

OCT 05 1988

CENTER/NRC MILESTONES

- 1 -

MEMORANDUM FOR: CNWRA Program Management Staff

FROM: Brian E. Thomas/Michael P. Lee  
Project Officers  
Waste Systems Engineering and Integration

SUBJECT: CENTER MILESTONES FOR THE ACCELERATION OF THE PROGRAM  
ARCHITECTURE

Enclosed you will find a summary table of the milestones for the accelerated development of the Program Architecture due on December 21, 1988. The table is based in large part on the schedule provided by the Center in their correspondence of July 14 and 26, 1988 regarding contract modifications necessary to accomplish this goal. This table will be updated the first of each month to keep you apprised of the Center's progress.

The table indicates, for example, that products for Center milestones D1/R1 through P5 have been received and commented on; transmittal of comments on products for milestones P1/R4, I1, P4, and D9 by NRC are pending; and milestones A3, A4, and E1, which are the next milestones to be received, were not received as scheduled.

When using the table, the following points should be noted: The "NRC Action Required" column indicates two types of information regarding the NRC review of Center milestone products. First, the lead for conducting milestone product reviews is indicated. "WSEI" and "PEM" designate which NRC/CNWRA program management component (e.g., the Waste Systems Engineering and Integration Program Element or the other Program Elements and their Project Officers, respectively) has responsibility for conducting a review. (WSEI is responsible for coordinating all reviews.) Second, the type of review that NRC will be performing is indicated in brackets. Please note that reviews and the feedback we subsequently provide to the Center are based on, among other things, the specifications of the CNWRA contract. Generally, there are three types of milestone products that the Center will be generating and they have been designated as "C," "T," and "I." Their descriptions are as follows:

[C] Contract Deliverables are products that have been specifically described in the CNWRA contract such as the December 21, 1988 deliverable. These products must be reviewed thoroughly and in-depth by the NRC/CNWRA program management staff and either accepted or commented on.

8810120266 881005  
PDR WASTE  
WM-11 PDC

426.1  
NH17  
WM-11

OCT 05 1988

CENTER/NRC MILESTONES

- 2 -

[T] Controlled Technical Guidance Documents such as TOPs (Technical Operating Procedures) are those instructions that the Center's staff work under in performance of this contract. Under the provisions of the contract, the NRC/CNWRA Program Manager is required to concur on them. Because these products are internal to the Center's operation, they will be reviewed for outstanding flaws and only significant comments regarding these flaws will be transmitted to the Center.

[I] Internal Center Milestones represent the completion of activities or events. However, as Internal Center Milestones do not represent formal contractual deliverables per se, NRC cannot instruct the Center to revise them. We can, though, review any product that may be associated with this particular milestone and provide the Center with comments regarding significant issues for their consideration in future revisions.

The proposed turnaround time for review of Contract Deliverables [C] and Internal Center Milestones [I] is approximately one week, whereas the proposed turnaround time for the review of Controlled Technical Guidance Documents [T] is 24 to 48 hours. As previously stated, Controlled Technical Guidance Documents comprise the management, technical, and quality instructions for the Center's staff. The short turnaround time that is being suggested for this particular milestone product is necessary due to the Center's accelerated production schedule.

Finally, the "Notes" column of the table provides milestone status by citing, as appropriate, dates for the receipt of both partial and completed milestones. Partial and completed milestones are designated parenthetically as "p" and "f," respectively.

**Original Signed By**

Brian E. Thomas/Michael P. Lee  
Project Officers  
Waste Systems Engineering and  
Integration

Enclosure: As stated

DISTRIBUTION

Central Files	HLSE R/F	NMSS R/F
RBrowning, HLWM	BJYoungblood, HLWM	JBunting, HLSE
RBallard, HLTR	JLinehan, HLOB	BStiltenpole, HLSE
SFortuna, HLSE	MDelligatti, HLSE	PAItomare, HLSE
PJustus, HLTR	JPearring, HLTR	SCoplan, HLOB
JCook, SGTR	MSilberberg, RES	WOtt, RES
MLee, HLSE	BThomas, HLOB	MMace, DC

---

OFC: NMSS/HLSE ::HLOB :HLSE : : :  
 -----  
 NAME: MLee *MP* ::BThomas *BT* :PAItomare : : :  
 -----  
 DATE: ~~9.30.88~~ : 9.30.88 : 10/5/88 : : :  
 -----

NRC Internal Milestone Table for CNWRA Products

Center Milestone	Center Milestone Description	Center Milestone Due Date	Process Diagram Block No.	12/21/88 Deliverable Step No.	NRC Action Req'd.	Comments Sent To CNWRA	Notes
D1, R1	Develop and approve TOP-001	6/17/88	N/A	2	PEM's [T]	5/23/88	TOP-001, Rev. 0 approved 6/12/88
D2, R2	Modify the Center's process diagram and receive NRC concurrence	6/23/88	N/A	6	WSEI [T]	6/23/88	
D3, R3	Develop and approve Program Architecture terminology	6/24/88	N/A	1	PEM's [T]	6/16/88	Basic definitions developed 6/16/88
P1, R4	Finish and approve specifications for membership of the Program Architecture Review Committee (PARC) and guidelines for review of Milestone 12 data	7/7/88	N/A	3	WSEI [T]	PENDING	7/12/88(f)
P2	Implement guidelines and specifications for the PARC to review the current PASS database (MS 12 review) by categorized regulations	7/12/88	N/A	4	PEM's [T]	7/12/88	TOP-001-01, Rev. 0 approved 7/12/88
I1	Integrate final approved process diagram, Program Architecture terminology, final schedule, PARC Guidance, and examples worked to-date for initiating further progress	7/14/88	N/A	1,2,3,6 7,8	PEM's [I]	PENDING	Updated 8/26/88
D4, R5	Prepare the preliminary specifications for the PA/PASS deliverables and presentations of R7, R8, and R9	7/21/88	20 partial 21 partial	13a	PEM's [T]	7/25/88 9/1/88	8/11/88(f)
I2	Integrate PARC input to update the PASS database	8/4/88	5 partial	4	WSEI [I]	8/3/88 9/1/88 9/3/88	8/12/88(p); 8/24/88(f)

NRC Internal Milestone Table for CNWRA Products (continued)

Center Milestone	Center Milestone Description	Center Milestone Due Date	Process Diagram Block No.	12/21/88 Deliverable Step No.	NRC Action Req'd.	Comments Sent To CNWRA	Notes
P3	Finalize review of WSEI MS 12, database	8/5/88	6 partial	5	WSEI [I]	9/3/88	8/15/88(p); 8/24/88(f)
D5	Define the new data fields and field inter-relationships	8/5/88	N/A	13a	WSEI [T]	9/1/88	Draft 7/21/88; 7/26/88(p), 8/12/88(f)
D6, R6	Finalize the specifications for the PA/PASS deliverables and presentations of R7, R8, and R9	8/5/88	20 partial 21 partial	13b	WSEI [T]	9/1/88	Draft 7/21/88; 8/12/88(f)
A1	Finalize PASS organizational structure, field definitions, and report generation for MS 12 data	8/12/88	N/A	N/A	WSEI [I]	9/1/88	8/10/88(f)
P4	Prepare draft guidelines and specifications for the PARC to review data input for Process Diagram Blocks 3 through 22	8/12/88	3-22 partial	12, 16	PEM's [T]	PENDING	8/29/88(f); TOP-001-03 in review
A2	Finalize PASS organizational structure, field definitions, and report generation for elements of proof	8/17/88	20 partial 21 partial	13a partial	WSEI [I]	9/16/88	9/2/88(f)
D7	Finalize guidance for the Elements to ID and list elements of proof, uncertainties, uncertainty questions, information needs, and compliance determination methods	8/17/88	N/A	7 partial	PEM's [T]	9/1/88	Draft 6/26/88 TOP-001-02 approved 9/1/88 7/26/88(p); 8/15/88(f)

NRC Internal Milestone Chart for CNWRA Products (continued)

Center Milestone	Center Milestone Description	Center Milestone Due Date	Process Diagram Block No.	12/21/88 Deliverable Step No.	NRC Action Req'd.	Comments Sent To CNWRA	Notes
D9	Finalize PARC Guidance for Review of Element Data Input for Process Diagram Blocks 3-15	8/23/88	3-15 partial	15	WSEI [T]	PENDING	TOP-001-03 in review; 8/29/88(f)
A3	Finalize PASS organizational structure, field definitions, and report generation for DOE compliance demonstration methods, NRC compliance determination methods, uncertainties, uncertainty questions, and information requirements	8/26/88	20 partial 21 partial	13a partial	WSEI [I]		
D8	Provide guidance to Elements on input format for DOE and state "issues," ranking, open items, and uncertainty reduction methods	8/26/88	N/A	7 partial	PEM's [T]	9/1/88	Draft 7/26/88; 8/15/88(f) TOP-001-02 approved 9/1/88
P5	Finalize the PARC guidelines and initiate PARC review of data input for the old WSEI Milestone 19 (for one complete data entry "proof-of-system") (for Process Diagram Blocks 3-22) and for other data (for Process Diagram Blocks 3-15)	9/2/88	3-22 partial	12, 16	WSEI PEM's [T]	9/12/88	
A4	Finalize PASS organizational structure, field definitions, and report generation for DOE, State and Tribe "issues," etc; ranking open items; and uncertainty reduction methods	9/9/88	20 partial 21 partial	13a partial	WSEI [I]		

NRC Internal Milestone Table for CNWRA Products (continued)

Center Milestone	Center Milestone Description	Center Milestone Due Date	Process Diagram Block No.	12/21/88 Deliverable Step No.	NRC Action Req'd.	Comments Sent To CNWRA	Notes
E1	Identify the elements of proof, uncertainties, etc. for regulatory requirement (See D7 and D8) (Set 1)* (Process Diagram Blocks 3-15)	9/16/88	3-15 partial	10 partial	PEM's Staff [I]		
P7	Review, and revise (correct)(Set 1)* regulatory requirements, elements of proof, compliance determination methods, information requirements uncertainties, uncertainty questions, State and DOE issues, flagged open items, NRC actions, other action parties, and uncertainty reduction methods	9/26/88	3-15 partial	12	WSEI PEM's [I]		
I12	Input example data for proof-of-system demonstrations	9/26/88	3-22 partial	16	PEM's [I]		
I3	Integrate PARC reviewed data (Set 1)	9/27/88	3-15 partial	11, 12 partial	PEM's [I]		
A5	Finalize PASS organizational structure, field definitions, and report generation for costs, schedules, and lead times; alternative and tradeoff programs; research plans; and critical path control.	9/30/88	20 partial 21 partial	13a partial	WSEI PEM's [I]		
A6	Finalize PASS documentation for informal report and presentation	9/30/88	20	16	WSEI [I]		

NRC Internal Milestone Table for CNWRA Products (continued)

Center Milestone	Center Milestone Description	Center Milestone Due Date	Process Diagram Block No.	12/21/88 Deliverable Step No.	NRC Action Req'd.	Comments Sent To CNWRA	Notes
P6	Complete PARC review of example data for proof-of-system demonstrations (I12)	9/30/88	3-22 partial	4, 16	PEM's [I]		
E2	Identify the elements of proof, uncertainties, etc. for regulatory requirement (Set 2)* (Process Diagram Blocks 3-15)	9/30/88	3-15 partial	10 partial	PEM's Staff [I]		
P8	Review, and revise (correct)(Set 2)* regulatory requirements, elements of proof, compliance determination methods, information requirements, uncertainties, uncertainty questions, State and DOE issues, flagged open items, NRC actions, other action parties, and uncertainty reduction methods	10/11/88	3-15 partial	12	PEM's [I]		
I4	Integrate PARC reviewed data (Set 2)	10/12/88	3-15 partial	11, 12 partial	WSEI [I]		
D10	Complete the revision of the PARC guideline as necessary	10/12/88	3-15 partial	12 revisions	WSEI [I]		
R7	Briefing, if requested, and report of the example proof-of-system data (input and integrated by WSEI, see I12). Originally covered in old WSEI Milestone 19	10/21/88	3-22 partial	15	PEM's [C]		Earlier review of draft 8/11/88

NRC Internal Milestone Table for CNWRA Products (continued)

Center Milestone	Center Milestone Description	Center Milestone Due Date	Process Diagram Block No.	12/21/88 Deliverable Step No.	NRC Action Req'd.	Comments Sent To CNWRA	Notes
E3	Identify the elements of proof, uncertainties, etc. for regulatory requirement (Set 3)* (Process Diagram Blocks 3-15)	10/28/88	3-15 partial	10 partial	PEM's Staff [I]		
P9	Review, and revise (correct)(Set 3)* regulatory requirements, elements of proof, compliance determination methods, information requirements, uncertainties, uncertainty questions, State and DOE issues, flagged open items, NRC actions, other action parties, and uncertainty reduction methods	11/8/88	3-15 partial	12	WSEI PEM's [I]		
I5	Integrate PARC reviewed data (Set 3)	11/9/88	3-15 partial	11, 12 partial	WSEI [I]		
E4	Identify the elements of proof, uncertainties, etc. for regulatory requirement (Set 4)* (Process Diagram Blocks 3-15)	11/11/88	3-15 partial	10 partial	PEM's Staff [I]		
P10	Review, and revise (correct)(Set 4)* regulatory requirements, elements of proof, compliance determination methods, information requirements, uncertainties, uncertainty questions, State and DOE issues, flagged open items, NRC actions, other action parties; and uncertainty reduction methods	11/21/88	3-15 partial	12	WSEI PEM's [I]		

NRC Internal Milestone Table for CNWRA Products (continued)

Center Milestone	Center Milestone Description	Center Milestone Due Date	Process Diagram Block No.	12/21/88 Deliverable Step No.	NRC Action Req'd.	Comments Sent To CNWRA	Notes
I6	Integrate PARC reviewed data (Set 4)	11/21/88	3-15 partial	11, 12 partial	WSEI [I]		
D11	Updated version the PARC guidelines as necessary	11/21/88	N/A	16 partial	WSEI PEM's [T]		
I7	Integrated and "certified" data sets (1-4) for deliverable	11/23/88	3-15	11, 12	WSEI [I]		Earlier review of draft 8/11/88
R8	Present a report to the NRC on recommended rulemaking needs for repository activities	12/21/88	3-15	11,12	WSEI PEM's [C]		Earlier review of draft 8/11/88
R9	Present a report to the NRC on recommended SCP/review, audit, and research activities	12/21/88	N/A	N/A	WSEI PEM's [C]		Earlier review of draft 8/11/88
A7	Complete an update of the PASS structure as necessary	1/20/89	21	16	PEM's WSEI [I]		
D12	Guide Elements for rest of process inputs (Process Diagram Blocks 16-22)	3/17/89	N/A	16 partial	PEM's [T]		
E5	Identify the elements of proof, uncertainties, etc. for sets 1-4 data (Process Diagram Blocks 16-22) and for other regulatory requirement (Set 5)* (Process Diagram Blocks 3-22)	4/12/89	3-22 partial	16 partial	PEM's [I]		

NRC Internal Milestone Table for CNWRA Products (continued)

Center Milestone	Center Milestone Description	Center Milestone Due Date	Process Diagram Block No.	12/21/88 Deliverable Step No.	NRC Action Req'd.	Comments Sent To CNWRA	Notes
P11	PARC review of input data Set 5*	4/13/89	3-22 partial	16	WSEI [I]		
I8	Integrate PARC reviewed data (Set 5)	4/14/89	3-22 partial	16	WSEI [I]		
E6	Identify the elements of proof, uncertainties, etc. for sets 1-4 data (Process Diagram Blocks 16-22) and for other regulatory requirement (Set 6)* (Process Diagram Blocks 3-22)	5/10/89	3-22 partial	16 partial	PEM's [I]		
P12	PARC review of input data Set 6*	5/11/89	3-22 partial	16	WSEI [I]		
I9	Integrate PARC reviewed data (Set 6)	5/12/89	3-22 partial	16	WSEI [I]		
E7	Identify the elements of proof, uncertainties, etc. for sets 1-4 data (Process Diagram Blocks 16-22) and for other regulatory requirement (Set 7)* (Process Diagram Blocks 3-22)	6/7/89	3-22 partial	16 partial	PEM's [I]		
P13	PARC review of input data Set 7*	6/8/89	3-22 partial	16	WSEI [I]		
I10	Integrate PARC reviewed data (Set 7)	6/9/89	3-22 partial	16	WSEI [I]		

NRC Internal Milestone Table for CNWRA Products (continued)

Center Milestone	Center Milestone Description	Center Milestone Due Date	Process Diagram Block No.	12/21/88 Deliverable Step No.	NRC Action Req'd.	Comments Sent To CNWRA	Notes
E8	Identify the elements of proof; uncertainties, etc. for sets 1-4 data (Process Diagram Blocks 16-22) and for other regulatory requirement (Set 8)* (Process Diagram Blocks 3-22)	7/3/89	3-22 partial	16 partial	PEM's [I]		
P14	PARC review of input data Set 8*	7/6/89	3-22 partial	16	WSEI [I]		
I11	Integrate PARC reviewed data (Set 8)	7/7/89	3-22 partial	16	WSEI [I]		

\*NOTE: Each set of regulatory requirements is a workable subset of the total regulations selected for Element review.

LEGEND

CENTER MILESTONE ACTIVITY CODES:

P=PARC/QA Activities  
A=ADP Activities  
E=Element Activities  
D=New WSE&I Directives/Developments  
I=New WSE&I Integration Points  
R=New WSE&I Reporting Activities

COMMENT DATE CODES:

p=Partial fulfillment of milestone (receipt)  
f=Complete fulfillment of milestone (receipt)

NRC ACTION REQUIRED CODES:

WSEI=Waste Systems Engineering & Integration Program Element  
PEM's=Program Element Managers

REVIEW TYPE CODES:

[C]=Contract Deliverables/1 week turnaround  
[T]=Controlled Technical Guidance Documents/24-48 hour turnaround  
[I]=Internal Center Milestones/1 week turnaround