

NCSX June 2007 ETC
TABLE I - DESIGN LABOR

WBS Number: 64																																						
WBS Title: Bakeout Systems																																						
Job Number: 6401																																						
Job Title: Bakeout Systems																																						
Job Manager: Mike Kalish																																						
Design																																						
Requirements definition									80																													
Preliminary Design & Review									160				120																									
Final Design & Review									160				120																									
EA or ORNL VV Analysis to confirm ACC Review									40			40	160																									
Procurement & Fabrication/Installatic																																						
Procurement lead time and award																																						
Piping and Equipment (See Piping Estimate T	\$157,185														1830																							
480 VAC Power Service	\$5,000														80																							
Local Controls	\$3,000														80																							
PTP Testing																																						
									40					120																								
TOTALS																	\$165,185	\$0	\$0	\$0	\$0	0	0	0	480	0	0	2150	160	240	0	0	0	0	0	0	0	
31																																						
Notes:																	Notes:																					
1. Existing PPPL Air Compressor is not acceptable, only 22 CFM available at 100 psi. Estimate is based on using a Gast Regenerative Blower																																						
2. This estimate is based on a Gast blower operating at the conditions shown in "Calc Summary" Tab																																						
3. Estimate assumes once through air system																																						
4. Estimate assumes 3" 304 SS pipe will be adequate (may require changes by permeability issues)																																						
5. Estimate assumes 150 C VV Bakeout																																						
6. Estimate assumes no VV cooling is required																																						
7. Sizing based on approx. 7 kw heat load																																						
8. Estimate assumes no instrumentation																																						
9. Rev 1 added Piping Support Towers																																						
10. Rev 2 Added Ceramic Breaks and Bellows																																						