ANALYSIS OF ANCHORED CLEARANCE COUPLING PIPE SEGMENT (THERE ARE NO HYD LOADS AT THE ENDS)

(THIS IS REPRESENTATIVE OF AN INTERMEDIATE SEGMENT AND CAN BE USED ON EITHER EXPANSIVE OR CONTRACTIVE APPLICATIONS)

KINETICS Noise Control

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Project: TOP ANCHORED CLEARANCE COUPLING SEGMENT (TYPE 1) 3/12/2006
Riser: TYPICAL RISER

Note: Supports are assumed to be at floor level, if at ceiling level, identify as being on floor above

Expansion Coef	7.60E-05	in/ft/degF
Installed Temp	70	
Oper Temp	91	
Anchor Elevation	39	(If Anchored System)
Anchor Type	FX	(Fixed-FX or Floating FL)
Static Head	0	(Ft at top of pipe)
Water Supported	N	(Y or N) Is water column weight supported by Riser?
Hyd Lift @ Top	N	If an Intermediate Riser section with telescoping Coupling at top, Enter "N" otherwise enter "Y"
Liq or Gas Piping	L	(L or G) Is the pipe filled with water or gas?
Steam Pressure	0	(Enter a value only if steam pressure is present (psi))

Indicate Support locations with a "Y" and guide locations with a "G" in the Support Location Column. Restrained Spring isolators such as FRS are indicated with an "R" under "Support/Res"
+ Force loads are Tension, - Force loads are Compression (in pipe)
"-" indicates no supports above this point

Floor (Ref)	Support Loc	Support Res	Floor Ht Ft	Floor Elev Ft	Pipe Size in	Local Pipe Wt (lb)	Local Liquid Wt (lb)	Init Support Pt Load From Pipe Wt (Lb)	Hyd Thrust Pipe Lift is + (lb)	Spring Rate Lb/in	Init Defl In	Init Supt Pt Force Lbs	Oper Sprg Defl or Disp + is Down in	Oper Supt Pt Load Lbs	Init Tens Pipe Force Lbs	Oper Tens Pipe Force Lbs	Initial Pipe Stress PSI	Combined Burst + Tens Oper Stress PSI
Roof				40				0	0			0		0	0	0		
10				40				0	0			0		0	0	0		
9				40				0	0			0		0	0	0		
8	-			40				0	0			0	0.00	0	0	0		
7	A		1.00	39	10			1619	0			1619	0.00	1619	1579	1579	133	133
6			10.00	29	10			0	0			0		0	1174	1174	99	118
5			10.00	19	10			0	0			0		0	769	769	65	141
4			10.00	9	10			0	0			0		0	364	364	31	187
3	G		9.00	0	10			0	0			0	0.06	0	0	0	0	238
2				0				0	0			0		0	0	0		

Critical Buckling Load for piping -51576 lb

SAMPLE 40 FT RISER SEGMENT WITH ANCHOR AT THE TOP AND NO INTERMEDIATE ISOLATORS

NOTE: AS THIS IS AN INTERMEDIATE SEGMENT, THE PIPE WEIGHT ONLY IS CARRIED. HYDRAULIC LOADS ARE CONDUCTED THROUGH THE FLUID TO THE TOP AND BOTTOM SEGMENTS. HYDRAULIC REACTIONS WILL OCCUR HOWEVER AT SECTION CHANGE LOCATIONS.

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