



TS-SSC 90-045

Fermi National Accelerator Laboratory
Technical Support / Engineering
P.O. Box 500 - Batavia, Illinois - 60510
FAX: (708) 840-8036

August 7, 1990

To: Distribution

From: T. Nicol - FNAL

Subject: SSC 50mm Collider Dipole Cryostat Cross Section
and Interconnect Dimensions - Update

The attached drawings are revised versions of cross sections distributed in my May 21, 1990 memo. These drawings represent the following:

- Cryostat cross section through an internal support
- Cryostat cross section through an external support
- Cross section at a typical magnet interconnection

The changes reflected by these revisions are minor and impact only those interested in magnet interconnect dimensions. The changes are in the location of the 80K shield supply and return. The centerline of these pipes was relocated slightly to allow more room in the interconnect region between magnets for the 80K bellows. In addition, we changed the specification on the 80K bellows. The original OD on that bellows was 3-1/2 inches (88.90 mm). The new spec is 3-1/4 inches (82.55 mm). This too provides additional clearance in the interconnect for the 80K lines and shield transition.

We have also changed the vacuum vessel reinforcement at the support post locations. Our previous design utilized a 3/4 inch thick reinforcing plate around each support. The current design utilizes a complete ring, 3/4 inch thick, at each support location. This change was required to limit mechanical stresses in the vacuum vessel immediately around the supports. It also provides for a vessel less prone to weld distortions during fabrication.

T. Nicol
Fermilab
P.O. Box 500
Batavia, IL 60510
Mail station 316
Decnet: FNAL::TNICOL
Phone: (708) 840-3441
FAX: (708) 840-8036

Distribution:

BNL

G. Kelly
T. Meade
S. Plate
G. Rogers
J. Sondericker
E. Willen

FNAL

D. Arnold
R. Bossert
J. Carson
N. Engler
S. Gillilan (SSCL@FNAL)
T. Heger
J. Kerby
G. Kobliska
E. Larson
R. Lathrop (SSCL@FNAL)
A. Lipski
P. Mantsch
P. Mazur
J. Missig (SSCL@FNAL)
T. Peterson
E. Pewitt
R. Richardson
K. Sarna (SSCL@FNAL)
D. Sorenson
J. Strait
J. Theilacker
D. Theriot

LBL

R. Schermer
C. Taylor

SSCL - Magnet Division

D. Bailey
D. Baritchi
T. Bush
S. Chen
W. Clay
R. Coombes
J. Cox
D. Fortunato
C. Goodzeit
R. Jayakumar
R. Malnar
D. Martin
A. Pennington
P. Sanger
W. Smith
S. Smith
J. Tompkins
Y. Tsavalas
R. Viola
J. Zbasnik

SSCL - Accelerator Division

D. Edwards
H. Edwards
P. Kraushaar
M. McAshan
L. Sauer
R. Smellie
R. Stiening

[illegible]

