.0192	.0834	.0302	.0118	1810.		
.3080	169.	163.	-325.	-4674.	-342.	505.	.0221	-.0079	-.0139	.0860	.0374	.0191	1892.		
.3090	357.	304.	-137.	-4807.	-363.	389.	.0188	-.0112	-.0089	.0879	.0438	.0257	1941.		
.3100	466.	397.	24.	-4872.	-406.	401.	.0155	-.0146	-.0045	.0890	.0487	.0313	1969.		
.3110	495.	493.	162.	-4868.	-481.	542.	.0122	-.0178	-.0009	.0893	.0518	.0357	1975.		
.3120	454.	602.	287.	-4772.	-578.	789.	.0091	-.0208	.0019	.0886	.0531	.0390	1955.		
.3130	367.	684.	407.	-4574.	-682.	1088.	.0062	-.0234	.0040	.0871	.0529	.0413	1906.		
.3140	273.	748.	535.	-4262.	-781.	1363.	.0035	-.0255	.0056	.0847	.0513	.0427	1823.		
.3150	195.	827.	692.	-3833.	-859.	1569.	.0011	-.0271	.0068	.0813	.0487	.0431	1697.		
.3160	130.	890.	865.	-3314.	-905.	1709.	-.0012	-.0280	.0078	.0772	.0453	.0428	1540.		
.3170	66.	892.	1013.	-2771.	-919.	1804.	-.0035	-.0283	.0084	.0728	.0414	.0415	1377.		
.3180	3.	865.	1100.	-2279.	-913.	1858.	-.0059	-.0279	.0087	.0685	.0368	.0394	1235.		
.3190	-56.	844.	1105.	-1893.	-894.	1872.	-.0087	-.0269	.0086	.0645	.0314	.0365	1127.		
.3200	-119.	764.	1013.	-1640.	-865.	1860.	-.0119	-.0253	.0081	.0611	.0255	.0326	1054.		
.3210	-194.	545.	830.	-1509.	-831.	1843.	-.0155	-.0231	.0074	.0583	.0193	.0279	1012.		
.3220	-263.	245.	598.	-1449.	-795.	1810.	-.0193	-.0205	.0068	.0563	.0133	.0226	984.		
.3230	-301.	-12.	384.	-1391.	-756.	1729.	-.0232	-.0177	.0065	.0546	.0077	.0168	941.		
.3240	-295.	-223.	215.	-1313.	-700.	1578.	-.0270	-.0151	.0065	.0532	.0031	.0106	870.		
.3250	-260.	-469.	84.	-1229.	-626.	1376.	-.0304	-.0126	.0069	.0521	-.0003	.0042	782.		
.3260	-218.	-743.	-14.	-1165.	-544.	1163.	-.0334	-.0104	.0075	.0514	-.0025	-.0024	696.		
.3270	-174.	-930.	-88.	-1160.	-465.	951.	-.0357	-.0088	.0081	.0510	-.0040	-.0090	630.		
.3280	-124.	-990.	-167.	-1264.	-394.	738.	-.0372	-.0079	.0085	.0511	-.0049	-.0153	608.		
.3290	-90.	-1020.	-275.	-1495.	-331.	554.	-.0380	-.0077	.0085	.0516	-.0052	-.0213	653.		
.3300	-97.	-1077.	-400.	-1809.	-281.	443.	-.0380	-.0082	.0082	.0524	-.0052	-.0270	756.		
.3310	-135.	-1103.	-501.	-2126.	-245.	413.	-.0372	-.0096	.0077	.0531	-.0049	-.0322	875.		
.3320	-177.	-1037.	-545.	-2371.	-217.	435.	-.0355	-.0119	.0071	.0536	-.0041	-.0366	971.		
.3330	-211.	-920.	-518.	-2496.	-187.	484.	-.0330	-.0151	.0065	.0537	-.0026	-.0400	1023.		
.3340	-242.	-822.	-422.	-2490.	-159.	554.	-.0298	-.0190	.0061	.0533	-.0002	-.0424	1025.		
.3350	-266.	-731.	-267.	-2363.	-145.	635.	-.0262	-.0234	.0059	.0524	.0027	-.0437	984.		
.3360	-288.	-617.	-77.	-2158.	-147.	729.	-.0223	-.0281	.0056	.0512	.0062	-.0441	916.		
.3370	-317.	-500.	108.	-1927.	-164.	841.	-.0184	-.0331	.0053	.0498	.0100	-.0434	850.		
.3380	-357.	-409.	251.	-1762.	-199.	964.	-.0146	-.0380	.0048	.0484	.0142	-.0420	810.		
.3390	-403.	-335.	344.	-1659.	-245.	1083.	-.0111	-.0427	.0042	.0468	.0186	-.0399	801.		
.3400	-447.	-257.	494.	-1616.	-288.	1182.	-.0081	-.0469	.0036	.0451	.0234	-.0374	812.		
.3410	-477.	-171.	448.	-1612.	-313.	1244.	-.0055	-.0507	.0032	.0430	.0288	-.0344	827.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.38.

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

.3310	-135.	-1103.	-501.	-2126.	-245.	413.	-.372	-.0096	.0077	.0531	-.0049	-.0322	875.
.3320	-177.	-1037.	-545.	-2371.	-217.	435.	-.0355	-.0119	.0071	.0536	-.0041	-.0366	971.
.3330	-211.	-920.	-518.	-2496.	-187.	484.	-.0330	-.0151	.0065	.0537	-.0026	-.0400	1023.
.3340	-242.	-822.	-422.	-2490.	-159.	554.	-.0298	-.0190	.0061	.0533	-.0002	-.0424	1025.
.3350	-266.	-711.	-267.	-2363.	-145.	635.	-.0262	-.0234	.0059	.0524	.0027	-.0437	984.
.3360	-288.	-617.	-77.	-2151.	-147.	729.	-.0223	-.0281	.0056	.0512	.0062	-.0441	916.
.3370	-317.	-500.	108.	-1927.	-164.	841.	-.0184	-.0331	.0053	.0498	.0100	-.0434	850.
.3380	-357.	-409.	251.	-1762.	-199.	964.	-.0146	-.0380	.0048	.0484	.0142	-.0420	810.
.3390	-403.	-335.	344.	-1659.	-245.	1083.	-.0111	-.0427	.0042	.0468	.0186	-.0399	801.
.3400	-447.	-257.	404.	-1616.	-288.	1182.	-.0081	-.0469	.0036	.0451	.0234	-.0374	812.
.3410	-477.	-171.	447.	-1612.	-312.	1244.	-.0055	-.0507	.0032	.0430	.0288	-.0344	827.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.38.

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	32	MEMBER	2	SEQUENCE	815	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3420	-476.	-81.	480.	-1637.	-318.	1249.	-.0033	-.0538	.0030	.0407	.0347	-.0312	836.		
.3430	-432.	18.	508.	-1683.	-306.	1181.	-.0017	-.0562	.0033	.0380	.0409	-.0279	834.		
.3440	-351.	123.	541.	-1736.	-277.	1055.	-.0005	-.0578	.0039	.0349	.0472	-.0248	823.		
.3450	-249.	219.	579.	-1785.	-239.	900.	.0001	-.0585	.0050	.0315	.0534	-.0222	808.		
.3460	-142.	289.	612.	-1829.	-205.	752.	.0001	-.0583	.0063	.0279	.0592	-.0202	798.		
.3470	-41.	338.	633.	-1868.	-183.	637.	-.0003	-.0575	.0077	.0242	.0644	-.0190	795.		
.3480	49.	380.	642.	-1890.	-168.	561.	-.0010	-.0560	.0092	.0204	.0688	-.0187	794.		
.3490	124.	409.	647.	-1876.	-148.	527.	-.0020	-.0540	.0106	.0164	.0723	-.0194	784.		
.3500	174.	399.	652.	-1809.	-113.	541.	-.0029	-.0516	.0120	.0124	.0751	-.0210	759.		
.3510	198.	344.	661.	-1686.	-62.	597.	-.0037	-.0490	.0131	.0083	.0770	-.0235	718.		
.3520	203.	268.	669.	-1514.	5.	672.	-.0041	-.0462	.0138	.0044	.0779	-.0268	665.		
.3530	191.	179.	669.	-1310.	88.	745.	-.0040	-.0434	.0141	.0008	.0778	-.0306	606.		
.3540	153.	67.	658.	-1079.	175.	814.	-.0035	-.0406	.0138	-.0024	.0765	-.0350	547.		
.3550	79.	-68.	636.	-823.	248.	881.	-.0027	-.0379	.0128	-.0050	.0741	-.0397	494.		
.3560	-27.	-209.	604.	-539.	291.	944.	-.0017	-.0354	.0112	-.0071	.0704	-.0447	452.		
.3570	-162.	-329.	565.	-228.	303.	995.	-.0005	-.0331	.0090	-.0085	.0658	-.0497	427.		
.3580	-316.	-418.	520.	107.	289.	1025.	.0005	-.0311	.0064	-.0092	.0605	-.0544	430.		
.3590	-482.	-479.	470.	453.	258.	1031.	.0014	-.0294	.0035	-.0094	.0546	-.0587	464.		
.3600	-649.	-528.	409.	789.	220.	1009.	.0020	-.0279	.0006	-.0091	.0485	-.0625	521.		
.3610	-803.	-576.	326.	1086.	188.	953.	.0021	-.0264	-.0023	-.0082	.0423	-.0654	585.		
.3620	-926.	-621.	213.	1322.	169.	847.	.0016	-.0249	-.0049	-.0067	.0361	-.0673	634.		
.3630	-1002.	-650.	72.	1492.	158.	675.	.0006	-.0235	-.0071	-.0047	.0297	-.0681	660.		
.3640	-1022.	-651.	-81.	1620.	148.	430.	-.0011	-.0219	-.0087	-.0024	.0229	-.0677	675.		
.3650	-986.	-635.	-226.	1742.	131.	117.	-.0035	-.0203	-.0097	-.0002	.0157	-.0663	703.		
.3660	-895.	-616.	-347.	1890.	97.	-255.	-.0065	-.0184	-.0101	.0020	.0083	-.0637	766.		
.3670	-752.	-596.	-436.	2080.	44.	-676.	-.0100	-.0162	-.0098	.0038	.0007	-.0601	878.		
.3680	-567.	-557.	-489.	2312.	-23.	-1136.	-.0140	-.0139	-.0089	.0051	-.0069	-.0556	1034.		
.3690	-347.	-484.	-511.	2561.	-89.	-1627.	-.0181	-.0113	-.0076	.0058	-.0141	-.0503	1218.		
.3700	-108.	-396.	-526.	2781.	-138.	-2125.	-.0222	-.0084	-.0061	.0058	-.0207	-.0446	1406.		
.3710	124.	-329.	-558.	2931.	-161.	-2587.	-.0260	-.0054	-.0046	.0052	-.0264	-.0386	1570.		
.3720	327.	-292.	-620.	2987.	-150.	-2979.	-.0294	-.0023	-.0032	.0041	-.0312	-.0326	1694.		
.3730	495.	-248.	-700.	2955.	-102.	-3293.	-.0320	.0006	-.0022	.0024	-.0352	-.0269	1776.		
.3740	627.	-169.	-801.	2871.	-82.	-3532.	-.0337	.0033	-.0016	-.0001	-.0384	-.0218	1826.		
.3750	714.	-94.	-878.	2780.	76.	-3682.	-.0344	.0057	-.0013	-.0031	-.0413	-.0175	1852.		
.3760	748.	-75.	-923.	2722.	174.	-3736.	-.0340	.0076	-.0014	-.0068	-.0439	-.0141	1856.		
.3770	739.	-100.	-926.	2721.	263.	-3709.	-.0325	.0089	-.0018	-.0110	-.0466	-.0116	1849.		
.3780	705.	-121.	-881.	2777.	343.	-3636.	-.0299	.0096	-.0024	-.0155	-.0494	-.0101	1841.		
.3790	656.	-125.	-792.	2871.	418.	-3533.	-.0262	.0094	-.0032	-.0203	-.0522	-.0094	1834.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.38.

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

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

.3690	-347.	-434.	-511.	2561.	-89.	-1627.	-1181.	-0.113	-0.0075	.0058	-.0141	-.0503	1218.
.3700	-108.	-326.	-526.	2781.	-138.	-2125.	-1222.	-0.084	-0.0061	.0058	-.0207	-.0446	1406.
.3710	124.	-329.	-550.	2931.	-161.	-2537.	-0.260	-0.054	-0.0046	.0052	-.0264	-.0386	1570.
.3720	327.	-292.	-620.	2987.	-150.	-2979.	-0.294	-0.023	-0.0032	.0041	-.0312	-.0326	1694.
.3730	495.	-248.	-731.	2955.	-132.	-3293.	-0.320	.0006	-0.0022	.0024	-.0352	-.0269	1776.
.3740	627.	-169.	-801.	2871.	-82.	-3532.	-0.337	.0033	-0.0016	-.0001	-.0384	-.0218	1826.
.3750	714.	-94.	-878.	2780.	76.	-3682.	-0.344	.0057	-0.0013	-.0031	-.0413	-.0175	1852.
.3760	743.	-75.	-923.	2722.	174.	-3736.	-0.340	.0076	-0.0014	-.0068	-.0439	-.0141	1856.
.3770	739.	-100.	-926.	2721.	263.	-3709.	-0.325	.0089	-0.0018	-.0110	-.0466	-.0116	1849.
.3780	705.	-121.	-881.	2777.	347.	-3638.	-0.299	.0096	-0.0024	-.0155	-.0494	-.0101	1841.
.3790	656.	-125.	-792.	2871.	416.	-3533.	-0.262	.0094	-0.0022	-.0203	-.0522	-.0094	1834.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
32	2	815					.3800	591.	-134.	-676.	2971.	485.	-3399.	-.0218	.0084	-.0040	-.0250	-.0549	-.0094	1822.
							.3810	515.	-131.	-542.	3049.	552.	-3234.	-.0169	.0067	-.0048	-.0297	-.0572	-.0101	1797.
							.3820	428.	-132.	-412.	3075.	625.	-3033.	-.0117	.0044	-.0055	-.0339	-.0586	-.0110	1751.
							.3830	335.	-145.	-299.	3030.	704.	-2808.	-.0065	.0015	-.0060	-.0377	-.0589	-.0121	1681.
							.3840	252.	-132.	-196.	2923.	780.	-2584.	-.0018	-.0018	-.0061	-.0410	-.0580	-.0130	1597.
							.3850	184.	-99.	-98.	2769.	843.	-2374.	.0023	-.0054	-.0058	-.0437	-.0557	-.0135	1502.
							.3860	127.	-96.	-12.	2576.	883.	-2177.	.0056	-.0091	-.0051	-.0457	-.0519	-.0134	1399.
							.3870	85.	-108.	61.	2354.	892.	-2000.	.0078	-.0130	-.0039	-.0468	-.0467	-.0126	1290.
							.3880	72.	-39.	133.	2117.	867.	-1871.	.0090	-.0169	-.0022	-.0470	-.0402	-.0109	1186.
							.3890	96.	146.	214.	1877.	814.	-1804.	.0093	-.0207	-.0001	-.0465	-.0326	-.0084	1094.
							.3900	144.	343.	295.	1631.	740.	-1780.	.0086	-.0240	.0024	-.0450	-.0239	-.0051	1013.
							.3910	199.	448.	359.	1378.	647.	-1777.	.0072	-.0265	.0050	-.0426	-.0144	-.0009	939.
							.3920	267.	493.	406.	1123.	543.	-1799.	.0052	-.0280	.0076	-.0393	-.0045	.0040	879.
							.3930	360.	568.	442.	878.	441.	-1860.	.0029	-.0286	.0101	-.0353	.0055	.0095	844.
							.3940	468.	676.	467.	656.	350.	-1938.	.0003	-.0284	.0124	-.0308	.0152	.0155	833.
							.3950	554.	737.	475.	471.	265.	-1973.	-.0023	-.0271	.0143	-.0258	.0244	.0216	821.
							.3960	595.	730.	467.	338.	182.	-1912.	-.0050	-.0249	.0157	-.0206	.0329	.0274	783.
							.3970	589.	718.	453.	269.	100.	-1750.	-.0075	-.0218	.0166	-.0152	.0404	.0329	711.
							.3980	551.	739.	440.	264.	25.	-1514.	-.0098	-.0180	.0169	-.0099	.0467	.0380	617.
							.3990	492.	765.	431.	320.	-40.	-1237.	-.0113	-.0136	.0167	-.0049	.0517	.0425	513.
							.4000	415.	743.	425.	427.	-94.	-939.	-.0133	-.0085	.0161	-.0002	.0553	.0464	416.

MAXIMUM VALUE OF STRESS OCCURS AT

TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.0620	-1285.	-2573.	585.	-8727.	-322.	5425.	.0097	.0010	.0332	.0610	.1444	-.0409	4125.

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
33	1	815					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.	-2.	0.	-2.	-0.	1.	-.0000	-.0000	-.0000	-.0000	-.0000	.0000	1.
							.0030	2.	-4.	2.	-12.	-1.	11.	-.0000	-.0000	-.0000	-.0001	-.0001	.0001	7.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.27.38.

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

CONDITION 24
LOADS
SHOCK
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ENGLISH UNITS

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

SECTION	33	MEMBER	1	SEQUENCE	815	LOCATION	BEG	TYPE	RU	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ								(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	
.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.		-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	0.
.0020	0.	-2.	0.	-2.	-0.	1.		-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	0.0000	1.
.0030	2.	-1.	0.	-12.	-1.	11.		-0.0000	-0.0000	-0.0000	-0.0001	-0.0001	0.0001	7.

ADLPIPE PAGE 1407 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 8/12/02. 18.27.38.

S/RV PIPING KEWAUNEE GEWORK 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	33	MEMBER	1	SEQUENCE	815	LOCATION	BEG	TYPE	RU	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ								(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	
.0040	6.	-13.	5.	-38.	-1.	42.		-0.0000	-0.0000	-0.0000	-0.0002	-0.0001	0.0002	23.
.0050	15.	-32.	11.	-81.	-1.	107.		-0.0000	-0.0000	-0.0001	-0.0005	-0.0002	0.0006	54.
.0060	29.	-65.	18.	-135.	-1.	208.		-0.0001	-0.0001	-0.0002	-0.0008	-0.0002	0.0012	100.
.0070	44.	-104.	27.	-206.	-2.	322.		-0.0003	-0.0001	-0.0004	-0.0014	-0.0004	0.0019	153.
.0080	56.	-144.	37.	-295.	-5.	435.		-0.0007	-0.0002	-0.0007	-0.0021	-0.0007	0.0028	211.
.0090	74.	-183.	45.	-379.	-6.	597.		-0.0012	-0.0003	-0.0011	-0.0029	-0.0009	0.0042	284.
.0100	105.	-231.	45.	-422.	-2.	866.		-0.0020	-0.0004	-0.0016	-0.0036	-0.0003	0.0063	387.
.0110	144.	-301.	40.	-428.	12.	1216.		-0.0031	-0.0006	-0.0022	-0.0042	0.0017	0.0092	517.
.0120	170.	-378.	38.	-455.	36.	1504.		-0.0048	-0.0008	-0.0026	-0.0049	0.0053	0.0122	631.
.0130	153.	-425.	56.	-600.	72.	1543.		-0.0070	-0.0010	-0.0029	-0.0069	0.0108	0.0145	665.
.0140	80.	-433.	103.	-940.	117.	1218.		-0.0096	-0.0013	-0.0028	-0.0079	0.0178	0.0154	619.
.0150	-38.	-424.	173.	-1431.	167.	581.		-0.0124	-0.0016	-0.0025	-0.0104	0.0256	0.0148	624.
.0160	-169.	-400.	234.	-1883.	216.	-199.		-0.0146	-0.0018	-0.0022	-0.0130	0.0332	0.0128	765.
.0170	-286.	-310.	250.	-2057.	257.	-978.		-0.0156	-0.0020	-0.0019	-0.0144	0.0396	0.0097	920.
.0180	-370.	-105.	196.	-1776.	285.	-1670.		-0.0151	-0.0021	-0.0018	-0.0139	0.0441	0.0054	985.
.0190	-412.	182.	74.	-1036.	304.	-2217.		-0.0127	-0.0021	-0.0013	-0.0109	0.0473	-0.0001	990.
.0200	-409.	438.	-76.	-54.	319.	-2601.		-0.0084	-0.0019	0.0001	-0.0061	0.0499	-0.0067	1052.
.0210	-338.	607.	-208.	891.	342.	-2629.		-0.0024	-0.0015	0.0030	-0.0003	0.0538	-0.0131	1122.
.0220	-150.	623.	-290.	1612.	403.	-1920.		0.0050	-0.0010	0.0075	0.0060	0.0536	-0.0168	1019.
.0230	66.	299.	-248.	1601.	480.	-987.		0.0125	-0.0006	0.0134	0.0100	0.0761	-0.0195	779.
.0240	146.	-253.	-48.	554.	525.	-847.		0.0191	-0.0005	0.0195	0.0094	0.0843	-0.0248	457.
.0250	51.	-566.	168.	-687.	503.	-1736.		0.0242	-0.0004	0.0240	0.0065	0.0826	-0.0336	776.
.0260	-23.	-328.	124.	-340.	443.	-2368.		0.0284	-0.0001	0.0250	0.0089	0.0746	-0.0399	976.
.0270	86.	320.	-246.	2052.	416.	-1662.		0.0320	0.0008	0.0230	0.0190	0.0708	-0.0388	1072.
.0280	110.	924.	-557.	4025.	374.	-1420.		0.0343	0.0021	0.0201	0.0266	0.0643	-0.0387	1719.
.0290	-129.	1258.	-587.	4187.	243.	-2841.		0.0350	0.0036	0.0180	0.0264	0.0442	-0.0452	2033.
.0300	-139.	1485.	-687.	4941.	128.	-2716.		0.0355	0.0048	0.0167	0.0304	0.0262	-0.0440	2263.
.0310	165.	1952.	-852.	6279.	69.	-465.		0.0359	0.0059	0.0167	0.0390	0.0164	-0.0322	2527.
.0320	363.	2326.	-687.	5580.	-6.	1155.		0.0340	0.0069	0.0193	0.0402	0.0048	-0.0218	2287.
.0330	301.	2064.	-148.	2470.	-92.	1165.		0.0287	0.0079	0.0236	0.0313	-0.0080	-0.0167	1096.
.0340	165.	1327.	421.	-923.	-147.	778.		0.0205	0.0050	0.0268	0.0201	-0.0160	-0.0114	488.
.0350	6.	845.	755.	-3021.	-217.	275.		0.0106	0.0101	0.0259	0.0114	-0.0267	-0.0056	1220.
.0360	-177.	984.	750.	-3208.	-340.	-428.		-0.0001	0.0111	0.0196	0.0071	-0.0464	-0.0005	1306.
.0370	-252.	1460.	396.	-1356.	-440.	-522.		-0.0103	0.0122	0.0093	0.0088	-0.0638	0.0065	609.
.0380	-269.	1889.	-61.	1088.	-461.	-381.		-0.0191	0.0134	-0.0020	0.0124	-0.0703	0.0129	498.
.0390	-462.	1951.	-243.	1787.	-480.	-1604.		-0.0261	0.0145	-0.0111	0.0085	-0.0759	0.0108	983.
.0400	-637.	1286.	-117.	601.	-558.	-2897.		-0.0301	0.0148	-0.0167	-0.0017	-0.0891	0.0053	1208.
.0410	-277.	390.	-84.	228.	-590.	-882.		-0.0297	0.0141	-0.0200	-0.0057	-0.0947	0.0123	436.

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S/RV PIPING KEWAUNEE GEWORK 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

.0310	165.	1952.	752.	6279.	69.	-465.	.0359	.0059	.0167	.0390	.0164	-.0322	2527.
.0320	367.	2326.	-687.	5580.	-6.	1155.	.0340	.0069	.0193	.0402	.0048	-.0218	2287.
.0330	301.	2084.	-148.	2470.	-92.	1165.	.0287	.0079	.0236	.0313	-.0080	-.0167	1096.
.0340	165.	1777.	421.	-923.	-147.	770.	.0205	.0090	.0268	.0201	-.0160	-.0114	488.
.0350	6.	845.	755.	-7021.	-217.	275.	.0106	.0101	.0259	.0114	-.0267	-.0056	1220.
.0360	-177.	984.	750.	-7208.	-740.	-420.	-.0001	.0111	.0196	.0071	-.0464	-.0005	1306.
.0370	-252.	1460.	396.	-1356.	-440.	-522.	-.0103	.0122	.0093	.0088	-.0638	.0065	609.
.0380	-269.	1889.	-61.	1088.	-461.	-381.	-.0191	.0134	-.0020	.0121	-.0703	.0129	498.
.0390	-462.	1951.	-243.	1787.	-480.	-1604.	-.0261	.0145	-.0111	.0085	-.0759	.0108	983.
.0400	-637.	1286.	-117.	601.	-153.	-2897.	-.0301	.0148	-.0167	-.0017	-.0891	.0053	1208.
.0410	-277.	300.	-94.	228.	-590.	-882.	-.0297	.0141	-.0200	-.0057	-.0947	.0123	436.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/31/02. 18.27.38.

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	33	MEMBER	1	SEQUENCE	815	LOCATION	BEG	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	PX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0420	379.	85.	-52.	17.	-575.	3067.	-.0270	.0127	-.0211	-.0070	-.0935	.0271	1252.		
.0430	620.	380.	110.	-975.	-500.	4366.	-.0257	.0115	-.0201	-.0103	-.0968	.0303	1811.		
.0440	434.	-135.	470.	-2852.	-610.	3018.	-.0268	.0103	-.0179	-.0172	-.1025	.0232	1684.		
.0450	218.	-1498.	592.	-3768.	-579.	1631.	-.0287	.0086	-.0164	-.0202	-.1002	.0174	1664.		
.0460	74.	-2080.	496.	-3074.	-526.	799.	-.0303	.0065	-.0165	-.0170	-.0942	.0145	1292.		
.0470	-83.	-1388.	354.	-2161.	-527.	-135.	-.0310	.0040	-.0173	-.0139	-.0955	.0106	894.		
.0480	-128.	-760.	244.	-1511.	-531.	-377.	-.0301	.0013	-.0178	-.0122	-.0966	.0089	660.		
.0490	35.	-927.	46.	-253.	-440.	668.	-.0275	-.0013	-.0172	-.0072	-.0829	.0122	337.		
.0500	197.	-1194.	-160.	1109.	-281.	1662.	-.0247	-.0035	-.0150	-.0007	-.0585	.0148	810.		
.0510	175.	-1079.	-276.	1940.	-123.	1416.	-.0230	-.0053	-.0110	.0046	-.0338	.0120	965.		
.0520	57.	-1149.	-348.	2548.	25.	520.	-.0224	-.0070	-.0055	.0101	-.0100	.0067	1044.		
.0530	-14.	-1590.	-425.	3249.	171.	-96.	-.0221	-.0089	.0008	.0168	.0137	.0028	1306.		
.0540	-12.	-1774.	-459.	3692.	296.	-288.	-.0218	-.0104	.0076	.0230	.0349	.0006	1491.		
.0550	22.	-1682.	-394.	3492.	395.	-314.	-.0212	-.0112	.0147	.0265	.0528	-.0010	1416.		
.0560	44.	-1893.	-291.	3003.	480.	-458.	-.0202	-.0114	.0211	.0281	.0691	-.0036	1234.		
.0570	10.	-1924.	-296.	3146.	564.	-979.	-.0187	-.0110	.0257	.0317	.0853	-.0082	1341.		
.0580	-109.	-715.	-449.	4200.	647.	-2067.	-.0164	-.0097	.0284	.0384	.1009	-.0158	1896.		
.0590	-298.	1151.	-631.	5405.	723.	-3624.	-.0129	-.0074	.0298	.0452	.1152	-.0263	2628.		
.0600	-442.	1992.	-756.	6259.	795.	-4896.	-.0074	-.0047	.0310	.0506	.1283	-.0366	3205.		
.0610	-391.	1710.	-839.	6886.	852.	-4873.	.0004	-.0020	.0321	.0556	.1390	-.0419	3402.		
.0620	-138.	1809.	-903.	7466.	873.	-7451.	.0097	.0010	.0332	.0610	.1444	-.0409	3319.		
.0630	130.	2560.	-899.	7652.	840.	-1768.	.0185	.0043	.0341	.0652	.1420	-.0376	3170.		
.0640	234.	2609.	-768.	7058.	762.	-942.	.0250	.0075	.0347	.0661	.1329	-.0359	2874.		
.0650	137.	1584.	-518.	5670.	673.	-1198.	.0283	.0105	.0346	.0632	.1212	-.0363	2341.		
.0660	-115.	765.	-239.	4022.	596.	-2272.	.0285	.0136	.0326	.0579	.1099	-.0381	1869.		
.0670	-406.	764.	-77.	3013.	534.	-3515.	.0269	.0166	.0278	.0537	.0990	-.0393	1870.		
.0680	-562.	823.	-167.	3542.	492.	-3909.	.0247	.0190	.0199	.0545	.0898	-.0365	2126.		
.0690	-541.	535.	-450.	5281.	474.	-3243.	.0225	.0202	.0101	.0599	.0840	-.0295	2494.		
.0700	-492.	272.	-665.	6602.	461.	-2560.	.0199	.0204	.0005	.0638	.0796	-.0235	2848.		
.0710	-486.	-28.	-674.	6676.	443.	-2337.	.0165	.0197	-.0071	.0634	.0746	-.0204	2844.		
.0720	-411.	-754.	-567.	6143.	438.	-1828.	.0123	.0177	-.0125	.0623	.0711	-.0168	2578.		
.0730	-265.	-1507.	-379.	5210.	435.	-990.	.0074	.0149	-.0159	.0610	.0665	-.0122	2135.		
.0740	-201.	-1642.	-30.	3280.	377.	-829.	.0016	.0115	-.0179	.0561	.0529	-.0113	1366.		
.0750	-216.	-1499.	406.	753.	247.	-1294.	-.0047	.0076	-.0194	.0483	.0286	-.0139	609.		
.0760	-131.	-1739.	711.	-1023.	87.	-1194.	-.0100	.0031	-.0219	.0426	.0006	-.0148	632.		
.0770	92.	-1991.	804.	-1559.	-69.	-241.	-.0138	-.0015	-.0258	.0408	-.0256	-.0128	634.		
.0780	734.	-1550.	755.	-1315.	-207.	837.	-.0161	-.0058	-.0306	.0409	-.0479	-.0108	631.		
.0790	534.	-782.	627.	-652.	-300.	1710.	-.0173	-.0097	-.0352	.0420	-.0522	-.0097	744.		

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.0680	-562.	573.	67.	3542.	492.	-2909.	.0247	.0190	.0199	.0545	.0598	-.0385	2126.
.0690	-541.	535.	-450.	5221.	474.	-3243.	.0225	.0202	.0101	.0599	.0840	-.0295	2494.
.0700	-492.	272.	-663.	6602.	461.	-2560.	.0199	.0704	.0005	.0638	.0796	-.0235	2848.
.0710	-481.	-28.	-674.	6676.	443.	-2337.	.0165	.0197	-.0071	.0634	.0746	-.0204	2844.
.0720	-411.	-754.	-567.	6143.	438.	-1828.	.0123	.0177	-.0125	.0623	.0711	-.0168	2578.
.0730	-265.	-1507.	-779.	5110.	435.	-990.	.0074	.0149	-.0159	.0610	.0565	-.0122	2135.
.0740	-201.	-1642.	-53.	3250.	377.	-829.	.0016	.0115	-.0179	.0561	.0529	-.0113	1366.
.0750	-216.	-1499.	406.	753.	247.	-1294.	-.0047	.0076	-.0194	.0483	.0286	-.0139	609.
.0760	-131.	-1739.	711.	-1023.	87.	-1194.	-.0100	.0031	-.0219	.0426	.0006	-.0148	632.
.0770	92.	-1991.	804.	-1559.	-69.	-241.	-.0138	-.0015	-.0258	.0408	-.0256	-.0128	634.
.0780	734.	-1550.	755.	-1315.	-207.	837.	-.0161	-.0053	-.0306	.0409	-.0479	-.0108	631.
.0790	534.	-782.	627.	-652.	-300.	1710.	-.0173	-.0097	-.0352	.0420	-.0522	-.0097	744.

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ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU									
TIME (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)		
.0800	676.	-544.	498.	-33.	-323.	2344.	-.0178	-.0132	-.0383	.0429	-.0652	-.0091	950.		
.0810	703.	-789.	437.	-193.	-308.	2387.	-.0179	-.0161	-.0393	.0407	-.0509	-.0103	969.		
.0820	646.	-872.	577.	-1017.	-293.	2049.	-.0174	-.0181	-.0383	.0359	-.0552	-.0121	925.		
.0830	643.	-741.	618.	-1540.	-285.	2231.	-.0160	-.0192	-.0364	.0324	-.0492	-.0107	1094.		
.0840	692.	-781.	570.	-1519.	-297.	2894.	-.0139	-.0195	-.0342	.0311	-.0452	-.0062	1317.		
.0850	635.	-923.	514.	-1498.	-361.	2948.	-.0115	-.0188	-.0317	.0292	-.0488	-.0038	1335.		
.0860	441.	-778.	442.	-1403.	-469.	2124.	-.0087	-.0170	-.0289	.0274	-.0593	-.0053	1039.		
.0870	244.	-301.	285.	-742.	-569.	1240.	-.0049	-.0144	-.0256	.0284	-.0593	-.0076	623.		
.0880	121.	301.	101.	149.	-635.	743.	.0005	-.0110	-.0209	.0313	-.0749	-.0092	397.		
.0890	68.	984.	20.	442.	-674.	563.	.0072	-.0072	-.0142	.0328	-.0769	-.0106	394.		
.0900	117.	1707.	72.	-69.	-687.	933.	.0147	-.0031	-.0058	.0317	-.0753	-.0102	466.		
.0910	277.	2245.	207.	-1095.	-667.	1991.	.0215	.0011	.0034	.0287	-.0694	-.0064	950.		
.0920	479.	2575.	372.	-2363.	-628.	3051.	.0259	.0052	.0117	.0240	-.0617	-.0011	1569.		
.0930	417.	2965.	510.	-3561.	-583.	3153.	.0262	.0093	.0177	.0177	-.0549	.0025	1923.		
.0940	188.	3439.	562.	-4343.	-529.	1979.	.0220	.0134	.0203	.0110	-.0486	.0032	1927.		
.0950	-182.	3618.	520.	-4637.	-460.	-16.	.0145	.0175	.0195	.0041	-.0416	.0021	1870.		
.0960	-544.	3261.	413.	-4591.	-378.	-1946.	.0057	.0213	.0159	-.0030	-.0338	.0017	2007.		
.0970	-756.	2671.	290.	-4429.	-286.	-2974.	-.0022	.0249	.0105	-.0104	-.0252	.0044	2144.		
.0980	-766.	2194.	217.	-4524.	-178.	-2819.	-.0080	.0286	.0044	-.0189	-.0143	.0103	2140.		
.0990	-629.	1689.	255.	-5212.	-49.	-1849.	-.0115	.0324	-.0018	-.0294	-.0009	.0177	2219.		
.1000	-453.	879.	394.	-6419.	89.	-739.	-.0135	.0365	-.0080	-.0415	.0136	.0240	2593.		
.1010	-345.	-16.	556.	-7662.	219.	-139.	-.0149	.0408	-.0150	-.0536	.0261	.0267	3076.		
.1020	-355.	-456.	648.	-8354.	320.	-372.	-.0161	.0454	-.0236	-.0633	.0332	.0247	3358.		
.1030	-442.	-415.	600.	-8048.	373.	-1175.	-.0167	.0495	-.0337	-.0687	.0321	.0191	3267.		
.1040	-496.	-501.	405.	-6660.	377.	-1883.	-.0158	.0524	-.0444	-.0686	.0230	.0122	2782.		
.1050	-441.	-781.	157.	-4726.	349.	-2020.	-.0126	.0538	-.0537	-.0642	.0091	.0058	2067.		
.1060	-268.	-859.	-8.	-3084.	314.	-1549.	-.0069	.0536	-.0593	-.0579	-.0050	.0000	1391.		
.1070	-1.	-828.	10.	-2355.	298.	-596.	.0008	.0517	-.0597	-.0519	-.0150	-.0052	982.		
.1080	288.	-1535.	234.	-2757.	302.	448.	.0092	.0482	-.0551	-.0475	-.0204	-.0106	1127.		
.1090	561.	-2702.	552.	-3681.	335.	1417.	.0170	.0435	-.0468	-.0435	-.0210	-.0156	1589.		
.1100	340.	-1212.	782.	-4083.	454.	2569.	.0218	.0387	-.0372	-.0370	-.0081	-.0175	1944.		
.1110	820.	133.	527.	-4555.	571.	2653.	.0253	.0330	-.0283	-.0328	.0055	-.0211	2128.		
.1120	904.	-1894.	1107.	-4821.	625.	1577.	.0247	.0256	-.0217	-.0314	.0112	-.0269	2051.		
.1130	680.	-4436.	872.	-3125.	650.	876.	.0222	.0180	-.0191	-.0253	.0160	-.0293	1310.		
.1140	602.	-3569.	264.	714.	689.	226.	.0189	.0121	-.0193	-.0127	.0235	-.0276	408.		
.1150	480.	-1474.	-371.	4599.	699.	-421.	.0160	.0082	-.0193	-.0008	.0303	-.0261	1874.		
.1160	764.	-1927.	-740.	6325.	709.	-699.	.0147	.0056	-.0161	.0048	.0337	-.0242	2782.		
.1170	317.	-3487.	-832.	7249.	739.	-1092.	.0158	.0046	-.0085	.0047	.0505	-.0206	2957.		

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CONDITION 24

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.1070	-1.	-828.	10.	-2355.	299.	-596.	.008	.0517	-.0597	-.0519	-.0150	-.0052	982.
.1080	288.	-1535.	234.	-2757.	302.	442.	.092	.0482	-.0551	-.0475	-.0204	-.0106	1127.
.1090	561.	-2702.	552.	-7681.	335.	1417.	.0170	.0435	-.0468	-.0435	-.0210	-.0156	1589.
.1100	840.	-1210.	702.	-4092.	454.	2569.	.0228	.0327	-.0372	-.0370	-.0081	-.0175	1944.
.1110	926.	133.	987.	-4555.	571.	2653.	.0257	.0320	-.0283	-.0328	.0055	-.0211	2128.
.1120	804.	-1894.	1107.	-4821.	625.	1577.	.0247	.0256	-.0217	-.0314	.0112	-.0269	2051.
.1130	680.	-4436.	872.	-3125.	650.	676.	.0222	.0180	-.0191	-.0253	.0160	-.0293	1310.
.1140	602.	-3569.	264.	714.	689.	226.	.0189	.0121	-.0193	-.0127	.0235	-.0276	408.
.1150	480.	-1474.	-371.	4599.	699.	-421.	.0160	.0082	-.0193	-.0008	.0303	-.0261	1874.
.1160	704.	-1997.	-748.	6325.	729.	-599.	.0147	.0056	-.0161	.0048	.0327	-.0242	2782.
.1170	317.	-3497.	-832.	7249.	739.	-1092.	.0158	.0046	-.0085	.0047	.0505	-.0206	2957.

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ENGLISH UNITS

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

SECTION	33	MEMBER	1	SEQUENCE	815	LOCATION	BEG	TYPE	RU	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.1180	377.	-1860.	-734.	6609.	783.	-429.	.0193	.0061	.0024	.0020	.0647	-.0139	2676.	
.1190	333.	827.	-387.	4333.	715.	-363.	.0241	.0090	.0150	-.0076	.0532	-.0098	1768.	
.1200	264.	603.	15.	1540.	526.	-324.	.0297	.0121	.0265	-.0210	.0453	-.0051	673.	
.1210	358.	-717.	87.	713.	315.	990.	.0355	.0163	.0341	-.0286	.0261	.0070	506.	
.1220	305.	903.	-107.	1318.	76.	1570.	.0395	.0229	.0373	-.0331	.0037	.0178	823.	
.1230	-6.	3695.	-397.	2309.	-158.	651.	.0411	.0312	.0375	-.0387	-.0187	.0239	965.	
.1240	-480.	3789.	-651.	2784.	-355.	-1229.	.0412	.0393	.0365	-.0481	-.0378	.0266	1229.	
.1250	-884.	2589.	-874.	2953.	-470.	-2665.	.0413	.0468	.0357	-.0587	-.0477	.0310	1607.	
.1260	-1062.	3551.	-980.	2937.	-499.	-2731.	.0423	.0540	.0356	-.0691	-.0466	.0402	1622.	
.1270	-1150.	5242.	-911.	1510.	-543.	-2412.	.0438	.0600	.0368	-.0846	-.0480	.0492	1162.	
.1280	-1014.	4101.	-775.	-265.	-578.	-809.	.0453	.0636	.0381	-.1007	-.0476	.0625	413.	
.1290	-746.	1554.	-758.	-1181.	-591.	1503.	.0451	.0651	.0379	-.1125	-.0446	.0784	803.	
.1300	-646.	1222.	-860.	-1244.	-613.	2611.	.0409	.0655	.0353	-.1203	-.0454	.0892	1186.	
.1310	-803.	2189.	-981.	-1053.	-642.	1920.	.0324	.0643	.0311	-.1264	-.0517	.0923	916.	
.1320	-1195.	1334.	-956.	-1633.	-699.	-505.	.0207	.0606	.0262	-.1347	-.0569	.0869	741.	
.1330	-1477.	-378.	-871.	-2349.	-722.	-2499.	.0090	.0547	.0216	-.1415	-.0800	.0810	1406.	
.1340	-1497.	-70.	-733.	-3124.	-705.	-3151.	-.0005	.0475	.0179	-.1459	-.0871	.0775	1804.	
.1350	-1250.	1149.	-503.	-423.	-671.	-2440.	-.0067	.0391	.0154	-.1493	-.0896	.0757	1981.	
.1360	-766.	261.	-252.	-5269.	-607.	-471.	-.0097	.0288	.0136	-.1503	-.0851	.0759	2137.	
.1370	-349.	-1689.	19.	-6314.	-572.	868.	-.0111	.0176	.0116	-.1507	-.0902	.0709	2567.	
.1380	-108.	-1795.	214.	-8844.	-474.	1020.	-.0120	.0071	.0085	-.1489	-.0749	.0594	2753.	
.1390	-49.	-729.	333.	-6929.	-430.	24.	-.0125	-.0021	.0038	-.1461	-.0749	.0426	2786.	
.1400	14.	-1175.	332.	-6330.	-428.	-854.	-.0117	-.0105	-.0024	-.1415	-.0811	.0262	2569.	
.1410	281.	-2616.	148.	-4622.	-443.	-258.	-.0081	-.0177	-.0096	-.1328	-.0873	.0163	1866.	
.1420	564.	-2575.	-37.	-2982.	-520.	597.	-.0073	-.0227	-.0161	-.1245	-.0984	.0078	1238.	
.1430	810.	-1685.	-152.	-1825.	-670.	1415.	.0053	-.0256	-.0205	-.1177	-.1104	-.0002	961.	
.1440	1007.	-2155.	-205.	-1080.	-725.	2163.	.0142	-.0239	-.0220	-.1116	-.1180	-.0070	1013.	
.1450	1153.	-3337.	-257.	-344.	-755.	2860.	.0235	-.0263	-.0208	-.1041	-.1157	-.0118	1195.	
.1460	1224.	-3123.	-338.	557.	-711.	3361.	.0322	-.0229	-.0173	-.0949	-.1029	-.0148	1397.	
.1470	1093.	-1974.	-363.	1009.	-685.	2832.	.0391	-.0173	-.0119	-.0872	-.0921	-.0193	1237.	
.1480	947.	-1777.	-443.	1735.	-676.	2429.	.0443	-.0104	-.0059	-.0784	-.0828	-.0200	1228.	
.1490	809.	-1909.	-604.	2893.	-693.	2343.	.0474	-.0023	.0004	-.0678	-.0761	-.0163	1520.	
.1500	604.	-643.	-769.	4001.	-737.	1946.	.0479	.0072	.0070	-.0576	-.0732	-.0112	1810.	
.1510	353.	1208.	-900.	4850.	-761.	1340.	.0454	.0173	.0143	-.0481	-.0589	-.0048	2042.	
.1520	-1.	1740.	-931.	4854.	-759.	79.	.0403	.0271	.0227	-.0418	-.0629	.0003	1972.	
.1530	-374.	1316.	-820.	4327.	-699.	-1375.	.0336	.0362	.0316	-.0372	-.0505	.0049	1843.	
.1540	-747.	1614.	-690.	3479.	-611.	-2960.	.0262	.0445	.0400	-.0344	-.0349	.0082	1849.	
.1550	-961.	2345.	-629.	3005.	-502.	-3749.	.0194	.0516	.0466	-.0303	-.0169	.0136	1944.	

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PRESSURE

ENGLISH UNITS

.1450	1157.	-2337.	-257.	-344.	-755.	2860.	.0235	-.0267	-.0220	-.1116	-.1157	-.0118	1013.
.1460	1224.	-2123.	-338.	557.	-711.	3361.	.0322	-.0229	-.0173	-.0949	-.1029	-.0148	1397.
.1470	1093.	-1974.	-363.	1009.	-635.	2832.	.0351	-.0173	-.0119	-.0872	-.0921	-.0193	1237.
.1480	947.	-1777.	-447.	1775.	-678.	2426.	.0443	-.0104	-.0059	-.0784	-.0828	-.0200	1228.
.1490	809.	-1909.	-604.	2893.	-693.	2343.	.0474	-.0027	.0004	-.0678	-.0761	-.0163	1520.
.1500	604.	-643.	-769.	4301.	-737.	1946.	.0479	.0072	.0070	-.0576	-.0732	-.0112	1810.
.1510	353.	1208.	-900.	4850.	-761.	1340.	.0454	.0173	.0143	-.0431	-.0589	-.0048	2042.
.1520	-1.	1740.	-901.	4854.	-759.	79.	.0403	.0271	.0227	-.0418	-.0629	.0003	1972.
.1530	-374.	1316.	-820.	4327.	-699.	-1375.	.0336	.0362	.0316	-.0373	-.0505	.0049	1843.
.1540	-743.	1616.	-690.	3479.	-611.	-2960.	.0262	.0445	.0400	-.0344	-.0349	.0082	1849.
.1550	-961.	2345.	-629.	2025.	-502.	-3749.	.0194	.0516	.0466	-.0303	-.0169	.0136	1944.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.38.

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	33	MEMBER	1	SEQUENCE	E15	LOCATION	BEG	TYPE	RU	DX	DY	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	RX	RY	RZ	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	
.1560	-876.	2097.	-732.	3637.	-345.	-2730.	.0136	.0567	.0505	-.0224	.0078	.0254	-.0224	.0078	.0254	1830.
.1570	-741.	1354.	-859.	4337.	-190.	-1526.	.0079	.0599	.0516	-.0150	.0307	.0368	-.0150	.0307	.0368	1866.
.1580	-674.	1498.	-997.	5237.	-29.	-842.	.0014	.0614	.0500	-.0078	.0522	.0450	-.0078	.0522	.0450	2129.
.1590	-694.	1767.	-1142.	6226.	143.	-758.	-.0063	.0607	.0464	-.0001	.0727	.0501	-.0001	.0727	.0501	2517.
.1600	-869.	1338.	-1176.	6627.	281.	-1724.	-.0148	.0574	.0416	.0056	.0864	.0499	.0056	.0864	.0499	2750.
.1610	-1091.	434.	-1091.	6434.	377.	-3079.	-.0228	.0519	.0366	.0099	.0934	.0463	.0099	.0934	.0463	2866.
.1620	-1125.	139.	-989.	6322.	468.	-3349.	-.0276	.0447	.0318	.0162	.0998	.0453	.0162	.0998	.0453	2877.
.1630	-1022.	385.	-784.	5710.	517.	-2908.	-.0318	.0363	.0278	.0217	.1009	.0445	.0217	.1009	.0445	2580.
.1640	-779.	165.	-496.	4665.	534.	-1731.	-.0324	.0268	.0246	.0266	.0980	.0443	.0266	.0980	.0443	2008.
.1650	-437.	-469.	-195.	3575.	546.	-67.	-.0315	.0167	.0218	.0316	.0946	.0442	.0316	.0946	.0442	1452.
.1660	-190.	-614.	122.	2301.	533.	870.	-.0303	.0068	.0188	.0353	.0877	.0397	.0353	.0877	.0397	1010.
.1670	-10.	-431.	361.	1396.	522.	1308.	-.0299	-.0024	.0150	.0392	.0815	.0326	.0392	.0815	.0326	796.
.1680	98.	-705.	507.	883.	499.	1246.	-.0305	-.0106	.0102	.0429	.0747	.0236	.0429	.0747	.0236	645.
.1690	212.	-1365.	527.	959.	475.	1206.	-.0318	-.0172	.0045	.0474	.0695	.0151	.0474	.0695	.0151	647.
.1700	320.	-1567.	471.	1328.	440.	1107.	-.0337	-.0217	-.0014	.0514	.0647	.0067	.0514	.0647	.0067	716.
.1710	381.	-1231.	413.	1543.	379.	699.	-.0360	-.0240	-.0065	.0538	.0574	-.0026	.0538	.0574	-.0026	697.
.1720	551.	-1208.	294.	2062.	353.	1046.	-.0379	-.0243	-.0100	.0574	.0557	-.0079	.0574	.0557	-.0079	939.
.1730	684.	-1586.	246.	2077.	339.	1218.	-.0396	-.0225	-.0112	.0593	.0553	-.0132	.0593	.0553	-.0132	976.
.1740	723.	-1722.	292.	1460.	340.	888.	-.0413	-.0186	-.0100	.0589	.0563	-.0196	.0589	.0563	-.0196	699.
.1750	711.	-1423.	366.	666.	354.	398.	-.0427	-.0128	-.0071	.0582	.0589	-.0253	.0582	.0589	-.0253	342.
.1760	616.	-1090.	459.	-278.	337.	-447.	-.0437	-.0056	-.0033	.0569	.0566	-.0313	.0569	.0566	-.0313	251.
.1770	538.	-886.	478.	-768.	298.	-964.	-.0438	.0025	.0004	.0571	.0509	-.0345	.0571	.0509	-.0345	509.
.1780	445.	-375.	428.	-833.	224.	-1369.	-.0428	.0112	.0033	.0587	.0390	-.0360	.0587	.0390	-.0360	649.
.1790	375.	441.	298.	-365.	144.	-1405.	-.0409	.0201	.0055	.0622	.0244	-.0346	.0622	.0244	-.0346	585.
.1800	280.	1073.	174.	112.	71.	-1406.	-.0385	.0285	.0075	.0659	.0081	-.0319	.0659	.0081	-.0319	567.
.1810	64.	1462.	165.	-87.	-10.	-2045.	-.0359	.0362	.0098	.0669	-.0114	-.0313	.0669	-.0114	-.0313	821.
.1820	-108.	1910.	175.	-303.	-47.	-2272.	-.0329	.0426	.0123	.0685	-.0257	-.0281	.0685	-.0257	-.0281	920.
.1830	-236.	2426.	238.	-702.	-60.	-2165.	-.0298	.0476	.0148	.0698	-.0362	-.0232	.0698	-.0362	-.0232	914.
.1840	-334.	2535.	348.	-1453.	-68.	-1871.	-.0271	.0506	.0167	.0696	-.0452	-.0175	.0696	-.0452	-.0175	951.
.1850	-396.	2205.	485.	-2305.	-68.	-1407.	-.0252	.0515	.0175	.0685	-.0525	-.0111	.0685	-.0525	-.0111	1084.
.1860	-452.	1983.	589.	-2928.	-61.	-1015.	-.0247	.0506	.0161	.0674	-.0587	-.0054	.0674	-.0587	-.0054	1244.
.1870	-440.	1898.	575.	-2779.	-18.	-389.	-.0256	.0479	.0124	.0686	-.0603	.0009	.0686	-.0603	.0009	1126.
.1880	-481.	1672.	589.	-2317.	27.	-206.	-.0264	.0436	.0067	.0703	-.0612	.0045	.0703	-.0612	.0045	934.
.1890	-526.	1243.	420.	-1644.	78.	-347.	-.0324	.0378	-.0001	.0725	-.0601	.0055	.0725	-.0601	.0055	675.
.1900	-521.	979.	328.	-355.	139.	-436.	-.0270	.0309	-.0019	.0757	-.0549	.0050	.0757	-.0549	.0050	389.
.1910	-471.	943.	315.	-447.	186.	-517.	-.0415	.0231	-.0127	.0782	-.0488	.0025	.0782	-.0488	.0025	284.
.1920	-276.	698.	357.	-251.	234.	91.	-.0451	.0147	-.0167	.0813	-.0400	.0012	.0813	-.0400	.0012	142.
.1930	39.	205.	456.	-299.	231.	1299.	-.0481	.0061	-.0189	.0847	-.0295	.0010	.0847	-.0295	.0010	547.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.38.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

.1830	-236.	2426.	228.	-702.	-80.	-2185.	-1298.	.0476	.0149	.0698	-.0362	-.0232	914.
.1840	-234.	2579.	248.	-1452.	-67.	-1871.	-1027.1	.0506	.0167	.0696	-.0452	-.0175	951.
.1850	-396.	2205.	485.	-2305.	-88.	-1407.	-.0252	.0515	.0173	.0685	-.0525	-.0111	1084.
.1860	-452.	1268.	589.	-2921.	-61.	-1215.	-.0247	.0506	.0161	.0674	-.0587	-.0054	1244.
.1870	-447.	1398.	577.	-2779.	-17.	-1389.	-.0256	.0479	.0124	.0686	-.0503	.0009	1126.
.1880	-461.	1672.	589.	-2317.	27.	-206.	-.0284	.0426	.0067	.0703	-.0612	.0045	934.
.1890	-526.	1243.	420.	-1644.	78.	-347.	-.0324	.0372	-.0001	.0725	-.0601	.0055	675.
.1900	-521.	979.	328.	-859.	139.	-436.	-.0270	.0309	-.0069	.0757	-.0549	.0050	389.
.1910	-471.	943.	315.	-447.	186.	-517.	-.0415	.0231	-.0127	.0782	-.0488	.0025	284.
.1920	-274.	698.	757.	-201.	234.	91.	-.0451	.0147	-.0167	.0813	-.0400	.0012	142.
.1930	38.	235.	456.	-299.	281.	1299.	-.0481	.0061	-.0189	.0847	-.0295	.0010	547.

ADLPIPE PAGE 1412

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02. 18.27.38.

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	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU	DX	DY	DZ	PX	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)
.1940	359.	-133.	619.	-677.	321.	2469.	-.0510	-.0022	-.0193	.0876	-.0187	.0002	1035.
.1950	593.	-193.	807.	-1221.	354.	3094.	-.0545	-.0096	-.0185	.0900	-.0078	-.0027	1342.
.1960	697.	-250.	971.	-1670.	378.	3981.	-.0589	-.0160	-.0171	.0922	.0035	-.0078	1380.
.1970	876.	-374.	1077.	-1978.	392.	2196.	-.0638	-.0211	-.0157	.0943	.0152	-.0147	1170.
.1980	587.	-396.	1103.	-1752.	406.	1119.	-.0684	-.0246	-.0145	.0963	.0285	-.0219	850.
.1990	508.	-374.	1045.	-1279.	429.	230.	-.0714	-.0265	-.0134	.0981	.0437	-.0280	549.
.2000	471.	-513.	930.	-633.	459.	-287.	-.0723	-.0269	-.0121	.0991	.0399	-.0324	334.
.2010	470.	-747.	791.	0.	492.	-500.	-.0708	-.0258	-.0103	.0987	.0758	-.0358	282.
.2020	495.	-852.	635.	603.	533.	-482.	-.0671	-.0231	-.0081	.0971	.0915	-.0385	376.
.2030	517.	-826.	477.	1110.	575.	-413.	-.0617	-.0190	-.0053	.0944	.1062	-.0409	528.
.2040	493.	-831.	351.	1340.	603.	-587.	-.0553	-.0138	-.0023	.0898	.1173	-.0442	635.
.2050	421.	-839.	250.	1354.	606.	-1013.	-.0484	-.0077	-.0008	.0837	.1231	-.0481	721.
.2060	347.	-678.	131.	1473.	591.	-1402.	-.0412	-.0012	.0034	.0777	.1240	-.0513	850.
.2070	295.	-352.	-16.	1810.	563.	-1601.	-.0340	.0054	.0054	.0726	.1208	-.0530	996.
.2080	246.	-12.	-153.	2156.	530.	-1737.	-.0270	.0118	.0071	.0679	.1145	-.0537	1131.
.2090	188.	319.	-251.	2365.	507.	-1692.	-.0207	.0177	.0088	.0633	.1078	-.0537	1232.
.2100	126.	714.	-312.	2495.	505.	-2021.	-.0153	.0232	.0106	.0595	.1038	-.0525	1304.
.2110	53.	1137.	-378.	2363.	528.	-2160.	-.0111	.0279	.0127	.0567	.1025	-.0503	1362.
.2120	-37.	1476.	-225.	2547.	561.	-2340.	-.0084	.0317	.0148	.0546	.1024	-.0471	1406.
.2130	-131.	1733.	-286.	2499.	594.	-2481.	-.0073	.0343	.0167	.0524	.1020	-.0426	1433.
.2140	-219.	1925.	-232.	2479.	618.	-2517.	-.0075	.0358	.0182	.0529	.1003	-.0366	1439.
.2150	-303.	1920.	-170.	2484.	624.	-2482.	-.0092	.0361	.0191	.0529	.0965	-.0295	1431.
.2160	-392.	1623.	-104.	2513.	609.	-2461.	-.0120	.0353	.0193	.0530	.0903	-.0220	1432.
.2170	-496.	1201.	-38.	2563.	575.	-2552.	-.0155	.0335	.0190	.0530	.0825	-.0151	1469.
.2180	-615.	935.	35.	2557.	527.	-2819.	-.0191	.0309	.0182	.0525	.0740	-.0098	1542.
.2190	-724.	725.	125.	2408.	471.	-3148.	-.0223	.0278	.0172	.0508	.0554	-.0061	1602.
.2200	-772.	453.	223.	2147.	412.	-3247.	-.0241	.0242	.0159	.0479	.0573	-.0035	1571.
.2210	-723.	57.	307.	1880.	349.	-2917.	-.0242	.0202	.0142	.0439	.0493	-.0013	1400.
.2220	-588.	-308.	362.	1685.	277.	-2227.	-.0227	.0160	.0119	.0389	.0407	.0002	1126.
.2230	-409.	-581.	331.	1572.	192.	-1424.	-.0200	.0120	.0088	.0327	.0303	.0004	854.
.2240	-233.	-49.	372.	1481.	90.	-779.	-.0168	.0081	.0052	.0249	.0178	-.0015	673.
.2250	-91.	-1143.	246.	1347.	-25.	-445.	-.0134	.0048	.0010	.0153	.0031	-.0056	569.
.2260	23.	-1374.	305.	1162.	-143.	-344.	-.0099	.0021	-.0033	.0041	-.0127	-.0112	490.
.2270	137.	-1532.	248.	943.	-255.	-254.	-.0064	.0001	-.0075	-.0084	-.0286	-.0170	406.
.2280	273.	-1650.	175.	687.	-355.	-36.	-.0027	-.0011	-.0112	-.0219	-.0429	-.0219	310.
.2290	433.	-1754.	94.	426.	-438.	408.	.0111	-.0015	-.0141	-.0358	-.0580	-.0253	295.
.2300	606.	-1773.	-15.	248.	-496.	1038.	.0047	-.0012	-.0160	-.0496	-.0595	-.0269	472.
.2310	756.	-1721.	-159.	181.	-526.	1659.	.0027	-.0001	-.0169	-.0628	-.0777	-.0269	702.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/12/02. 18.27.38.

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

CONDITION 24
 LOADS
 SHOCK
 PRESSURE
 ENGLISH UNITS

.2210	-727.	57.	707.	1890.	349.	-1917.	-1242.	.0202	.0142	.0439	.0493	-.0013	1400.
.2220	-588.	-308.	362.	1685.	277.	-2227.	-1227.	.0160	.0119	.0389	.0407	.0002	1126.
.2230	-409.	-591.	331.	1572.	192.	-1424.	-1200.	.0120	.0088	.0327	.0303	.0004	854.
.2240	-327.	-849.	370.	1481.	91.	-779.	-1063.	.0091	.0052	.0249	.0178	-.0015	673.
.2250	-51.	-1143.	346.	1347.	-25.	-445.	-1134.	.0049	.0010	.0153	.0031	-.0056	569.
.2260	21.	-1374.	305.	1162.	-143.	-344.	-1099.	.0021	-.0033	.0041	-.0127	-.0112	490.
.2270	137.	-1522.	248.	943.	-255.	-254.	-1064.	.0001	-.0075	-.0084	-.0286	-.0170	406.
.2280	277.	-1650.	172.	697.	-355.	-34.	-1037.	.0011	-.0112	-.0219	-.0439	-.0219	310.
.2290	433.	-1754.	94.	426.	-438.	408.	-1011.	.0015	-.0141	-.0358	-.0580	-.0253	295.
.2300	604.	-1773.	-10.	245.	-496.	1078.	-1047.	.0012	-.0160	-.0496	-.0595	-.0269	472.
.2310	756.	-1721.	-150.	181.	-526.	1859.	.0077	-.0001	-.0169	-.0628	-.0777	-.0269	702.

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DIS. ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.38.

5/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	33	MEMBER	1	SEQUENCE	815	LOCATION	BEG	TYPE	RU	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2320	834.	-1684.	-301.	175.	-531.	2004.	.0095	.0016	-.0165	-.0753	-.0830	-.0260	835.	
.2330	820.	-1548.	-461.	224.	-516.	1958.	.0098	.0039	-.0147	-.0860	-.0861	-.0244	817.	
.2340	727.	-1286.	-629.	341.	-485.	1804.	.0087	.0067	-.0116	-.0969	-.0878	-.0220	686.	
.2350	581.	-937.	-785.	448.	-445.	1075.	.0067	.0098	-.0069	-.1056	-.0887	-.0184	500.	
.2360	407.	-611.	-908.	430.	-402.	496.	.0042	.0131	-.0006	-.1131	-.0895	-.0136	309.	
.2370	234.	-275.	-992.	273.	-356.	4.	.0018	.0165	.0072	-.1192	-.0895	-.0076	180.	
.2380	79.	176.	-1042.	37.	-305.	-34.	-.0001	.0198	.0161	-.1237	-.0877	-.0009	186.	
.2390	-64.	671.	-1064.	-245.	-247.	-628.	-.0014	.0229	.0256	-.1265	-.0836	.0060	288.	
.2400	-200.	1019.	-1066.	-517.	-187.	-906.	-.0020	.0256	.0350	-.1278	-.0775	.0122	425.	
.2410	-324.	1203.	-1065.	-671.	-124.	-1159.	-.0018	.0279	.0434	-.1275	-.0594	.0179	540.	
.2420	-424.	1362.	-1078.	-615.	-60.	-1332.	-.0009	.0296	.0503	-.1255	-.0599	.0230	589.	
.2430	-494.	1558.	-1109.	-312.	-0.	-1378.	.0006	.0308	.0550	-.1218	-.0495	.0278	567.	
.2440	-533.	1684.	-1157.	230.	53.	-1296.	.0025	.0314	.0574	-.1167	-.0384	.0322	529.	
.2450	-561.	1652.	-1198.	381.	97.	-1202.	.0046	.0313	.0576	-.1104	-.0272	.0359	599.	
.2460	-588.	1521.	-1201.	1429.	128.	-1227.	.0069	.0304	.0560	-.1039	-.0162	.0382	758.	
.2470	-637.	1360.	-1137.	1703.	148.	-1328.	.0092	.0289	.0530	-.0979	-.0059	.0393	869.	
.2480	-646.	1301.	-1013.	1710.	162.	-1298.	.0119	.0268	.0488	-.0922	.0039	.0401	866.	
.2490	-614.	1057.	-852.	1580.	172.	-1082.	.0148	.0241	.0437	-.0867	.0132	.0409	767.	
.2500	-563.	858.	-664.	1316.	174.	-766.	.0179	.0209	.0376	-.0815	.0210	.0412	615.	
.2510	-519.	573.	-465.	965.	165.	-569.	.0210	.0174	.0308	-.0770	.0267	.0402	454.	
.2520	-480.	287.	-282.	656.	144.	-477.	.0239	.0136	.0233	-.0729	.0300	.0381	324.	
.2530	-435.	58.	-136.	432.	113.	-401.	.0267	.0098	.0153	-.0692	.0309	.0353	241.	
.2540	-371.	-196.	-33.	347.	75.	-259.	.0295	.0061	.0072	-.0659	.0296	.0323	176.	
.2550	-286.	-521.	42.	273.	34.	-39.	.0323	.0026	-.0004	-.0636	.0265	.0290	111.	
.2560	-191.	-868.	108.	77.	-4.	194.	.0351	-.0006	-.0072	-.0625	.0220	.0253	84.	
.2570	-97.	-1238.	174.	-291.	-39.	388.	.0379	-.0034	-.0128	-.0630	.0165	.0212	195.	
.2580	-2.	-1498.	227.	-744.	-71.	566.	.0406	-.0058	-.0171	-.0645	.0103	.0169	376.	
.2590	93.	-1563.	254.	-1178.	-99.	759.	.0431	-.0080	-.0203	-.0666	.0040	.0129	564.	
.2600	180.	-1635.	257.	-1597.	-126.	927.	.0455	-.0100	-.0225	-.0692	-.0027	.0091	743.	
.2610	246.	-1984.	244.	-2025.	-154.	1023.	.0476	-.0121	-.0239	-.0724	-.0101	.0056	912.	
.2620	293.	-2204.	211.	-2409.	-183.	1064.	.0495	-.0140	-.0248	-.0759	-.0177	.0026	1059.	
.2630	324.	-2195.	157.	-2697.	-215.	1099.	.0512	-.0159	-.0253	-.0792	-.0256	.0004	1172.	
.2640	342.	-2124.	91.	-2995.	-234.	1151.	.0528	-.0178	-.0256	-.0824	-.0339	-.0009	1265.	
.2650	340.	-2054.	28.	-3153.	-262.	1226.	.0544	-.0198	-.0258	-.0855	-.0423	-.0012	1363.	
.2660	342.	-1948.	-24.	-3404.	-357.	1324.	.0560	-.0217	-.0258	-.0883	-.0506	-.0006	1473.	
.2670	326.	-1776.	-64.	-3661.	-419.	1447.	.0576	-.0235	-.0257	-.0907	-.0586	.0009	1589.	
.2680	304.	-1337.	-99.	-3872.	-489.	1615.	.0593	-.0253	-.0257	-.0923	-.0663	.0032	1695.	
.2690	279.	-1134.	-120.	-4042.	-569.	1876.	.0609	-.0270	-.0257	-.0930	-.0737	.0063	1796.	

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DIS. ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.38.

5/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

.2595	57.	-1581.	254.	-1178.	-29.	759.	.471	-.0080	-.0203	-.0666	.0040	.0129	564.
.2600	180.	-1870.	257.	-1587.	-126.	927.	.455	-.0100	-.0225	-.0692	-.0027	.0091	743.
.2610	244.	-1984.	244.	-1625.	-154.	1023.	.476	-.0121	-.0239	-.0724	-.0101	.0056	912.
.2620	297.	-2214.	211.	-2470.	-187.	1044.	.495	-.0140	-.0248	-.0759	-.0177	.0026	1059.
.2630	374.	-2491.	157.	-2697.	-215.	1099.	.512	-.0159	-.0253	-.0792	-.0256	.0004	1172.
.2640	440.	-2824.	91.	-2991.	-234.	1151.	.528	-.0175	-.0256	-.0824	-.0339	-.0009	1265.
.2650	540.	-2954.	20.	-3153.	-302.	1226.	.544	-.0198	-.0258	-.0855	-.0423	-.0012	1363.
.2660	742.	-1948.	-24.	-3404.	-357.	1324.	.560	-.0217	-.0258	-.0883	-.0506	-.0006	1473.
.2670	726.	-1776.	-64.	-2661.	-419.	1447.	.576	-.0235	-.0257	-.0907	-.0586	.0009	1589.
.2680	704.	-1387.	-94.	-2075.	-489.	1615.	.593	-.0253	-.0257	-.0927	-.0663	.0032	1695.
.2690	279.	-1134.	-103.	-4042.	-569.	1836.	.609	-.0270	-.0257	-.0930	-.0737	.0063	1796.

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D15/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.38.

S/RV PIPING KEWAUNEE CKWOPF 2 SUP DIK
 2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU								STRESS
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	EX	RY	RZ		(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)		
.2700	250.	-1156.	-106.	-4224.	-659.	2083.	.0625	-.0286	-.0257	-.0930	-.0811	.0101	1908.	
.2710	214.	-1202.	-109.	-4438.	-753.	2320.	.0637	-.0298	-.0257	-.0924	-.0880	.0143	2032.	
.2720	170.	-762.	-114.	-4636.	-844.	2532.	.0645	-.0304	-.0258	-.0911	-.0937	.0188	2147.	
.2730	119.	76.	-94.	-4797.	-927.	2699.	.0646	-.0305	-.0259	-.0888	-.0980	.0234	2240.	
.2740	59.	538.	-65.	-4964.	-1001.	2796.	.0640	-.0306	-.0259	-.0859	-.1014	.0279	2321.	
.2750	-2.	403.	-31.	-5109.	-1061.	2846.	.0628	-.0308	-.0260	-.0822	-.1037	.0322	2385.	
.2760	-54.	350.	-5.	-5139.	-1101.	2902.	.0609	-.0302	-.0260	-.0774	-.1044	.0364	2409.	
.2770	-89.	797.	10.	-5045.	-1119.	3000.	.0585	-.0306	-.0260	-.0713	-.1036	.0405	2397.	
.2780	-102.	1186.	32.	-4924.	-1117.	3169.	.0554	-.0304	-.0259	-.0642	-.1018	.0446	2392.	
.2790	-92.	986.	79.	-4886.	-1091.	3409.	.0518	-.0303	-.0254	-.0568	-.0992	.0486	2431.	
.2800	-76.	692.	154.	-4950.	-1037.	3633.	.0476	-.0300	-.0248	-.0490	-.0959	.0522	2499.	
.2810	-68.	950.	251.	-5086.	-954.	3735.	.0427	-.0295	-.0241	-.0410	-.0921	.0550	2561.	
.2820	-72.	1439.	365.	-5261.	-844.	3788.	.0372	-.0287	-.0236	-.0327	-.0878	.0568	2604.	
.2830	-81.	1436.	485.	-5433.	-712.	3595.	.0314	-.0281	-.0235	-.0244	-.0830	.0579	2630.	
.2840	-92.	997.	590.	-5530.	-561.	3397.	.0256	-.0276	-.0240	-.0160	-.0777	.0579	2614.	
.2850	-109.	757.	689.	-5475.	-395.	3092.	.0202	-.0269	-.0251	-.0073	-.0718	.0565	2528.	
.2860	-118.	834.	793.	-5258.	-215.	2742.	.0154	-.0259	-.0269	.0016	-.0654	.0539	2381.	
.2870	-107.	773.	802.	-4960.	-27.	2434.	.0119	-.0248	-.0292	.0102	-.0588	.0501	2217.	
.2880	-71.	474.	847.	-4678.	162.	2127.	.0097	-.0234	-.0317	.0180	-.0526	.0452	2073.	
.2890	-15.	153.	893.	-4456.	342.	1973.	.0091	-.0217	-.0344	.0248	-.0472	.0390	1960.	
.2900	55.	77.	937.	-4285.	503.	1781.	.0100	-.0197	-.0371	.0306	-.0433	.0318	1873.	
.2910	137.	6.	972.	-4129.	637.	1613.	.0122	-.0173	-.0398	.0352	-.0412	.0237	1801.	
.2920	224.	-143.	987.	-3963.	740.	1451.	.0155	-.0149	-.0425	.0390	-.0410	.0151	1719.	
.2930	306.	-273.	974.	-3698.	811.	1274.	.0197	-.0123	-.0452	.0422	-.0421	.0062	1603.	
.2940	379.	-412.	931.	-3332.	855.	1085.	.0243	-.0098	-.0477	.0450	-.0439	-.0024	1447.	
.2950	447.	-642.	866.	-2891.	877.	913.	.0292	-.0073	-.0498	.0474	-.0452	-.0103	1266.	
.2960	496.	-798.	784.	-2396.	898.	754.	.0339	-.0047	-.0513	.0496	-.0451	-.0169	1072.	
.2970	534.	-711.	697.	-1881.	880.	694.	.0381	-.0023	-.0520	.0518	-.0430	-.0219	880.	
.2980	549.	-581.	615.	-1407.	879.	616.	.0415	-.0001	-.0518	.0538	-.0388	-.0252	710.	
.2990	535.	-665.	545.	-994.	859.	518.	.0438	.0016	-.0506	.0558	-.0330	-.0265	567.	
.3000	483.	-815.	481.	-516.	833.	374.	.0447	.0027	-.0486	.0580	-.0258	-.0261	435.	
.3010	405.	-727.	413.	-113.	802.	158.	.0444	.0034	-.0459	.0608	-.0177	-.0240	331.	
.3020	290.	-512.	340.	489.	766.	-125.	.0427	.0035	-.0426	.0641	-.0095	-.0205	356.	
.3030	158.	-512.	268.	1002.	726.	-421.	.0400	.0029	-.0389	.0679	-.0016	-.0157	525.	
.3040	25.	-669.	202.	1576.	687.	-661.	.0367	.0016	-.0346	.0719	.0063	-.0048	739.	
.3050	-97.	-670.	143.	2123.	654.	-798.	.0330	-.0001	-.0298	.0760	.0143	-.0031	947.	
.3060	-167.	-567.	87.	2600.	631.	-859.	.0292	-.0022	-.0246	.0800	.0222	.0042	1122.	
.3070	-272.	-193.	67.	2967.	617.	-655.	.0256	-.0048	-.0192	.0834	.0302	.0118	1248.	

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D15/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.38.

S/RV PIPING KEWAUNEE CKWOPF 2 SUP DIK
 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

.2970	534.	-711.	697.	-1881.	888.	694.	.0881	-.0023	-.0520	.0518	-.0430	-.0219	880.
.2980	549.	-581.	615.	-1407.	779.	616.	.0415	-.0001	-.0518	.0538	-.0388	-.0252	710.
.2990	535.	-665.	545.	-994.	859.	518.	.0438	.0016	-.0506	.0558	-.0330	-.0265	567.
.3000	489.	-815.	401.	-576.	533.	374.	.0447	.0027	-.0486	.0580	-.0258	-.0261	435.
.3010	405.	-727.	413.	-117.	787.	158.	.0444	.0034	-.0459	.0600	-.0177	-.0240	331.
.3020	290.	-512.	340.	429.	766.	-125.	.0427	.0035	-.0426	.0641	-.0095	-.0205	356.
.3030	158.	-512.	268.	1002.	726.	-421.	.0460	.0029	-.0389	.0679	-.0016	-.0157	525.
.3040	25.	-669.	202.	1576.	687.	-661.	.0367	.0016	-.0346	.0719	.0063	-.0098	739.
.3050	-97.	-930.	143.	2123.	654.	-798.	.0330	-.0001	-.0298	.0760	.0143	-.0031	947.
.3060	-197.	-367.	97.	2600.	631.	-809.	.0292	-.0022	-.0246	.0800	.0223	.0042	1122.
.3070	-272.	-193.	67.	2967.	617.	-625.	.0256	-.0048	-.0192	.0834	.0302	.0118	1248.

ADLPIPE PAGE 1415

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.38.

S/RV PIPING KEWAUNEE GKM02F 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	TYPE	RU									
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3080	-329.	-260.	45.	3238.	613.	-508.	.0221	-.0079	-.0139	.0860	.0374	.0191	1338.	
.3090	-377.	-359.	20.	3470.	618.	-331.	.0188	-.0112	-.0089	.0879	.0438	.0257	1421.	
.3100	-426.	-357.	-18.	3707.	628.	-227.	.0155	-.0146	-.0045	.0890	.0487	.0313	1511.	
.3110	-476.	-343.	-71.	3952.	642.	-200.	.0122	-.0178	-.0009	.0893	.0518	.0357	1609.	
.3120	-519.	-369.	-135.	4187.	655.	-215.	.0091	-.0208	.0019	.0886	.0531	.0390	1703.	
.3130	-549.	-374.	-203.	4372.	669.	-229.	.0062	-.0234	.0040	.0871	.0529	.0413	1777.	
.3140	-559.	-363.	-260.	4446.	683.	-208.	.0035	-.0255	.0056	.0847	.0513	.0427	1807.	
.3150	-547.	-405.	-296.	4355.	695.	-140.	.0011	-.0271	.0068	.0813	.0487	.0431	1771.	
.3160	-515.	-451.	-308.	4109.	707.	-32.	-.0012	-.0280	.0078	.0772	.0453	.0428	1673.	
.3170	-467.	-421.	-304.	3779.	715.	91.	-.0035	-.0283	.0084	.0728	.0414	.0415	1544.	
.3180	-411.	-392.	-292.	3427.	714.	188.	-.0059	-.0279	.0087	.0685	.0368	.0394	1407.	
.3190	-357.	-454.	-276.	3094.	702.	211.	-.0087	-.0269	.0086	.0645	.0314	.0365	1276.	
.3200	-310.	-471.	-260.	2812.	680.	120.	-.0119	-.0253	.0081	.0611	.0255	.0326	1162.	
.3210	-271.	-248.	-247.	2589.	650.	-58.	-.0155	-.0231	.0074	.0583	.0193	.0279	1071.	
.3220	-236.	113.	-216.	2376.	614.	-313.	-.0193	-.0205	.0068	.0563	.0133	.0226	993.	
.3230	-198.	342.	-167.	2097.	573.	-599.	-.0232	-.0177	.0065	.0546	.0077	.0168	905.	
.3240	-155.	435.	-94.	1728.	530.	-886.	-.0270	-.0151	.0065	.0532	.0031	.0106	808.	
.3250	-106.	603.	-3.	1304.	486.	-1160.	-.0304	-.0126	.0069	.0521	-.0003	.0042	727.	
.3260	-52.	873.	91.	885.	443.	-1416.	-.0334	-.0104	.0075	.0514	-.0025	-.0024	693.	
.3270	7.	1009.	175.	541.	398.	-1630.	-.0357	-.0088	.0081	.0511	-.0040	-.0090	708.	
.3280	70.	915.	233.	351.	355.	-1785.	-.0372	-.0079	.0085	.0511	-.0049	-.0153	744.	
.3290	131.	799.	258.	351.	314.	-1900.	-.0380	-.0077	.0085	.0516	-.0052	-.0213	785.	
.3300	181.	809.	253.	506.	277.	-2006.	-.0380	-.0082	.0082	.0524	-.0052	-.0270	838.	
.3310	222.	821.	231.	742.	243.	-2086.	-.0372	-.0096	.0077	.0531	-.0049	-.0322	894.	
.3320	257.	665.	204.	989.	214.	-2097.	-.0355	-.0119	.0071	.0536	-.0041	-.0366	934.	
.3330	287.	394.	133.	1180.	190.	-2022.	-.0330	-.0151	.0065	.0537	-.0026	-.0400	944.	
.3340	309.	172.	172.	1312.	173.	-1881.	-.0298	-.0190	.0061	.0533	-.0002	-.0424	923.	
.3350	320.	2.	172.	1366.	161.	-1692.	-.0262	-.0234	.0059	.0524	.0027	-.0437	875.	
.3360	319.	-195.	174.	1394.	153.	-1464.	-.0223	-.0281	.0056	.0512	.0062	-.0441	814.	
.3370	306.	-400.	168.	1456.	150.	-1215.	-.0184	-.0331	.0053	.0498	.0100	-.0434	763.	
.3380	279.	-541.	146.	1595.	147.	-970.	-.0146	-.0380	.0048	.0484	.0142	-.0420	751.	
.3390	239.	-616.	108.	1802.	143.	-749.	-.0111	-.0427	.0042	.0468	.0186	-.0399	785.	
.3400	190.	-631.	60.	2036.	137.	-556.	-.0081	-.0469	.0036	.0451	.0234	-.0374	849.	
.3410	138.	-750.	8.	2260.	129.	-368.	-.0055	-.0507	.0032	.0430	.0288	-.0344	920.	
.3420	91.	-807.	-46.	2453.	118.	-168.	-.0033	-.0538	.0030	.0407	.0347	-.0312	988.	
.3430	50.	-862.	-98.	2590.	103.	36.	-.0017	-.0562	.0033	.0380	.0409	-.0279	1040.	
.3440	12.	-923.	-145.	2655.	83.	211.	-.0005	-.0578	.0039	.0349	.0472	-.0248	1069.	
.3450	-25.	-960.	-129.	2655.	58.	324.	.0001	-.0585	.0050	.0315	.0534	-.0222	1074.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.38.

S/RV PIPING KEWAUNEE GKM02F 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

.3350	110.	-195.	172.	136.	161.	-1692.	-.0262	-.0234	.0059	.0524	.0027	-.0437	875.
.3360	319.	-400.	174.	139.	153.	-1464.	-.0223	-.0281	.0056	.0512	.0062	-.0441	814.
.3370	304.	-400.	168.	145.	150.	-1215.	-.0184	-.0331	.0053	.0498	.0100	-.0434	763.
.3380	279.	-541.	146.	159.	147.	-970.	-.0146	-.0300	.0048	.0484	.0142	-.0420	751.
.3390	239.	-616.	130.	180.	147.	-749.	-.0111	-.0427	.0042	.0468	.0186	-.0399	785.
.3400	197.	-531.	60.	207.	137.	-556.	-.0071	-.0469	.0036	.0451	.0234	-.0374	849.
.3410	138.	-750.	8.	237.	129.	-368.	-.0055	-.0507	.0032	.0430	.0288	-.0344	920.
.3420	91.	-807.	-46.	245.	118.	-168.	-.0033	-.0538	.0030	.0407	.0347	-.0312	988.
.3430	50.	-862.	-93.	259.	103.	36.	-.0017	-.0562	.0033	.0380	.0409	-.0279	1040.
.3440	12.	-923.	-145.	265.	83.	211.	-.0005	-.0578	.0039	.0349	.0472	-.0248	1069.
.3450	-25.	-960.	-129.	265.	59.	324.	.0001	-.0585	.0050	.0315	.0534	-.0222	1074.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.27.38.

S/RV PIPING KEWAUNEE GKWOLF 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	33	MEMBER	1	SEQUENCE	B15	LOCATION	BEG	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3460	-64.	-924.	-234.	2616.	26.	356.	.0001	-.0583	.0063	.0279	.0592	-.0202	1060.		
.3470	-105.	-839.	-280.	2552.	-12.	297.	-.0003	-.0575	.0077	.0242	.0644	-.0190	1031.		
.3480	-149.	-779.	-324.	2453.	-57.	147.	-.0010	-.0560	.0092	.0204	.0688	-.0187	986.		
.3490	-191.	-759.	-362.	2298.	-105.	-78.	-.0020	-.0540	.0106	.0164	.0723	-.0194	924.		
.3500	-228.	-718.	-389.	2073.	-154.	-350.	-.0029	-.0516	.0120	.0124	.0751	-.0210	846.		
.3510	-251.	-622.	-401.	1784.	-201.	-624.	-.0037	-.0490	.0131	.0083	.0770	-.0235	763.		
.3520	-255.	-519.	-401.	1454.	-244.	-848.	-.0041	-.0462	.0138	.0044	.0779	-.0268	683.		
.3530	-234.	-449.	-392.	1111.	-282.	-999.	-.0040	-.0434	.0141	.0008	.0778	-.0306	610.		
.3540	-193.	-383.	-373.	777.	-313.	-1079.	-.0035	-.0406	.0138	-.0024	.0765	-.0350	548.		
.3550	-134.	-279.	-348.	471.	-336.	-1101.	-.0027	-.0379	.0128	-.0050	.0741	-.0397	499.		
.3560	-60.	-155.	-318.	209.	-349.	-1060.	-.0017	-.0354	.0112	-.0071	.0704	-.0447	456.		
.3570	27.	-78.	-282.	-8.	-352.	-958.	-.0005	-.0331	.0090	-.0085	.0658	-.0497	410.		
.3580	121.	-81.	-239.	-195.	-344.	-807.	.0005	-.0311	.0064	-.0092	.0605	-.0544	360.		
.3590	216.	-134.	-186.	-371.	-322.	-627.	.0014	-.0294	.0035	-.0094	.0546	-.0587	320.		
.3600	310.	-174.	-123.	-540.	-289.	-428.	.0020	-.0279	.0006	-.0091	.0485	-.0625	300.		
.3610	398.	-171.	-56.	-692.	-244.	-204.	.0021	-.0264	-.0023	-.0082	.0423	-.0654	306.		
.3620	481.	-140.	14.	-816.	-190.	46.	.0016	-.0249	-.0049	-.0067	.0361	-.0673	337.		
.3630	552.	-113.	83.	-917.	-132.	308.	.0006	-.0235	-.0071	-.0047	.0297	-.0681	392.		
.3640	607.	-115.	153.	-1021.	-72.	554.	-.0011	-.0219	-.0087	-.0024	.0229	-.0677	467.		
.3650	641.	-120.	227.	-1153.	-15.	767.	-.0035	-.0203	-.0097	-.0002	.0157	-.0663	556.		
.3660	654.	-83.	208.	-1323.	37.	943.	-.0065	-.0184	-.0101	.0020	.0083	-.0637	652.		
.3670	646.	0.	373.	-1543.	79.	1081.	-.0100	-.0162	-.0098	.0038	.0007	-.0601	757.		
.3680	617.	75.	447.	-1819.	110.	1178.	-.0140	-.0139	-.0089	.0051	-.0069	-.0556	871.		
.3690	572.	92.	517.	-2136.	131.	1241.	-.0181	-.0113	-.0076	.0058	-.0141	-.0503	993.		
.3700	514.	107.	575.	-2456.	141.	1284.	-.0222	-.0084	-.0061	.0058	-.0207	-.0446	1114.		
.3710	449.	211.	615.	-2734.	142.	1312.	-.0260	-.0054	-.0046	.0052	-.0264	-.0386	1218.		
.3720	380.	394.	631.	-2942.	133.	1327.	-.0294	-.0023	-.0032	.0041	-.0312	-.0326	1296.		
.3730	312.	535.	625.	-3076.	110.	1377.	-.0320	.0006	-.0022	.0024	-.0352	-.0269	1347.		
.3740	250.	547.	601.	-3157.	75.	1344.	-.0337	.0033	-.0016	-.0001	-.0384	-.0218	1377.		
.3750	196.	539.	564.	-3205.	27.	1348.	-.0344	.0057	-.0013	-.0031	-.0413	-.0175	1395.		
.3760	154.	644.	517.	-3231.	-34.	1253.	-.0340	.0076	-.0014	-.0068	-.0439	-.0141	1406.		
.3770	129.	811.	464.	-3239.	-106.	1393.	-.0325	.0089	-.0018	-.0110	-.0466	-.0116	1416.		
.3780	124.	895.	403.	-3237.	-189.	1469.	-.0299	.0096	-.0024	-.0155	-.0494	-.0101	1428.		
.3790	139.	868.	348.	-3223.	-280.	1582.	-.0262	.0094	-.0032	-.0203	-.0522	-.0094	1445.		
.3800	171.	812.	285.	-3182.	-376.	1720.	-.0218	.0084	-.0040	-.0250	-.0549	-.0094	1459.		
.3810	215.	730.	216.	-3102.	-473.	1876.	-.0169	.0067	-.0048	-.0287	-.0572	-.0101	1467.		
.3820	266.	648.	141.	-2973.	-568.	2039.	-.0117	.0044	-.0055	-.0339	-.0586	-.0110	1465.		
.3830	319.	577.	61.	-2798.	-656.	2182.	-.0065	.0015	-.0060	-.0377	-.0589	-.0121	1450.		

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

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

.3720	300.	394.	61.	-2942.	155.	1327.	-0.194	-0.0023	-0.0032	.0041	-0.0312	-0.0326	1296.
.3730	312.	535.	625.	-3076.	110.	1337.	-0.120	.0006	-0.0022	.0024	-0.0352	-0.0269	1347.
.3740	250.	547.	601.	-3157.	75.	1344.	-0.137	.0033	-0.0016	-0.0001	-0.0384	-0.0218	1377.
.3750	196.	539.	584.	-3205.	27.	1348.	-0.344	.0057	-0.0013	-0.0031	-0.0413	-0.0175	1395.
.3760	154.	644.	517.	-3231.	-34.	1358.	-0.340	.0076	-0.0014	-0.0068	-0.0439	-0.0141	1406.
.3770	129.	611.	464.	-3239.	-106.	1393.	-0.325	.0089	-0.0018	-0.0110	-0.0466	-0.0116	1416.
.3780	124.	815.	408.	-3237.	-189.	1469.	-0.299	.0096	-0.0024	-0.0155	-0.0494	-0.0101	1428.
.3790	139.	868.	348.	-3223.	-280.	1582.	-0.262	.0094	-0.0032	-0.0203	-0.0522	-0.0094	1445.
.3800	171.	812.	285.	-3182.	-376.	1720.	-0.218	.0084	-0.0040	-0.0250	-0.0549	-0.0094	1459.
.3810	215.	730.	216.	-3102.	-473.	1876.	-0.169	.0067	-0.0048	-0.0297	-0.0572	-0.0101	1467.
.3820	266.	648.	141.	-2973.	-568.	2079.	-0.117	.0044	-0.0055	-0.0339	-0.0586	-0.0110	1465.
.3830	319.	577.	61.	-2798.	-656.	2182.	-0.065	.0015	-0.0060	-0.0377	-0.0589	-0.0121	1450.

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ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKW0RF 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

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

SECTION	33	MEMBER	1	SEQUENCE	815	LOCATION	BEG	TYPE			RU	STRESS		
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3840	368.	450.	-18.	-2602.	-733.	2309.	-0.0018	-0.0018	-0.0061	-0.0410	-0.0580	-0.0138	1427.	
.3850	406.	317.	-93.	-2400.	-796.	2389.	.0023	-0.0054	-0.0058	-0.0437	-0.0557	-0.0135	1396.	
.3860	431.	301.	-164.	-2190.	-843.	2423.	.0056	-0.0091	-0.0051	-0.0457	-0.0519	-0.0134	1353.	
.3870	439.	344.	-229.	-1970.	-877.	2408.	.0078	-0.0130	-0.0039	-0.0468	-0.0467	-0.0126	1297.	
.3880	431.	197.	-283.	-1758.	-899.	2348.	.0090	-0.0169	-0.0022	-0.0470	-0.0402	-0.0109	1231.	
.3890	406.	-215.	-323.	-1571.	-911.	2248.	.0093	-0.0207	-0.0001	-0.0465	-0.0326	-0.0084	1160.	
.3900	366.	-619.	-349.	-1398.	-913.	2115.	.0086	-0.0240	.0024	-0.0450	-0.0239	-0.0051	1081.	
.3910	315.	-744.	-364.	-1219.	-903.	1967.	.0072	-0.0265	.0050	-0.0426	-0.0144	-0.0009	997.	
.3920	259.	-686.	-367.	-1033.	-883.	1837.	.0052	-0.0280	.0076	-0.0393	-0.0045	.0040	917.	
.3930	202.	-708.	-355.	-860.	-858.	1743.	.0029	-0.0286	.0101	-0.0353	.0055	.0095	853.	
.3940	143.	-845.	-329.	-709.	-830.	1665.	.0003	-0.0284	.0124	-0.0308	.0152	.0135	799.	
.3950	77.	-895.	-290.	-574.	-801.	1560.	-0.0023	-0.0271	.0143	-0.0258	.0244	.0216	740.	
.3960	-0.	-793.	-240.	-451.	-774.	1401.	-0.0050	-0.0249	.0157	-0.0206	.0329	.0274	667.	
.3970	-84.	-691.	-182.	-345.	-750.	1197.	-0.0075	-0.0218	.0166	-0.0152	.0404	.0329	584.	
.3980	-170.	-713.	-116.	-260.	-731.	967.	-0.0098	-0.0180	.0169	-0.0099	.0467	.0380	498.	
.3990	-253.	-774.	-45.	-204.	-715.	731.	-0.0118	-0.0136	.0167	-0.0049	.0517	.0425	418.	
.4000	-327.	-712.	30.	-177.	-700.	511.	-0.0133	-0.0085	.0161	-0.0002	.0553	.0404	355.	

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	391.	-1710.	839.	-6886.	-852.	4873.	.0004	-0.0020	.0321	.0556	.1390	-0.0419	3402.

SECTION	33	MEMBER	1	SEQUENCE	816	LOCATION	END	TYPE			RU	STRESS		
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
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	-0.0000	.0000	.0000	-0.0000	.0000	0.	
.0020	-0.	0.	-0.	-1.	0.	0.	.0000	-0.0000	.0000	.0000	-0.0000	-0.0000	0.	
.0030	-2.	4.	-7.	-3.	1.	2.	.0000	-0.0000	.0000	.0000	-0.0001	-0.0000	1.	
.0040	-6.	13.	-5.	-8.	1.	9.	.0000	-0.0000	.0000	.0000	-0.0001	-0.0001	5.	
.0050	-15.	72.	-11.	-14.	1.	22.	.0000	-0.0000	.0000	.0001	-0.0001	-0.0001	11.	
.0060	-27.	61.	-19.	-19.	1.	38.	.0000	-0.0000	.0100	.0001	-0.0002	-0.0002	17.	
.0070	-44.	104.	-27.	-19.	0.	67.	.0001	-0.0001	.0001	.0002	-0.0003	-0.0003	20.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKW0RF 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

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)
.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.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
.0020	-0.	0.	0.	-0.	0.	0.	0.0000	-0.0000	0.0000	0.0000	-0.0000	0.0000	0.
.0030	-0.	4.	0.	-0.	0.	0.	0.0000	-0.0000	0.0000	0.0000	-0.0001	-0.0000	1.
.0040	-0.	13.	0.	-0.	0.	0.	0.0000	-0.0000	0.0000	0.0000	-0.0001	-0.0001	5.
.0050	-15.	72.	-11.	-14.	1.	22.	0.0000	-0.0000	0.0000	0.0001	-0.0001	-0.0001	11.
.0060	-29.	65.	-18.	-19.	1.	38.	0.0000	-0.0000	0.0000	0.0001	-0.0002	-0.0002	17.
.0070	-44.	104.	-27.	-19.	2.	47.	0.0001	-0.0001	0.0001	0.0002	-0.0003	-0.0003	20.

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ADLPIPE STRESS ANALYSIS

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

CONDITION 24

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	FU	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)
33	1	016					.0080	-56.	144.	-37.	-15.	5.	40.	0.0002	-0.0002	0.0002	0.0002	-0.0006	-0.0004	17.
							.0090	-74.	183.	-45.	2.	6.	27.	0.0004	-0.0002	0.0003	0.0002	-0.0008	-0.0005	11.
							.0100	-105.	231.	-45.	39.	2.	19.	0.0007	-0.0003	0.0005	0.0001	-0.0003	-0.0006	17.
							.0110	-144.	301.	-40.	90.	-12.	1.	0.0011	-0.0005	0.0007	-0.0000	0.0014	-0.0008	36.
							.0120	-170.	378.	-38.	131.	-36.	-73.	0.0016	-0.0006	0.0010	-0.0001	0.0046	-0.0007	62.
							.0130	-153.	425.	-56.	132.	-72.	-252.	0.0023	-0.0009	0.0012	0.0000	0.0093	-0.0002	118.
							.0140	-80.	433.	-103.	72.	-117.	-546.	0.0031	-0.0011	0.0015	0.0004	0.0153	0.0010	226.
							.0150	38.	424.	-173.	-25.	-167.	-905.	0.0038	-0.0014	0.0020	0.0011	0.0220	0.0026	369.
							.0160	169.	400.	-234.	-93.	-216.	-1230.	0.0044	-0.0017	0.0026	0.0017	0.0286	0.0044	503.
							.0170	286.	310.	-250.	-57.	-257.	-1432.	0.0045	-0.0019	0.0035	0.0020	0.0341	0.0060	584.
							.0180	370.	105.	-196.	122.	-285.	-1451.	0.0041	-0.0021	0.0046	0.0017	0.0380	0.0071	595.
							.0190	412.	-182.	-74.	410.	-304.	-1255.	0.0031	-0.0022	0.0059	0.0009	0.0408	0.0078	544.
							.0200	409.	-438.	76.	699.	-319.	-850.	0.0015	-0.0020	0.0072	0.0000	0.0431	0.0077	460.
							.0210	338.	-607.	208.	864.	-342.	-224.	-0.0005	-0.0017	0.0083	-0.0005	0.0465	0.0067	384.
							.0220	150.	-623.	290.	831.	-403.	651.	-0.0028	-0.0012	0.0090	-0.0004	0.0550	0.0043	454.
							.0230	-66.	-299.	248.	492.	-480.	1541.	-0.0050	-0.0007	0.0092	0.0009	0.0659	0.0012	677.
							.0240	-146.	253.	48.	-147.	-525.	2081.	-0.0068	-0.0004	0.0091	0.0036	0.0731	-0.0008	863.
							.0250	-51.	566.	-168.	-734.	-503.	2170.	-0.0080	-0.0002	0.0091	0.0061	0.0719	-0.0016	941.
							.0260	23.	328.	-124.	-706.	-443.	2170.	-0.0088	0.0000	0.0093	0.0059	0.0651	-0.0027	933.
							.0270	-86.	-320.	246.	25.	-416.	2388.	-0.0091	0.0007	0.0097	0.0023	0.0519	-0.0056	973.
							.0280	-110.	-924.	557.	676.	-374.	2345.	-0.0091	0.0018	0.0098	-0.0009	0.0563	-0.0078	991.
							.0290	129.	-1258.	587.	763.	-243.	1755.	-0.0087	0.0032	0.0092	-0.0017	0.0390	-0.0075	774.
							.0300	139.	-1485.	687.	858.	-128.	1541.	-0.0082	0.0044	0.0078	-0.0031	0.0235	-0.0090	710.
							.0310	-165.	-1952.	852.	912.	-69.	1861.	-0.0078	0.0053	0.0055	-0.0050	0.0150	-0.0131	832.
							.0320	-363.	-2326.	687.	218.	6.	1911.	-0.0070	0.0062	0.0022	-0.0038	0.0049	-0.0156	772.
							.0330	-301.	-2064.	148.	-1224.	92.	1377.	-0.0059	0.0073	-0.0017	0.0010	-0.0061	-0.0149	740.
							.0340	-165.	-1327.	-421.	-2629.	147.	612.	-0.0044	0.0086	-0.0056	0.0061	-0.0129	-0.0128	1005.
							.0350	-6.	-845.	-755.	-3349.	217.	-227.	-0.0030	0.0098	-0.0085	0.0087	-0.0221	-0.0097	1350.
							.0360	177.	-984.	-750.	-3118.	340.	-1065.	-0.0018	0.0108	-0.0101	0.0078	-0.0391	-0.0058	1329.
							.0370	252.	-1460.	-396.	-1988.	440.	-1604.	-0.0011	0.0118	-0.0104	0.0036	-0.0545	-0.0024	1040.
							.0380	269.	-1889.	61.	-575.	461.	-1888.	-0.0012	0.0128	-0.0100	-0.0016	-0.0605	0.0006	813.
							.0390	462.	-1951.	243.	265.	460.	-2297.	-0.0019	0.0139	-0.0096	-0.0040	-0.0556	0.0051	948.
							.0400	633.	-1286.	117.	384.	558.	-2443.	-0.0035	0.0144	-0.0097	-0.0034	-0.0772	0.0090	1017.
							.0410	277.	-390.	84.	483.	590.	-1453.	-0.0060	0.0139	-0.0100	-0.0036	-0.0521	0.0076	659.
							.0420	-379.	-85.	52.	420.	575.	129.	-0.0089	0.0126	-0.0106	-0.0037	-0.0813	0.0029	290.
							.0430	-620.	-380.	-110.	-24.	586.	864.	-0.0112	0.0114	-0.0114	-0.0025	-0.0843	0.0016	419.
							.0440	-434.	135.	-430.	-778.	610.	643.	-0.0125	0.0103	-0.0121	-0.0002	-0.0395	0.0037	473.
							.0450	-218.	1498.	-592.	-1223.	579.	208.	-0.0132	0.0091	-0.0123	0.0007	-0.0878	0.0057	549.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKMOBF 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

.0330	-8.	-845.	755.	-3249.	217.	-227.	-.	.0090	-.	.0085	.0087	-.0221	-.0097	1350.
.0360	177.	-984.	-750.	-7118.	740.	-1085.	-.	.0108	-.	.0101	.0078	-.0391	-.0058	1329.
.0370	252.	-1460.	-396.	-1987.	440.	-1604.	-.	.0110	-.	.0104	.0036	-.0545	-.0024	1040.
.0390	269.	-1389.	81.	-575.	461.	-1838.	-.	.0120	-.	.0100	-.0016	-.0505	.0006	813.
.0390	462.	-1951.	247.	265.	410.	-2227.	-.	.0139	-.	.0096	-.0040	-.0556	.0051	948.
.0400	637.	-1236.	117.	384.	558.	-2443.	-.	.0144	-.	.0097	-.0034	-.0772	.0090	1017.
.0410	277.	-390.	84.	487.	590.	-1453.	-.	.0139	-.	.0100	-.0036	-.0821	.0076	659.
.0420	-377.	-85.	52.	420.	575.	129.	-.	.0126	-.	.0106	-.0037	-.0813	.0029	290.
.0430	-620.	-230.	-110.	-74.	586.	864.	-.	.0112	-.	.0114	-.0025	-.0847	.0016	419.
.0440	-434.	175.	-420.	-770.	110.	643.	-.	.0103	-.	.0121	-.0002	-.0895	.0037	473.
.0450	-218.	1498.	-592.	-1223.	579.	208.	-.	.0091	-.	.0123	.0007	-.0878	.0057	549.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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

CONDITION 24
 LOADS
 SHOCK
 PRESSURE
 ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU									
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)		
.0460	-74.	2080.	-496.	-1111.	526.	-171.	-.0134	.0071	-.0116	-.0009	-.0830	.0065	498.		
.0470	83.	1388.	-354.	-823.	527.	-569.	-.0135	.0044	-.0103	-.0029	-.0843	.0070	454.		
.0480	128.	760.	-244.	-551.	531.	-699.	-.0138	.0015	-.0085	-.0044	-.0853	.0063	416.		
.0490	-35.	927.	-46.	-134.	440.	-376.	-.0143	-.0010	-.0063	-.0063	-.0735	.0036	239.		
.0500	-197.	1124.	160.	244.	281.	-1.	-.0149	-.0031	-.0040	-.0078	-.0525	.0012	149.		
.0510	-175.	1079.	276.	389.	123.	59.	-.0154	-.0049	-.0019	-.0081	-.0311	.0009	166.		
.0520	-57.	1149.	348.	387.	-25.	-41.	-.0159	-.0067	-.0000	-.0076	-.0105	.0021	157.		
.0530	14.	1590.	425.	340.	-171.	-18.	-.0164	-.0084	.0015	-.0070	.0101	.0034	153.		
.0540	12.	1774.	459.	178.	-296.	188.	-.0170	-.0098	.0025	-.0058	.0286	.0045	158.		
.0550	-22.	1682.	394.	-168.	-395.	503.	-.0177	-.0106	.0032	-.0036	.0444	.0057	265.		
.0560	-44.	1893.	291.	-545.	-480.	828.	-.0183	-.0107	.0036	-.0010	.0588	.0069	442.		
.0570	-10.	1924.	296.	-650.	-564.	1065.	-.0186	-.0104	.0038	.0005	.0732	.0086	550.		
.0580	109.	715.	449.	-609.	-647.	1147.	-.0187	-.0095	.0039	.0006	.0871	.0105	553.		
.0590	298.	-1151.	631.	-83.	-723.	1106.	-.0186	-.0078	.0036	.0002	.0997	.0125	531.		
.0600	442.	-1992.	756.	122.	-795.	1165.	-.0184	-.0054	.0027	.0003	.1114	.0131	568.		
.0610	391.	-1710.	839.	192.	-852.	1575.	-.0182	-.0025	.0010	.0007	.1208	.0110	723.		
.0620	138.	-1809.	903.	159.	-873.	2285.	-.0179	.0004	-.0017	.0010	.1258	.0062	984.		
.0630	-130.	-2560.	899.	-70.	-840.	2869.	-.0172	.0035	-.0053	.0018	.1241	.0005	1200.		
.0640	-234.	-2609.	768.	-575.	-762.	2921.	-.0156	.0066	-.0099	.0035	.1166	-.0042	1233.		
.0650	-137.	-1584.	518.	-1298.	-673.	2351.	-.0132	.0099	-.0151	.0060	.1069	-.0072	1111.		
.0660	115.	-765.	239.	-2003.	-596.	1301.	-.0103	.0133	-.0207	.0085	.0972	-.0088	988.		
.0670	406.	-764.	77.	-2367.	-534.	94.	-.0074	.0164	-.0263	.0095	.0876	-.0097	975.		
.0680	562.	-823.	167.	-2135.	-492.	-837.	-.0052	.0187	-.0316	.0050	.0793	-.0113	941.		
.0690	541.	-535.	450.	-1482.	-474.	-1323.	-.0039	.0200	-.0369	.0044	.0739	-.0138	820.		
.0700	492.	-272.	665.	-986.	-461.	-1593.	-.0037	.0203	-.0425	.0015	.0697	-.0155	774.		
.0710	486.	28.	674.	-987.	-443.	-1763.	-.0047	.0197	-.0487	.0005	.0652	-.0157	830.		
.0720	411.	754.	567.	-1355.	-438.	-1642.	-.0069	.0180	-.0557	.0007	.0617	-.0152	872.		
.0730	265.	1507.	379.	-2009.	-435.	-1244.	-.0101	.0154	-.0631	.0018	.0572	-.0143	964.		
.0740	201.	1642.	30.	-3026.	-377.	-870.	-.0142	.0120	-.0707	.0044	.0449	-.0116	1272.		
.0750	216.	1499.	-406.	-4176.	-247.	-528.	-.0189	.0081	-.0780	.0079	.0233	-.0076	1692.		
.0760	131.	1739.	-711.	-4977.	-87.	89.	-.0240	.0037	-.0843	.0102	-.0013	-.0043	1998.		
.0770	-92.	1991.	-804.	-5220.	69.	1017.	-.0293	-.0009	-.0892	.0107	-.0241	-.0025	2138.		
.0780	-334.	1550.	-755.	-5059.	207.	1981.	-.0342	-.0053	-.0925	.0102	-.0435	-.0014	2182.		
.0790	-534.	782.	-627.	-4637.	300.	2793.	-.0384	-.0094	-.0945	.0094	-.0558	-.0008	2175.		
.0800	-676.	544.	-498.	-4172.	323.	3362.	-.0415	-.0130	-.0952	.0090	-.0583	-.0008	2154.		
.0810	-703.	789.	-437.	-3920.	308.	3547.	-.0431	-.0158	-.0950	.0102	-.0543	-.0007	2125.		
.0820	-646.	872.	-577.	-3851.	293.	3401.	-.0433	-.0178	-.0939	.0126	-.0489	-.0010	2065.		
.0830	-643.	741.	-618.	-3672.	235.	3193.	-.0421	-.0190	-.0916	.0149	-.0431	-.0028	1956.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GEWORF 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

.0740	261.	1642.	38.	-7076.	-777.	-870.	-142	.0154	-.0707	.0044	.0449	-.0143	964.
.0750	216.	1494.	-406.	-4176.	-247.	-528.	-189	.0091	-.0780	.0079	.0233	-.0076	1692.
.0760	131.	1274.	-711.	-4977.	-57.	89.	-.0240	.0037	-.0843	.0102	-.0013	-.0043	1998.
.0770	-92.	1051.	-304.	-5000.	69.	1617.	-.0280	-.0009	-.0897	.0107	-.0241	-.0025	2138.
.0780	-334.	1520.	-750.	-5009.	207.	1981.	-.0342	-.0053	-.0925	.0102	-.0435	-.0014	2182.
.0790	-534.	702.	-627.	-4637.	300.	2793.	-.0384	-.0094	-.0945	.0094	-.0558	-.0008	2175.
.0800	-676.	544.	-490.	-4172.	323.	3362.	-.0415	-.0136	-.0952	.0090	-.0583	-.0008	2154.
.0810	-703.	739.	-487.	-3900.	308.	3547.	-.0431	-.0150	-.0950	.0102	-.0543	-.0007	2125.
.0820	-646.	870.	-577.	-3551.	297.	7401.	-.0470	-.0178	-.0939	.0126	-.0489	-.0010	2065.
.0830	-647.	741.	-510.	-3670.	235.	3193.	-.0421	-.0190	-.0910	.0149	-.0431	-.0028	1956.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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

CONDITION 24
LOADS
SHOCK
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ENGLISH UNITS

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

SECTION	33	MEMBER	1	SEQUENCE	816	LOCATION	END	TYPE	RU					STRESS
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ		(PC)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)		
.0840	-692.	731.	-570.	-3288.	297.	2946.	-.0397	-.0192	-.0888	.0166	-.0389	-.0057	1776.	
.0850	-635.	923.	-514.	-2840.	361.	2414.	-.0362	-.0185	-.0850	.0182	-.0411	-.0082	1503.	
.0860	-441.	778.	-442.	-2329.	469.	1598.	-.0317	-.0168	-.0805	.0198	-.0493	-.0097	1149.	
.0870	-244.	301.	-285.	-1666.	569.	818.	-.0268	-.0143	-.0754	.0209	-.0572	-.0111	779.	
.0880	-121.	-301.	-101.	-1003.	635.	282.	-.0218	-.0111	-.0702	.0219	-.0513	-.0130	490.	
.0890	-68.	-984.	-20.	-609.	674.	14.	-.0169	-.0075	-.0650	.0241	-.0525	-.0151	364.	
.0900	-117.	-1707.	-72.	-538.	687.	52.	-.0123	-.0036	-.0600	.0279	-.0607	-.0174	351.	
.0910	-277.	-2245.	-207.	-651.	667.	343.	-.0079	.0004	-.0551	.0324	-.0552	-.0199	399.	
.0920	-429.	-2575.	-372.	-778.	628.	572.	-.0034	.0044	-.0503	.0370	-.0483	-.0214	462.	
.0930	-417.	-2965.	-510.	-741.	583.	367.	.0013	.0083	-.0453	.0409	-.0425	-.0203	406.	
.0940	-188.	-3439.	-562.	-399.	529.	-393.	.0063	.0123	-.0401	.0434	-.0373	-.0163	309.	
.0950	182.	-3618.	-520.	253.	460.	-1520.	.0113	.0163	-.0347	.0442	-.0318	-.0103	645.	
.0960	544.	-3261.	-413.	1104.	378.	-2643.	.0157	.0202	-.0292	.0437	-.0258	-.0040	1159.	
.0970	756.	-2671.	-290.	1986.	286.	-3402.	.0191	.0241	-.0240	.0422	-.0190	.0009	1585.	
.0980	766.	-2194.	-217.	2690.	178.	-3641.	.0212	.0279	-.0193	.0403	-.0105	.0036	1818.	
.0990	629.	-1689.	-255.	3057.	49.	-3456.	.0221	.0319	-.0154	.0385	.0002	.0046	1852.	
.1000	453.	-879.	-394.	3093.	-89.	-3085.	.0218	.0362	-.0123	.0365	.0117	.0047	1753.	
.1010	345.	16.	-556.	2967.	-219.	-2769.	.0208	.0408	-.0097	.0336	.0214	.0051	1631.	
.1020	355.	456.	-648.	2885.	-320.	-2623.	.0191	.0455	-.0075	.0289	.0264	.0062	1570.	
.1030	442.	415.	-600.	2985.	-373.	-2550.	.0168	.0496	-.0056	.0218	.0242	.0078	1583.	
.1040	496.	501.	-405.	3239.	-377.	-2306.	.0137	.0526	-.0039	.0126	.0149	.0088	1603.	
.1050	441.	781.	-157.	3402.	-349.	-1700.	.0097	.0541	-.0026	.0025	.0016	.0085	1533.	
.1060	268.	859.	8.	3148.	-314.	-709.	.0051	.0539	-.0019	-.0068	-.0117	.0069	1301.	
.1070	1.	828.	-10.	2271.	-298.	587.	.0001	.0520	-.0018	-.0140	-.0213	.0045	949.	
.1080	-288.	1535.	-234.	785.	-303.	1984.	-.0048	.0487	-.0019	-.0185	-.0269	.0020	865.	
.1090	-561.	2702.	-552.	-974.	-335.	3317.	-.0092	.0444	-.0017	-.0213	-.0282	-.0000	1394.	
.1100	-843.	1212.	-782.	-2512.	-454.	4519.	-.0125	.0391	-.0005	-.0241	-.0178	-.0015	2083.	
.1110	-926.	-183.	-987.	-3775.	-571.	5162.	-.0143	.0329	.0023	-.0264	-.0067	-.0005	2577.	
.1120	-804.	1894.	-1107.	-4524.	-625.	5209.	-.0143	.0262	.0072	-.0290	-.0021	.0029	2780.	
.1130	-680.	4436.	-872.	-4230.	-658.	5059.	-.0128	.0194	.0145	-.0344	.0020	.0067	2659.	
.1140	-602.	3569.	-264.	-2945.	-689.	4850.	-.0097	.0132	.0238	-.0427	.0088	.0103	2294.	
.1150	-480.	1474.	371.	-1470.	-699.	4475.	-.0052	.0087	.0243	-.0506	.0154	.0141	1911.	
.1160	-324.	1997.	748.	-509.	-709.	4069.	.0006	.0062	.0451	-.0553	.0235	.0174	1670.	
.1170	-317.	3487.	832.	-228.	-739.	3769.	.0076	.0058	.0557	-.0566	.0347	.0193	1544.	
.1180	-377.	1860.	734.	-411.	-783.	3612.	.0158	.0067	.0660	-.0556	.0480	.0193	1492.	
.1190	-337.	-877.	387.	-1067.	-715.	3175.	.0252	.0087	.0762	-.0519	.0480	.0193	1375.	
.1200	-764.	-803.	-15.	-1680.	-526.	2553.	.0353	.0119	.0868	-.0476	.0341	.0185	1246.	
.1210	-358.	717.	-87.	-1450.	-715.	2030.	.0474	.0165	.0983	-.0463	.0193	.0155	1009.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.38.

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

.1100	-47.	111.	12.	-2512.	-474.	4519.	-1125.	.0391	-.0005	-.0241	-.0178	-.0015	2083.
.1110	-926.	-183.	-927.	-3775.	-571.	5162.	-.1143	.0729	.0023	-.0264	-.0067	-.0005	2577.
.1120	-904.	1894.	-1107.	-4574.	-621.	5239.	-.1143	.0262	.0072	-.0290	-.0021	.0029	2780.
.1130	-680.	4476.	-872.	-4270.	-658.	5059.	-.0128	.0194	.0145	-.0344	.0020	.0067	2659.
.1140	-602.	3549.	-264.	-2945.	-639.	4850.	-.0097	.0112	.0238	-.0427	.0088	.0103	2294.
.1150	-480.	1474.	771.	-1470.	-690.	4475.	-.0212	.0087	.0343	-.0506	.0154	.0141	1911.
.1160	-714.	1957.	748.	-509.	-709.	4069.	.0006	.0067	.0451	-.0553	.0235	.0174	1670.
.1170	-317.	3437.	112.	-278.	-739.	3769.	.0076	.0050	.0557	-.0566	.0347	.0193	1544.
.1180	-777.	1860.	724.	-411.	-783.	3612.	.0150	.0067	.0660	-.0556	.0480	.0193	1492.
.1190	-333.	-877.	387.	-1067.	-715.	3175.	.0252	.0087	.0762	-.0519	.0480	.0193	1375.
.1200	-764.	-523.	-15.	-1880.	-526.	2553.	.0318	.0119	.0863	-.0476	.0341	.0185	1246.
.1210	-358.	717.	-27.	-1450.	-715.	2030.	.0474	.0165	.0983	-.0463	.0193	.0155	1009.

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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	33	MEMBER	1	SEQUENCE	816	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	PX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1220	-305.	-903.	107.	-419.	-76.	1007.	.0601	.0226	.1108	-.0474	.0021	.0132	439.		
.1230	6.	-3695.	397.	1039.	152.	-701.	.0736	.0300	.1239	-.0492	-.0153	.0128	507.		
.1240	480.	-3789.	631.	2538.	355.	-2822.	.0872	.0381	.1372	-.0501	-.0302	.135	1530.		
.1250	884.	-2589.	824.	3997.	470.	-4797.	.1001	.0460	.1500	-.0501	-.1377	.0135	2513.		
.1260	1062.	-3551.	980.	5337.	499.	-6228.	.1115	.0528	.1620	-.0494	-.0760	.0115	3297.		
.1270	1150.	-5242.	911.	6175.	543.	-7294.	.1208	.0583	.1726	-.0463	-.0364	.0092	3841.		
.1280	1014.	-4101.	775.	6803.	578.	-7745.	.1279	.0623	.1820	-.0427	-.0353	.0056	4143.		
.1290	746.	-1554.	758.	7580.	591.	-7801.	.1327	.0646	.1899	-.0406	-.0320	.0021	4372.		
.1300	646.	-1222.	860.	8502.	613.	-8062.	.1355	.0651	.1963	-.0404	-.0323	.0016	4708.		
.1310	803.	-2169.	981.	9333.	642.	-8697.	.1363	.0636	.2008	-.0412	-.0380	.0052	5126.		
.1320	1195.	-1334.	956.	9703.	699.	-9531.	.1348	.0602	.2033	-.0417	-.0520	.0124	5479.		
.1330	1477.	378.	871.	9701.	722.	-9965.	.1307	.0548	.2035	-.0426	-.0646	.0198	5588.		
.1340	1497.	70.	733.	9313.	705.	-9482.	.1235	.0476	.2017	-.0438	-.0721	.0255	5341.		
.1350	1250.	-1149.	503.	8483.	671.	-8112.	.1136	.0388	.1980	-.0449	-.0753	.0292	4718.		
.1360	766.	-261.	252.	7398.	607.	-5992.	.1014	.0287	.1930	-.0464	-.0722	.0306	3828.		
.1370	349.	1689.	-19.	6158.	545.	-3817.	.0880	.0181	.1870	-.0483	-.0685	.0324	2916.		
.1380	108.	1795.	-214.	5037.	474.	-1929.	.0741	.0077	.1808	-.0514	-.0648	.0353	2173.		
.1390	49.	729.	-333.	4121.	430.	-434.	.0605	-.0019	.1746	-.0555	-.0657	.0388	1672.		
.1400	-14.	1175.	-332.	3529.	428.	971.	.0475	-.0101	.1689	-.0607	-.0720	.0411	1479.		
.1410	-281.	2616.	-148.	3373.	443.	2629.	.0354	-.0168	.1639	-.0672	-.0779	.0400	1725.		
.1420	-564.	2575.	37.	3290.	520.	4161.	.0248	-.0218	.1593	-.0731	-.0873	.0370	2139.		
.1430	-810.	1685.	152.	3106.	630.	5418.	.0162	-.0250	.1552	-.0773	-.0969	.0327	2519.		
.1440	-1007.	2155.	205.	2807.	725.	6335.	.0099	-.0262	.1515	-.0797	-.1026	.0273	2796.		
.1450	-1153.	3337.	257.	2512.	755.	6872.	.0062	-.0252	.1482	-.0807	-.0996	.0211	2952.		
.1460	-1224.	3123.	338.	2298.	711.	6964.	.0052	-.0219	.1452	-.0806	-.0878	.0148	2957.		
.1470	-1093.	1974.	363.	2051.	685.	6394.	.0068	-.0167	.1427	-.0787	-.0775	.0100	2709.		
.1480	-943.	1777.	443.	2001.	676.	5527.	.0107	-.0098	.1405	-.0762	-.0684	.0054	2374.		
.1490	-809.	1909.	604.	2202.	693.	4482.	.0163	-.0017	.1386	-.0735	-.0613	.0013	2023.		
.1500	-604.	643.	769.	2489.	737.	3152.	.0234	.0074	.1367	-.0700	-.0575	-.0013	1639.		
.1510	-353.	-1208.	900.	2741.	761.	1637.	.0314	.0170	.1344	-.0654	-.0526	-.0023	1317.		
.1520	1.	-1740.	901.	2752.	759.	-87.	.0397	.0266	.1316	-.0590	-.0467	-.0011	1146.		
.1530	374.	-1316.	820.	2596.	699.	-1778.	.0476	.0358	.1282	-.0515	-.0355	.0016	9293.		
.1540	743.	-1616.	692.	2363.	611.	-3311.	.0546	.0440	.1241	-.0435	-.0219	.0053	1651.		
.1550	961.	-2345.	629.	2281.	502.	-4364.	.0601	.0508	.1195	-.0364	-.0061	.0085	1986.		
.1560	876.	-2097.	732.	2540.	345.	-4666.	.0639	.0560	.1142	-.0314	.0152	.0096	2136.		
.1570	741.	-1354.	859.	2863.	190.	-4727.	.0660	.0595	.1081	-.0275	.0348	.0105	2219.		
.1580	674.	-1408.	997.	3177.	29.	-4842.	.0667	.0609	.1008	-.0247	.0528	.0122	2324.		
.1590	694.	-1767.	1142.	3411.	-143.	-5099.	.0662	.0602	.0921	-.0232	.0697	.0145	2462.		

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.1490	-209.	1909.	604.	2202.	693.	4482.	.163	-.0017	.1386	-.0735	-.0513	.0013	2023.
.1500	-604.	643.	769.	2489.	737.	3152.	.234	.0074	.1367	-.0700	-.0575	-.0013	1639.
.1510	-353.	-1208.	900.	2741.	761.	1637.	.0314	.0170	.1344	-.0654	-.0526	-.0023	1317.
.1520	1.	-1740.	601.	2752.	759.	-87.	.0397	.0266	.1316	-.0590	-.0467	-.0011	1146.
.1530	374.	-1316.	720.	2596.	699.	-1778.	.0476	.0258	.1282	-.0515	-.0355	.0016	1293.
.1540	743.	-1616.	692.	2363.	611.	-3311.	.0546	.0440	.1241	-.0435	-.0219	.0053	1651.
.1550	961.	-2345.	629.	2281.	502.	-4364.	.0601	.0508	.1195	-.0364	-.0061	.0085	1986.
.1560	276.	-2097.	732.	2540.	345.	-4666.	.0639	.0560	.1142	-.0314	.0152	.0096	2136.
.1570	741.	-1354.	859.	2863.	190.	-4727.	.0660	.0595	.1081	-.0275	.0348	.0105	2219.
.1580	674.	-1408.	697.	2177.	20.	-4842.	.0667	.0609	.1008	-.0247	.0528	.0122	2324.
.1590	694.	-1767.	1142.	3411.	-143.	-5099.	.0662	.0602	.0921	-.0232	.0697	.0145	2462.

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INTERNAL FORCES IN THE PIPING
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SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE		RU						STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	(PSI)
.1600	269.	-1338.	1176.	3295.	-281.	-5611.	.0644	.0570	.0818	-.0217	.0804	.0180	2613.
.1610	1091.	-434.	1091.	2776.	-377.	-6124.	.0611	.0517	.0698	-.0201	.0853	.0213	2702.
.1620	1125.	-139.	989.	2021.	-468.	-6147.	.0560	.0447	.0562	-.0191	.0898	.0223	2603.
.1630	1022.	-385.	784.	906.	-517.	-5720.	.0490	.0362	.0415	-.0177	.0898	.0214	2333.
.1640	779.	-165.	496.	-482.	-534.	-4839.	.0404	.0267	.0259	-.0157	.0866	.0188	1963.
.1650	437.	469.	195.	-1926.	-546.	-3621.	.0305	.0169	.0101	-.0135	.0829	.0150	1660.
.1660	190.	614.	-122.	-3333.	-533.	-2471.	.0197	.0070	-.0054	-.0109	.0763	.0122	1679.
.1670	10.	431.	-361.	-4439.	-522.	-1393.	.0084	-.0023	-.0199	-.0087	.0704	.0105	1879.
.1680	-98.	705.	-507.	-5157.	-499.	-418.	-.0030	-.0103	-.0331	-.0066	.0541	.0099	2086.
.1690	-212.	1365.	-527.	-5410.	-475.	585.	-.0144	-.0167	-.0447	-.0049	.0594	.0100	2192.
.1700	-320.	1567.	-471.	-5304.	-440.	1590.	-.0254	-.0212	-.0546	-.0030	.0553	.0107	2229.
.1710	-381.	1231.	-413.	-5027.	-379.	2514.	-.0359	-.0236	-.0630	-.0001	.0493	.0123	2261.
.1720	-551.	1208.	-294.	-4545.	-353.	7606.	-.0454	-.0239	-.0701	.0032	.0481	.0131	2333.
.1730	-684.	1586.	-246.	-4153.	-339.	4556.	-.0538	-.0220	-.0762	.0082	.0481	.0142	2478.
.1740	-723.	1722.	-292.	-3928.	-340.	5210.	-.0605	-.0180	-.0815	.0147	.0491	.0159	2622.
.1750	-711.	1423.	-366.	-3751.	-354.	5601.	-.0655	-.0123	-.0860	.0220	.0513	.0173	2709.
.1760	-616.	1090.	-459.	-3592.	-337.	5641.	-.0685	-.0052	-.0899	.0297	.0494	.0186	2687.
.1770	-538.	886.	-478.	-3266.	-298.	5502.	-.0697	.0028	-.0931	.0367	.0445	.0186	2570.
.1780	-445.	375.	-428.	-2781.	-224.	5122.	-.0692	.0113	-.0958	.0427	.0342	.0173	2341.
.1790	-375.	-441.	-298.	-2151.	-144.	4569.	-.0670	.0199	-.0981	.0476	.0213	.0144	2027.
.1800	-280.	-1073.	-174.	-1580.	-71.	3768.	-.0635	.0282	-.1005	.0520	.0266	.0105	1640.
.1810	-64.	-1462.	-165.	-1303.	10.	2581.	-.0590	.0357	-.1032	.0569	-.0112	.0067	1160.
.1820	108.	-1910.	-175.	-1171.	47.	1364.	-.0539	.0420	-.1063	.0614	-.0247	.0017	722.
.1830	236.	-2426.	-228.	-1222.	60.	177.	-.0487	.0468	-.1099	.0655	-.0349	-.0040	496.
.1840	334.	-2535.	-346.	-1468.	68.	-945.	-.0439	.0498	-.1138	.0695	-.0437	-.0099	701.
.1850	396.	-2205.	-485.	-1787.	68.	-1936.	-.0400	.0508	-.1181	.0728	-.0510	-.0155	1058.
.1860	452.	-1968.	-589.	-2039.	61.	-2798.	-.0372	.0500	-.1224	.0747	-.0574	-.0200	1389.
.1870	448.	-1898.	-573.	-2055.	18.	-3394.	-.0359	.0473	-.1268	.0746	-.0599	-.0237	1592.
.1880	481.	-1672.	-509.	-1982.	-27.	-3855.	-.0362	.0431	-.1311	.0730	-.0618	-.0254	1740.
.1890	526.	-1243.	-420.	-1903.	-78.	-4095.	-.0383	.0374	-.1356	.0703	-.0618	-.0253	1812.
.1900	521.	-979.	-328.	-1916.	-139.	-3964.	-.0422	.0306	-.1402	.0670	-.0579	-.0239	1768.
.1910	471.	-943.	-315.	-2208.	-186.	-3457.	-.0479	.0228	-.1450	.0637	-.0527	-.0216	1648.
.1920	276.	-698.	-357.	-2759.	-234.	-2423.	-.0552	.0145	-.1501	.0607	-.0449	-.0195	1476.
.1930	-38.	-205.	-456.	-3551.	-281.	-980.	-.0636	.0060	-.1551	.0580	-.0355	-.0177	1483.
.1940	-359.	133.	-619.	-4543.	-321.	560.	-.0724	-.0021	-.1597	.0559	-.0256	-.0155	1841.
.1950	-593.	193.	-807.	-5593.	-354.	1909.	-.0809	-.0096	-.1637	.0541	-.0153	-.0124	2376.
.1960	-697.	250.	-971.	-6524.	-378.	2904.	-.0886	-.0159	-.1664	.0524	-.0046	-.0084	2870.
.1970	-676.	374.	-1077.	-7206.	-392.	3509.	-.0952	-.0210	-.1676	.0506	.0069	-.0039	3220.

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.1750	452.	-1928.	-111.	-2039.	81.	-1770.	-1172.	.0500	-1.1224	.0747	-.0574	-.0200	1389.
.1870	442.	-1898.	-373.	-2055.	18.	-3394.	-1159.	.0473	-.1268	.0746	-.0599	-.0237	1592.
.1880	461.	-1672.	-509.	-1982.	-27.	-3855.	-1362.	.0431	-.1311	.0730	-.0518	-.0254	1740.
.1890	526.	-1243.	-420.	-1903.	-78.	-4095.	-.0383	.0374	-.1356	.0703	-.0518	-.0253	1812.
.1900	521.	-979.	-325.	-1916.	-139.	-3964.	-.0422	.0306	-.1402	.0670	-.0579	-.0239	1768.
.1910	471.	-943.	-315.	-2201.	-136.	-7457.	-.0479	.0228	-.1450	.0637	-.0527	-.0216	1648.
.1920	276.	-698.	-357.	-2759.	-234.	-2423.	-.0552	.0145	-.1501	.0607	-.0449	-.0195	1476.
.1930	-32.	-265.	-456.	-3551.	-281.	-980.	-.0636	.0060	-.1551	.0580	-.0355	-.0177	1483.
.1940	-359.	133.	-619.	-4543.	-321.	560.	-.0724	-.0021	-.1597	.0559	-.0256	-.0155	1841.
.1950	-593.	193.	-807.	-5593.	-354.	1909.	-.0809	-.0096	-.1637	.0541	-.0153	-.0124	2376.
.1960	-697.	250.	-971.	-6524.	-378.	1904.	-.0986	-.0159	-.1664	.0524	-.0046	-.0084	2870.
.1970	-676.	374.	-1077.	-7266.	-392.	3509.	-.0952	-.0210	-.1676	.0506	.0069	-.0039	3220.

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INTERNAL FORCES IN THE PIPING
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SECTION	33	MEMBER	1	SEQUENCE	016	LOCATION	END	TYPE	RU					
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.1980	-587.	396.	-1103.	-7553.	-406.	3837.	-.1004	-.0245	-.1670	.0487	.0198	.0004	3404.	
.1990	-508.	374.	-1045.	-7538.	-429.	4058.	-.1043	-.0264	-.1644	.0467	.0346	.0034	3439.	
.2000	-471.	513.	-930.	-7219.	-459.	4264.	-.1070	-.0267	-.1599	.0450	.0501	.0049	3369.	
.2010	-470.	747.	-791.	-6678.	-492.	4467.	-.1085	-.0255	-.1538	.0439	.0553	.0049	3230.	
.2020	-495.	852.	-635.	-5964.	-533.	4656.	-.1088	-.0228	-.1461	.0432	.0501	.0037	3044.	
.2030	-517.	826.	-477.	-5140.	-575.	4779.	-.1078	-.0187	-.1374	.0431	.0940	.0017	2826.	
.2040	-493.	831.	-351.	-4298.	-603.	4748.	-.1056	-.0135	-.1278	.0435	.1045	-.0004	2581.	
.2050	-421.	839.	-250.	-3461.	-606.	4566.	-.1023	-.0074	-.1178	.0442	.1102	-.0023	2312.	
.2060	-347.	678.	-131.	-2578.	-591.	4328.	-.0980	-.0010	-.1075	.0445	.1114	-.0043	2036.	
.2070	-295.	352.	16.	-1672.	-563.	4088.	-.0929	.0055	-.0973	.0441	.1088	-.0063	1787.	
.2080	-246.	12.	153.	-862.	-530.	3814.	-.0871	.0118	-.0876	.0431	.1032	-.0082	1584.	
.2090	-188.	-319.	251.	-248.	-505.	3479.	-.0807	.0176	-.0786	.0419	.0970	-.0096	1414.	
.2100	-126.	-714.	312.	139.	-505.	3082.	-.0739	.0229	-.0706	.0402	.0930	-.0106	1255.	
.2110	-53.	-1137.	338.	288.	-528.	2605.	-.0666	.0275	-.0636	.0380	.0913	-.0112	1073.	
.2120	37.	-1476.	325.	199.	-561.	2028.	-.0592	.0312	-.0576	.0354	.0905	-.0112	848.	
.2130	131.	-1733.	286.	-88.	-594.	1373.	-.0516	.0338	-.0526	.0322	.0894	-.0109	601.	
.2140	219.	-1925.	232.	-518.	-618.	668.	-.0442	.0352	-.0485	.0283	.0872	-.0104	420.	
.2150	303.	-1920.	170.	-1046.	-624.	-76.	-.0371	.0355	-.0450	.0239	.0832	-.0097	490.	
.2160	392.	-1623.	104.	-1631.	-609.	-850.	-.0305	.0348	-.0419	.0190	.0773	-.0088	778.	
.2170	496.	-1201.	38.	-2238.	-575.	-1631.	-.0246	.0331	-.0390	.0136	.0703	-.0076	1135.	
.2180	615.	-905.	-35.	-2852.	-527.	-2371.	-.0196	.0306	-.0361	.0081	.0627	-.0061	1503.	
.2190	724.	-725.	-125.	-3464.	-471.	-2964.	-.0158	.0275	-.0328	.0026	.0554	-.0046	1839.	
.2200	772.	-453.	-223.	-4028.	-412.	-3264.	-.0134	.0240	-.0289	-.0028	.0485	-.0037	2087.	
.2210	723.	-57.	-307.	-4473.	-349.	-3180.	-.0125	.0202	-.0241	-.0082	.0419	-.0035	2207.	
.2220	588.	308.	-362.	-4736.	-277.	-2732.	-.0130	.0161	-.0183	-.0138	.0347	-.0039	2197.	
.2230	409.	581.	-301.	-4786.	-192.	-2024.	-.0147	.0122	-.0112	-.0195	.0262	-.0045	2087.	
.2240	233.	849.	-372.	-4624.	-90.	-1190.	-.0173	.0084	-.0028	-.0252	.0159	-.0049	1916.	
.2250	91.	1143.	-346.	-4268.	25.	-327.	-.0204	.0051	.0070	-.0308	.0036	-.0046	1718.	
.2260	-23.	1374.	-305.	-3734.	143.	537.	-.0238	.0025	.0182	-.0361	-.0097	-.0039	1515.	
.2270	-137.	1522.	-248.	-3034.	255.	1422.	-.0272	.0006	.0307	-.0410	-.0232	-.0031	1349.	
.2280	-273.	1650.	-178.	-2192.	355.	2335.	-.0302	-.0005	.0444	-.0455	-.0364	-.0024	1293.	
.2290	-433.	1754.	-94.	-1222.	438.	3245.	-.0327	-.0010	.0591	-.0493	-.0487	-.0021	1402.	
.2300	-606.	1773.	15.	-122.	496.	4079.	-.0341	-.0006	.0747	-.0526	-.0589	-.0019	1650.	
.2310	-756.	1721.	150.	1089.	526.	4720.	-.0342	.0004	.0909	-.0554	-.0564	-.0018	1955.	
.2320	-834.	1664.	301.	2366.	531.	5035.	-.0328	.0021	.1074	-.0573	-.0716	-.0011	2243.	
.2330	-820.	1548.	461.	3670.	516.	4963.	-.0297	.0044	.1239	-.0586	-.0751	.0002	2486.	
.2340	-727.	1286.	629.	4964.	485.	4534.	-.0249	.0071	.1401	-.0590	-.0774	.0021	2705.	
.2350	-581.	937.	785.	6178.	445.	3827.	-.0186	.0101	.1556	-.0586	-.0792	.0042	2922.	

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

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

.2250	91.	1143.	-346.	-4268.	25.	-327.	-0.173	.0084	.0070	-.0308	.0036	-.0046	1718.
.2260	-23.	1374.	-305.	-3734.	143.	537.	-.0238	.0025	.0182	-.0361	-.0097	-.0039	1515.
.2270	-137.	1522.	-240.	-3074.	255.	1422.	-.0272	.0006	.0307	-.0410	-.0232	-.0031	1349.
.2280	-277.	1650.	-178.	-2192.	355.	2375.	-.0302	-.0005	.0444	-.0455	-.0364	-.0024	1293.
.2290	-433.	1754.	-94.	-1222.	438.	3245.	-.0327	-.0010	.0591	-.0493	-.0487	-.0021	1402.
.2300	-606.	1773.	15.	-122.	496.	4079.	-.0341	-.0008	.0747	-.0526	-.0589	-.0019	1650.
.2310	-756.	1721.	150.	1089.	526.	4720.	-.0342	.0004	.0909	-.0554	-.0564	-.0018	1955.
.2320	-834.	1664.	301.	2366.	531.	5035.	-.0328	.0021	.1074	-.0573	-.0716	-.0011	2243.
.2330	-820.	1548.	461.	3670.	516.	4963.	-.0297	.0044	.1239	-.0586	-.0751	.0002	2486.
.2340	-727.	1256.	629.	4964.	485.	4574.	-.0249	.0071	.1401	-.0590	-.0774	.0021	2705.
.2350	-581.	937.	785.	6178.	445.	3827.	-.0186	.0101	.1556	-.0586	-.0792	.0042	2922.

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INTERNAL FORCES IN THE PIPING
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SECTION	33	MEMBER	1	SEQUENCE	B16	LOCATION	END	TYPE	RU						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)		
.2360	-407.	611.	908.	7235.	402.	2938.	-.0110	.0133	.1700	-.0573	-.0809	.0065	3138.		
.2370	-234.	275.	992.	8098.	356.	1973.	-.0026	.0166	.1830	-.0550	-.0819	.0085	3348.		
.2380	-79.	-176.	1042.	8759.	305.	1012.	.0064	.0197	.1945	-.0521	-.0812	.0103	3540.		
.2390	64.	-671.	1064.	9223.	247.	86.	.0157	.0227	.2041	-.0489	-.0784	.0118	3702.		
.2400	200.	-1019.	1066.	9509.	187.	-786.	.0250	.0253	.2118	-.0456	-.0735	.0132	3830.		
.2410	324.	-1203.	1065.	9660.	124.	-1573.	.0340	.0275	.2174	-.0428	-.0668	.0145	3928.		
.2420	424.	-1362.	1078.	9710.	60.	-2246.	.0425	.0292	.2210	-.0408	-.0586	.0155	4000.		
.2430	494.	-1558.	1109.	9672.	0.	-2788.	.0503	.0303	.2224	-.0399	-.0495	.0162	4039.		
.2440	533.	-1684.	1157.	9531.	-53.	-3204.	.0573	.0308	.2217	-.0404	-.0396	.0166	4035.		
.2450	561.	-1652.	1198.	9232.	-97.	-3533.	.0635	.0307	.2187	-.0419	-.0292	.0168	3967.		
.2460	598.	-1521.	1201.	8702.	-128.	-3818.	.0688	.0299	.2135	-.0443	-.0189	.0170	3814.		
.2470	637.	-1360.	1137.	7893.	-148.	-4045.	.0731	.0285	.2062	-.0471	-.0090	.0170	3559.		
.2480	646.	-1201.	1013.	6834.	-162.	-4154.	.0764	.0264	.1971	-.0502	.0005	.0167	3210.		
.2490	614.	-1057.	852.	5606.	-172.	-4120.	.0786	.0238	.1864	-.0536	.0095	.0159	2793.		
.2500	563.	-858.	664.	4286.	-174.	-3988.	.0798	.0207	.1748	-.0571	.0173	.0148	2350.		
.2510	518.	-573.	465.	2962.	-165.	-3805.	.0801	.0172	.1626	-.0606	.0232	.0137	1936.		
.2520	480.	-287.	282.	1742.	-144.	-3576.	.0794	.0135	.1504	-.0639	.0269	.0127	1597.		
.2530	435.	-58.	136.	719.	-113.	-3273.	.0780	.0098	.1386	-.0669	.0285	.0118	1345.		
.2540	371.	196.	33.	-68.	-75.	-2872.	.0758	.0062	.1275	-.0694	.0280	.0108	1153.		
.2550	286.	521.	-42.	-628.	-34.	-2372.	.0729	.0028	.1175	-.0709	.0257	.0098	985.		
.2560	191.	868.	-108.	-992.	4.	-1804.	.0696	-.0003	.1087	-.0713	.0221	.0089	826.		
.2570	97.	1238.	-174.	-1180.	39.	-1202.	.0660	-.0030	.1012	-.0703	.0173	.0082	676.		
.2580	2.	1493.	-227.	-1175.	71.	-584.	.0622	-.0053	.0950	-.0680	.0118	.0075	527.		
.2590	-93.	1563.	-254.	-964.	99.	27.	.0586	-.0075	.0902	-.0648	.0061	.0069	389.		
.2600	-180.	1685.	-257.	-571.	126.	587.	.0552	-.0095	.0866	-.0608	-.0000	.0064	333.		
.2610	-246.	1984.	-244.	-33.	154.	1054.	.0524	-.0114	.0842	-.0560	-.0068	.0059	428.		
.2620	-293.	2204.	-211.	625.	183.	1404.	.0502	-.0133	.0826	-.0510	-.0138	.0054	621.		
.2630	-324.	2195.	-157.	1375.	215.	1633.	.0487	-.0152	.0817	-.0458	-.0211	.0048	861.		
.2640	-342.	2124.	-91.	2161.	254.	1736.	.0480	-.0171	.0811	-.0407	-.0284	.0039	1117.		
.2650	-348.	2054.	-28.	2920.	302.	1712.	.0482	-.0191	.0806	-.0356	-.0358	.0028	1364.		
.2660	-342.	1948.	24.	3607.	357.	1564.	.0491	-.0211	.0800	-.0308	-.0430	.0014	1584.		
.2670	-326.	1736.	64.	4201.	419.	1303.	.0509	-.0230	.0790	-.0262	-.0497	-.0003	1773.		
.2680	-304.	1387.	98.	4699.	489.	948.	.0534	-.0248	.0774	-.0219	-.0559	-.0023	1934.		
.2690	-279.	1134.	125.	5093.	569.	520.	.0564	-.0266	.0751	-.0180	-.0616	-.0045	2067.		
.2700	-250.	1156.	136.	5370.	659.	28.	.0599	-.0282	.0721	-.0143	-.0670	-.0068	2171.		
.2710	-214.	1202.	129.	5531.	753.	-516.	.0637	-.0294	.0682	-.0106	-.0719	-.0090	2249.		
.2720	-170.	762.	114.	5599.	844.	-1098.	.0676	-.0302	.0635	-.0071	-.0757	-.0110	2315.		
.2730	-119.	-76.	94.	5593.	927.	-1699.	.0714	-.0306	.0579	-.0036	-.0783	-.0127	2375.		

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