

Jefferson Lab Alignment Group

DATA TRANSMITTAL

TO: Brian Carpenter

DATE: July 28, 2000

FROM: Steve Hardisty

Checked: # : L621

DETAILS:

Enclosed please find the results for the SNS helium vessel survey conducted in our survey lab. All coordinates in this transmittal are in decimal inches with the origin at the center of the upstream end of the vessel. The coordinate system is beam following with +Z being downstream of the upstream end centerline; +X being beam left of the upstream and downstream centers and +Y being above the centers of the ends and the nipples. The accuracy of this survey is .002 of an inch.

SNS Helium Vessel #1 (inches)

TARGET		Z	X	Y
Upstream end	MEASURED	0.000	0.000	0.000
	REFERENCE	0.000	0.000	0.000
	DEVIATIONS	0.000	0.000	0.000
Downstream end	MEASURED	16.975	0.000	0.000
	REFERENCE	16.970	0.000	0.000
	DEVIATIONS	0.005	0.000	0.000
Beam-left nipple	MEASURED	2.628	5.953	0.006
	REFERENCE	2.620	5.966	0.000
	DEVIATIONS	0.008	-0.012	0.006
Beam-right nipple	MEASURED	14.363	-5.943	0.006
	REFERENCE	14.350	-5.966	0.000
	DEVIATIONS	0.013	0.016	0.006

The nipples are .058 degrees off the zx plane.

Beam-right nipple is .042 out of parallel to the yz plane.

Beam-left nipple is .048 out of parallel to the yz plane.

The nipples are .006 above the axis formed by the upstream and downstream flange centers.

SNS Helium Vessel #2(inches)

TARGET		Z	X	Y
Upstream end	MEASURED	0.000	0.000	0.000
	REFERENCE	0.000	0.000	0.000
	DEVIATIONS	0.000	0.000	0.000
Downstream end	MEASURED	16.972	0.000	0.000
	REFERENCE	16.970	0.000	0.000
	DEVIATIONS	0.002	0.000	0.000
Beam-left nipple	MEASURED	2.601	5.952	0.090
	REFERENCE	2.620	5.966	0.000
	DEVIATIONS	-0.019	-0.014	0.090
Beam-right nipple	MEASURED	14.348	-5.946	0.090
	REFERENCE	14.350	-5.966	0.000
	DEVIATIONS	-0.002	0.020	0.090

The nipples are .867 degrees off the zx plane.

Beam-right nipple is .059 out of parallel to the yz plane.

Beam-left nipple is .027 out of parallel to the yz plane.

The nipples are .089 above the axis formed by the upstream and downstream flange centers.

