



**NuStart** Energy<sup>sm</sup>

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May 26, 2006

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

ATTN: Stephanie Coffin, Chief  
AP1000/EPR Projects Branch

SUBJECT: NuStart Bellefonte COL Project - NRC Project No. 740  
AP-1000 Pre-Application Submittals

REFERENCES: (1) Letter from Peter Hastings to Document Control Desk; *AP-1000 Pre-Application Submittals*; dated May 18, 2006

(2) Letter from George Zinke and Andrea Sterdis to Document Control Desk; *Request for NRC Resource Expectations and Availability*; dated March 8, 2006

In Reference 1, NuStart committed to provide to the NRC Staff by May 26, 2006, an updated schedule for submittal of several AP1000 technical reports for pre-application review. Enclosure 1 contains that updated schedule information, which reflects additional information and experience in providing these submittals since the original schedule estimate provided in Reference 2. Westinghouse representatives have provided input to and concurrence with the enclosed schedule.

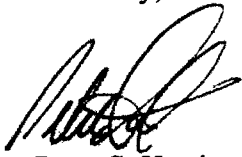
Please note that this schedule is based on NuStart's best estimate of future activities. For example, certain submittals are predicated on approval of changes pursuant to ongoing detailed design. Similarly, as more refined NRC resource estimates requested under Reference 2 become available, funding profiles could influence the timing of submittals. Accordingly, the dates in the enclosed schedule are subject to change. As previously indicated, NuStart will supply schedule status information to the Staff monthly, and will notify the Staff on a timely basis in the event of significant changes. Further, as pre-application interactions proceed, additional future submittals may be identified and will be closely coordinated with the Staff.

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Thank you for your continued support of pre-application reviews. If you have any questions, please contact me at (980) 373-7820 or at [pshastings@duke-energy.com](mailto:pshastings@duke-energy.com).

Sincerely,



Peter S. Hastings, PE  
AP-1000 Reference Plant Licensing Lead

Enclosure: AP-1000 Pre-Application Submittal Schedule

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**Enclosure 1**  
**AP-1000 Pre-Application Submittal Schedule**

*Note: except for TRs 11a-11j (which are grouped together),  
table entries sorted by expected submittal date.*

<b>COL Item</b>	<b>DCD Section</b>	<b>TR No.</b>	<b>Subject</b>	<b>Submittal Date To NRC</b>	<b>NRC Technical Review Completion<sup>1</sup></b>
3.9-6	3.9.8.6	15	Piping Benchmark Program	Complete 31-Mar-06	31-Aug-06
6.4-3	6.4.7	27	Main Control Room Inleakage Test Frequency	Complete 31-Mar-06	31-Oct-06
11.2-3	11.2.5.3	48	Identification of Ion Exchange and Adsorbent Media	Complete 31-Mar-06	31-Aug-06
11.2-4	11.2.5.4	73	Dilution and Control of Boric Acid Discharge	Complete 31-Mar-06	31-Aug-06
11.3-2	11.3.5.2	48	Identification of Adsorbent Media	Complete 31-Mar-06	31-Aug-06
3.8		N/A	AP1000 Seismic Analyses and Structural Design Reviews	Complete 05-Apr-06	N/A
5.2	5.2	32	Zinc Addition	Complete 05-Apr-06	31-Oct-06
6.2	6.2	37	Hydrogen Igniter Locations	Complete 05-Apr-06	31-Aug-06
6.3	6.3	38	PRHR Hx Design	Complete 05-Apr-06	31-Oct-06
18.2-1	18.2.6	72	Execution of the NRC Approved Human Factors Engineering Program	Complete 06-Apr-06	31-Oct-06
18.5-2	18.5.4	52	Main Control Room	Complete 06-Apr-06	30-Nov-06
18.7-1	18.7.1	59	Execution and Documentation of the Human Reliability Analysis/Human Factors Engineering Integration	Complete 06-Apr-06	28-Feb-07
18.8-1	18.8.5	72	Execution and Documentation of the Human System Interface Design Implementation Plan	Complete 06-Apr-06	31-Oct-06
3.8-1	3.8.6.1	09	Containment Vessel Design Adjacent to Large Penetrations	Complete 22-May-06	TBD
3D	3D	62	Methodology for Qualifying AP1000 Safety Related Electrical and Mechanical Equipment	Complete 22-May-06	TBD
7.2	7.2	39	I&C Design Changes	Complete 22-May-06	TBD
7.1-2	7.1.6	42	Resolution of Generic Open Items and Plant-Specific Action Items	Complete 22-May-06	TBD
5.4	5.4	36	Pressurizer Configuration	02-Jun-06	TBD

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9.5-7	9.5.1.8	46	Fire Resistance Test Data	02-Jun-06	TBD
9.1-1	9.1.6	44	New Fuel Rack Design & Structural Analysis	02-Jun-06	TBD
9.1-2	9.1.6	67	Criticality Analysis for New Fuel Rack	02-Jun-06	TBD
3.3-1	3.3.3	05	Wind and Tornado Site Interface Criteria	09-Jun-06	TBD
3.6-2	3.6.4.2	08	Leak-Before-Break Evaluation of As-Designed Piping	09-Jun-06	TBD
3.6-1	3.6.4.1	06	Pipe Break Hazards Analysis	09-Jun-06 <sup>3</sup>	TBD
3.6-3	3.6.4.3	06	Leak-Before-Break Evaluation of As-Built Piping	09-Jun-06 <sup>3</sup>	TBD
3.7-3	3.7.5.3	06	Seismic Interaction Review	09-Jun-06 <sup>3</sup>	TBD
3.7-4	3.7.5.4	06	Reconciliation of Seismic Analyses of Nuclear Island Structures	09-Jun-06 <sup>3</sup>	TBD
3.8-2	3.8.6.2	06	Passive Containment Cooling System Water Storage Tank Examination	09-Jun-06 <sup>3</sup>	TBD
3.8-3	3.8.6.3	06	As-Built Summary Report	09-Jun-06 <sup>3</sup>	TBD
3.8-4	3.8.6.4	06	In-Service Inspection of Containment Vessel	09-Jun-06 <sup>3</sup>	TBD
3.9-2	3.9.8.2	06	Design Specification and Reports	09-Jun-06 <sup>3</sup>	TBD
5.3-1	5.3.6.1	06	Reactor Vessel Pressure Temperature Limit Curves	09-Jun-06 <sup>3</sup>	TBD
5.3-4	5.3.6.4	06	Reactor Vessel materials Properties Verification	09-Jun-06 <sup>3</sup>	TBD
10.2-1	10.2.6	06	Turbine Maintenance and Inspection	09-Jun-06 <sup>3</sup>	TBD
13.6-2	13.6.13.2	06	Vital Equipment Verification	09-Jun-06 <sup>3</sup>	TBD
14.4-6	14.4.6	06	First-Plant-Only and Three-Plant-Only Tests	09-Jun-06 <sup>3</sup>	TBD
19.59.10-1	19.59.10.5	06	As-Built SSC HCLPF Comparison to Seismic Margin Evaluation	09-Jun-06 <sup>3</sup>	TBD
19.59.10-2	19.59.10.5	06	Baseline PRA	09-Jun-06 <sup>3</sup>	TBD

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19.59.10-3	19.59.10.5	06	Internal Fire and Internal Flood Analysis	09-Jun-06 <sup>3</sup>	TBD
19.59.10-5	19.59.10.5	06	Equipment Survivability	09-Jun-06 <sup>3</sup>	TBD
7.1-1	7.1.6	28	Setpoint Calculations for Protective Functions	09-Jun-06	TBD
7.2-1	7.2.3	43	FMEA For Protection System	09-Jun-06	TBD
3.7.2	3.7.2	03	Extension of NI Structures Seismic Analysis to Soil Sites	23-Jun-06	TBD
3.10-1	3.10.6	16	Experienced-Based Qualification	30-Jun-06	TBD
5.4	5.4	35	Steam Generator Description Changes	30-Jun-06	TBD
9.1-3	9.1.6	54	Spent Fuel Racks Design and Structural Analysis	30-Jun-06	TBD
9.1-4	9.1.6	65	Criticality Analysis for Spent Fuel Racks	30-Jun-06	TBD
9.5-5	9.5.1.8	45	Operator Actions Minimizing Spurious ADS Actuation	30-Jun-06	TBD
5.2	5.2	33	Reactor Coolant Boundary Materials	20-Jul-06	TBD
3.9-2	3.9.8.2	12	Design Specification and Reports	31-Jul-06	TBD
3.9	3.9	29	Reactor Internals Neutron Pads	31-Jul-06	TBD
3.9	3.9	30	Control Rod Drive System	31-Jul-06	TBD
3.9	3.9	61	Integrated Head Package Design	31-Jul-06	TBD
4.5	4.5	31	Reactor Internals Materials	31-Jul-06	TBD
1.1-1	1.1.7	01	Construction and Startup Schedule	04-Aug-06	TBD
5.3-3	5.3.6.3	23	Surveillance Capsule Lead Factor and Azimuthal Confirmation	29-Sep-06	TBD
3.9-2	3.9.8.2	11a	Design Specification and Reports (CMT)	10-Oct-06 <sup>2</sup>	TBD
3.9-2	3.9.8.2	11b	Design Specification and Reports (Accumulator)	10-Oct-06 <sup>2</sup>	TBD

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3.9-2	3.9.8.2	11c	Design Specification and Reports (RVI)	10-Oct-06 <sup>2</sup>	TBD
3.9-2	3.9.8.2	11d	Design Specification and Reports (Pressurizer)	06-Mar-07 <sup>2</sup>	TBD
3.9-2	3.9.8.2	11e	Design Specification and Reports (RCP)	06-Mar-07 <sup>2</sup>	TBD
3.9-2	3.9.8.2	11f	Design Specification and Reports (PXS HX)	10-Apr-07 <sup>2</sup>	TBD
3.9-2	3.9.8.2	11g	Design Specification and Reports (IHP)	09-May-07 <sup>2</sup>	TBD
3.9-2	3.9.8.2	11h	Design Specification and Reports (RV)	09-May-07 <sup>2</sup>	TBD
3.9-2	3.9.8.2	11i	Design Specification and Reports (SG)	09-Aug-07 <sup>2</sup>	TBD
3.9-2	3.9.8.2	11j	Design Specification and Reports (CRDM)	17-Feb-07 <sup>2</sup>	TBD
4.2-1	4.2.5	18	Changes to Reference Reactor Design	31-Oct-06	TBD
4.3-1	4.3.4	18	Changes to Reference Reactor Design	31-Oct-06	TBD
4.4-1	4.4.7	18	Changes to Reference Reactor Design	31-Oct-06	TBD
4.4-2	4.4.7	18	Confirm Assumptions for Safety Analyses DNBR Limits	31-Oct-06	TBD
5.4	5.4	34	Generic Reactor Coolant Pump	31-Oct-06	TBD
6.3-2	6.3.8.2	26	Verification of Containment Resident particulate Debris Characteristics	31-Oct-06	TBD
5.3-4	5.3.6.4	24	Reactor Vessel Materials Properties Verification	30-Nov-06	TBD
5.3-5	5.3.6.5	24	Reactor Vessel Insulation	30-Nov-06	TBD
19.59.10-5	19.59.10.5	68	Equipment Survivability	15-Dec-06	TBD
13.5-1	13.5.1	70	Plant Procedures	15-Dec-06	TBD
14.4-2	14.4.2	71	Test Specifics and Procedures	15-Dec-06	TBD
14.4-3	14.4.3	71	Conduct of Test Programs	15-Dec-06	TBD

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19.59.10-4	19.59.10.5	66	Develop and Implement Severe Accident Mitigation Guidance	15-Dec-06	TBD
3.9-1	3.9.8.1	10	Reactor Internal Vibration Response	19-Dec-06	TBD
13.6-1	13.6.13.1	49	Security Plans, Organization and Testing	31-Dec-06	TBD
3.9-2	3.9.8.2	13	Design Specifications and Reports	22-Jan-07	TBD
3.6-1	3.6.4.1	07	Piping Break Hazards Analysis	26-Jan-07	TBD

<sup>1</sup> NRC Technical Review Completion estimated dates based on information provided by NRC Staff; "TBD" dates to be provided two weeks after NRC receipt of document

<sup>2</sup> Corresponds to date when NRC will be notified that report information is available for onsite review

<sup>3</sup> Corresponds to the submittal of TR 06, which will address the "as-built" portion of the subject COL Item(s)