

QPS Fabrication Project
Work Breakdown Structure (WBS) Dictionary
Core and Facility Integration (WBS 7)

-DRAFT-

January 29, 2004

Prepared by:

B. Nelson, Engineering Manager

Reviewed by:

L. Berry, Deputy Project Manager

M. Cole, Design Integration Manager

Approved by:

J. Lyon, Project Manager

QPS WBS Dictionary

Core and Facility Integration (WBS 7)

WBS Element: 7		WBS Level: 2
WBS Title:	Core and Facility Integration	
Description:	<p>This summary-level WBS element consists of the necessary engineering and field labor to prepare the test cell, control room, and related utilities and to perform integrated testing of the entire facility after the stellarator core is assembled and installed. This WBS element includes the following sub-elements:</p> <ul style="list-style-type: none"> • Test Cell Preparation (WBS 71) • Preparation outside the test cell (WBS 72) • Integrated systems testing (WBS 73) 	

WBS Element: 71		WBS Level: 3
WBS Title:	Test Cell Preparation	
Description:	<p>This WBS element includes the activities associated with preparation of the QPS test cell. Two elements are included in the QPS MIE project:</p> <ul style="list-style-type: none"> • The raised platform around the machine and the protective grating over the test cell pit • The concrete foundation at the bottom of the test cell pit upon which the QPS support columns will rest <p><i>All other test cell construction and preparation work is being accomplished as part of the facility move project.</i></p>	

WBS Element: 72		WBS Level: 3
WBS Title:	Preparation Outside Test Cell	
Description:	<p>This WBS element includes all facility preparation work outside the test cell, and consists of:</p> <ul style="list-style-type: none"> • Construction of the control room • Routing of buswork from the power supplies to the test cell • Routing of high and low pressure water lines to the test cell • Routing of instrument air, dry nitrogen and other gas lines to the test cell <p><i>All of this work is being accomplished as part of the facility move project.</i></p>	

WBS Element: 73		WBS Level: 3
WBS Title:	Integrated Systems Testing	
Description:	<p>This WBS element consists of the activities associated with integrated systems testing of the QPS device after the Stellarator Core is installed in the test cell. The power supplies will be operated into the coil set, vacuum and cooling systems will be made operational, and the proper functioning of all control systems and instrumentation necessary for machine operation will be verified. After the machine is operational, e-beam mapping equipment will be used to map and verify the magnetic configuration.</p> <p><i>The e-beam mapping hardware is part of WBS 316.</i></p>	