# Chain Saw Safety

### Mike Cole Aug 10, 2008

Chain Saw Safety



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# **Basic chain saw precautions**

#### • Safety tips

- Prepare yourself
  - Proper clothing/protection (long trousers, eye and ear protection, steel-toed shoes, etc,) and equipment can reduce injury
  - Be physically fit for strenuous activity
- <u>Saw selection</u>
  - Light weight (8 to 12in guide bar)
    - Light work, small branches, small trees 6 to 10in
  - Midweight (14 to 20in guide bar)
    - Small trees 12 to 18 in
  - Heavy weight (>20in guide bar)
    - Professional use
- Prepare the saw
  - Sharp chain (remember the chain is sharp BE CAREFULL)
  - Correct chain tension (improves chain life and safer cutting)
  - Clean air filter, Good spark plug (makes work easier and safer
  - Don't forget to check the oil (it's to late once on site and discover you forgot the chain oil)
- Starting and Operating Techniques
  - Start with saw on firm ground
  - Chain out of gear and free of obstacles
  - Right foot in loop of rear handle
  - Left hand on upper handle
  - Pull starter rope with right hand



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## Basic chain saw precautions

#### - Felling the tree

- Examine the tree, clear the area of people, vehicles, branches and debris
- Power lines are not good try not to fell the tree into the power line! If your not sure don't do it.
- Try not to cut the tree so that it hangs in another tree this is really not safe!
- Plan a safe, unobstructed path of retreat before starting the cut. You don't always know which direction the tree will fall.
- If you get the saw stuck wedges can be used to free the saw. Plastic wedges are safer than metal (will not damage the saw). Wedges have been known to pop out of trees – Be carefull.



## Basic chain saw precautions

### – Limbing the Tree

- Whenever possible, keep the tree limb or similar barrier between yourself and the saw blade
- When cutting large limbs stand on the uphill side because the log may roll.

### – Kick Back Safety Tips

- The best defense against kickback is to keep the tip guard on the chain saw
- Cut branches at the base of the blade
- Don't saw with the tip of the blade
- Keep the saw sharp dull teeth are more likely to cause kickback
- REF: <u>http://www.ag.ndsu.edu/pubs/ageng/safety/ae1025w.htm</u>



#### Closeout Note Status

eout Note Link	Job Manager	Status at Closeout	Status of Closeout Notes	Status of Data Files	Date Promised
2101 - Fueling Systems	Blanchard	In Process at Time of Cancellation	Done	Done	
2201 - Torus Vacuum pumping Systems	Blanchard	In Process at Time of Cancellation	Done	Done	
8204 - Systems Analyis & Technical Assurance	Brooks	in rocess at time of Gancenation	Done	Done	9/30
1803 - FP Assembly Tooling/Constructibiliuty	Brown	In Process at Time of Cancellation			10/15
8203 - Design Integration	Brown	In Process at Time of Cancellation			10/15
6203 - Design Integration	Brown	Cancelled when Decision Made for			10/13
1350 - TF Coil Fabrication Preparations	Chrzanowski	Industry to Fabricate (Mar 2006)			
1404 - MCWF R&D & First Production Casting	Chrzanowski	Completed (Sept 2005)			
1405 - Modular Coil Winding R&D Preparations	Chrzanowski	Completed (Sept 2005)			
1406 - Modular Coil Winding R&D	Chrzanowski	Completed (Mar 2006)			
1407 - Modular Coil Winding Facility	Chrzanowski	Completed (Mar 2006)			
1408/1451/1459 - Modular Coil Manufacturing	Chrzanowski	Will Complete as Part of Closeout	Done	Done	
1410 - Modular Coil Twisted Racetrack Fabrication	Chrzanowski	Completed (Mar 2006)			
1412 - Complete Winding Facilities	Chrzanowski	Completed (Mar 2006)			
1419 - Winding Facilities Modifications	Chrzanowski	Completed (Jan 2007)			
1460 - Modular Coil Third Winding Fixture	Chrzanowski	Cancelled when Project cancelled			
1550 - Coil Support Structures Procurements	Chrzanowski	Cancelled when Project cancelled			
1421 - Modular Coil Interface Design @ ORNL	Cole				9/20
1260 - Neutral Beam Transition Duct	Cole	In Process at Time of Cancellation			9/16
1355 - Conventional I&C Design & Procurement	Cole	In Process at Time of Cancellation			9/8
1416 - Modular Coil Type A/B Design	Cole	In Process at Time of Cancellation			9/30
1801 - FPA (ORNL)	Cole	Closed (Sept 2006)			9/30
1806 - FP Assembly Specs & Drawings	Cole	In Process at Time of Cancellation			9/16
					9/10
1901 - 191 - Stellarator Core Management & Oversight	Cole	In Process at Time of Cancellation			
1901 - 192 - Stellarator Core Integration & Analysis	Cole	In Process at Time of Cancellation			
1353 - CS Structures Design	Dahlgren	Procurement cancelled when Decision Made to Use NSTX PF1a (Aug 2006)			8/29
1702 - Base Support Structure Design	Dahlgren	In Process at Time of Cancellation			8/29
1752 - Base Support Structure Procurements	Dahlgren	Cancelled when Project cancelled			
1501 - Coil Support Structures	Dahlgren	Will Complete as Part of Closeout			8/29
1204 - Vacuum Vessel System Procurements (Non-VVSA)	Dudek	In Process at Time of Cancellation	Done	Done	
1429 - Modular Coil Interface R&D @ PPPL	Dudek	In Process at Time of Cancellation	Done	Done	
1431 - Modular Coil Interface Hardware	Dudek	In Process at Time of Cancellation	Done	Done	
1805 - FP Assembly Hardware & Fixture Procurements	Dudek	In Process at Time of Cancellation	Done	Done	
6101/6301 - Cooling Water/Utility Systems	Dudek	In Process at Time of Cancellation	Done	Done	
8205 - Dimensional Control Coordination	Ellis	In Process at Time of Cancellation	Done	Done	9/30
8204 - System Global Models	Fan	in rocess at time of cancenation			9/19
1901- 193 - Risk Mitigation Activities	Fogarty	In Process at Time of Cancellation	Need Summary	Done	9/16
1421 - Modular Coil Analysis Files	Freudenberg		Neeu Summary	Dolle	9/15
	Gentile	In Process at Time of Cancellation	Dana	Dene	5/10
8501 - Integrated Systems Testing			Done	Done	
1409 - Coil Test Stand	Gettelfinger	Completed (July 2006)			
1414 - Coil Testing	Gettelfinger	Completed (July 2006)			
1201 - Vacuum Vessel Preliminary Design	Goranson	Completed (Oct 2003)			
1202 - Vacuum Vessel R&D	Goranson	Completed (Sept 2005)			
1203 - Vacuum Vessel Final Design	Goranson	Completed (Aug 2006)			
1206 - Vacuum Vessel Field Weld Joint	Goranson	Completed (Sept 2005)			
1270 -Heater Control Systems	Goranson	In Process at Time of Cancellation	Done	Done	
1601-161 - LN2 Distribution Systems	Goranson	In Process at Time of Cancellation	Done	Done	
1601-162 - Coil Electrical Leads	Goranson	In Process at Time of Cancellation	Done	Done	
1601-163 - Coil Protection System Interfaces	Harris	In Process at Time of Cancellation			9/8
8102 - Project Management @ ORNL	Harris	In Process at Time of Cancellation			
1411 - MCWF Fabrication	Heitzenroeder	Completed (June 2007)			
8202 - Engineering Mgmt & Systems Engineering	Heitzenroeder	In Process at Time of Cancellation			

#### Closeout Note Status

8221 - Documentation for Closeout         1301 - TF Coil Design         1351 - TF Coil Fabrication Supplies         1354 - Trim Coil Design & Procurement         1302/1352 - PF Coil Design/Fab         6401 - Bakeout Systems         1361 - TF Coil Fabrication         8402 - Project Physics @ ORNL         8222 - Prepare Manuscripts for Peer Reviewed Papers         7101 - Shield Wall Modifications         7301 - Platform Design & Fabrication         7401/7451 - Machine Assembly Planning & Oversight         7503 - Machine Assembly Operations         7601 - Machine Assembly Tooling Design/Fab         8215 - Plant Design         8220 - Equipment Disposition/Facility Restorations         1701 - Cryostat Design         1701 - Cryostat Procurements         1804 - Metrology Hardware         6201 - Cryogenic Systems         4101 - AC Power Systems         4301 - DC Power Systems	Heitzenroeder Kalish Kalish Kalish/Chrzanowski Kalish/Goranson Kalish/Meighan Lyon/Harris Neilson Perry	Will Complete as Part of Closeout         Completed (April 2006)         Completed (Oct 2006)         In Process at Time of Cancellation         Design Completed/Fab in Proces when         Project Cancelled         In Process at Time of Cancellation         Will Complete as Part of Closeout				12/31
1301 - TF Coil Design         1351 - TF Coil Fabrication Supplies         1354 - Trim Coil Design & Procurement         1302/1352 - PF Coil Design/Fab         6401 - Bakeout Systems         1361 - TF Coil Fabrication         8402 - Project Physics @ ORNL         8222 - Prepare Manuscripts for Peer Reviewed Papers         7101 - Shield Wall Modifications         7301 - Platform Design & Fabrication         7401/7451 - Machine Assembly Planning & Oversight         7503 - Machine Assembly Operations         7601 - Machine Assembly Tooling Design/Fab         8215 - Plant Design         8220 - Equipment Disposition/Facility Restorations         1701 - Cryostat Design         1751 - Cryostat Procurements         17804 - Metrology Hardware         6201 - Cryogenic Systems         4101 - AC Power Systems	Kalish Kalish Kalish/Chrzanowski Kalish/Goranson Kalish/Meighan Lyon/Harris Neilson	Completed (April 2006) Completed (Oct 2006) In Process at Time of Cancellation Design Completed/Fab in Proces when Project Cancelled In Process at Time of Cancellation				
1351 - TF Coil Fabrication Supplies         1354 - Trim Coil Design & Procurement         1302/1352 - PF Coil Design/Fab         6401 - Bakeout Systems         1361 - TF Coil Fabrication         8402 - Project Physics @ ORNL         8222 - Prepare Manuscripts for Peer Reviewed Papers         7101 - Shield Wall Modifications         7301 - Platform Design & Fabrication         7401/7451 - Machine Assembly Planning & Oversight         7503 - Machine Assembly Operations         7601 - Machine Assembly Tooling Design/Fab         8215 - Plant Design         8220 - Equipment Disposition/Facility Restorations         1701 - Cryostat Procurements         1804 - Metrology Hardware         6201 - Cryogenic Systems         4101 - AC Power Systems	Kalish Kalish Kalish/Chrzanowski Kalish/Goranson Kalish/Meighan Lyon/Harris Neilson	Completed (Oct 2006) In Process at Time of Cancellation Design Completed/Fab in Proces when Project Cancelled In Process at Time of Cancellation				
1354 - Trim Coil Design & Procurement         1302/1352 - PF Coil Design/Fab         6401 - Bakeout Systems         1361 - TF Coil Fabrication         8402 - Project Physics @ ORNL         8222 - Prepare Manuscripts for Peer Reviewed Papers         7101 - Shield Wall Modifications         7301 - Platform Design & Fabrication         7401/7451 - Machine Assembly Planning & Oversight         7503 - Machine Assembly Operations         7601 - Machine Assembly Tooling Design/Fab         8215 - Plant Design         8220 - Equipment Disposition/Facility Restorations         1771 - Cryostat Procurements         1804 - Metrology Hardware         6201 - Cryogenic Systems         4101 - AC Power Systems	Kalish Kalish/Chrzanowski Kalish/Goranson Kalish/Meighan Lyon/Harris Neilson	In Process at Time of Cancellation Design Completed/Fab in Proces when Project Cancelled In Process at Time of Cancellation				
1302/1352 - PF Coil Design/Fab         6401 - Bakeout Systems         1361 - TF Coil Fabrication         8402 - Project Physics @ ORNL         8222 - Prepare Manuscripts for Peer Reviewed Papers         7101 - Shield Wall Modifications         7301 - Platform Design & Fabrication         7401/7451 - Machine Assembly Planning & Oversight         7503 - Machine Assembly Operations         7601 - Machine Assembly Tooling Design/Fab         8215 - Plant Design         8220 - Equipment Disposition/Facility Restorations         1701 - Cryostat Design         1751 - Cryostat Procurements         1804 - Metrology Hardware         6201 - Cryogenic Systems         4101 - AC Power Systems	Kalish/Chrzanowski Kalish/Goranson Kalish/Meighan Lyon/Harris Neilson	Design Completed/Fab in Proces when Project Cancelled In Process at Time of Cancellation				10/15
6401 - Bakeout Systems         1361 - TF Coil Fabrication         8402 - Project Physics @ ORNL         8222 - Prepare Manuscripts for Peer Reviewed Papers         7101 - Shield Wall Modifications         7301 - Platform Design & Fabrication         7401/7451 - Machine Assembly Planning & Oversight         7503 - Machine Assembly Operations         7601 - Machine Assembly Tooling Design/Fab         8215 - Plant Design         8220 - Equipment Disposition/Facility Restorations         1701 - Cryostat Procurements         1804 - Metrology Hardware         6201 - Cryogenic Systems         4101 - AC Power Systems	Kalish/Goranson Kalish/Meighan Lyon/Harris Neilson	Project Cancelled In Process at Time of Cancellation				10/10
1361 - TF Coil Fabrication         8402 - Project Physics @ ORNL         8222 - Prepare Manuscripts for Peer Reviewed Papers         7101 - Shield Wall Modifications         7301 - Platform Design & Fabrication         7401/7451 - Machine Assembly Planning & Oversight         7501 - Construction Support         7503 - Machine Assembly Operations         7601 - Machine Assembly Tooling Design/Fab         8215 - Plant Design         8220 - Equipment Disposition/Facility Restorations         1701 - Cryostat Design         1751 - Cryostat Procurements         1804 - Metrology Hardware         6201 - Cryogenic Systems         4101 - AC Power Systems	Kalish/Meighan Lyon/Harris Neilson			Done	Done	
8402 - Project Physics @ ORNL         8222 - Prepare Manuscripts for Peer Reviewed Papers         7101 - Shield Wall Modifications         7301 - Platform Design & Fabrication         7401/7451 - Machine Assembly Planning & Oversight         7501 - Construction Support         7503 - Machine Assembly Operations         7601 - Machine Assembly Tooling Design/Fab         8215 - Plant Design         8220 - Equipment Disposition/Facility Restorations         1701 - Cryostat Design         1751 - Cryostat Procurements         1804 - Metrology Hardware         6201 - Cryogenic Systems         4101 - AC Power Systems	Lyon/Harris Neilson	Will Complete as Part of Classout				9/30
8222 - Prepare Manuscripts for Peer Reviewed Papers         7101 - Shield Wall Modifications         7301 - Platform Design & Fabrication         7401/7451 - Machine Assembly Planning & Oversight         7501 - Construction Support         7503 - Machine Assembly Operations         7601 - Machine Assembly Tooling Design/Fab         8215 - Plant Design         8220 - Equipment Disposition/Facility Restorations         1701 - Cryostat Design         1751 - Cryostat Procurements         1804 - Metrology Hardware         6201 - Cryogenic Systems         4101 - AC Power Systems	Neilson					10/15
7101 - Shield Wall Modifications         7301 - Platform Design & Fabrication         7401/7451 - Machine Assembly Planning & Oversight         7501 - Construction Support         7503 - Machine Assembly Operations         7601 - Machine Assembly Tooling Design/Fab         8215 - Plant Design         8220 - Equipment Disposition/Facility Restorations         1701 - Cryostat Design         1804 - Metrology Hardware         6201 - Cryogenic Systems         4101 - AC Power Systems		Closed (Sept 2006)				
7301 - Platform Design & Fabrication         7401/7451 - Machine Assembly Planning & Oversight         7501 - Construction Support         7503 - Machine Assembly Operations         7601 - Machine Assembly Tooling Design/Fab         8215 - Plant Design         8220 - Equipment Disposition/Facility Restorations         1701 - Cryostat Design         1751 - Cryostat Procurements         1804 - Metrology Hardware         6201 - Cryogenic Systems         4101 - AC Power Systems	Perry	Will Complete as Part of Closeout				12/31
7401/7451 - Machine Assembly Planning & Oversight         7501 - Construction Support         7503 - Machine Assembly Operations         7601 - Machine Assembly Tooling Design/Fab         8215 - Plant Design         8220 - Equipment Disposition/Facility Restorations         1701 - Cryostat Design         1751 - Cryostat Procurements         1804 - Metrology Hardware         6201 - Cryogenic Systems         4101 - AC Power Systems		Cancelled - Done as GPP Project				
7501 - Construction Support	Perry	In Process at Time of Cancellation				9/24
7503 - Machine Assembly Operations         7601 - Machine Assembly Tooling Design/Fab         8215 - Plant Design         8220 - Equipment Disposition/Facility Restorations         1701 - Cryostat Design         1751 - Cryostat Procurements         1804 - Metrology Hardware         6201 - Cryogenic Systems         4101 - AC Power Systems	Perry	In Process at Time of Cancellation				9/24
7601 - Machine Assembly Tooling Design/Fab         8215 - Plant Design         8220 - Equipment Disposition/Facility Restorations         1701 - Cryostat Design         1751 - Cryostat Procurements         1804 - Metrology Hardware         6201 - Cryogenic Systems         4101 - AC Power Systems	Perry	In Process at Time of Cancellation				9/24
8215 - Plant Design         8220 - Equipment Disposition/Facility Restorations         1701 - Cryostat Design         1751 - Cryostat Procurements         1804 - Metrology Hardware         6201 - Cryogenic Systems         4101 - AC Power Systems	Perry	In Process at Time of Cancellation				9/24
8215 - Plant Design         8220 - Equipment Disposition/Facility Restorations         1701 - Cryostat Design         1751 - Cryostat Procurements         1804 - Metrology Hardware         6201 - Cryogenic Systems         4101 - AC Power Systems	Perry	In Process at Time of Cancellation				9/24
8220 - Equipment Disposition/Facility Restorations         1701 - Cryostat Design         1751 - Cryostat Procurements         1804 - Metrology Hardware         6201 - Cryogenic Systems         4101 - AC Power Systems	Perry	In Process at Time of Cancellation				9/24
1701 - Cryostat Design         1751 - Cryostat Procurements         1804 - Metrology Hardware         6201 - Cryogenic Systems         4101 - AC Power Systems	Perry	Will Complete as Part of Closeout				12/31
1751 - Cryostat Procurements         1804 - Metrology Hardware         6201 - Cryogenic Systems         4101 - AC Power Systems	Raftopoulos	In Process at Time of Cancellation				9/13
1804 - Metrology Hardware       6201 - Cryogenic Systems       4101 - AC Power Systems	Raftopoulos	Cancelled when Project cancelled				
6201 - Cryogenic Systems 4101 - AC Power Systems	Raftopoulos	In Process at Time of Cancellation				9/13
4101 - AC Power Systems	Raftopoulos	In Process at Time of Cancellation	-			9/13
	Ramakrishnan	In Process at Time of Cancellation	-			9/30
	Ramakrishnan	In Process at Time of Cancellation	-			9/30
4401 - Control & Protection Systems	Ramakrishnan	In Process at Time of Cancellation				9/30
4501 - Power Systems Design & Integration	Ramakrishnan	In Process at Time of Cancellation	-			9/30
			-			9/30
8101 - Project Management @ PPPL	Rej	In Process at Time of Cancellation		Dama	Dama	
5101 - Network & Fiber Optic Infrastructure Systems	Sichta	In Process at Time of Cancellation		Done	Done	
5201 - Central Instrumentation & Control	Sichta	In Process at Time of Cancellation		Done	Done	
5301 - Data Acquisition & Facility Computing Systems	Sichta	In Process at Time of Cancellation	-	Done	Done	
5401 - Facility Timing & Synchronization Systems	Sichta	In Process at Time of Cancellation	_	Done	Done	
5501 - Real Time Plasma Control Systems	Sichta	In Process at Time of Cancellation		Done	Done	
5601 - Central Safety Interlock Systems	Sichta	In Process at Time of Cancellation		Done	Done	
5801 - Central I&C Management & Integration	Sichta	In Process at Time of Cancellation		Done	Done	
3101 - Design	Stratton					9/15
3601 - Edge & Divertor Diagnostics Systems	Stratton	In Process at Time of Cancellation				9/15
3901 - Diagnostic Systems Integration	Stratton	In Process at Time of Cancellation				9/15
3801 - Electron Beam Mapping Systems	Stratton/Harris	In Process at Time of Cancellation				9/15
8210 - Rebaselining Exercise	Strykowsky	In Process at Time of Cancellation			No Closeout Note, but Data	9/30
8998 - PPPL Direct Allocations	Strykowsky	In Process at Time of Cancellation				
DCMA	Strykowsky	Closed (Sept 2004)				
3101 Vacuum Vessel Instrumentation Installation	Tchilinguirian			Done	Done	
1250 - Vacuum Vessel Fabrication	Viola	Completed (Sept 2006)				
1802 - FP Assembly Oversight & Support	Viola	In Process at Time of Cancellation				11/15
1810 - FPA Operations - Stations 1, 2, 3	Viola	In Process at Time of Cancellation				11/15
1815 - PPA Operations - Station 5	Viola	In Process at Time of Cancellation				11/15
1421 - Modular Coil Analysis Files	Williamson					8/30
1401 - Modular Coil Preliminary Design	Williamson		-			
1402 - Modular Coil Analyses		Completed (Sept 2005)				
1403 - Modular Coil Final Design	Williamson	Completed (Sept 2005) Completed (Sept 2005)				
1403 - MCWF Fracture Analyses	Williamson	Completed (Sept 2005)				
8401 - Project Physics @ PPPL	Williamson Williamson Williamson					

Activity ID	Activity Description	Forecast Start	Forecast Finish	Baseline Finish	% cmplt	ETC	SONDI	
Brooks	•							
	vstems Analysis-BROOKS							
8204-FY08Z	Syst Analysis, studies & tech assurance FY08 etc	02JUN08A	30SEP08	30SEP08	ETC	4,684.30	BROOKS	5 budget=107hr ; FAN budget=5 budget=79hr ;
Chrzanow	neki							
JOD. 1400 - WI	C Winding Supplies-CITZANOWSKI							
1408-7		23MAY07A	30SEP08	31JUL08	ETC	2,021.63	ЕМТ/ТВ	budget=128hr ;
Station 1 Post	VPI							
P2-171C	Final Clamps & Warm Test (Station1) B6	02JUN08A	30SEP08	23JUL08	ETC	240.07	EM//TB	budget=272hr ; EMT/TB budget=3:
P1-171C	Final Clamps & Warm Test (Station1) A6	18AUG08A	30SEP08	20AUG08	ETC	4,321.24	EM//TB	budget=272hr ; EMT/TB budget=3
LOE Oversight	& Supervision					I		
14EVEDDV C	Winding Engineering everyight and every taken	01144.2074	20055000	2085000	ETC	40.070.00		
			SUSEPUS	29AUG08		23,065.76	CHRZAN	IOW\$KIbudget=241hr ; MEIGHAN bud
Punchiist Tech	ι διομ/ΚΕΘΑ							
PLTS-B5	Grinding -B5	01MAY08A	30SEP08	29AUG08	50	4,738.20	ЕМ//ТВ	budget=120hr ;
PLTS-A6	Grinding -A6	01MAY08A	30SEP08	29AUG08	20	3,095.62	ЕМ//ТВ	budget=39hr ;
PLTS-B6	Grinding -B6	01MAY08A	26NOV08	29AUG08	0	9,841.43	EM//	TB budget=120hr ;
PLTS-C6	Grinding & Drill Holes -C6	01MAY08A	30SEP08	29AUG08	75	3,601.03	ЕМ//ТВ	budget=185hr ;
Punchlist- Coil	Technicians		•					
PLCT-A6	Insul measure TC SG other punch list-A6	01OCT07A	30SEP08	29AUG08	ETC	1 626 78		
PLCT-B6								
						1,020110		buuget-132111 ,
Cole								
1416-810	, ,	02SEP08*	30SEP08			0.00		
191 - Stellarato	or Core Management & Oversight							
1901-08	WBS 191 FY08	01JUN08A	29SEP08	29SEP08	LOE	6,864.46		budget=121hr ; NELSON budget=7
1901-9000	Update drawing tree	01JUN08A	29SEP08	29SEP08	ETC	6,040.00	lovett= 16	60
192 - Stellarato	r Core Integr & Global Analysis					1		
1002.08	WDS 102 EV09		2085009	2065009		45 777 40		budget=121_m8s =20 travel= 10
1902-00	WD3 192 F100	UIJUNUOA	293EF00	293EF00	LUE	15,777.48		IS budget=182
Ellis								
Station 3-Modu	Ilar Coil to VVSA Assembly							
METFY08R	Support FPA Station 2	01FEB08A	30SEP08	30SEP08	LOE	3,692.62	ELLISbuc	dget=45hr ; SMITHbudget=45h
Harris	1				·	· · · · · · · · · · · · · · · · · · ·		
	D         Developion         State         Firstin         Fir							
040 405307	Designet Management Office ODDIL THOSE (1.07)	00 11 11 12 2 1	0005555	2005522	105			
810.105XX	Froject Management Office OKNL FY08 (LOE)	UZJUN08A	295EP08	2932208	LOE	23,945.31	HILLIS	budget=70 ; HARRIS budget=282
							MMORRI	
810.105Z	Project Management Office ORNL FY09 (LOE)	01OCT08*	31MAR09	31MAR09	LOE	35,930.73		HILLISbudget=45 ; HARRISbudget=110
	1		1	1	1			
un Da <b>06</b> SEF		MIE CI			1 of 5			
	Progress Bar							
© Primavera Svs	Critical Activity							

	Activity ID	Activity Description	Forecast Start	Forecast Finish	Baseline Finish	% cmplt	ETC	FY09 FY10
Н	eitzenroe		Start	TINST	1 111311	Cinpit		SONDJFMAMJJASONDJFMAMJJ
		ngr Mgmt & Sys Eng Sprt-HEITZENROED						
	8205DC	document control & admin support	01FEB08A	31MAR09	31MAR09	LOE	16,530.84	SUCH =142hr ;
								TYRELLbudget=21
	8205FY08.2	Engr mgt & systems engr FY08	01FEB08A	30SEP08	30SEP08	LOE	41,100.41	HEITZENROEDbudget=445hr; SIMMONS budge REIERSEN budget=89hr; DUDEK budget=474 VONHALLE budget=89hr;
	8205FY09	Engr mgt & systems engr FY09	01OCT08*	31MAR09	31MAR09	LOE	134,313.25	
	02051 105		0100108	31004009	51014105		134,313.23	HEITZENROEDbudget=315hr REIERSEN budget=126hr ; VONHALLE budget=126hr ;
								SIMMONS budget=00 DUDEK budget=333
	ob: 8221 -Do Closeout Docu	cumentation Closeout-HEITZENROEDER						
				-				
	8221-100	Tech data collection (ref to detail tracking log	14JUL08A	23DEC08	31OCT08	ETC	471,120.04	SIMMONS =160hr BLANCHARD =40 BROOKS=100hr BROWN =375
								CHRZANOWSKI =168hr COLE =80 DAHLGREN =40hr DODSON =40h
								DUDEK =32hr ELLIS =40 GORANSON =80hr Fogarty= 80
								Phil =160; Kalish =56; Iabik =40; Iangish =24 freudenberg =120
								Perry =16; Raftopoulos=220; Raki =16 ( =16 rushinski =335 mike morris=20
								sichta =80; smith = 14; strykowsky =160; upcavage =215
								viola = 158 williamson =80 Moon=10 Nelson=10; Harris= 20;
								Fan=100; Gentile=20; Lew Morris=335
	8221-251	Tech presentation/paper collection	02SEP08*	01DEC08	29SEP08		10,286.00	HAMPTON budget=100hr TYRELL budget=10
	8221-301	Guidance to collect data	02JUN08A	29SEP08	29SEP08		12,644.94	SIMMONS budget=300hr ;
	8221-305	Organizing and posting data	30SEP08	27MAR09	27MAR09		56,203.18	SIMMONS budget=300hr ;
	8221-401	Finalizing and archiving key analyses/reports	02SEP08*	03DEC08	29SEP08		135,920.59	FREUDENBERGbudget=160hr FAN budget=160hr ;
								ZHANG budget=160hr ; DAHLGREN budget=160
								AVASARALA budget=160
	8221-575	Archiving doc & files in ops center	02SEP08*	26MAR09	26MAR09		18,282.20	SUCH budget=200hr ;
	8221-700	As-built Drawing Updates	02SEP08*	13MAR09	23DEC08		237,349.60	EA//SB Designers budget=1995hr
K	alish							
		Fabrication-KALISH						
	TF Title III and I	Fabrication Oversight						
	131-033C	Title III engr,inspection, support	02JAN08A	18SEP08	18SEP08	ETC	16,872.24	KALISH budget=71hr;35 =02\$k; =41 =00\$k;EM/TB budget=00hr;
								MEIGHAN budget=173hr ;
	TF Fabrication	Contract						
	1361C-117	Fab, Test & Deliver Coil #17	29AUG08A	19SEP08	02SEP08		42,500.00	249 ⊨47 ;
	1361C-118	Fab, Test & Deliver Coil #18	12SEP08*	24SEP08	24SEP08		47,220.00	
	1351-195X	ALL TF COILS DELIVERED		24SEP08	24SEP08		0.00	
J	ob: 1354 - Tr	im Coil Design & Procurement-KALISH				1		
	Trim Coil **Upc	lated estimate**						
	TRIM-170	Complete Trim Coil Detailed Drawings	25MAR08A	30SEP08	30JUN08	ETC	886.23	KALISH budget=14hr ; RUSHINSKI budget=10h
	TRIM-200	Assy drawings & parts list	01APR08A	30SEP08	30JUN08	ETC	866.04	
								upcavage budget=80hr ;
	eilson							
	ob: 8222 - Ma Prepare Closed	anuscripts and Papers - NEILSON						
	-	•				1		
	8222-900	Manuscripts, journal & papers (40 papers@40hrs)	22AUG08A	31MAR09	31MAR09		293,408.09	ea//em=800,em//em=400;r///rm=400; travel=15
								** * * * * * * * * * * * * * * * * * * *
Rui	n Da <b>06</b> SEP			NCSX		2 of 5		
		x target Progress Bar		LOSEOUT P IBER 1ST S				
6	Drimavora Sve	Critical Activity						

	Activity ID	Activity Description	Forecast Start	Forecast Finish	Baseline Finish	% cmplt	ETC	FY09 SONDJFMAMJJASONDJFMAMJJ
Pe	erry							
		quipt Save & Facility Restora-PERRY						
		NCSX hardware assets						
	8220-201	Coordination and oversight	01JUL08A	23DEC08	23DEC08	LOE	39,696.89	PERRY budget=382hr ;
	8220-209	Secure platform parts from CAS Bldg to NCTC	02SEP08	26SEP08	26AUG08		4,163.16	41 =00\$k ; EM//TB budget=48hr ;
	8220-223	Items f/TFTR bsmnt (incl spare MC cond) to NCTCB	01AUG08A	26SEP08	14AUG08	20	11,064.99	41 =00\$k ; EM//TB budget=172hr ;
	8220-227	Portable AC units to Dsite crib	29SEP08	27FEB09	03SEP08		667.83	EM//TB budget=08hr ;
	8220-231	Drawing closeouts and field follow-up	01OCT08*	23DEC08	23DEC08		27,614.00	LANGELLA budget=200hr ;
	8220-235	Large and Small shield block to Dsite pad	02SEP08*	15SEP08	15SEP08		2,527.04	EM//TB budget=32hr ;
	8220-239	Machine mock-up to NCTC	02SEP08	08SEP08	19AUG08		631.76	EM//TB budget=08hr ;
	8220-243	Welding machines to RESA	01OCT08*	07OCT08	07OCT08		668.56	EM//TB budget=08hr ;
	8220-247	Tools to D site crib	01OCT08*	14OCT08	14OCT08		2,674.24	EM//TB budget=32hr ;
	8220-251	Measuring Equipment to MU Shop	01OCT08*	07OCT08	07OCT08		1.337.12	EM//TB budget=16hr ;
	8220-255	Inventory parts,material, tools to new location	01OCT08*	28OCT08	28OCT08		6.685.60	EM//TB budget=80hr ;
	8220-409	Crates, cabinets, parts shelves f/TFTRTC to NCTCB	23JUL08A	14OCT08	14OCT08	5	9.477.47	■EM//TB budget=124hr ;
	8220-415	Coil winding station to NCTC	12SEP08*	26SEP08	26AUG08	-	5,054.08	
	8220-419	MC bolts (incl crate) to NCTCB	23JUL08A	140CT08	15SEP08	5		■41 =00\$k ; EM//TB budget=20hr ;
	8220-413	Assemble 4 remaining MC 3 packs	230CT08	26NOV08	08SEP08		2,008.43	EM//TB budget=320hr ;
	8220-431	Transport MC 3 packs (6) to NCTC	01DEC08	12DEC08	22SEP08		5,609.68	
	8220-431	Autoclave- Safe all AC power	26NOV08*	26NOV08	05AUG08		3,982.24	LANGELLA budget=24hr ; EM//TB budget=
	8220-505		01DEC08*	27FEB09	23DEC08		,	
		Autoclave-Removal and store Dsite pad & NCTCB					154,843.44	LANGELLA budget=400hr ; EM//TBbu
	8220-901	VV Diagnostic parts incl fab crates to NCTCB	09SEP08*	15SEP08	15SEP08			₩41 =0.2\$k ;EM//TB budget=18hr ;
	8220-903	Move tool crib from C-site back to D-Site	09SEP08*	15SEP08	15SEP08		9,476.40	
	8220-605	VV Spool piece crates to NCTCB	02SEP08*	03SEP08	02JUL08		473.82	
	8220-423	VVSA's (incl port extension crates) to NCTC	02SEP08	15SEP08	26AUG08			_41 =01\$k;EM//TB budget=72hr ;
	8220-609	Yellow wedge stands to NCTC	01OCT08*	02OCT08	02OCT08		334.28	EM//TB budget= 4
	8220-613	Wedge cover plates to NCTC	01OCT08*	02OCT08	02OCT08		334.28	EM//TB budget= 4
	8220-617	5 ton lift beam to RESA	01OCT08*	02OCT08	02OCT08		334.28	EM//TB budget= 4
	8220-621	14 ton lift beam to RESA	01OCT08*	02OCT08	02OCT08		167.14	EM//TB budget= 2
	8220-625	Remove coil winding rooms & dispose	02JUN08A	30SEP08	01OCT08	80	13,843.20	EM//TB budget= 480 Langella = 241
	8220-641	Equipment in MU machine shop-Mechanical to RESA	25AUG08A	15SEP08	15SEP08	90	1,263.52	EM//TB budget= 160
	8220-653	Cryo pump skid- Mechanical to NCTCB	02SEP08*	25SEP08	16JUL08		3,790.56	EM//TB budget= 48
	8220-657	Cryostat-disposal	26SEP08	09OCT08	16JUL08		3,945.12	EM//TB budget= 48
	8220-669	Prototype castings to NCTC	02SEP08	03SEP08	14AUG08		631.76	EM//TB budget= 8
	8220-673	Prototype VV cross sections-Scrap	22SEP08*	23SEP08	03JUL08		157.94	EM//TB budget= 2
	8220-677	TF coil fabrication fixtures to NCTC-VPI fixture	24SEP08*	25SEP08	14AUG08		315.88	EM//TB budget= 4
	8220-681	TF coil fabrication fixtures to NCTC-Mandrel	24SEP08*	25SEP08	14AUG08		315.88	EM//TB budget= 4
	8220-685	TF coil fabrication fixtures to NCTC-Misc fixtur	24SEP08*	25SEP08	14AUG08		315.88	EM//TB budget= 4
R	ei	· ·	·					
		oject Management &Control-REJ						
	810.900	Project Management Office PPPL FY08 (LOE)	01OCT07A	30SEP08	30SEP08	LOE	50,239.66	B///CB budget=680hr ; 35 =12\$k ;
								41 =03\$k ; DEPUTYPC budget=95hr ;
	810.9005A	Project Management Office PPPL fy08 etc	02JUN08A	30SEP08	30SEP08	LOE	31,020.00	DON REJ1 budget=126\$k ;
	810.901	Project Management Office PPPL FY09 (SA LOE)	01OCT08*	31MAR09	31MAR09	LOE	290,785.02	NEILSONbudget=335hr ; Hamptonbudget=484hr ;
								41 =05\$k ; DON REJ1 budget=100\$k ;
								SIMMONSbudget=61
								STRYKOWSKY budget=417 35 =17\$k ;
2	Da <b>06</b> SEP	POS 11.13 FORECAST SCHEDULE 0809		NCSX	Sheet	3 of 5		
\ul		x target		OSEOUT P				
		Progress Bar Critical Activity	JEFIEN	5EN 131 3				
C	Primavera Syst	tems, Inc.						

Activity ID	Activity Description		Forecast Start	Forecast Finish	Baseline Finish	% cmplt	ETC	FY09 FY10 SONDJFMAMJJASONDJFMAMJ
Job: 8221 -Do	cumentation Closeout-HEIT	ZENROEDER			1			
Prepare Closeo	out report							
8221-614	Chapter Draftes complete			30SEP08*		70	0.00	
8221-616	Chapter Draft reviews complete			150CT08*		10	0.00	
8221-618	•							
	Chapters Complete			17NOV08*			0.00	
8221-636	Executive summary complete			05DEC08*			0.00	
	Draft Report complete			05JAN09*			0.00	
8221-642	Report Reviews Complete			02FEB09*			0.00	
8221-646	DOE Concurrence			02MAR09*			0.00	
8221-649	Final Report Issued			31MAR09*			0.00	
8221-655	Submit NEPA form			29AUG08*			0.00	
Strykowsk	(y							
Job: 8998 - Al	locations-STRYKOWSKY							
99.08	PPPL Allocations FY08	LOE	010CT07A	29SEP08	29SEP08	LOE	33,787.52	<b>5</b> 4 =88 ;
99.09C	PPPL Allocations FY09	LOE	01OCT08*	31MAR09	31MAR09	LOE	59,465.00	54 =35
/iola								
	Accy Oversight & Support VI							
Oversight and S	PAssy Oversight&Support-VI Supervision							
			1					
1802ORNL02	ORNL Title III field period assy sta	tion 2/3	02JUN08A	30SEP08	30SEP08	ETC	2,494.80	mcginnis=140
R1802-003	Metrology Engr Super FY08		01OCT07A	30SEP08	30SEP08	ETC	11,944.09	PRINISKI budget=293hr ;
R1802-007	FPA Management FY08		010CT07A	30SEP08	30SEP08	LOE	21,184.73	VIOLA budget=558hr ;
R1802-015	HP Coverage in the TFTR TC LOE	FY08	010CT07A	30SEP08	30SEP08	LOE	13,133.01	SH//TB budget=440hr ;
R1802-016	HP Coverage in the TFTR TC LOE	FY09	01OCT08*	23DEC08	23DEC08	LOE	36,276.45	SH//TB budget=629hr ;
1802MISC	Misc materials,tools, GSA vehicle,	rigging	01FEB08A	30SEP08	30SEP08	ETC	4,496.04	<b>4</b> 1 =45\$k ;
Station 3 proce	dures,JHA,ACC,Training,Prep							
<b>D4000 200</b>	Lindete EDA east actimate for EDA	atation 282	00055000	4505000	20OCT08	1	0.00	
	Update FPA cost estimate for FPA		09SEP08	15SEP08	2000108		0.00	
General Assy S	eld Period AssyStation 1,2,3	VIOLA						
R1810-003	LOE Crane support, fixture setupf	or FY08	01OCT07A	30SEP08	30SEP08	LOE	13,737.62	EM//TB budget=704hr ;
R1810-025	Crane & Rigging inspections		01FEB08A	30SEP08	30SEP08	LOE	979.23	EM//TB budget=50hr ;
R1810-007	LOE Field Supervision for FY08		010CT07A	30SEP08	30SEP08	LOE	19,525.91	EDWARDS budget=587hr ;
S21-4.02	Perform routine metrology set-up	and checks (loe	01FEB08A	30SEP08	30SEP08	LOE	15,151.37	ZMET budget=525 ;
Setup								
R1810-2034	Misc Tool and Hardware		02JUN08A	30SEP08	30SEP08	ETC	12 /02 10	41 =15\$k ;
	and fitup checks		02301100A	300EI 00	500E1 00		12,402.10	
	ent of MCHP A2,B2,C2 flanges							
2-2-2.99	Drill Stycast fill holes C2		02SEP08*	04SEP08	03JUL08		9,476.40	EM//TB budget=120hr ;
Station 2 MC su								
	ags & final measurements Fill all wing bladders & cure		16JUL08A	30SEP08	01AUG08	70	4 4 2 7 4 7	
Station 2 MC su	-		TOJULUOA	303EF08	UIAUGUU	10	1,137.17	EM//TB budget=48hr ;
AB-C MC Asse								
2-2-7.18	Recheck part alignment & weld al	I Type-B flex s	04SEP08*	04SEP08	17JUL08		5,585.76	EM//TB budget=00hr ; ZMET budget=48
2-2-7.19	After welding "B" coil nose shims	recheck align	04SEP08	04SEP08	18JUL08		1,861.92	EM//TB budget=00hr ; ZMET budget=16
2-2-7.20	Back office assessment of part af	ter weld	05SEP08	05SEP08	21JUL08		3,723.84	EM//TB budget=00hr ; ZMET budget=32
2-2-7.21	Measure "C" fiducials		05SEP08	05SEP08	21JUL08		1,861.92	EM//TB budget=00hr ; ZMET budget=16
2-2-7.22	Weld all Type-C (A-flange) flex shi	ms plasma sid	08SEP08	08SEP08	22JUL08		3,158.80	EM//TB budget=40hr ;
2-2-7.23	After welding determine metrolog	y acceptance	08SEP08	08SEP08	23JUL08		1,861.92	EM//TB budget=00hr ; ZMET budget=16
2-2-7.24	Back office assessment		09SEP08	09SEP08	24JUL08		3,723.84	EM//TB budget=00hr ; ZMET budget=32
un Da <b>06</b> SEP	PO8 11:13 FORECA x target Progress Critical A			NCSX LOSEOUT P IBER 1ST S	LAN	t 4 of 5		88

Activit	y Activity	Forecast	Forecast	Baseline	%	ETC		FY09		FY10
ID	Description	Start	Finish	Finish	cmplt		SOND	JFMAMJ		DJFMAM
2-2-7.25	Remove shims for alignment mating coil	10SEP08	09SEP08	24JUL08		0.00	ЕМ//ТВ	budget=00hr	;	
2-2-7.07	Place unfilled shim bags in wing areas	10SEP08	10SEP08	25JUL08		1,579.40	EM//TB	budget=20hr	;	
2-2-7.26	Lower mating "C" coil into position.	10SEP08	10SEP08	28JUL08		3,158.80	EM//TB	budget=40hr	;	
2-2-7.261	alignment "C" coil tooling balls	11SEP08	11SEP08	29JUL08		1,861.92	EM//TB	budget=00hr	; ZMET	budget=16
2-2-7.27	position coil accurately in x, y, & z directio	11SEP08	11SEP08	30JUL08		1,579.40	ЕМ//ТВ	budget=20hr	;	
2-2-7.28	Install shims;studs,, & "wiggle"	12SEP08	12SEP08	31JUL08		2,369.10	ем//тв	budget=30hr	;	
2-2-7.29	Torque50% of final value.	12SEP08	12SEP08	01AUG08		789.70	ЕМ//ТВ	budget=10hr	;	
2-2-7.30	Measure position of all monuments	15SEP08	15SEP08	04AUG08		2,792.88	Ізмет	budget=24	;	
2-2-7.31	Adjust shims locally. Re-torque all studs50%.	15SEP08	15SEP08	05AUG08		3,158.80	ЕМ//ТВ	budget=40hr	;	
2-2-7.32	Install bushing. Replace nut & tighten back50%	16SEP08	16SEP08	06AUG08		4,738.20	ЕМ//ТВ	budget=60hr	;	
2-2-7.33	After super bolt tightening, measure position	16SEP08	16SEP08	07AUG08		2,792.88	EM//TB	budget=00hr	; ZMET	budget=24
2-2-7.34	Tighten all bolts to final torque.	17SEP08	17SEP08	08AUG08		1,579.40	EM//TB	budget=20hr	;	
2-2-7.35	After tightening hardware, meas position of monu	17SEP08	17SEP08	11AUG08		2,792.88	ZMET	budget=24	; EM//TB	budget=00h
2-2-7.36	Weld B / C nose region solenoid side	18SEP08	18SEP08	12AUG08		4,738.20	ЕМ//ТВ	budget=60hr	;	
2-2-7.37	Measure positions of all monuments	18SEP08	18SEP08	13AUG08		1,861.92	ем//тв	budget=00hr	; ZMET	budget=16
2-2-7.38	Back office of above results & INSTALL wing sup	o 19SEP08	19SEP08	14AUG08		3,723.84	ЕМ//ТВ	budget=00hr	; ZMET	budget=32
2-2-7.39	Fill all lose bushings with Stycast 2850FT	19SEP08	19SEP08	15AUG08		3,158.80	ЕМ//ТВ	budget=40hr	;	
Stycast s	him bags & final measurements									
2-2-8.01	Fill all wing bladders & cure	22SEP08	22SEP08	19AUG08		3,158.80	ЕМ//ТВ	budget=40hr	;	
2-2-8.02	Inject stycast in all shim spaces	22SEP08	22SEP08	21AUG08		3,158.80	EM//TB	budget=40hr	;	
2-2-10.0	Complete local service & interface details	23SEP08	22SEP08	21AUG08		0.00	ем//тв	budget=00hr	;	
2-2-11.01	Measure tooling balls on all coils.	23SEP08	23SEP08	25AUG08		3,723.84	ЕМ//ТВ	budget=00h	; ZMET	budget=32
2-2-11.02	Install or identify three primary fiducials	23SEP08	23SEP08	27AUG08		3,723.84	ем//тв	budget=00hi	; ZMET	budget=32
2-2-11.03	Scan "B" flange Type-C coil & interfacing base	24SEP08	24SEP08	02SEP08		5,585.76	ЕМ//ТВ	budget=00h	; ZMET	budget=48
2-2-11.04	Measure bolt length on all tension fasteners	24SEP08	24SEP08	03SEP08		1,579.40	ем//тв	budget=20h	;	
2-2-11.05	Perform Electrical Megger test on each coil	25SEP08	25SEP08	05SEP08		3,158.80	•  ЕМ//ТВ	budget=40h	;	
2-2-11.06	Mark part for identification	26SEP08	25SEP08	05SEP08		0.00	∙  ем//тв	budget=00h	;	
2-2-11.07	Install lift support beams	26SEP08	26SEP08	09SEP08		6,317.60	• ем//тв	budget=80h	r;	
2-2-11.08	Remove from stand & measure weight of complete	ed 26SEP08	26SEP08	10SEP08		3,158.80	∙ І́ЕМ//ТВ	budget=40h	r;	
2-2-11.09	Move to holding area.	29SEP08	29SEP08	12SEP08		6,317.60	• [ЕМ//ТВ	budget=80h	r ;	
ontinge	ncy-Project									
СС	Closeout contingency @ 20%	02SEP08*	31MAR09	31MAR09		1,172,000.00				
	cioscal contingency @ 2070	02021 00	5110/1103	5111/11/03		1,172,000.00				

FORECAST SCHEDULE 0809 x target
Progress Bar Critical Activity