

105140400-DE0001-R00

**DC water cooled bus in cable duct banks for Ring system magnets.
Preliminary design review.**

Oak Ridge, 17. December, 2001

Present: Roy Cutler, Ted Hunter, George Dodson, Mario Giannella, Jim Schubert, Don Richied,
J.G Wang, Paul Holik.

Agenda:

1. Sum of ten loads powered by water cooled duct bank embedded dc bus
 2. RII losses consideration (\$300/kW/year)
 3. Robust for 20+ years of operation
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1. Recommendation: add one more bus for RTBT duct bank for second target station operation. Consider one spare in each duct bank.
 2. No comments or recommendations.
 3. No comments or recommendations.

Technical background: 67x45mm Cu bus with 12.7mm hole in the center, meets cooling and ampere loading requirements. Cu Material on order.

Connection to DI loops need to clarified - Radiation issues in the ring tunnel.

Mechanical design/engineering needs to follow in January 2002.

Temperature switch (klixon) interlock for bus protection.

Interfacing with BNL designed equipment needs to be coordinated during January 2002.

Materials for the bus assembly needs to be specified and orders placed by end of January 2002.