

Table 3-7
Summary Missions, Alternatives, and Requirements Table (SMART)

FY04 TYCSP

Weapons Engineering & Manufacturing									
Current Requirements	Current Functions/Capabilities	Current Facilities	Current Issues/Concerns	Forecasted Requirements	Forecasted Functions/Capabilities	Alternatives/Options	Facility Strategies	Related Projects	Technological Linkages
<10 pits/year	Fabrication and assembly of plutonium components	Plutonium facility (TA-55)	Glovebox atmosphere, transportation over roads open to the public, and SNM storage						
	Analytical and actinide chemistry and materials characterization	CMR (TA-03-29), TA-55, TA-48-01	Nuclear material operations in CMR will continue through 2010. Replacement facilities will then be required.						
	Limited highly enriched uranium (HEU) and beryllium processing and manufacturing	CMR, Sigma Complex, TA-03-39, -03-141	None						
	Nonnuclear pit component fabrication and pit test assembly (JTA) support. Materials characterization and process development. Material could include depleted uranium.	Sigma Complex, TA-03-39, Beryllium Technology Facility (BTF) (TA-03-141)	Fully qualified capability to perform WR machining special handling capabilities.						
1 neutron tube target loader (NTTL), <1000 targets/yr		Weapons Engineering Tritium Facility (WETF) at TA-16 & TA-21 support	TA-21 is being closed and land transferred.						
Detonator production capable of <3000/yr	Manufacture of detonators	High explosive facilities							

- D Directed Stockpile Work
R RTBF
- Campaigns
1. Primary Certification
 2. Dynamic Materials Properties
 3. Advanced Radiography O&M
 4. Secondary Certification & Nuclear Systems Margins
 5. Enhanced Surety

6. Weapons Systems Engineering Certification
7. Nuclear Survivability (Certification in Hostile Environments)
8. Enhanced Surveillance
9. Advanced Design and Production Technologies (ADPT)
10. High Energy Density Physics

11. Advanced Simulation and Computing O&M
12. Pit Manufacturing and Certification (Readiness)
13. Secondary Readiness
14. HE / Manufacturing & Weapon Assembly / Disassembly Readiness
15. Nonnuclear Readiness

16. Materials Readiness
17. Tritium Readiness