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NTD-NRC-94-4158  
DCP/NRC0099  
Docket No.: STN-52-003

June 3, 1994

Document Control Desk  
U. S. Nuclear Regulatory Commission  
Washington DC 20555

ATTENTION: Dennis Crutchfield

SUBJECT: AP600 DESIGN CERTIFICATION REVIEW SCHEDULE

Dear Mr. Crutchfield:

Since the beginning of the year, Westinghouse has made substantial progress in the AP600 design certification program in the areas of testing, RAI responses, analysis activities, RTNSS review and technical issue resolution that affect the AP600 design certification schedule assumptions made in SECY-94-117. In addition, Westinghouse has reviewed the process presented by the staff in SECY-94-117 and has further optimized the Westinghouse activities the staff considers to be on the critical path for their review.

On May 25, 1994, a meeting was held between the Nuclear Regulatory Commission and Westinghouse to discuss the review schedule for the AP600 design certification application. At that meeting a detailed discussion of the review process for the AP600 design certification application was held. The discussion included a review of the activities necessary to issue the FDA and the assumptions each party had made in developing their own schedules. As a result of the meeting, Westinghouse believes that an improvement of seven to eight months is possible over the AP600 design certification review schedule presented in SECY-94-117. This improvement is comprised of:

- a. One month from improvements in the FSER review process

The improvements in the FSER review process were accomplished by placing tasks in parallel.

- b. Five to six months from accelerating the SSAR analysis effort

To facilitate an earlier NRC start on the FSER preparation, Westinghouse will initiate certain analyses of design basis accidents for inclusion in the final SSAR update prior to issuing the final code validation and verification (V&V) reports. The results of the analyses will be provided to the staff on an as-completed basis rather than waiting for the entire SSAR section to be completed. Westinghouse recognizes this approach may require reanalysis if changes are required to the computer codes as a result of completing the V&V activities.

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- c. One month from providing the OSU final test report earlier

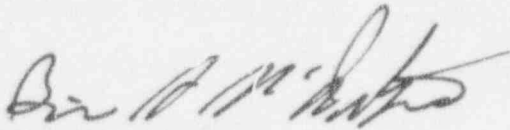
This will allow the staff to start their preparation of the DSER supplement earlier.

The material distributed at the meeting is attached to this letter with expanded explanations of how the SSAK analysis results will be provided to the NRC for their review.

Westinghouse recognizes this schedule has no contingencies for unexpected test results or design changes.

As a result of our meeting, the staff agreed that improvement in the AP600 design certification schedule was possible and that they would review this material to determine what improvement is feasible. The results of the staff review will be documented in a letter to the Commission.

Please contact Brian A. McIntyre (412) 374-4334 if you have any questions concerning this subject.



Nicholas J. Liparulo  
Nuclear Safety Regulatory and Licensing Activities

/nja

Attachment

cc: S. M. Franks - DOE  
R. P. McDonald - ARC  
W. H. Layman - EPRI

## DISCUSSION POINTS ON DETAILED SCHEDULES

### OVERALL

- Quick look data report submittals identified for each test
- Final chapter 6 & 15 reanalysis and submittal 11/95
- Intermediate analysis packages
  - SBLOCA (NOTRUMP) 7/95
  - LBLOCA (WCOBRA/TRAC) 6/95
  - NONLOCA & SGTR (LOFTRAN) 6/95
  - Containment (WGOthic) 7/95
- OSU final test report 4/95
- One month earlier than schedule basis for SECY-94-117

### NOTRUMP

- Validation against CMT, ADS, SPES-2 and OSU tests
  - Final V&V report 9/95
- Preliminary validation packages provided to staff in advance of final V&V report
  - CMT 10/94
  - ADS 3/95
  - SPES-2 5/95 \*
  - OSU 8/95 \*
- SSAR analysis package to staff 7/95

\* Includes blind test predictions

WCOBRA/TRAC

- Validation against ADS, SPES-2 and OSU tests
  - Final V&V report 9/95
- Preliminary validation packages provided to staff in advance of final V&V report
  - ADS 6/95
  - SPES-2 7/95
  - OSU 6/95
  - OSU LTC 8/95
- SSAR analysis package to staff 6/95

LOFTRAN

- Validation against CMT and SPES-2 tests
  - Final V&V report 4/95
- Preliminary validation packages provided to staff in advance of final V&V report
  - CMT 11/94
  - SPES-2 3/95 \*
- SSAR analysis package to staff 5/95

\* Includes blind test predictions

WGOTHIC

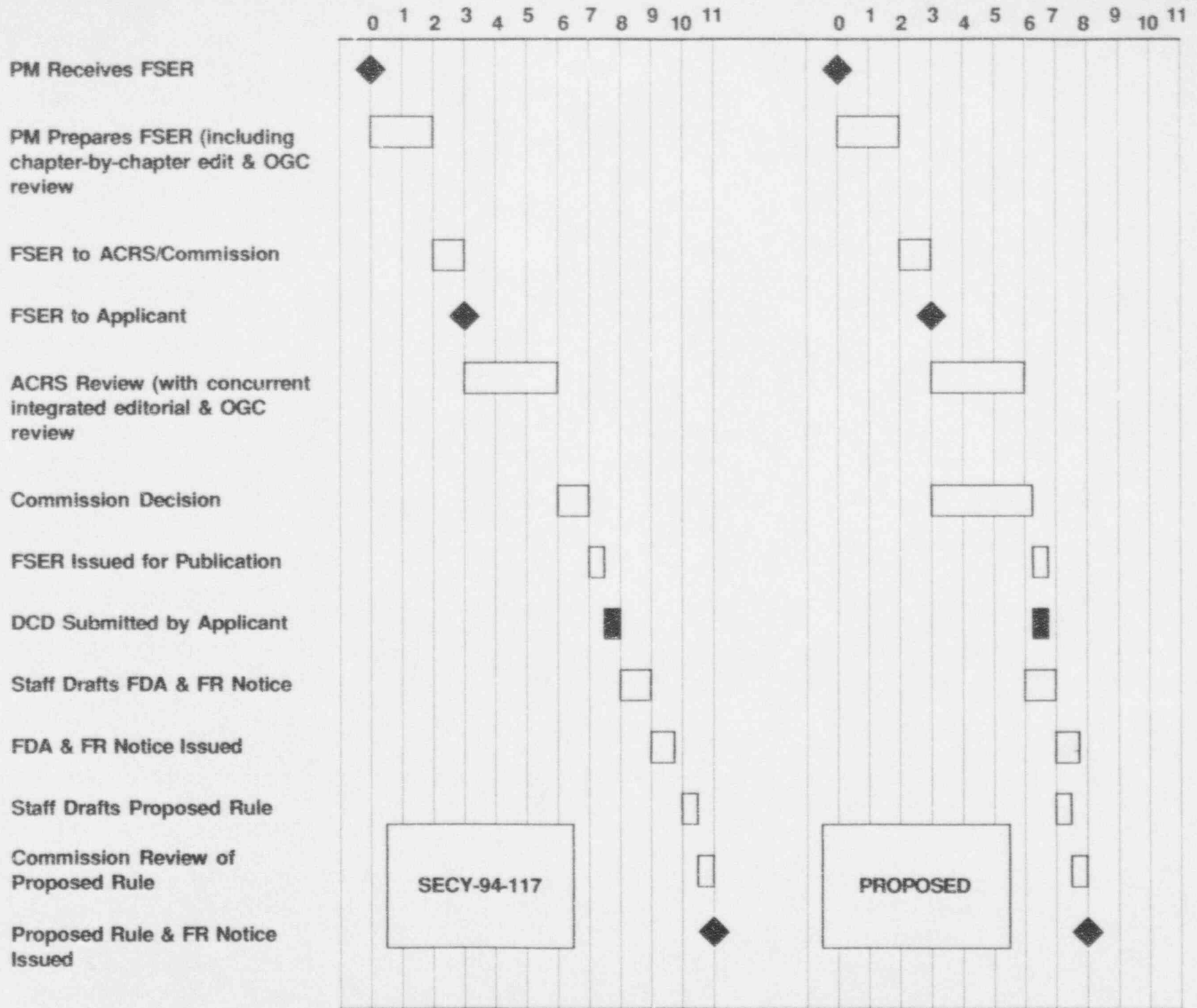
- PCCS analysis information
  - DSER supporting information to staff 6/94
- Validation against LST tests
  - Final V&V report 4/95 \*

- Preliminary validation packages provided to staff in advance of final V&V report
  - Phonomological reports 4/94, 6/94, 7/94, 8/94, 10/94, 12/94
  - LST 10/94
  - LST - Lumper Parameter 11/94
- SSAR analysis package to staff 7/95

\* Includes blind test predictions

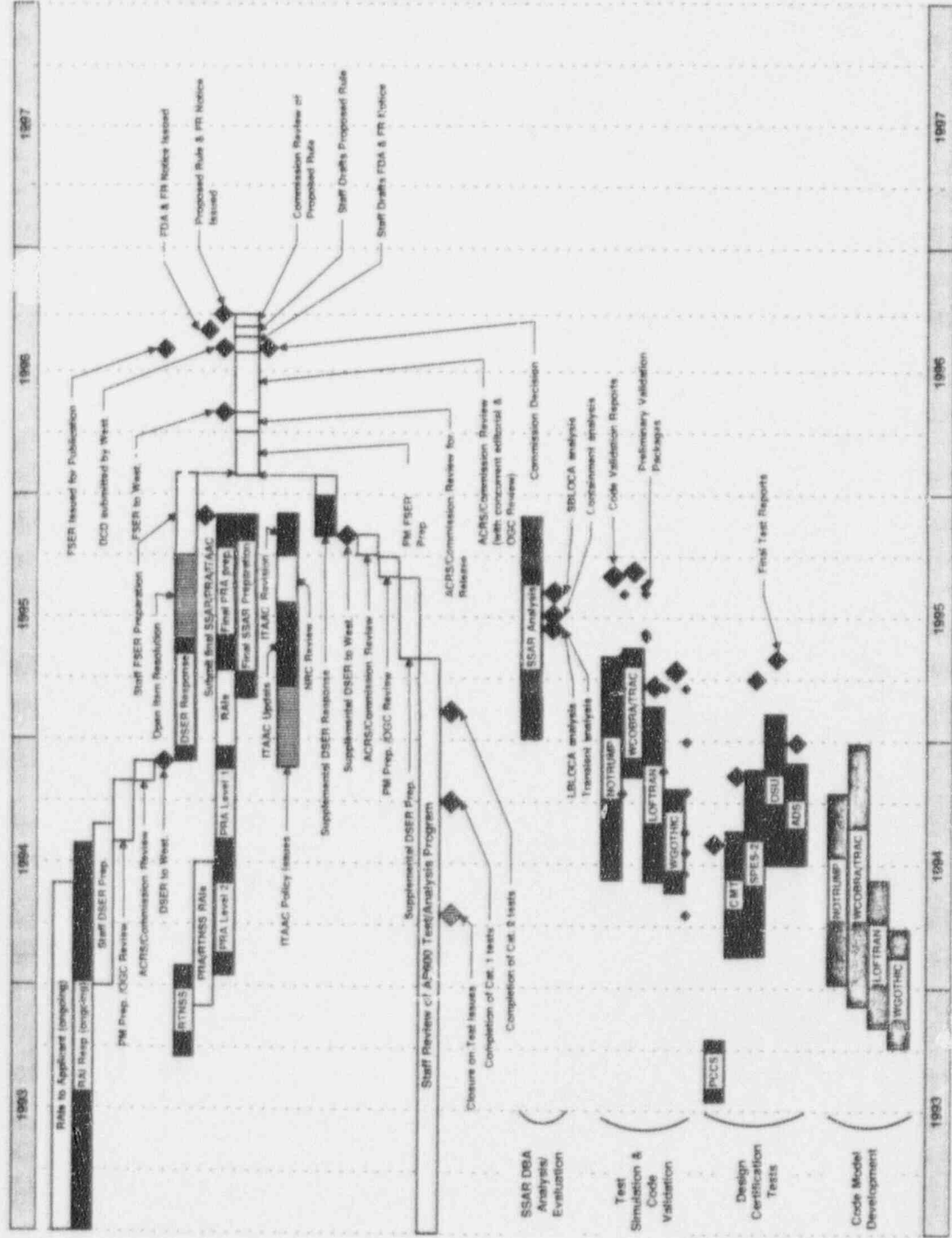
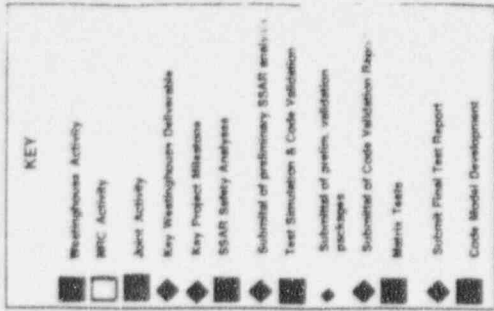
PROCESS

- Three months identified as being possible
  - Commission review in parallel with ACRS letter
  - DCD prepared and issued at same time FSER published
  - Staff drafts and issues FR notice in parallel with FSER
  - Staff issues proposed rule in parallel with FSER
- One month should be achievable

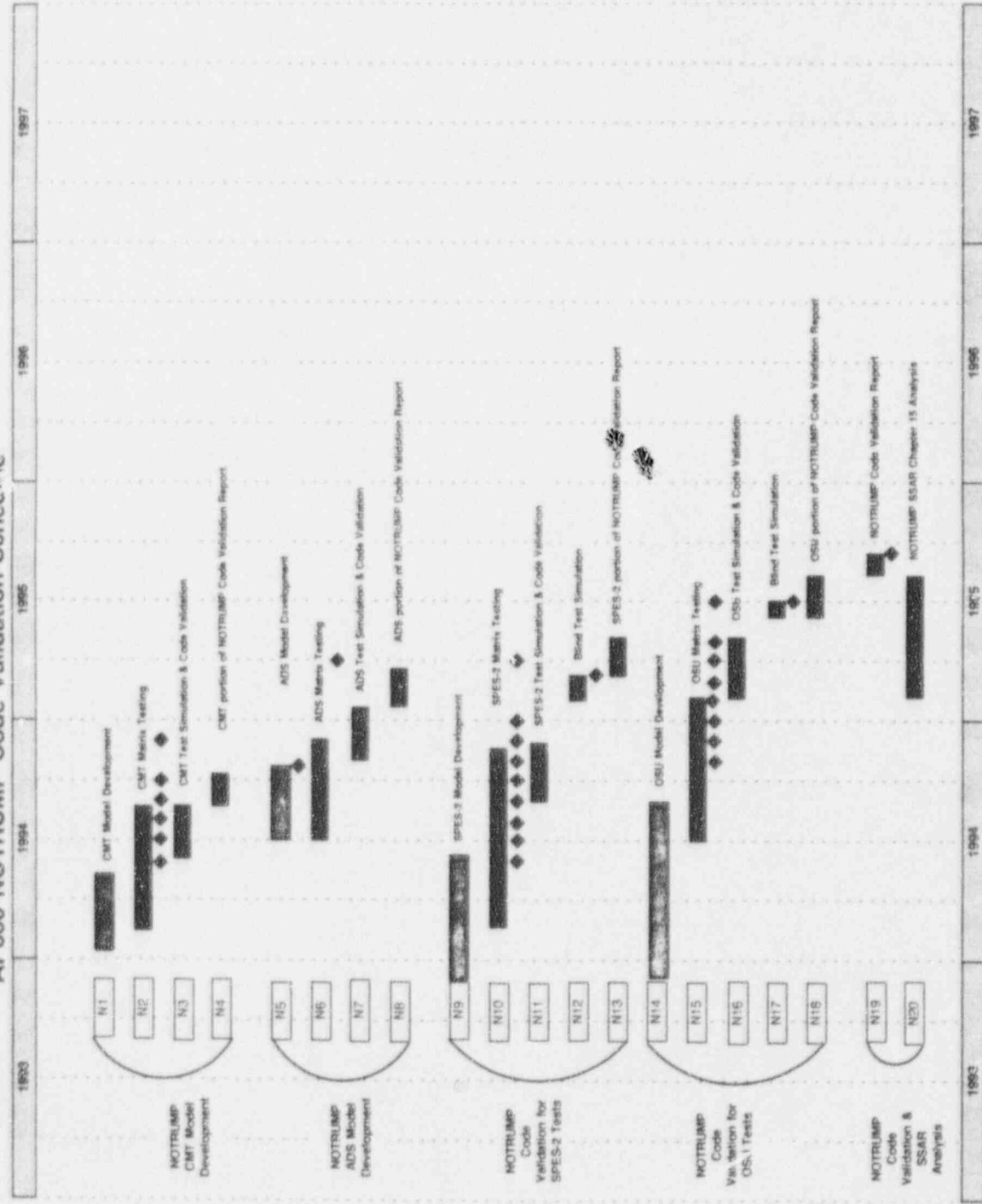


# AP600 DESIGN CERTIFICATION SCHEDULE (proposed)

Proposed Schedule  
 File: SCHED6.VSD  
 Date: 6/2/94  
 P2 Run Date: 5/4/94



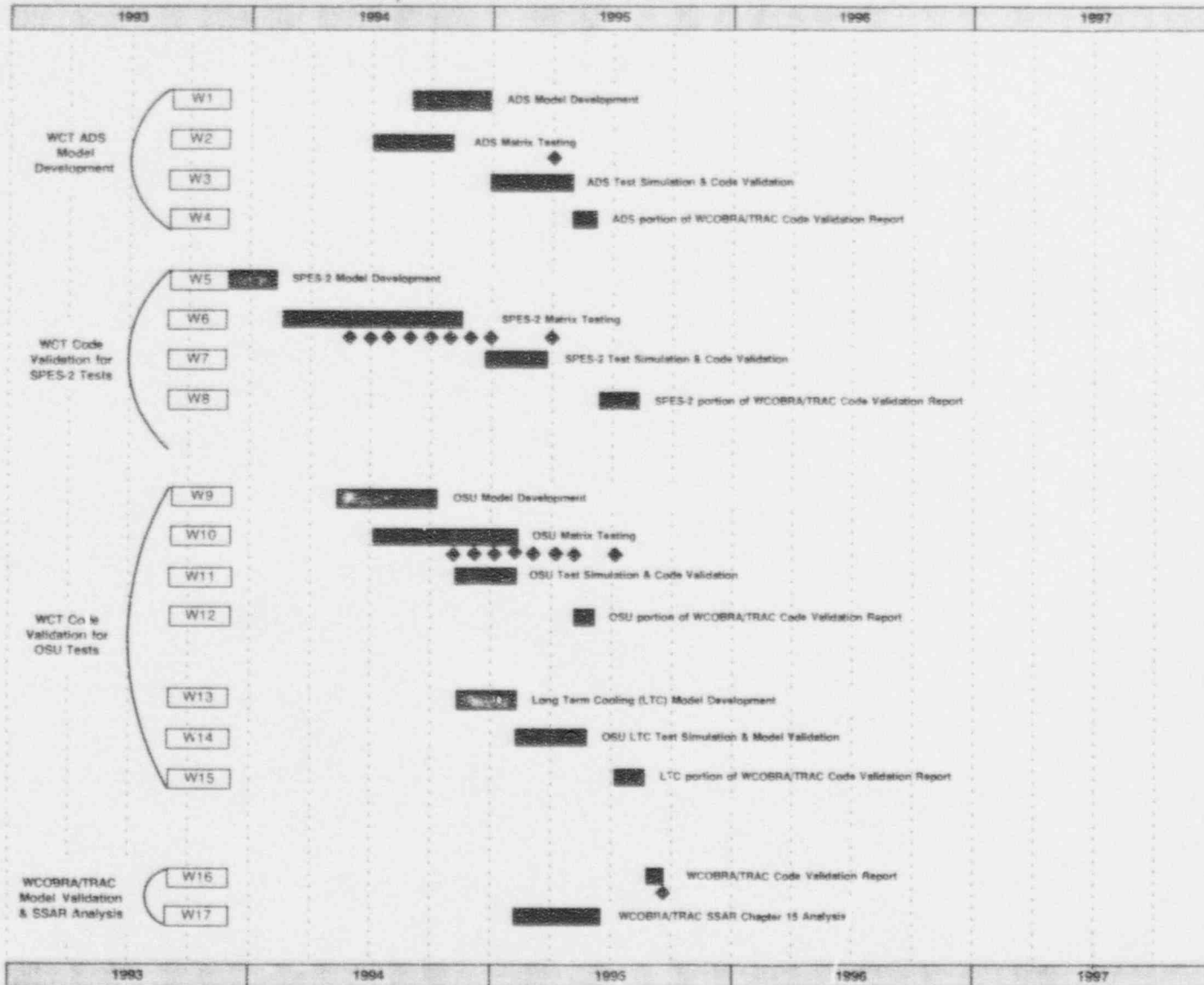
# AP600 NOTRUMP Code Validation Schedule



File: NTRUMP\_VSD  
 Date: 6/2/94  
 P2 Run Date: 5/4/94



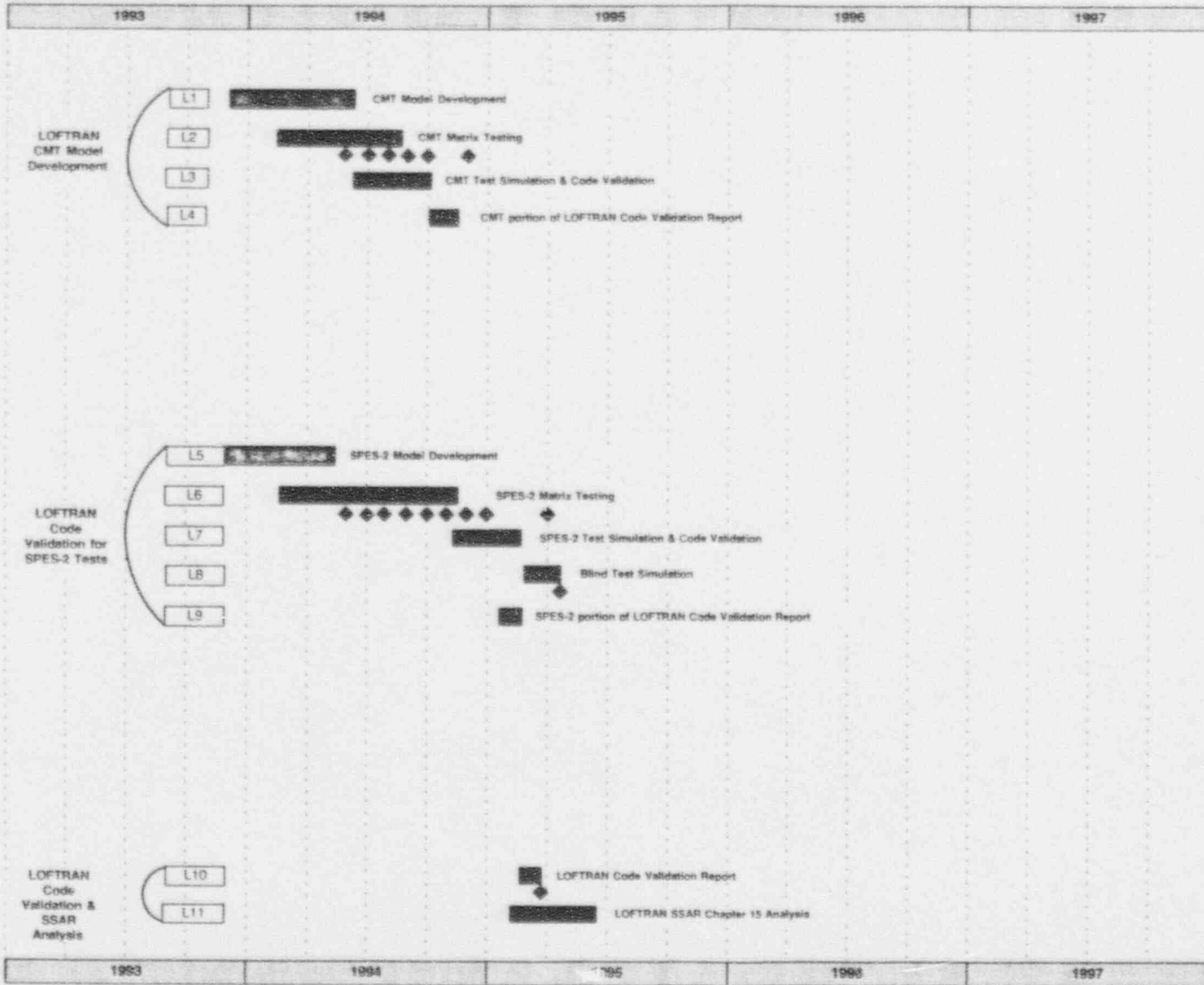
# AP600 WCOBRA/TRAC Code Validation Schedule



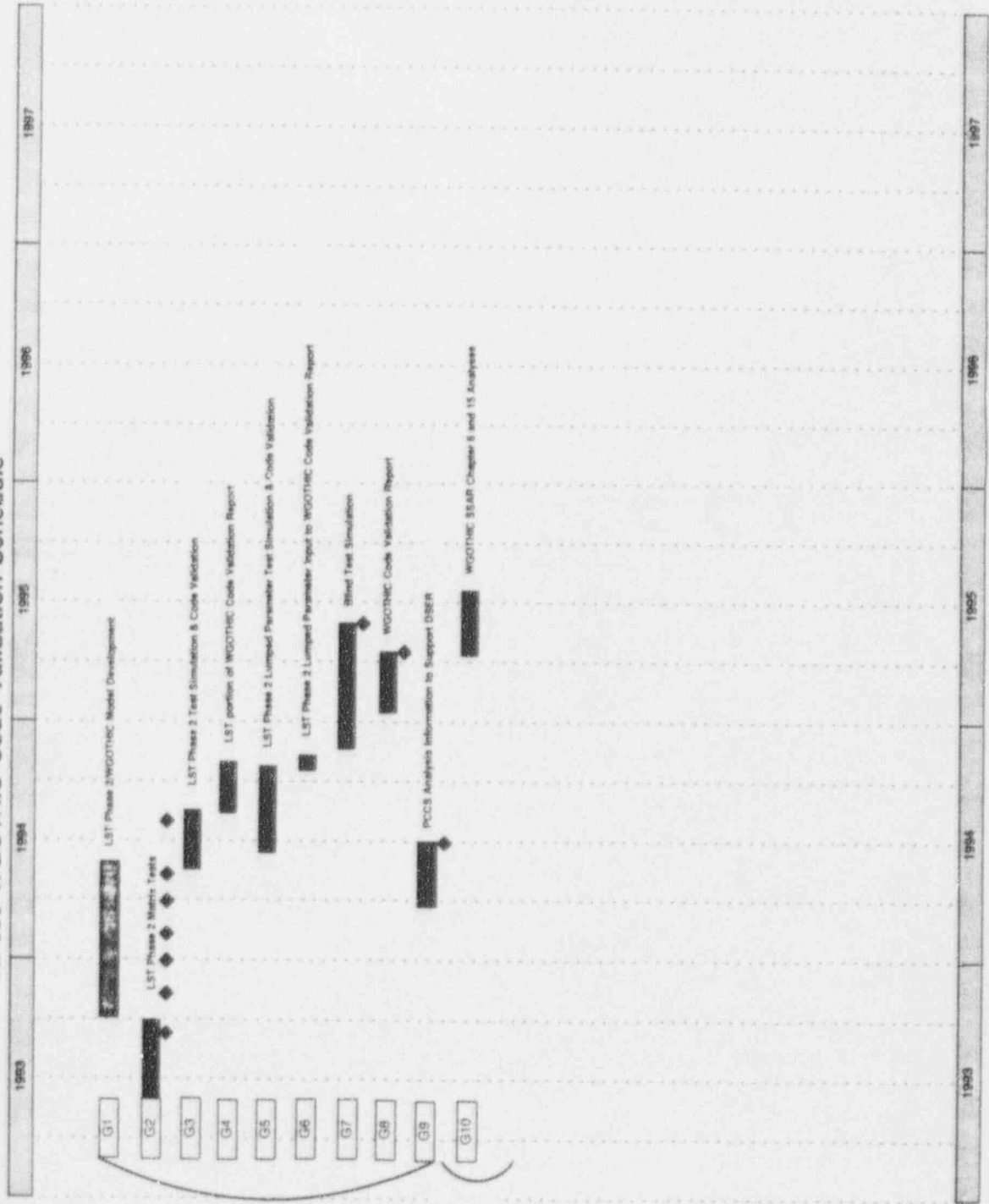
File: WCT VSD  
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 P2 Run Date: 5/4/94

# AP600 LOFTRAN Code Validation Schedule

File: LFTRN VSD  
 Date: 6/2/94  
 P2 Run Date: 5/4/94



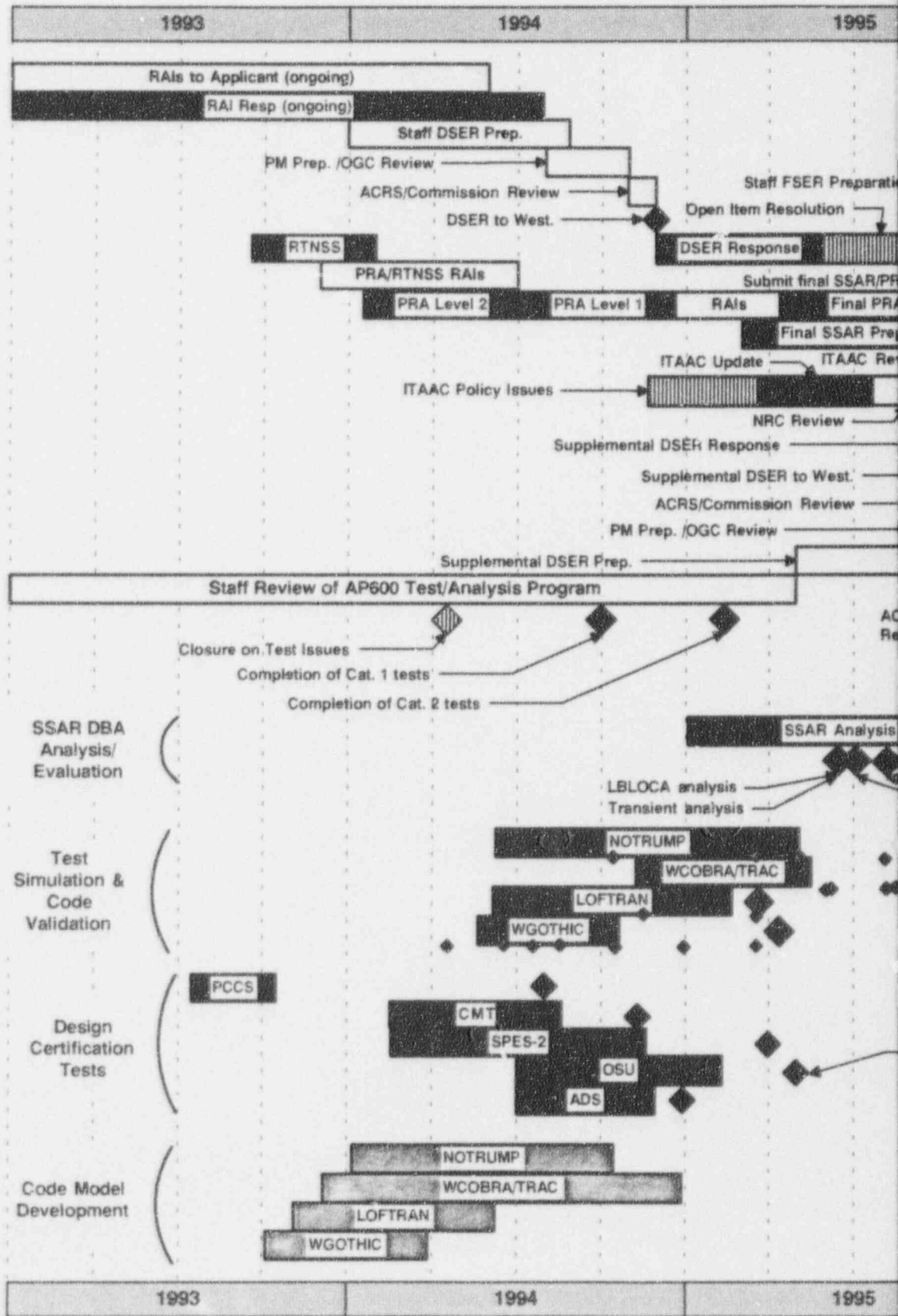
# AP600 WGOOTHIC Code Validation Schedule



WGOOTHIC  
LST Model  
Development

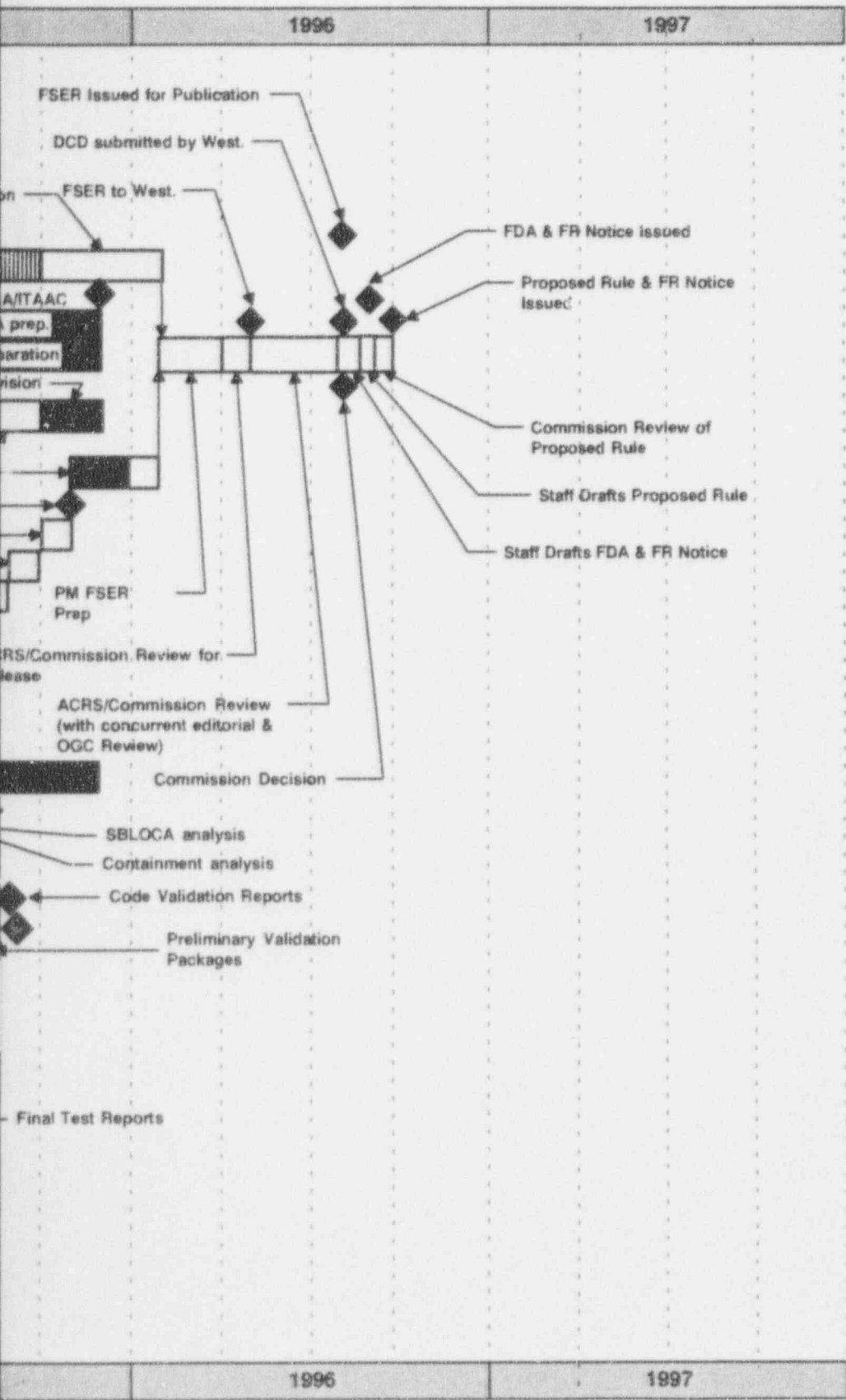
WGOOTHIC  
SSAR  
Analysis

# AP600 DESIGN CERTIFICATION SCHEDULE



# LE (proposed)

Proposed Schedule  
 File: SCHED6.VSD  
 Date: 6/2/94  
 P2 Run Date: 5/4/94



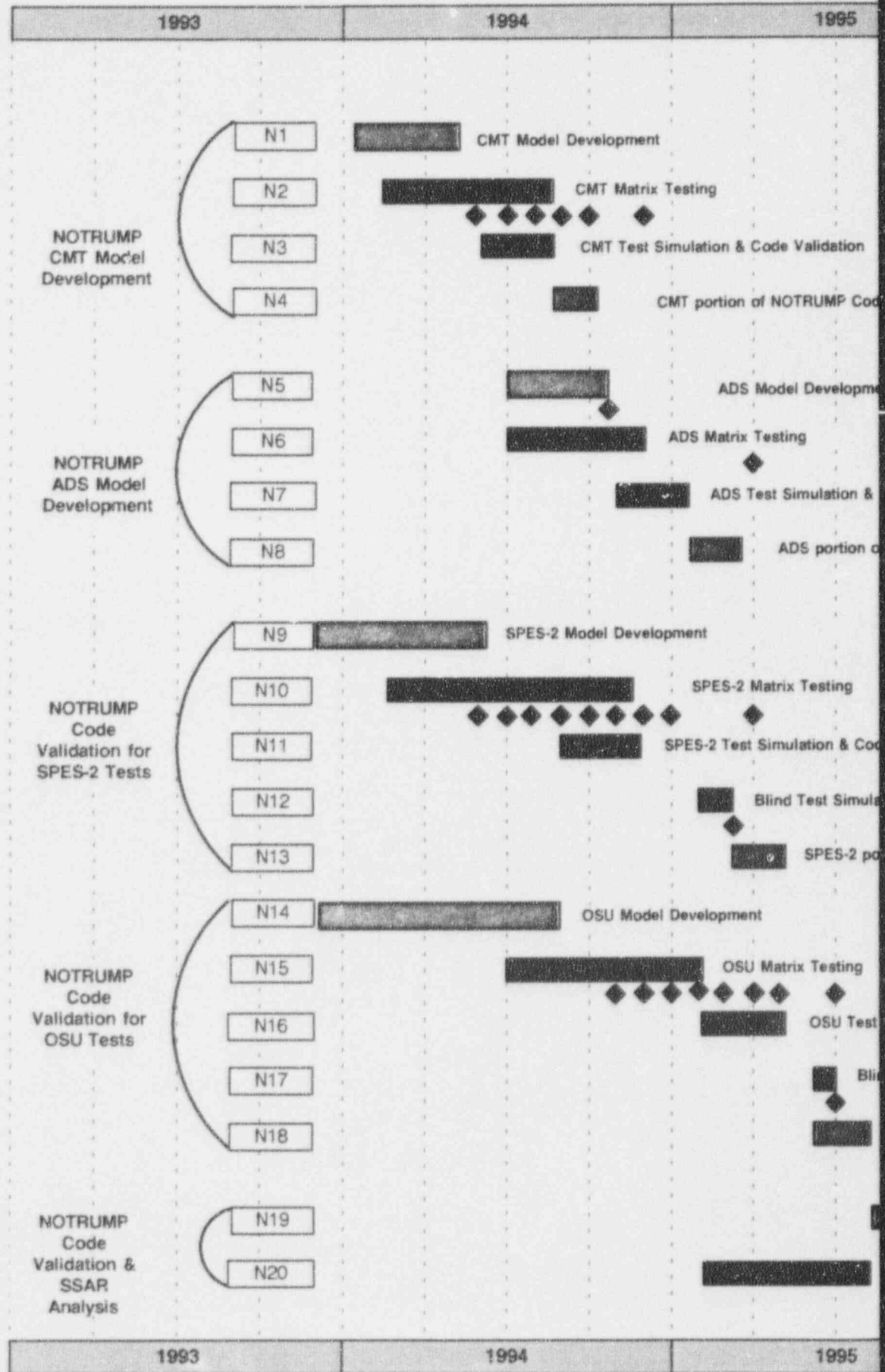
### KEY

- Westinghouse Activity
- NRC Activity
- Joint Activity
- Key Westinghouse Deliverable
- Key Project Milestone
- SSAR Safety Analyses
- Submittal of preliminary SSAR analysis
- Test Simulation & Code Validation
- Submittal of prelim. validation packages
- Submittal of Code Validation Report
- Matrix Tests
- Submit Final Test Report
- Code Model Development

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# AP600 NOTRUMP Code Validation



# Schedule

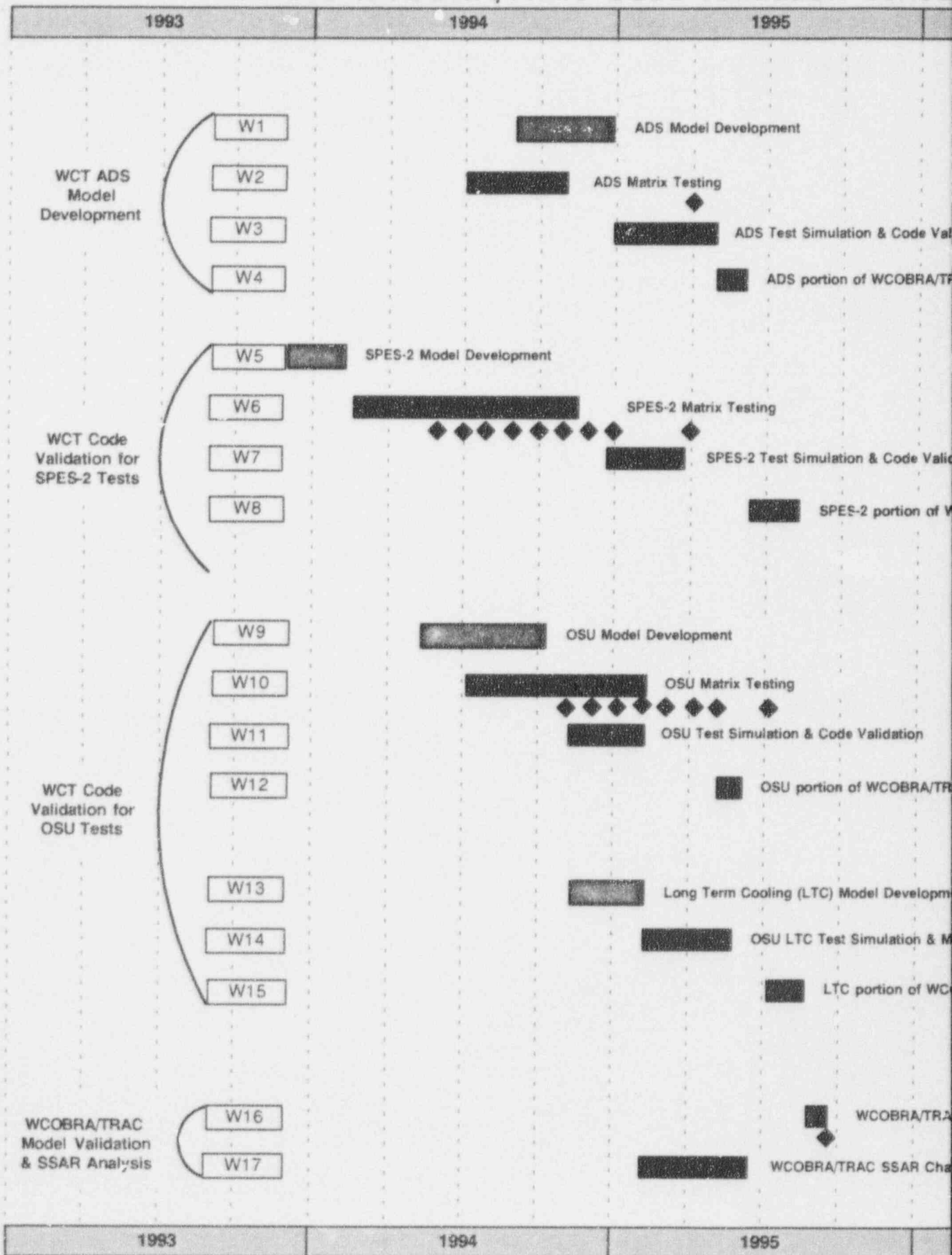
	1996	1997
Validation Report		
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Code Validation		
NOTRUMP Code Validation Report		
Validation		
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Simulation & Code Validation		
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OSU portion of NOTRUMP Code Validation Report		
NOTRUMP Code Validation Report		
NOTRUMP SSAR Chapter 15 Analysis		

File: NTRMP.VSD  
Date: 6/2/94  
P2 Run Date: 5/4/94

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# AP600 WCOBRA/TRAC Code Validation Sched





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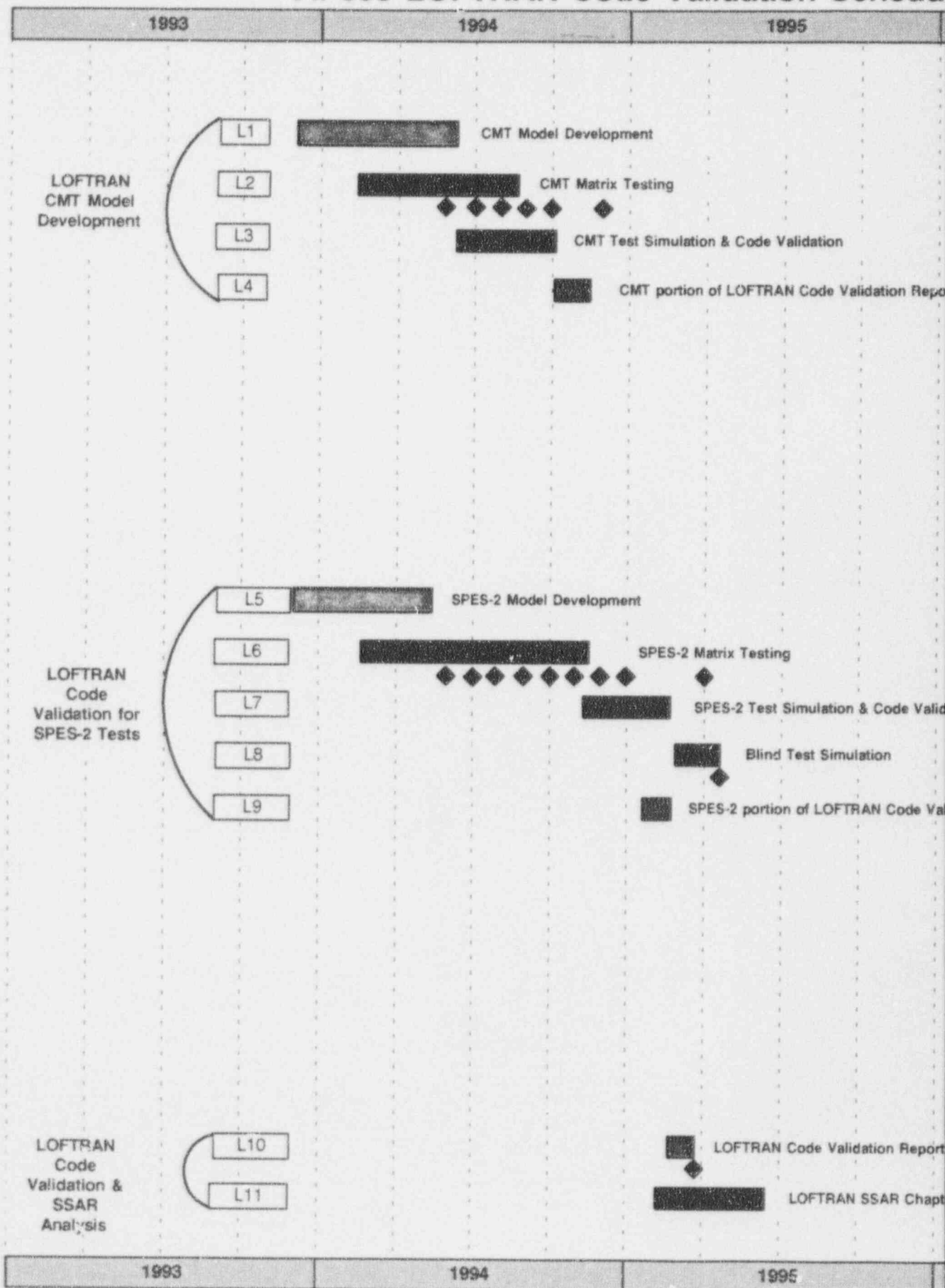
1996	1997
Validation	
TRAC Code Validation Report	
Validation	
COBRA/TRAC Code Validation Report	
TRAC Code Validation Report	
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Model Validation	
COBRA/TRAC Code Validation Report	
C Code Validation Report	
Chapter 15 Analysis	
1996	1997

File: WCT.VSD  
Date: 6/2/94  
P2 Run Date: 5/4/94

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# AP600 LOFTRAN Code Validation Schedule



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1996	1997
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File: LFTRN.VSD  
Date: 6/2/94  
P2 Run Date: 5/4/94

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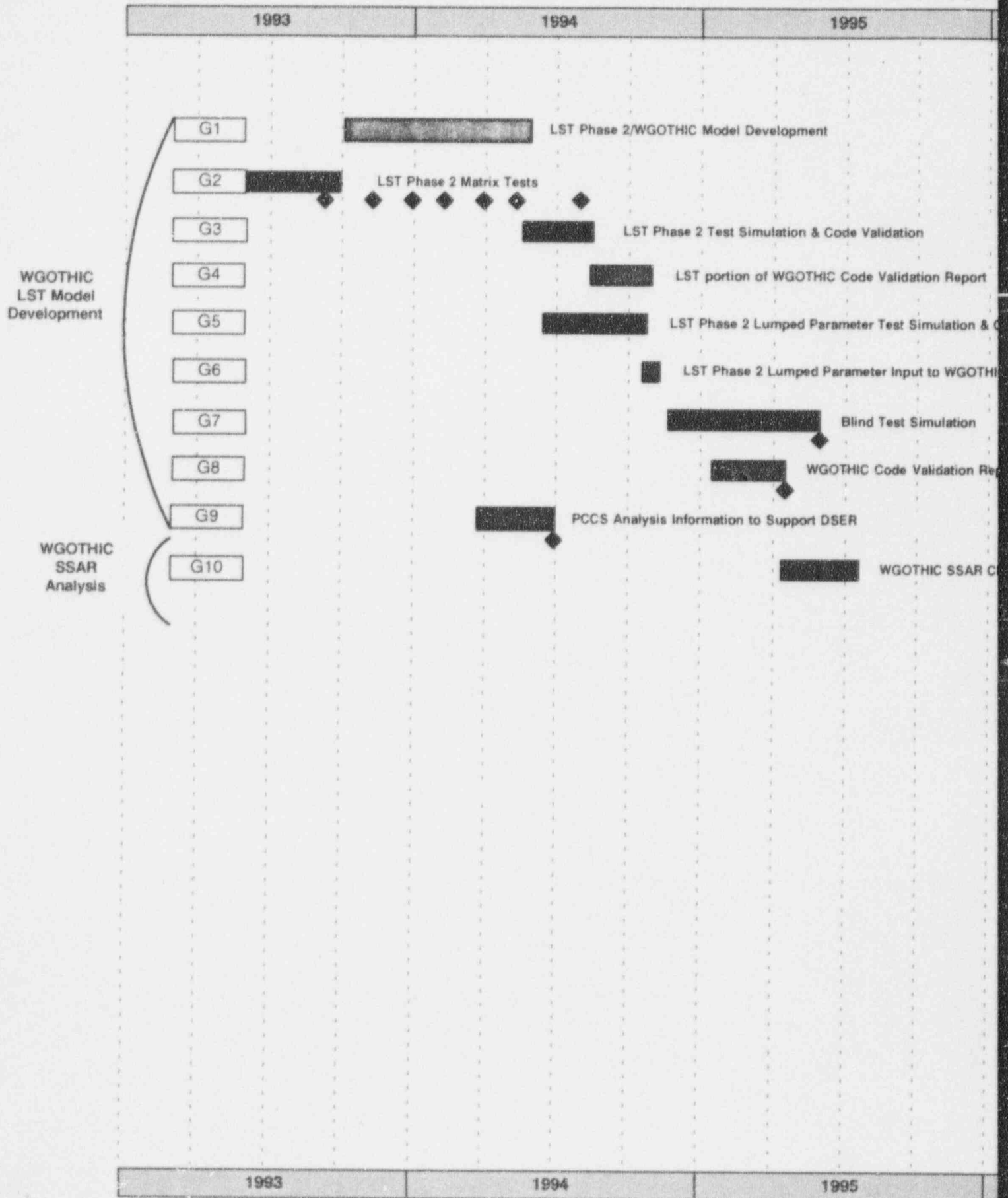
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1996	1997
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# AP600 WGOthic Code Validation Schedule



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1996	1997
Code Validation	
C Code Validation Report	
port	
Chapter 6 and 15 Analyses	

File: WGTHC.VSD  
Date: 6/2/94  
P2 Run Date: 5/4/94

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