

Nuclear Energy Research Initiative (NERI) Program
DE-FG03-99SF21898/A000
First Technical Progress Report – 11/15/99

Narrative:

Project Initiation Activities (PM 1.4 through PM 1.12)

1. Status: In progress with the final action being to adjust task scope and schedules to accommodate the approved budgets.
2. Issues/Concerns: None

Year One Research Activities (Y-1.1 through Y-1.11)

1. Status: Not started.
2. Issues/Concerns: None.

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OSTI

Cost Performance

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Status Summary of NERI Tasks - Year 1:

Year 1 Project Initiation Activities

Milestone/Task Description	Planned Completion Date	Actual Completion Date
Project Kick Off Meeting	10/01/99	10/01/99
Revised PM Plan and Issue	10/14/99	10/14/99
Project Web Site On Line	10/15/99	10/02/99
Issue Detailed Schedule	10/18/99	10/18/99
Adjust Tasks to Schedule and Budget	12/10/99	
Complete Project Startup Activities	12/10/99	

Year 1 Project Research Activities

Milestone/Task Description	Planned Completion Date	Actual Completion Date
None started yet		

NERI DE-FC03-99SF21898/A000 Project Milestones Schedule (11/19/99)

ID	WBS #'s	Task Name	Duration	Start	Finish	Predecessor	Task Leader	Organizations	2000				2001				2002				2003	
									Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
1		Project Management & Reporting	848 days	Mon 08/02/99	Fri 11/01/02		Bernier	DE&S														
2	PM 1	Year 1 Overview Activities	327 days	Mon 08/02/99	Wed 11/01/00																	
3	PM 1.1	Program Year 1 Start	0 days	Mon 08/02/99	Mon 08/02/99																	
4	PM 1.2	Mid Project Year Meeting	2 days	Thu 01/27/00	Fri 01/28/00	3																
5	PM 1.3	Issue Year 1 Topical Report	0 days	Tue 07/25/00	Tue 07/25/00	4																
6	PM 1.4	Submit Year 1 form 269	0 days	Wed 11/01/00	Wed 11/01/00	5																
7	PM 2	Year 2 Overview Activities	436 days	Wed 03/01/00	Thu 11/01/01																	
14	PM 3	Year 3 Overview Activities	436 days	Thu 03/01/01	Fri 11/01/02																	
21	PM 4	Quarterly Reports includes SF 272	827 days	Mon 08/16/99	Tue 10/15/02		Bernier	DE&S														
73		Project Initiation Activities	96 days	Mon 08/02/99	Mon 12/13/99		O'Connell	DE&S														
74	PM 1.4	Project Organization Task	43 days	Mon 08/02/99	Wed 09/29/99		O'Connell	DE&S														
75	PM 1.5	Project & Year 1 Kick Off Meeting	2 days	Thu 09/30/99	Fri 10/01/99	74	O'Connell	All														
76	PM 1.6	Revised Project Management Manual and Issue to Team	9 days	Mon 10/04/99	Thu 10/14/99	75	Bernier	DE&S														
77	PM 1.7	Put Project Coordination Web Site On Line	1 day	Fri 10/15/99	Fri 10/15/99	76	O'Connell	DE&S														
78	PM 1.8	Publish Project Directory Information	1 day	Mon 10/18/99	Mon 10/18/99	77	Bernier	DE&S														
79	PM 1.9	Develop Year 1 Detailed Project Schedule	36 days	Mon 10/04/99	Mon 11/22/99	75	O'Connell	DE&S														
80	PM 1.10	Issue Year 1 Detailed Project Schedule	0 days	Mon 11/22/99	Mon 11/22/99	79	O'Connell	DE&S														
81	PM 1.11	Adjust Tasks to Schedule and Budget Changes	15 days	Tue 11/23/99	Mon 12/13/99	80	O'Connell	All														
82	PM 1.12	Complete Project Start Up Activities	0 days	Mon 12/13/99	Mon 12/13/99	81	O'Connell	DE&S														
83	Y-1	Year 1 Detailed Activities- Knowledge Acquisition	180 days	Mon 11/22/99	Mon 07/31/00		O'Connell	DE&S														
84	Y-1.0	Initiate Year 1 Research Activities	0 days	Mon 11/22/99	Mon 11/22/99	80		All														
85	Y-1.1	Deconstruct DPCIT	60 days	Tue 11/23/99	Mon 02/14/00	84		DE&S/ABB-CE														
86	Y-1.2	Develop Metrics	30 days	Tue 02/15/00	Mon 03/27/00	85		Sandia														
87	Y-1.3	Develop 3D Model of a basic plant	30 days	Tue 03/28/00	Mon 05/08/00	86		DE&S														
88	Y-1.4	Research Other Industry Practices	120 days	Tue 11/23/99	Mon 05/08/00	80		DE&S														
89	Y-1.5	Examine Modularity	120 days	Tue 11/23/99	Mon 05/08/00	80		MIT/NCSU														
90	Y-1.6	Determine Component Lead Time implications	120 days	Tue 11/23/99	Mon 05/08/00	80		ABB-CE/Sandia														
91	Y-1.7	Examine techniques to eliminate excess margin	120 days	Tue 11/23/99	Mon 05/08/00	80		NCSU														
92	Y-1.8	Examine Finite Element Analysis for Rx Containment	120 days	Tue 11/23/99	Mon 05/08/00	80		Sandia														
93	Y-1.9	New criteria to meet shorten DPCIT	30 days	Tue 05/09/00	Mon 06/19/00	88,89,90		All														
94	Y-1.10	New Process Development	120 days	Tue 11/23/99	Mon 05/08/00	84		MIT														
95	Y-1.11	Develop Links to Finite Element Codes	120 days	Tue 11/23/99	Mon 05/08/00	84		Sandia														
96	Y-1.12	Prepare Task Reports	60 days	Tue 05/09/00	Mon 07/31/00	95	O'Connell	DE&S														
97	Y-1.12.1	Process	60 days	Tue 05/09/00	Mon 07/31/00			Sandia														
98	Y-1.12.2	Productivity	60 days	Tue 05/09/00	Mon 07/31/00			DE&S														
99	Y-1.12.3	Product	60 days	Tue 05/09/00	Mon 07/31/00			ABB-CE														

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ID	WBS #s	Task Name	Duration	Start	Finish	Predecessor	Task Leader	Organizations	2000				2001				2002				2003	
									Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
100	Y-2	Year 2 Detailed Activities- Collaboration on Model Characteristics	260 days	Tue 08/01/00	Mon 07/30/01		O'Connell	DE&S														
101	Y-2.1	Year 2 Kickoff meeting	2 days	Tue 08/01/00	Wed 08/02/00	98		All														
102	Y-2.2	Develop Smart/Adjustable Schedule Approach	90 days	Thu 08/03/00	Wed 12/06/00																	
103	Y-2.2.1	Apply Data Driven Process Analysis	90 days	Thu 08/03/00	Wed 12/06/00	101		DE&S/ABB-CE														
104	Y-2.2.2	Apply Systems Dynamics Analysis	90 days	Thu 08/03/00	Wed 12/06/00	101		MIT														
105	Y-2.2.3	Apply Analysis techniques for containment/structure simplification	90 days	Thu 08/03/00	Wed 12/06/00	101		Sandia/NCSU														
106	Y-2.3	Incorporate new tools into design process	75 days	Thu 12/07/00	Wed 03/21/01	03,104,105		All														
107	Y-2.4	Incorporate other NERI insights	30 days	Thu 03/22/01	Wed 05/02/01	106		All														
108	Y-2.5	Results Meeting/Screen Prospective Improvements	3 days	Thu 05/03/01	Mon 05/07/01	107		All														
109	Y-2.6	Validate Proposed Improvements	30 days	Tue 05/08/01	Mon 06/18/01	108		All														
110	Y-2.7	Publish 2nd interim report covering Model Specifications	30 days	Tue 06/19/01	Mon 07/30/01	109		DE&S														
111	Y-3	Year 3 Detailed Activities- Developing of Prototype Models	232 days	Tue 07/31/01	Wed 06/19/02	110	O'Connell	DE&S														
112	Y-3.1	Year 3 Coordination Meeting	2 days	Tue 07/31/01	Wed 08/01/01																	
113	Y-3.2	Develop new DPCIT process	60 days	Thu 08/02/01	Wed 10/24/01																	
114	Y-3.2.1	Develop 1st Draft Product Model	60 days	Thu 08/02/01	Wed 10/24/01	112		ABB-CE														
115	Y-3.2.2	Develop 1st Draft Productivity Model	60 days	Thu 08/02/01	Wed 10/24/01	112		DE&S														
116	Y-3.2.3	Develop 1st Draft Process Model	60 days	Thu 08/02/01	Wed 10/24/01	112		Sandia														
117	Y-3.3	Meet at DE&S and Perform table top exercises	5 days	Thu 10/25/01	Wed 10/31/01	14,116,115		All														
118	Y-3.4	Review lessons learned and incorporate	30 days	Thu 11/01/01	Wed 12/12/01	117		All														
119	Y-3.5	Build Final Model/Schedule	60 days	Thu 12/13/01	Wed 03/06/02	118																
120	Y-3.5.1	Finalize Product Model	60 days	Thu 12/13/01	Wed 03/06/02			ABB-CE														
121	Y-3.5.2	Finalize Productivity Model	60 days	Thu 12/13/01	Wed 03/06/02			DE&S														
122	Y-3.5.3	Finalize Process Model	60 days	Thu 12/13/01	Wed 03/06/02			Sandia														
123	Y-3.6	Publish Models	30 days	Thu 03/07/02	Wed 04/17/02	20,121,122		DE&S														
124	Y-3.7	Publish Draft Project Report	15 days	Thu 04/18/02	Wed 05/08/02	123		DE&S														
125	Y-3.8	Review and Comment Incorporation	30 days	Thu 05/09/02	Wed 06/19/02	124		DE&S														