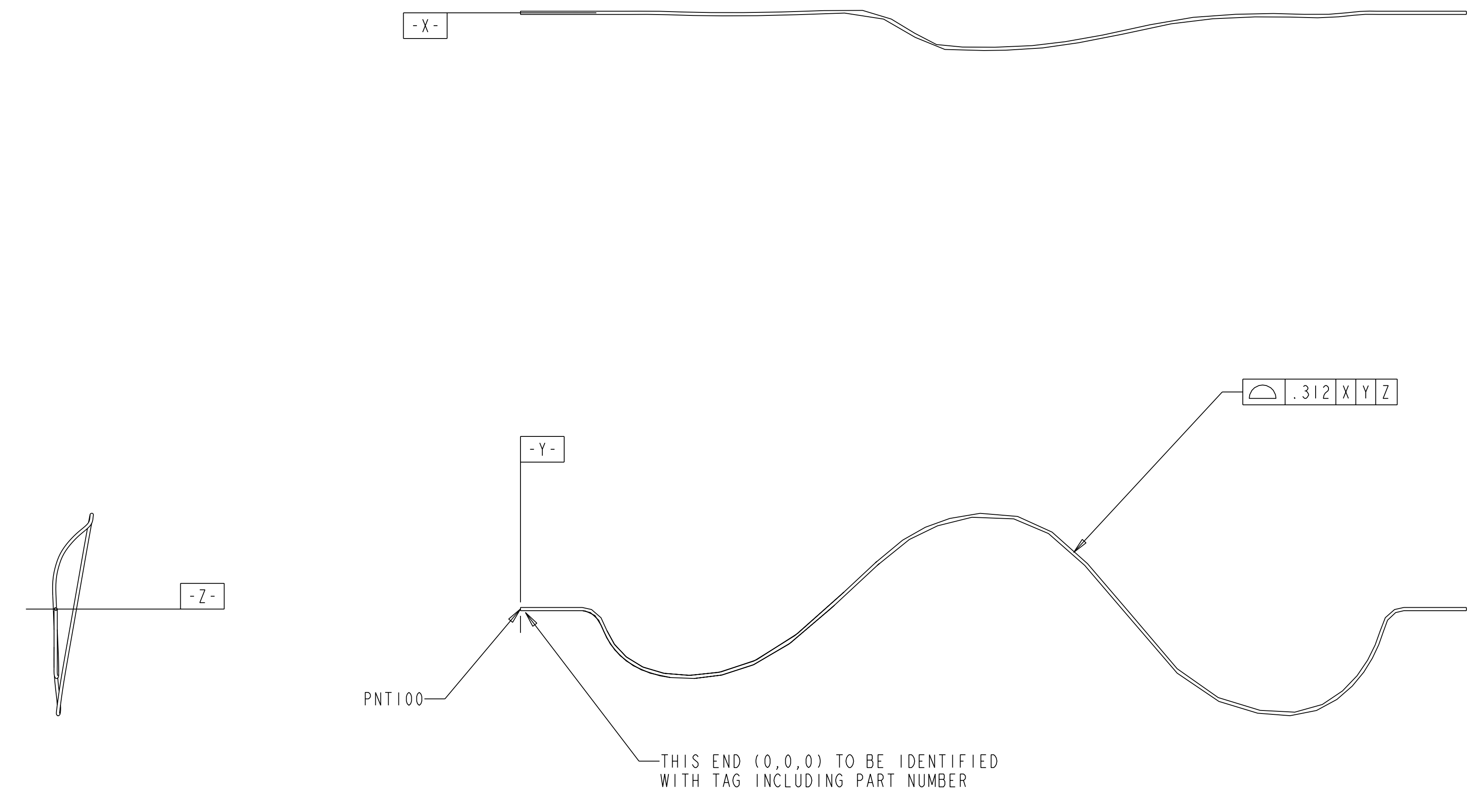


- NOTES
1. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M.
 2. DIMENSIONS ARE IN INCHES.
 3. FABRICATION AND MATERIALS PER NCSX-CSPEC-123-01
 4. PROFILE TOLERANCE OF TUBE SURFACE IS BILATERAL, I.E. 0.156" ANY DIRECTION OFF REFERENCE SURFACE.
 5. ALL TUBE BEND RADII ARE 5/8" TO CENTERLINE OF TUBE.
 6. DATUM POINTS ON CHART ARE THEORETICAL INTERCEPTS OF THE TUBE CENTERLINE. BEND RADII ARE OMITTED. PROFILE TOLERANCE INCLUDES ALLOWANCES FOR THE RADII ERRORS.

Point Name	X	Y	Z
PNT100	0.000	0.000	0.000
PNT101	6.015	0.000	0.000
PNT102	6.870	-0.195	0.000
PNT103	7.565	-0.731	0.000
PNT104	7.939	-1.386	0.000
PNT105	8.523	-2.722	-0.000
PNT106	9.248	-3.826	0.000
PNT107	10.209	-4.797	0.000
PNT108	11.231	-5.480	0.000
PNT109	12.310	-5.968	0.000
PNT110	13.181	-6.240	0.000
PNT111	13.928	-6.403	0.015
PNT112	14.498	-6.491	0.036
PNT113	15.071	-6.553	0.055
PNT114	15.691	-6.593	0.075
PNT115	16.223	-6.605	0.091
PNT116	16.800	-6.598	0.106
PNT117	17.376	-6.569	0.118
PNT118	17.995	-6.514	0.128
PNT119	18.611	-6.435	0.134
PNT120	19.311	-6.313	0.139
PNT121	19.918	-6.181	0.140
PNT122	20.562	-6.012	0.140
PNT123	21.198	-5.816	0.138
PNT124	21.826	-5.593	0.134
PNT125	22.524	-5.308	0.129
PNT126	23.209	-4.991	0.121
PNT127	23.956	-4.600	0.108
PNT128	24.883	-4.173	0.093
PNT129	25.391	-3.716	0.074
PNT130	26.082	-3.233	0.053
PNT131	26.896	-2.618	0.026
PNT132	27.889	-1.974	-0.001
PNT133	28.429	-1.338	-0.026
PNT134	29.189	-0.657	-0.050
PNT135	29.909	0.003	-0.072
PNT136	30.527	0.576	-0.092
PNT137	31.244	1.239	-0.119
PNT138	31.929	1.870	-0.142
PNT139	32.612	2.504	-0.137
PNT140	33.288	3.142	-0.075
PNT141	33.897	3.716	0.031
PNT142	34.472	4.253	0.171
PNT143	34.984	4.720	0.325
PNT144	35.656	5.312	0.583
PNT145	36.354	5.895	0.936
PNT146	37.084	6.455	1.378
PNT147	37.800	6.941	1.830
PNT148	38.506	7.358	2.274
PNT149	39.495	7.844	2.847
PNT150	40.495	8.242	3.259
PNT151	41.530	8.386	3.456
PNT152	42.558	8.863	3.476
PNT153	43.737	9.073	3.495
PNT154	44.975	9.173	3.512
PNT155	46.441	9.146	3.497
PNT156	47.743	8.984	3.463
PNT157	49.101	8.640	3.397
PNT158	50.569	8.007	3.280
PNT159	51.989	7.081	3.113
PNT160	53.170	6.109	2.938
PNT161	54.346	5.006	2.742
PNT162	55.474	3.853	2.542
PNT163	56.391	2.851	2.369
PNT164	57.443	1.631	2.157
PNT165	58.304	0.583	1.973
PNT166	59.307	-0.677	1.751
PNT167	60.145	-1.742	1.563
PNT168	60.935	-2.738	1.386
PNT169	61.768	-3.754	1.207
PNT170	62.632	-4.745	1.033
PNT171	63.539	-5.697	0.867
PNT172	64.536	-6.621	0.711
PNT173	65.536	-7.414	0.584
PNT174	66.713	-8.183	0.469
PNT175	67.771	-8.739	0.391
PNT176	68.914	-9.217	0.328
PNT177	69.928	-9.552	0.285
PNT178	71.129	-9.857	0.247
PNT179	72.223	-10.056	0.225
PNT180	73.413	-10.189	0.224
PNT181	74.481	-10.227	0.247
PNT182	75.674	-10.143	0.285
PNT183	76.720	-9.928	0.316
PNT184	77.889	-9.590	0.327
PNT185	78.896	-8.950	0.286
PNT186	80.054	-8.078	0.187
PNT187	81.082	-7.058	0.063
PNT188	81.958	-5.952	0.000
PNT189	82.671	-4.803	0.000
PNT190	83.236	-3.629	0.000
PNT191	83.695	-2.409	0.000
PNT192	83.974	-1.499	0.000
PNT193	84.407	-0.695	0.000
PNT194	85.144	-0.157	-0.000
PNT195	85.912	0.000	0.000
PNT196	92.000	0.000	0.000



RELEASED FOR FABRICATION / INSTALLATION
PPPL Drafting:

APPROX TUBE LENGTH = 113.2 IN

-1 COOLANT TUBE 16-2
SCALE .125

REV	DESCRIPTION	BY	DATE	CHK	DEPT	DATE	PE	REQ	DATE	ORNL	DOE	DATE
1	PER ECN NO. 5003	MJC	6/24/05	PLG								

AR	CAGE CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	SPECIFICATION	FIND NO
SE123-140	-1	COOLANT TUBE 16-2	316L SS 5/16"-.032 WALL	SEE NOTE 4	1	

SCALE NOTED

TOLERANCES UNLESS OTHERWISE SPECIFIED

FRACTIONS :
XX DECIMALS ±.01
XXX DECIMALS ±.005
ANGLES ±0°15'
BREAK SHARP EDGES OR MAX FINISH .125 UNLESS OTHERWISE SPECIFIED

DES: P GORANSON
DRW: G MCGINNIS
CHK: G. H. JONES

UT-BATTELLE
NATIONAL COMPACT STELLARATOR EXPERIMENT
VACUUM VESSEL HEATING/COOLING COOLANT TUBE 16-2
DETAIL

VERSION NO. 0
PLANT ORNL
BLDG 5700
FL 3
SHT 1
OF 1
TYPE I
CLASS S
U

RELEASE LEVEL Fabrication
SE123-142

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