

SEP 9 1992

official

Docket Nos. 50-325, 50-324
License Nos. DPR-71, DPR-62

Carolina Power and Light Company
ATTN: Mr. R. A. Watson
Senior Vice President
Nuclear Generation
P. O. Box 1551
Raleigh, NC 27602

Gentlemen:

SUBJECT: REVIEW OF PRE-STARTUP PLANS AND MEETING SUMMARY - BRUNSWICK

On July 23, 1992, you submitted your Pre-Startup Plans and an Overview of the Corporate Improvement Program. The Pre-Startup Plan appears adequate to ensure a safe and orderly return to power operations. Specific comments on the plan are included in Enclosure 1. We will reserve comment on the Corporate Improvement Program until we receive your comprehensive program as stated in your July 23, 1992 letter.

The meeting conducted at our request on August 10, 1992, at the Brunswick site was beneficial and provided for a better understanding of plant status. The purpose of the meeting was to discuss Brunswick restart issues. A list of attendees (Enclosure 2), a summary (Enclosure 3) and a copy of your handout are enclosed.

In accordance with Section 2.790 of NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosures will be placed in the NRC Public Document Room.

Should you have any questions concerning the matter, please contact us.

Sincerely,

Original signed by:
Luis A. Reyes/for

Stewart D. Ebnetter
Regional Administrator

Enclosures:

1. Comments on Pre-Startup Plan
2. August 10, 1992 List of Attendees
3. Meeting Summary
4. Licensee Handout

cc w/encls: (See page 2)

9209220078 920909
PDR ADOCK 05000324
P PDR

IE01

111

SEP 9 1992

Carolina Power and Light Co.

2

cc w/encls:

R. B. Richey
Vice President
Brunswick Nuclear Project
P. O. Box 10429
Southport, NC 28461

Ms. Gayle B. Nichols
Staff Counsel
SC Public Service Commission
P. O. Box 11649
Columbia, SC 29211

J. W. Spencer
Plant General Manager
Brunswick Steam Electric Plant
P. O. Box 10429
Southport, NC 28461

H. Ray Starling
Vice President - Legal Department
Carolina Power and Light Co.
P. O. Box 1551
Raleigh, NC 27602

Kelly Holden
Board of Commissioners
P. O. Box 249
Bolivia, NC 28422

Chrys Baggett
State Clearinghouse
Budget and Management
116 West Jones Street
Raleigh, NC 27603

Dayne H. Brown, Director
Division of Radiation Protection
N. C. Department of Environment,
Health & Natural Resources
P. O. Box 27687
Raleigh, NC 27611-7687

H. A. Cole
Special Deputy Attorney General
State of North Carolina
P. O. Box 629
Raleigh, NC 27602

Robert P. Gruber
Executive Director
Public Staff - NCUC
P. O. Box 29520
Raleigh, NC 27626-0520

bcc w/encls: (See page 3)

SEP 9 1992

Carolina Power and Light Co.

3

bcc w/encl:
Document Control Desk
H. Christensen, RII
R. Lo, NRR

NRC Resident Inspector
U.S. Nuclear Regulatory Commission
Star Route 1, Box 208
Southport, NC 28461

*NRR: B
by phone
9/1
for E. Adelman*

RII:DRP
H
HChristensen:tj
08/21/92

RII:DRP RII:DRP RII:DRP
H *J* *E*
DVerrelli JJohnson EMerschoff
08/21/92 08/21/92 08/26/92

RII:ORA
R
Reyes
08/19/92

ENCLOSURE 1

COMMENTS ON PRE/POST - STARTUP METHODOLOGY

1. What type of items will go into the "OTHER" category?
2. What is the make up of the screening team and when will it be in place with procedures?
3. NAD should conduct an assessment of the process and evaluate the Post-Startup List.
4. The General Plant Manager should also review and approve the deferred items.
5. All items should go through the screening team before being placed in the "OTHER" category.
6. The screening methodology relates to the ability to implement corrections (e.g., material availability) prior to startup rather than for safety considerations (e.g., meeting code requirements, restoring design basis or applying Design Guide II-20) which assure safe operation following restart.

COMMENTS ON PRE-STARTUP ITEMS

1. The present Nuclear Advisors on the Senior Nuclear Advisory Committee are all CP&L employees. Should these be an independent perspective?
2. CP&L should conduct an Independent Pre-Startup readiness assessment.

ENCLOSURE 2

ATTENDANCE LIST

Carolina Power and Light

E. M. Bean
J. M. Brown
M. Bradley
R. Chambers
L. W. Eury
S. D. Floyd
J. R. Holder
D. E. Kelly
A. M. Lucas
D. C. McCarthy
R. Morgan
C. Olexik
W. W. Simpson
J. W. Spencer
R. S. Stancil
G. H. Warriner
R. A. Watson

Nuclear Regulatory Commission

E. G. Adensam
G. Bagchi
P. Byron
H. O. Christensen
S. D. Ebnetter
A. F. Gibson
J. R. Johnson
G. C. Lainas
R. H. Lo
D. J. Nelson
R. L. Prevatte
S. A. Varga

ENCLOSURE 3

MEETING SUMMARY

The meeting was opened by Mr. J. Watson, Senior Vice President, Nuclear Generation. He stated the primary focus of the meeting was to discuss short-term actions for plant restart. Mr. Stewart Ebnetter, Regional Administrator, Region II, stated that the July 23, 1992, letter was a good baseline document, but progress is needed more than promises. He did not see a great sense of urgency (in that the progress did not match published schedules) and that there appeared to be a lack of coordination/leadership of the project. Mr. Ebnetter recommended that CP&L do a restart assessment and that the NRC would also perform a restart assessment. He said, the Integrated Action Plan root cause analyses was good and expressed concern with the lack of involvement by the site in the development of the Corporate Improvement Program.

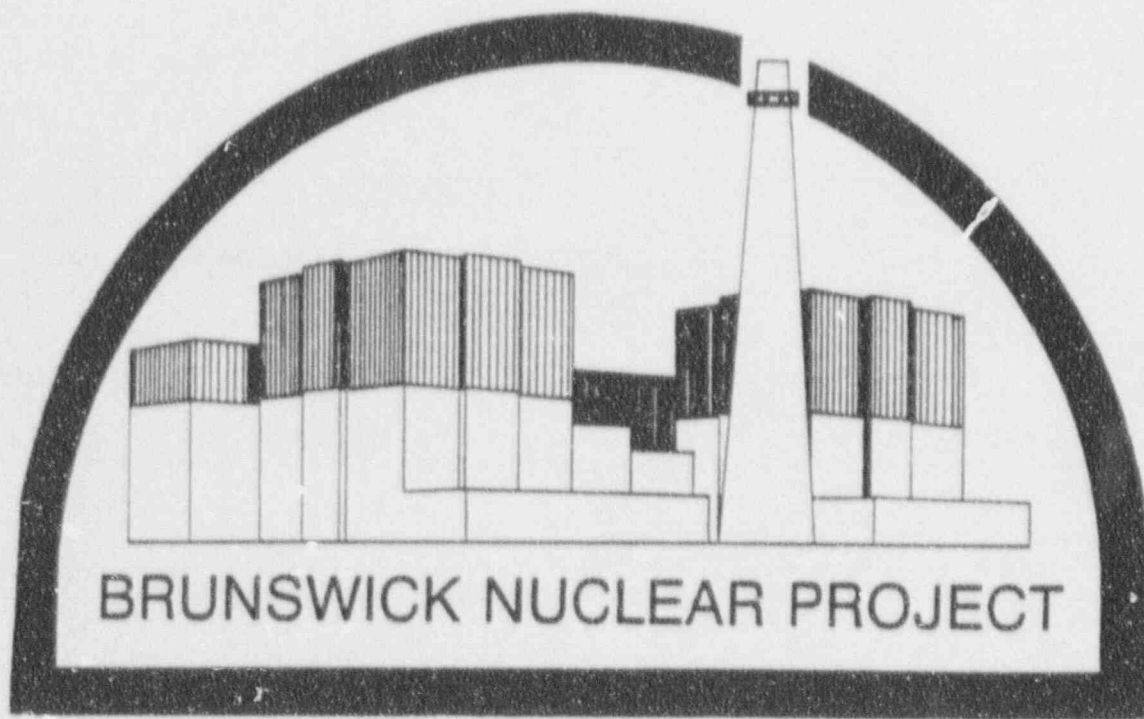
Mr. Steve Varga, stated that the July 23, 1992, letter was a good start, but he still had some concern with the screening methodology.

Mr. Ashleigh Lucas, Vice President, Nuclear Engineering, gave a status of the engineering work. He stated, that CP&L still has not got feedback from the NRC on CP&L's structural steel programs. Mr. Goutan Bagchi stated that the Phase I and Phase II process looked acceptable, but if CP&L finds more problems as they go along, the NRC may have to revisit the process. Mr. Watson asked for timely oversight of the process.

Mr. Jack Spencer, General Plant Manager, gave a status of the backlog. He stated that they have not used the screening methodology yet, but plan to start shortly. He believes the site has made good progress reducing the number of open items. Additionally, he stated that the site plans to perform an operational readiness review prior to plant restart and a full scale emergency preparedness drill. Mr. Spencer also stated that work completion is still scheduled for October 1, 1992, for Unit 2 and November 15, 1992, for Unit 1.

CAROLINA POWER & LIGHT COMPANY
MEETING WITH THE
NUCLEAR REGULATORY COMMISSION

AUGUST 10, 1992



CAROLINA POWER & LIGHT COMPANY
BRUNSWICK NUCLEAR PROJECT
MEETING WITH THE NUCLEAR REGULATORY COMMISSION

AUGUST 10, 1992

A G E N D A

1:00 p.m. - 1:15 p.m.	Opening Remarks	Al Watson
1:15 p.m. - 1:45 p.m.	Status of Nuclear Engineering Department Short-Term Actions <ul style="list-style-type: none">• Drilled in Anchors• Block/Masonry Walls• Structural Steel• Short-Term Structural Integrity	Ashleigh Lucas
1:45 p.m. - 2:00 p.m.	Status of Other Short-Term Actions <ul style="list-style-type: none">• Deferred Equipment Maintenance Issues• Backlogs of Temporary Conditions and Operator Work-arounds• Other	Jack Spencer
2:00 p.m. - 2:30 p.m.	Pre-Startup/Post-Startup Work item Classification and Post-Startup Backlog Disposition	Jack Spencer
2:30 p.m. - 3:00 p.m.	Comments Regarding CP&L's July 23 Submittal to the NRC	Stewart Ebnetter

PERFORMANCE IMPROVEMENT PROGRAM
SHORT TERM ACTIONS
(REQUIRED PRE-STARTUP)

ITEM NO.	DESCRIPTION	COMPLETION SCHEDULE
A - Equipment Corrosion Problems		
A1	Complete corrosion repairs to existing service water lubrication water piping supports. [DESIGN COMPLETE, FIELD WORK COMPLETE ON 88 OF 144 ITEMS]	Prior to Start-up
A2	Perform a third-party walkdown of non-pipe support short term structural integrity items and pipe supports in areas with high corrosion potential to validate design assumptions. Address any identified deficiencies in accordance with the methodology in Enclosure 2. [CORROSION WALKDOWNS COMPLETE, NO REPAIR ISSUES NOTED]	**COMPLETE**
A3	Address corrosion repairs of seismic instrument racks in accordance with the methodology in Enclosure 2. [8 RACKS EACH UNIT. DESIGN ISSUED FOR 4 RACKS. 3 REMOVED WITH REPLACEMENTS IN FABRICATION]	Prior to Start-up

PERFORMANCE IMPROVEMENT PROGRAM
SHORT TERM ACTIONS
(REQUIRED PRE-STARTUP)

B - Deferred Equipment Maintenance Issues		
B1	Correct the 480 VAC emergency bus feeder breaker spring tension. [TOTAL OF 58 BREAKERS. 3 REFURBISHED TO DATE]	Prior to Start-up
B2	Repair the Unit 1 UPS primary inverter.	Complete
B3	Complete the Unit 1 battery discharge tests. [UNIT 1 BATTERIES BEING CHANGED OUT DURING SPRING OUTAGE]	Complete
B4	Complete the Unit 2 turbine exciter coupling changeout and alignment.	Complete
B5	Install modifications to enhance Unit 2 turbine partial arc operation. [INITIAL WORK SCOPE COMPLETED - REVISED WORK SCOPE TO BE COMPLETED 9/18]	Installation Complete
B6	Complete refurbishing the Unit 2 control valve power packs and changing out turbine electro-hydraulic control system accumulators.	Complete
B7	Complete inspection of cylinder 4L on emergency diesel generator 3.	Complete
B8	Replace the 2B reactor feed pump wear ring.	Complete
B9	Repair the 1B control rod drive pump.	Complete
B10	Replace current transformers in the emergency busses that would require a dual unit outage.	Complete
B11	Modify main stack radiation monitor isokinetic sampling probe.	**COMPLETE**

PERFORMANCE IMPROVEMENT PROGRAM
SHORT TERM ACTIONS
(REQUIRED PRE-STARTUP)

C Potential Structural Deficiencies		
C1	Complete Unit 1 and Unit 2 Drywell Phase 2 miscellaneous steel walkdowns and Unit 1 and Unit 2 Reactor Building Phase 1 Miscellaneous steel walkdowns. Complete preliminary bounding load studies. Address repairs, as required in accordance with the methodology in Enclosure 2. [UNIT 2 REACTOR BUILDING PHASE I WALKDOWN 96% COMPLETE. UNIT 2 DRYWELL PHASE 2 WALKDOWN 10% COMPLETE. IRREGULARITIES BEING EVALUATED - NO OPERABILITY ISSUES IDENTIFIED TO DATE]	Prior to Start-up
C2	Repair of five reinforced concrete non-load bearing wall panels in the diesel generator building to restore them to their design configuration. [PHYSICAL WORK COMPLETE - FINAL ENGINEERING REVIEW IN PROGRESS]	Prior to Start-up
C3	Complete repairs to structural angle restraints for diesel generator building block walls to restore the walls to their design configuration. [PHYSICAL WORK COMPLETE - FINAL ENGINEERING REVIEW IN PROGRESS]	Prior to Start-up
C4	Perform a design review and a field inspection review, when necessary, of the non-safety masonry walls at the Brunswick Plant to verify the walls are appropriately classified. Address any identified deficiencies in accordance with the methodology in Enclosure 2. [REVIEWS COMPLETE. UPGRADES IDENTIFIED. DESIGNS IN PROGRESS]	Prior to Start-up
C5	Remove accessible non-functional through-bolts and install cover plates over the holes in the diesel generator building walls.	Complete
C6	Perform an integrity inspection (i.e., for cracks, general condition) of unreinforced masonry walls that are classified as safety-related. Address any identified deficiencies in accordance with the methodology in Enclosure 2. [WALKDOWN COMPLETE. EVALUATIONS NEARING COMPLETION]	Prior to Start-up

PERFORMANCE IMPROVEMENT PROGRAM
SHORT TERM ACTIONS
(REQUIRED PRE-STARTUP)

C - Potential Structural Deficiencies		
C7	Complete repairs of upgrading seismic classification walls in the control building (elevation 49 foot) that have been determined to be required post-earthquake for control room habitability requirements. [COMPLETE EXCEPT FOR WALL 6C WHICH IS IN PROGRESS]	Prior to Start-up
C8	Perform a review of IE Bulletin 80-11 program for the Brunswick Plant. The review will address existing masonry wall functions including missile barrier, tornado barrier, ventilation barrier, or other functions for which it is not analyzed. Address any identified deficiencies in accordance with the methodology in Enclosure 2. [REVIEWS COMPLETE. UPGRADES IDENTIFIED. DESIGNS IN PROGRESS]	Prior to Start-up
C9	Complete long term qualification of the emergency diesel generator exhaust line supports to include tornado loading requirements. [WORK COMPLETE - 3 SUPPORTS OPERABLE, 1 FUNCTIONAL PENDING CALCULATION REVIEW]	Prior to Start-up
C10	Review the IE Bulletin 79-02 (Pipe Support Anchor) Program to ensure compliance and to ensure methods of inspection used would have detected deficient bolt installation. [REVIEW COMPLETE, VALIDITY OF PROGRAM CONFIRMED]	**COMPLETE**
C11	Complete field inspections to assure that calculations supporting interim seismic operability of the service water system pumps are valid. Address any identified deficiencies in accordance with the methodology in Enclosure 2. [REVIEW COMPLETE. INTERIM PUMP OPERABILITY CONFIRMED]	**COMPLETE**
C12	Perform a third-party review of the short term structural integrity program to address evaluation techniques, field validation of critical assumptions, and a review of communications from the Technical Support organization to the Engineering organization. Address any identified deficiencies in accordance with the methodology in Enclosure 2. [THIRD PARTY REVIEW COMPLETE. REPORT UNDER REVIEW]	Prior to Start-up

PERFORMANCE IMPROVEMENT PROGRAM
 SHORT TERM ACTIONS
 (REQUIRED PRE-STARTUP)

C - Potential Structural Deficiencies		
C13	Complete repairs of recirculation system ring header hangers. [SPRING CAN WORK IN PROGRESS. 7 OF 9 COMPLETE UNIT 2, 2 OF 9 COMPLETE UNIT 1. SNUBBER SUPPORT UPGRADE DESIGNS TO BE ISSUED IN AUGUST]	Prior to Start-up
C14	Complete design and installation of additional pipe supports for the service water lubrication water piping. [88 OF 144 COMPLETE. TARGET COMPLETION DATE IS 9/1]	Prior to Start-up
C15	Address seismic repairs of electrical motor control centers in accordance with the methodology in Enclosure 2. [PHYSICAL WORK COMPLETE. ALL MCCs OPERABLE]	**COMPLETE**

PERFORMANCE IMPROVEMENT PROGRAM
SHORT TERM ACTIONS
(REQUIRED PRE-STARTUP)

D - Backlogs of Temporary Conditions and Operator Work-Arounds		
D1	Temporary conditions involving short term structural integrity items will be reduced in accordance with the methodology in Enclosure 2. [47 COMPLETE]	Prior to Start-up
D2	Temporary conditions other than short term structural integrity items will be reduced in accordance with the methodology in Enclosure 2. [43 COMPLETE]	Prior to Start-up
D3	Reduce the number of operator work-around items (disabled annunciators, RTGB indicator deficiencies, and caution tags) in accordance with the methodology in Enclosure 2. [204 COMPLETE]	Prior to Start-up
D4	Reduce the outage backlog of corrective maintenance in accordance with the methodology in Enclosure 2. [4119 COMPLETE]	Prior to Start-up
D5	Reduce the outage backlog of preventative maintenance in accordance with the methodology in Enclosure 2. [WORK IN PROGRESS]	Prior to Start-up

PERFORMANCE IMPROVEMENT PROGRAM
SHORT TERM ACTIONS
(REQUIRED PRE-STARTUP)

E - Equipment Deficiencies Discovered During Walkdowns		
E1	Perform hot side walkdown inspections. Address any identified deficiencies in accordance with the methodology in Enclosure 2.	Walkdown Complete
E2	Perform cold side walkdown inspections. Address any identified deficiencies in accordance with the methodology in Enclosure 2.	Walkdown Complete
[APPROX 2000 IRREGULARITIES IDENTIFIED FROM HOT AND COLD SIDE WALKDOWN. WORK SCOPE IDENTIFIED AND IN PROGRESS FOR APPROX 1500. APPROX 500 UNDER EVALUATION.]		

PERFORMANCE IMPROVEMENT PROGRAM
SHORT TERM ACTIONS
(REQUIRED PRE-STARTUP)

F - Other		
F1	Correct leakage on a feedwater check valve hinge pin and a main steam isolation valve (MSIV) packing (total was less than 50 percent of Technical Specification allowed limit) and a nitrogen leak on a drywell cooler, which was identified during Unit 1 drywell inspections. [F010A AND B TO BE CHANGED OUT PRIOR TO UNIT 1 STARTUP. UNIT 2 VALVES REPLACED FALL 91 OUTAGE]	Complete
F2	Complete repairs to neutron monitoring detectors in accordance with the methodology in Enclosure 2. [UNIT 1 - 3 OF 3 IRMs REPAIRED, 3 OF 11 LPRMs REPAIRED. UNIT 2 - 1 OF 1 SRM REPAIRED, 1 OF 3 IRMs REPAIRED, 4 OF 8 LPRMs REPAIRED.]	Prior to Start-up
F3	Complete the Unit 1 secondary containment isolation test scheduled for the next refueling outage (Reload 8).	Complete
F4	Complete 4kV bus crosstie modification (part of 10 CFR 50.63 implementation). [PHYSICAL WORK COMPLETE. ACCEPTANCE TESTING SCHEDULED TO COMPLETE 8/17]	Prior to Start-up

BRUNSWICK NUCLEAR PROJECT

OUTAGE PROGRESS SUMMARY AS OF AUGUST 6, 1992

WORK ITEM	April 21		Emergent		Total	
	Existing	Complete	Added	Complete	Work Items	Completed
Short Term Structural Integrity	212	47	12	0	224	47
Unit: Temporary Conditions	204	35	17	8	221	43
Temporary Caution Tags U1	80	15	16	0	98	15
Temporary Caution Tags U2	60	25	24	15	84	40
Disabled Annunciators U1	20	2	1	0	21	2
Disabled Annunciators U2	20	1	1	0	21	1
Reactor-Turbine Generator Board - Unit 1	80	63	24	4	104	67
Reactor-Turbine Generator Board - Unit 2	71	60	46	17	117	77
Outage Work Request/Job Orders - Unit 1	783	212	581	155	1364	367
Outage Work Request/Job Orders - Unit 2	673	346	677	230	1350	576
Non-Outage Work Request/Job Orders - Unit 1	993	328	1673	807	2666	1135
Non-Outage Work Request/Job Orders - Unit 2	1582	777	2415	1264	3997	2041

BRUNSWICK NUCLEAR PROJECT

PRE-STARTUP EXCEPTION METHODOLOGY

▶ SCOPE

▶ PROCESS

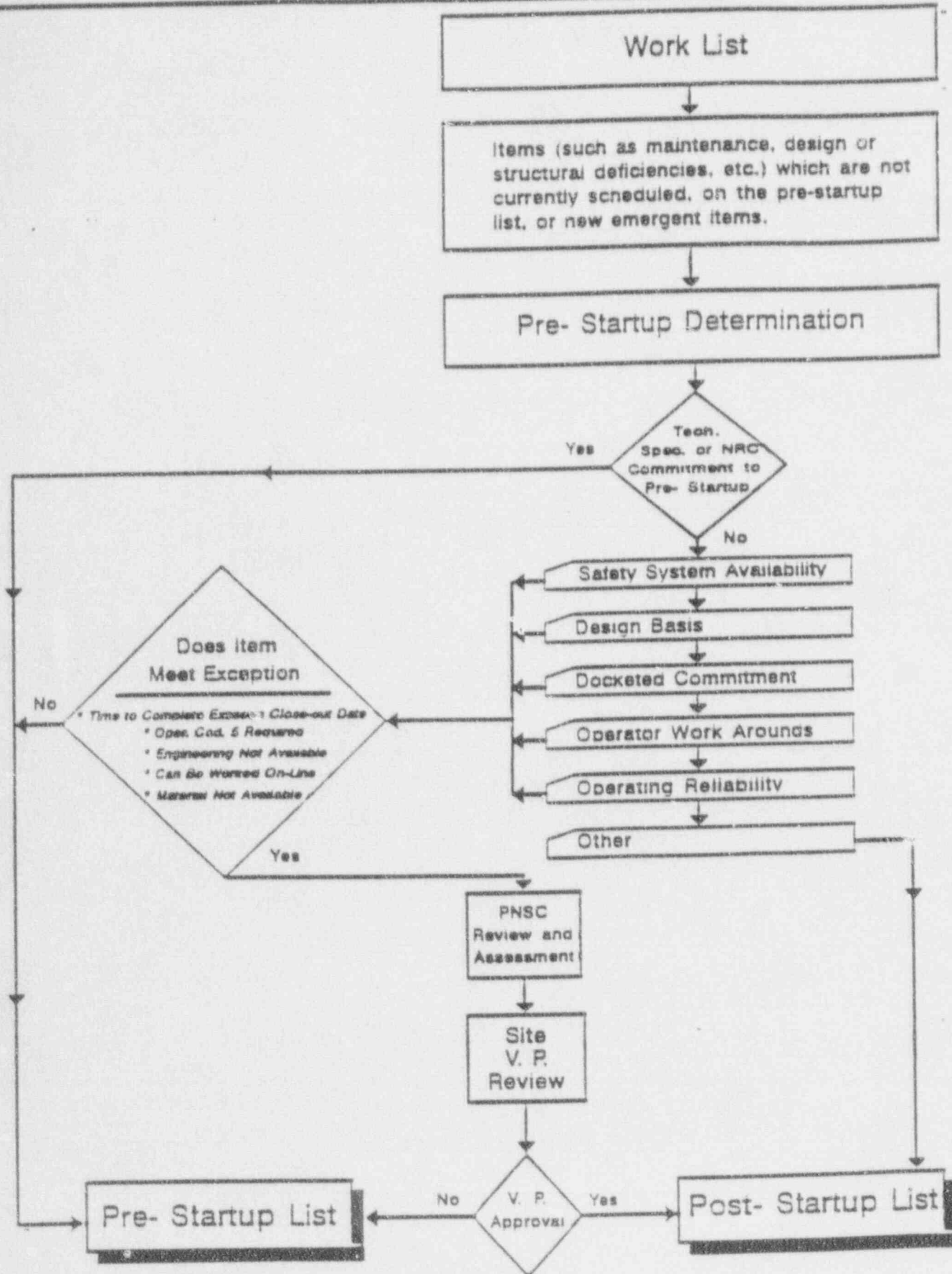
PRE-SCREENING

BACKLOG REVIEW COMMITTEE

PLANT NUCLEAR SAFETY COMMITTEE

SITE MANAGER

Logic Process For Distinguishing Pre- and Post- Startup Work Items



BRUNSWICK NUCLEAR PROJECT

POST-STARTUP BACKLOG DISPOSITION

- ▶ POST-STARTUP BACKLOG ORGANIZATION
- ▶ WORK PROCESS IMPROVEMENTS
- ▶ RISING STANDARDS SPECIFIC TO BACKLOGS