



ILC CFS & GLOBAL SYSTEMS MEETING

CONVENTIONAL FACILITIES AND SITING GROUP

***CFS Status Report in Preparation for the
September, Albuquerque Meeting***

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Overview

- *Update from Previous Meeting*
- *Main Linac Tunnel Configuration Study*
- *Single Tunnel Life Safety Issues*
- *Single Tunnel Diameter Comparison*
- *CFS and the EDMS System*
- *DESY AD&I Meeting Action Items*
- *Summary*



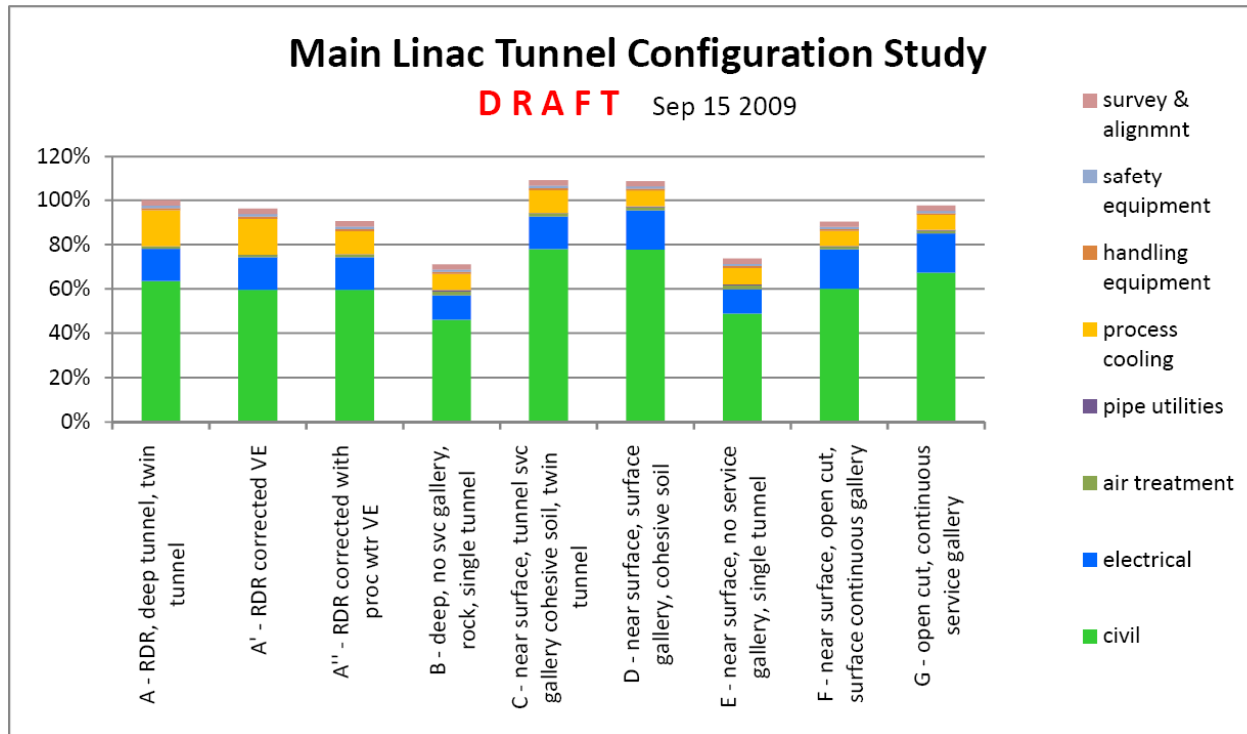
Update from Previous Meeting

- **AD&I Central Region Layout**
 - **The CFS Group has Concluded a Comprehensive System of Meetings with Area Systems**
 - **A Complete Machine Layout has been Developed**
 - **2D Layout Drawings and Tunnel Sections will be Finalized and Distributed Prior to the ALCPG 09 Meeting**
 - **Cost Estimates, Based on the Americas Region, will be Completed by the ALCPG 09 Meeting**
- **Klystron Cluster and DRSF Alternatives**
 - **Americas Region has Developed a Klystron Cluster Design**
 - **Asian Regions has Developed a DRSF Design**
 - **All Regions will Adapt These Designs**
 - **Costs for Both Alternative RF Sources will be Completed by the ALCPG 09 Meeting**



Main Linac Tunnel Configurations

- **Tunnel Cross Sections are Complete**
- **Detailed Cost Estimates Based on the Americas Region Criteria for Each Alternative are Complete**





Regional Differences in Tunnel and Life Safety Design

- **Single Tunnel Design**

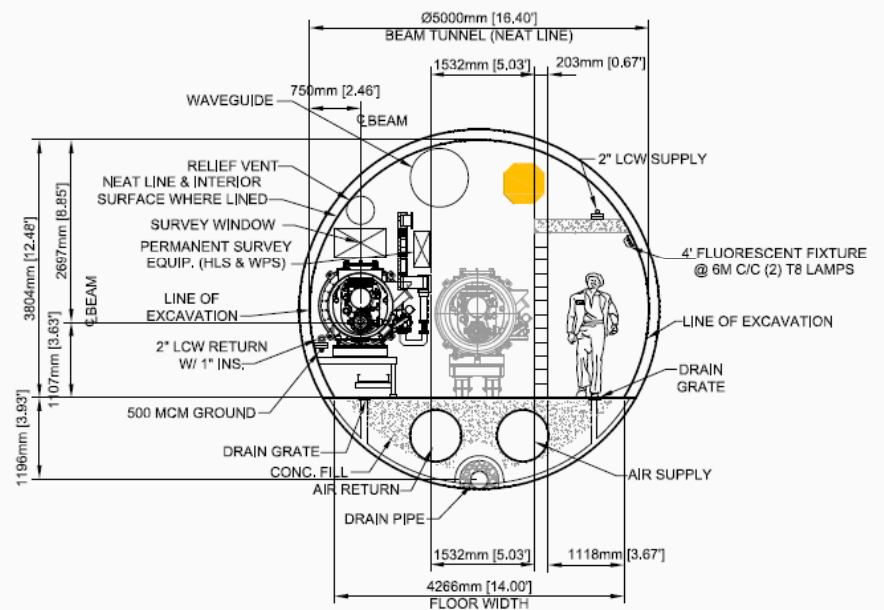
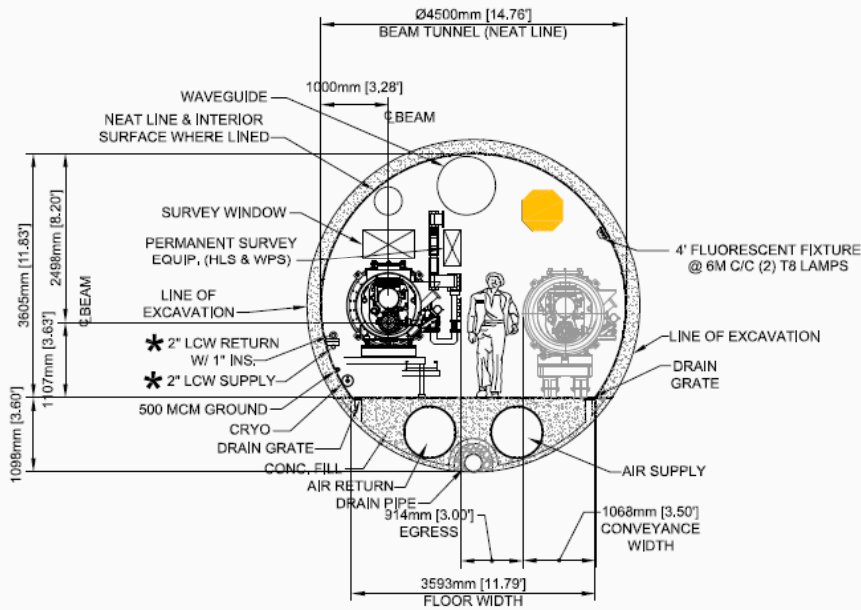
- **Americas and European Regions Continue to Use Vertical Shafts for Tunnel Access**
- **Asian Region Continues to Use Horizontal Tunnels for Tunnel Access**
- **RF Systems and Life Safety Solutions will be the Primary Criteria to Determine Tunnel Diameters**

- **Life Safety and Egress - General Approaches**

- **Americas Region Requirements Focus on Protected Enclosures and Alcoves for Safe Transit to Vertical Egress to Surface**
- **European Region Requirements Focus on Compartmentalization for Smoke Control and to Establish Safe Transit to Vertical Egress to Surface**
- **Asian Region Requirements Also Focus on Compartmentalization for Smoke Control but may Also Require Additional Tunnel or Protected Enclosures for Safe Transit to Horizontal Egress to Surface**
- **All Regions have a Main Linac Single Tunnel Solution, Although Each Region will Require Distinctions to Comply with Local Regulations**



Americas Region Tunnel Comparison





CFS EDMS Effort

- ***The CFS Group is Committed to Utilize the EDMS System to Manage Documentation***
- ***A CFS Parallel Session at ALCPG 09 is Dedicated to Establishing CFS Competence in the Use of the EDMS System***
- ***Training Requirements will be Revisited and Arranged as Needed to Establish Competence within the CFS Group***
- ***A Filing System will be Established to Organize CFS Documentation and Provide Access to Area and Technical Systems***
- ***This Filing System will Also Provide Security for Sensitive Cost Estimate Information***



DESY AD&I CFS Action Items

CFS	3	Schedule WebEx meetings with responsible area contacts	Kuchler	done
	4	Prepare feedback questions for TAG group meetings (requirements)	Kuchler	
	5	Evaluate SB2009 requirements and generate cost differentials	<u>Kucher</u> , Garbincius	2008 Klystron cluster used as model
	6	Evaluate impact of both HLRF solutions on all three sample sites	Kuchler, Osborne, Enomoto	
	7	Compile/review safety solutions for single-tunnel	Kuchler, Osborne, Enomoto	

- ***#4 - CFS AD&I Meetings were Held at SLAC and Daresbury for Interactive Discussions with All Area Systems***
- ***#5 - SB 2009 Requirements have been Incorporated Into the Current CFS Layout and Cost Estimates with Differential Comparisons will be Completed by ALCPG 09***
- ***#6 - The Evaluation of the Klystron Cluster and DSRF Solutions for All Three Sample Sites will be Completed by ALCPG 09***
- ***#7 – Safety Solutions have been Developed for all Three Regional Design Solutions and Although Different, Establish a Viable Egress Model for the Single Tunnel Solution in All Regions***



Summary

- *The CFS Group has Developed a Comprehensive Machine Layout that Incorporates All of the SB 2009 Working Assumptions*
- *Definitive Information Regarding the Choice of RF Systems and the Influence of Regional Life Safety on Tunnel Design and Diameter will be Available for ALCPG 09*
- *Participation in the EDMS System is a Top Priority for the CFS Group and will be Addressed in an ALCPG 09 Parallel Session*
- *All CFS Action Items from the DESY AD&I Meeting have Been Addressed and Completed*