

**Director's Review of the Project X
Cost Range Estimate:
Instrumentation & Controls
*Overview & Charge***

Manfred Wendt
Project X Director's Review
March 16, 2009



- **Wim Blokland (ORNL / SNS – Instrumentation), reviewer**
- Sharon Lackey (Fermilab, AD-Controls)
- Jim Patrick (Fermilab, AD-Controls)
- Vic Scarpine (Fermilab, AD-Instrumentation)
- **Mike Spata (Jlab, Operations, AARD), reviewer**
- Randy Thurman-Keup (Fermilab, AD-Instrumentation)
- Greg Vogel (Fermilab, AD-Controls)
- Manfred Wendt (Fermilab, AD-Instrumentation)



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- Is the cost range estimate complete?
 - Has the cost range estimate been prepared using a sound estimate methodology?
 - Is the schedule set forth reasonable?
 - Are the labor estimates reasonable?
 - Are the materials and services estimated those needed to deliver the facility?
 - Are the estimates for the M&S reasonable at this early stage of the project?
 - *Is the estimated technical contingency appropriate / adequate?*
 - Are there ways the cost could be reduced?
 - (Is the Project Engineering and Design (PED) funding profile adequately defined to support a request for PED funds later this year?)



Project X Total Costs: \$743,545,773 (M&S, manpower)

