U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-397/87-22

Docket No. 50-397

License No. NPF-21

Licensee: Washington Public Power Supply System
P. O. Box 968
Richland, Washington 99352

Facility Name: Washington Nuclear Project No. 2 (WNP-2)

Meeting at: Region V Office

Meeting Conducted: July 20, 1987

Prepared by: C. W. Caldwell — 8/13/87
C. W. Caldwell, Project Inspector — Date Signed

Approved by: C. W. Caldwell for P. H. Johnson — 8/13/87
P. H. Johnson, Chief — Date Signed
Reactor Projects Section 3

Summary:

A Management Meeting was held on July 20, 1987, to discuss the Supply System's actions in accordance with the Confirmation of Action Letter (CAL) dated July 6, 1987.

DETAILS

1. Management Meeting Participants

NRC Participants

J. B. Martin, Regional Administrator
J. L. Crews, Senior Reactor Engineer
D. F. Kirsch, Division Director
R. P. Zimmerman, Chief, Reactor Projects Branch
R. B. Samworth, Licensing Project Manager
P. H. Johnson, Chief, Reactor Projects Section 3
C. W. Caldwell, Project Inspector

WPPSS Participants

D. W. Mazur, Managing Director
A. L. Oxsen, Assistant Managing Director for Operations
C. H. McGilton, Manager of Operational Assurance
L. T. Harrold, Manager of Generation Engineering
C. M. Powers, WNP-2 Plant Manager

Bonneville Power Administration

D. L. Williams, Nuclear Engineer

State of Washington

W. Miller, Chairman, Compliance Committee, EFSEC
A. Mohseni, Nuclear Engineer, State Office of Radiation Protection

2. Management Meeting

On July 20, 1987, a management meeting was held at the Region V Office with the individuals identified in paragraph 1 in attendance. The purpose of the meeting was to discuss the Supply System's findings from the actions described in the Confirmation of Action Letter (CAL) that was issued on July 6, 1987. The meeting convened at 9:15 a.m.

On July 6, 1987, a CAL was issued by Region V to document licensee actions initiated in response to a number of events that occurred at the site upon return to service after the second refueling outage. Included in these events were five recent reactor trips. The CAL confirmed Supply System management's intent to accomplish the following actions prior to restart:

A. Perform an evaluation of the effectiveness of the post-trip review and root cause assessment programs with particular emphasis on the Supply System staff's apparent willingness to proceed with plant operation without fully understanding the cause of problems encountered.

B. Reevaluate the root cause of problems encountered during the startup program, including but not limited to those identified in the enclosure to the CAL.

C. Perform an assessment of major work items accomplished during the recent refueling outage to assure the readiness of plant components, particularly electrical systems, for continued plant operation.

D. Review the implementation of the root cause analysis program, particularly including the steps to be taken following equipment failures to ensure that that potential cause factors are not disturbed before the cause of the failure is clearly determined.

Mr. Mazur opened with a summary of the events that lead to the plant shutdown, the reviews that the Supply System performed, and the corrective actions that were implemented as a result.

After introductory remarks, Supply System representatives made presentations on the following subjects in response to the CAL:

- Timeline of Recent Events
- Principal Items in the Confirmation of Action Letter
- Readiness for Restart Program Principal Elements
- Assessment of Plant Readiness for Restart
- Electrical Work Review Activity
- Major Outage Work Review
- Present Operational Readiness Review
- Post Trip Process
- Root Cause Process
- Assessment of Restart Decisions
- Overview of Other Startup Problems
- Summary

A copy of slides used during the licensee's presentations are enclosed with this report.

In closing, Mr Martin acknowledged the Supply System's efforts with regards to the CAL. He emphasized the continuing need to maintain a self-critical attitude, especially with regards to root cause assessment of events. Mr. Martin suggested that the Supply System further question the adequacy of system designs and the need for increased Engineering review of quality/reliability of equipment and systems.

Mr. Mazur expressed confidence that the plant was ready for operation. He stated that the present plan was for a slow, gradual return to power operation.

The meeting adjourned at 12:30 p.m.

Enclosure:
Selected slides from the licensee's presentations

ENCLOSURE

SLIDES USED DURING THE LICENSEE'S PRESENTATION

W N P - 2

R E A D I N E S S

F O R

R E S T A R T

E V A L U A T I O N

J U L Y 2 0, 1 9 8 7

T I M E L I N E

April 10, 1987	Start Outage
June 19, 1987	Reactor Critical
June 26, 1987	1540 Hrs. - Scram 87-02 (TRN-1)
June 27, 1987	1813 Hrs. - Scram 87-03 (TRN-2)
June 28, 1987	1933 Hrs. - Scram 87-04 (EPA/DEH)
July 2, 1987	1216 Hrs. - Scram 87-05 (MG/Transfer Switch)
July 6, 1987	0546 Hrs. - Scram 87-06.(N1-2)
July 6, 1987	Supply System decision to remain shutdown - Confirmatory Action Letter

PRINCIPLE ITEMS

IN

CONFIRMATORY ACTION

LETTER

1) A) EFFECTIVENESS OF POST-TRIP/ROOT CAUSE PROGRAM

   B) QUALITY OF SCRAM RESTART DECISIONS

2) REEVALUATION OF OTHER (NON-SCRAM) STARTUP PROBLEMS -- GENERIC CAUSES

3) ASSESSMENT OF MAJOR OUTAGE ACTIVITIES TO REAFFIRM READINESS FOR RESTART/CONTINUED OPERATION (ESPECIALLY ELECTRICAL)

4) PROTECTION OF CAUSAL FACTORS TO ENSURE EFFECTIVE ROOT CAUSE ANALYSIS

READINESS FOR
RESTART PROGRAM
PRINCIPLE ELEMENTS

- SELF-CRITICAL EVALUATION BY PLANT STAFF
- INDEPENDENT EVALUATION OF PLANT ACTIVITIES BY SENIOR SUPPLY SYSTEM MANAGERS
- INPO EVALUATION OF POST-TRIP/ROOT CAUSE PROGRAM
- OVERVIEW OF PROCESS BY ASSISTANT MANAGING DIRECTOR FOR OPERATIONS
- FORMAL PRESENTATION TO MANAGING DIRECTOR
- FORMAL PRESENTATION TO NRC-REGION V
- REFLECTION ON PROCESS/PROGRAMS BY OUTSIDE SENIOR INDUSTRY EXPERTS

ASSESSMENT OF PLANT READINESS FOR RESTART

- MAJOR ELECTRICAL WORK REVIEWED FOR ADEQUACY/IMPACT
- MAJOR OUTAGE WORK REVIEWED FOR PROPER EQUIPMENT RETURN-TO-SERVICE ACTIONS
- PRESENT OPERATIONAL READINESS REVIEWED:
  - MWR REVIEW
  - NCR REVIEW
  - PLANT OPERATIONS DEPARTMENT INPUT
  - PLANT TECHNICAL STAFF INPUT
- CONCLUSIONS:
  - RESTART REVIEW PROCESS REAFFIRMED/IMPROVEMENTS IDENTIFIED
  - PLANT IS READY TO RUN

ELECTRICAL WORK REVIEW ACTIVITY

SCOPE:

- 1800 PM TASKS 4600 MAN-HOURS
- 350 MWRs EXECUTED

REVIEW CRITERIA:

- ADEQUACY OF THE PM PROGRAM
- QUALITY OF CORRECTIVE MAINTENANCE/MODIFICATION WORK
- SKILL LEVEL OF THE CRAFT
- TRAINING OF TEMPORARY ELECTRICIANS ON ASSIGNED TASKS

RESULTS:

- PM PROGRAM IDENTIFIED 30 POTENTIAL PROBLEMS
- CORRECTIVE MAINTENANCE REQUIRED 18 REVISITS
- PROBLEMS UNCOVERED BY PMT PROCESS; PRIOR TO DECLARATION OF OPERABILITY

MAJOR OUTAGE WORK REVIEW

SCOPE:

- 19 MAJOR CORRECTIVE MAINTENANCE MWRs
- 34 MAJOR PLANT MODIFICATION PACKAGES

REVIEW CRITERIA:

- CRITERIA DEVELOPED TO SELECT ACTIVITIES WHICH CHALLENGE OUR EQUIPMENT RETURN TO SERVICE PROCESS
- Q/A INDEPENDENTLY REVIEWED SELECTION CRITERIA AND PACKAGES IDENTIFIED
- CROSS-SECTION IN COMPLEXITY OF MAINTENANCE ACTIVITIES SELECTED

RESULTS:

- DEFENSE IN DEPTH APPROACH TO WORK CONTROL PRACTICES CONFIRMED EQUIPMENT OPERABILITY
- IMPROVEMENTS INDENTIFIED IN CONSISTENCE OF TEST SPECIFICATIONS AND DOCUMENTATION OF RESULTS

PRESENT OPERATIONAL READINESS REVIEW

SCOPE:

- 309 OPEN NCRs REVIEWED
- 170 OPEN MWRs ON PLANT EQUIPMENT REVIEWED

REVIEW CRITERIA:

- POTENTIAL IMPACT ON THE FOLLOWING SELECTED FOR FURTHER EVALUATION
  - PLANT SAFETY
  - OPERABILITY OF COMPONENT
  - RELIABILITY
  - OPERATOR CONVENIENCE
  - NO IMPACT

RESULTS:

- NO PLANT SAFETY OR OPERABILITY IMPACTS IDENTIFIED
- SEVERAL RELIABILITY/OPERATOR CONVENIENCE PACKAGES WORKED

POST TRIP PROCESS

- BASED ON INDUSTRY, INPO, AND OUR OWN EXPERIENCE
- LIVING PROCESS -- RECENT CHANGES INCLUDE:
  - CREW DEBRIEFING WITH PLANT OPERATIONS MANAGER
  - EXPANDED POST-TRIP PARTICIPATION (NSAG, QA)
  - MORE FORMAL DOCUMENTATION
- LESSONS LEARNED:
  - IMPROVE THE QUALITY OF INFORMATION
  - MORE RIGOR IN THE DOCUMENTATION
- CORRECTIVE ACTIONS:
  - FOLLOWUP REVIEW COMMITTEE PRIOR TO RESTART -- IMPROVE QUALITY
  - PEER REVIEW COMMITTEE FOR PERSONNEL PERFORMANCE
  - MORE RIGOR IN DOCUMENTATION:
    - TEST FOR GENERIC ISSUES
    - VERIFY DATA
  - NEW PROCESS HAS BEEN COMMUNICATED TO KEY ELEMENTS OF THE STAFF

ROOT CAUSE PROGRAM

- CURRENTLY EXISTS IN POST-TRIP, LER, AND HPES PROGRAMS
- LESSONS LEARNED -- NO FORMAL SYSTEMATIC PROCESS
- CORRECTIVE ACTION:
  - EVALUATE INPO, SMUD, AND TROJAN'S ROOT CAUSE PROGRAMS
  - DEVELOP FORMAL PROGRAM WITH IMPLEMENTATION PROCEDURES
  - TRAIN EVER-EXPANDING NUCLEUS OF INDIVIDUALS
  - IMPLEMENT PROGRAM AT A HIGH LEVEL (SCRAM/LER/HPES) AND EVENTUALLY EXPAND TO NCRS, MWRS, PERFORMANCE MONITORING, ETC.

ASSESSMENT OF RESTART DECISIONS

- SCRAM 87-03 (TRN-2) COULD HAVE BEEN PREVENTED BY A MORE DETAILED EVALUATION OF SCRAM 87-02 (TRN-1)

- NO "COMMON CAUSE" BETWEEN SCRAMS 87-03 (TRN-2), 87-04 (EPA/DEH), 87-05 (MG/SWITCH), AND 87-06 (N1-2)

- NO "COMMON CAUSE" ROOTED IN OUTAGE SCOPE, PERFORMANCE, OR PROGRAM CONTROLS

- LESSONS LEARNED:
  - "COMMON CAUSE" IN ATTENTION TO DETAIL -- LOWER DISCRIMINATER FOR ROOT CAUSE PROGRAM
  - SCRAM 87-02 AND 87-03 -- TEST SWITCH/BPA INTERFACE; OIL SAMPLE RESULTS
  - SCRAM 87-04 -- REPLACEMENT OF DEH SWITCH DURING RF87A

OVERVIEW OF OTHER STARTUP PROBLEMS

- RE-EXAMINED CORRECTIVE ACTIONS FOR EACH CITED PROBLEM
- EXPANDED REVIEW TO OTHER EVENTS AND DIFFICULTIES EXPERIENCED DURING RESTART
- NSAG REVIEW OF SHIFT MANAGER'S LOG FOR PROBLEM RESOLUTION
- CONCLUSIONS:
  - APPLY OUR ROOT CAUSE PROCESS TO A LOWER LEVEL OF PROBLEMS TO IDENTIFY AND RESOLVE PRECURSOR EVENTS
  - AGGRESIVELY FOLLOW-THROUGH ON IDENTIFIED CORRECTIVE ACTIONS
  - TEST FOR GENERIC IMPLICATIONS
  - STRENGTHEN INTERFACE WITH OUTSIDE SUPPORT ORGANIZATIONS

S T A R T U P P R O B L E M S

(N R C)

	Problem (Cause)	Corrective Action(s)
06/20/87 AND 06/29/87	Instrument Valves Isolated (valves not labeled)	• Label valves • List valve numbers in procedure • Improve independent verification • 100% reverification of instrument valves
06/25/87	TIP Indexer (internal misalignment)	• Realign spare indexer
07/01/87	Steam Leak RH/Stop (improper torque method. I.E., torque/not compression)	• Replace gasket, torque, and check for compression • Verify similar flanges for proper compression • Upgrade torquing procedure
07/04/87	LP Turbine Rupture Disc (procedural guidance)	• Replace rupture disc • Upgrade procedures • Improve boiler operation • Provide over-pressure alarm
07/05/87	Generator Anti-Monitoring (MW feedback loop)	• Short-term: Select higher load reference and rate • Improve MW feedback circuitry • Based on above, upgrade procedure
	500 KV Breaker Failure (relay operation/breaker) alignment)	• Readjust breaker/relay • Test circuitry • Long-Term: Improve secondary generator protection

STARTUP PROBLEMS

(ADDITIONAL)

06/06/87	RRC-P-1A CASING LEAK (INCORRECT VENDOR MANUAL)	• REPLACE GASKET • UPGRADE VENDOR MANUAL • UPGRADE BILL OF MATERIAL • INDEPENDENT INVESTIGATION
06/21/87	RCIC EGR (EGR FAILURE/ TAPE IN COIL)	• REPLACE EGR AND CALIBRATE (06/24/87) • DUE TO DIFFICULTY IN NULLING, REPLACE AND RECALIBRATE (07/16/87)
06/21/87	RRC-V-23A LEAK (IMPROPER TORQUING	• RETORQUE TO ENSURE GASKET COMPRESSION
06/22/87	CIA-V-39A/B (DESIGN/ APPLICATION)	• CLEAN AND INSPECT • REPLACEMENT IN THIRD REFUELING OUTAGE

PROTECTION OF CAUSAL FACTORS

- CAUSAL FACTORS WERE GENERALLY MAINTAINED FOR ALL SCRAM INVESTIGATIONS

- NO FORMAL PROGRAM TO ENSURE PROTECTION OF CAUSAL FACTORS EXISTED

- PPMs 1.3.5, REACTOR TRIP AND RECOVER, AND 1.3.42, TROUBLESHOOTING PLANT SYSTEMS AND EQUIPMENT, HAVE BEEN MODIFIED TO PROVIDE PROTECTION

- NEW PROGRAM HAS BEEN COMMUNICATED TO KEY ELEMENT OF THE STAFF

S U M M A R Y

- WE BELIEVE EVERY SCRAM CAN BE PREVENTED
- WE ARE PURSUING AGGRESSIVE PROACTIVE RELIABILITY IMPROVEMENTS
  - PM PROGRAM ADJUSTMENTS BASED UPON EQUIPMENT HISTORY
  - PERFORMANCE MONITORING PROGRAM TO ANTICIPATE UNACCEPTABLE IMPACTS TO PLANT RELIABILITY
  - CAPITAL IMPROVEMENT PROGRAM DIRECTED AT RELIABILITY ISSUES
  - WIDER APPLICATION OF ROOT CAUSE ANALYSIS PROGRAM
  - MORE COMPLETE PURSUIT OF GENERIC IMPLICATIONS OF FAILURES
- WE WILL NOT ACCEPT THAT FIVE (5) SCRAMS IN TEN (10) DAYS IS SIMPLY UNAVOIDABLE EQUIPMENT FAILURE
- OUR PROGRAMS AND PERFORMANCE WILL BE STRONGER AS A RESULT OF OUR LAST TWO (2) WEEKS OF SELF-CRITICAL REFLECTION, NAMELY:
  - POST-TRIP REVIEW PROCESS
  - ROOT CAUSE PROGRAM
  - IMPROVED TORQUING PROGRAM
  - IMPROVED INTERORGANIZATIONS CONTROL
  - IMPROVE RESTART REVIEW PROCESS
- WE ARE COMFORTABLE THAT OUR RESTART EVALUATION PROCESS WAS EFFECTIVE AND THE PLANT IS READY FOR SAFE AND RELIABLE OPERATION

COMMITTEE PROCESS

CHARTER:

- PROVIDE INDEPENDENT EVALUATION OF THE POST-TRIP REVIEW AND ROOT CAUSE ASSESSMENT PROGRAM.

- EVALUATE THE RESTART DECISIONS ASSOCIATED WITH SCRAMs 87-02, 03, 04, AND 05 FOR ADEQUATE ROOT CAUSE AND CORRECTIVE ACTION.

- EVALUATE THE COMPLETENESS OF PLANNED ACTIONS PRIOR TO RESTART.

METHODOLOGY:

- o COMMITTEE INTERVIEWED 14 PLANT PERSONNEL 5 ON 1.
- o ASSIGNED INDIVIDUAL SCRAMs TO COMMITTEE MEMBERS.
- o REVIEWED SCRAM DOCUMENTATION
- o REVIEWED PLANT PROCEDURES GOVERNING RESTART.
- o REVIEWED PLANT CORRECTIVE ACTION PLAN.
- o REVIEWED EQUIPMENT HISTORY.
- o REVIEWED PLANT LOGS.
- o IDENTIFIED PROBLEMS FROM PLANT LOGS FOR PERIOD 6/12 - 7/7 TO ENSURE CLOSURE BY NCR, MWR OR WHETHER OR NOT IT WAS CLOSED.
- o COMMITTEE MEMBERS DELEGATED ALL RESPONSIBILITIES AND HAVE BEEN MOBILIZED SINCE JULY 6.
- o MEET DAILY WITH PLANT MANAGER AND ASSISTANT DIRECTOR FOR NUCLEAR OPERATIONS TO PROVIDE STATUS.
- o COMMITTEE EVALUATION WILL BE DOCUMENTED IN A REPORT TO THE PLANT MANAGER.

EVALUATION OF RESTART DECISION

87-02

- INITIAL CAUSE IDENTIFIED AT RESTART WAS INCORRECT
- DECISION WAS BASED UPON OIL SAMPLES
- TRANSFORMER TEMPERATURE DATA OVERLOOKED
- POPPET VALVE OVERLOOKED
- OPERATOR LOG DATA NOT SCRUTINIZED

EVALUATION OF RESTART DECISION

87-03

- DECISION TO RESTART WAS BASED ON REMOVAL OF POPPET VALVES - CORRECT DECISION.

- TRANSFORMER TEMPERATURE DATA OVER-LOOKED.

- OPERATOR LOG DATA NOT SCRUTINIZED.

EVALUATION OF RESTART DECISION

87-04

- IDENTIFICATION OF EPA BREAKER MISALIGNMENT AS CAUSE IS STILL NOT CERTAIN.

- BASED UPON VENDORS JANUARY RECOMMENDATIONS, SWITCHES SHOULD HAVE BEEN REPLACED AT EARLIEST OPPORTUNITY.

- PERFORMANCE OF LOGIC CARD IS CURRENTLY BEING EVALUATED BY GE.

EVALUATION OF RESTART DECISION

87-05

- INITIAL CAUSE CORRECT
- THE DECISION TO RESTART WAS CORRECT

87-06

- THE INITIAL CAUSE OF THE SCRAM IS CORRECT.
- CORRECTIVE ACTION CORRECT TO SUPPORT RESTART.

EVALUATION OF POST-TRIP REVIEW AND ROOT CAUSE ASSESSMENT PROCESS

- IMPROVEMENT NEEDED
- CONVENE TEAM OF EXPERTS PROMPTLY FOLLOWING SCRAM
- STEPS TO PRESERVE EVIDENCE UNTIL PLAN ESTABLISHED
- IMPROVE DOCUMENTATION OF EVALUATIONS
- PROCEDURALIZE THE ROOT CAUSE DETERMINATION PROCESS
- PROVIDE TRAINING IN ROOT CAUSE EVALUATION TECHNIQUES

EVALUATION OF ROOT CAUSE PROCESS

- DEFINED IN PPM 1.3.5, "REACTOR TRIP AND RECOVERY."

- PERFORMED BY SCRAM FOLLOW-UP COMMITTEE IF ROOT CAUSE NOT IMMEDIATELY DETERMINED FOLLOWING THE SCRAM.

- ROOT CAUSE DETERMINATION PROCESS IS NOT STRUCTURED TO ENSURE COMPREHENSIVE AND CONSISTENT EXECUTION.

- MORE COMPLETE DOCUMENTATION IS REQUIRED.

- MAJOR PORTION OF ROOT CAUSE DETERMINATION PROCESS SHOULD PRECEED RESTART DECISION TO STRENGTHEN THE BASIS.

GENESES OF SCRAMS

87-02/
87-03

- LACK OF CONFIGURATION CONTROL

87-04

- FAILURE TO REPLACE PRESSURE SWITCHES FOLLOWING DECEMBER 4, 1986 FAILURE.

87-05

- UNPREDICTABLE EQUIPMENT FAILURE.

87-06

- NOT FULLY RECOGNIZING THE CONSEQUENCES OF FINGER MISALIGNMENT ON NORMAL BREAKER OPERATION

COMMITTEE RECOMMENDATIONS

NEAR TERM

- ESTABLISH REQUIREMENT THAT FOR ALL FUTURE SCRAMS, A COMMITTEE OF EXPERTS WILL BE FORMED TO ASSESS ROOT CAUSE AND INPUT INTO THE RESTART DECISION.

- RESOLVE EPA ISSUES.

- REPLACE RPS DEH PRESSURE SWITCHES

COMMITTEE RECOMMENDATION (CONTINUED)

LONGER TERM

- REVISE PPM 1.3.5, "REACTOR TRIP AND RECOVERY":
  - PROVISIONS FOR SCRAM COMMITTEE OF EXPERTS TO INVESTIGATE ROOT CAUSE AND INPUT TO RESTART DECISION;
  - PROVISIONS FOR PRESERVATION OF EVIDENCE.
- ESTABLISH A FORMAL ROOT CAUSE EVALUATION PROCESS.
- INSTALL NEW IMPROVED LIFE DEH PRESSURE SWITCHES IN R-3.
- DEVELOP GUIDANCE FOR INTENTIONALLY ENTERING A HALF-SCRAM.
- CLARIFY THE BPA/SUPPLY SYSTEM INTERFACE AND RESPONSIBILITIES.
- EXPAND THE RESTART REVIEW PROCESS FOLLOWING MAJOR OUTAGES TO INCLUDE AN ASSESSMENT OF THE PLANT'S CONDITION TO TRANSITION TO AND SUPPORT FULL POWER OPERATION:
  - IDENTIFY AND ASSESS MARGINALLY PERFORMING EQUIPMENT;
  - EVALUATE AGGREGATE EFFECT OF ALL KNOWN EQUIPMENT CONDITIONS.

REVIEW OF PLANT'S READINESS FOR RESTART PROGRAM

- COMMITTEE CONCLUDED THE PLANT'S PLAN WAS COMPREHENSIVE AND COMPLETE.

- RECOMMENDED THE FOLLOWING ADDITIONS TO THE PLAN:

  - EVALUATION OF THE ADEQUACY OF TORQUING REQUIREMENTS
  - DEFINITION OF BPA AND SUPPLY SYSTEM RESPONSIBILITIES

CHECKPOINT ON THOROUGHNESS

REVIEWED CONTROL ROOM LOGS MAY 12, 1987 TO JULY 7, 1987 TO IDENTIFY THOROUGHNESS OF PROBLEM RESOLUTION:

- TOTAL OF 73 PROBLEMS LOGGED IN TIME PERIOD
- 55 WERE EASILY DETERMINED TRACEABLE TO MWR OR NCR/PDR
- REMAINING 18 TURNED OVER TO PLANT FOR FOLLOW-UP RESOLUTION
- CONCLUSION - ALL WERE BEING SATISFACTORILY TRACKED TOWARD DISPOSITION