APPENDIX B

ISSUE SCREENING

Use the following instructions and Figures 1, 2, and 3 to determine if (1) an issue of concern has significance to warrant further analysis and/or documentation; (2) a finding has a cross-cutting aspect; (3) a finding is a violation of NRC requirements, and (4) a violation should be cited or non-cited.

Section 1-1. <u>Screen for Performance Deficiency</u>

a. Answer the following questions to determine if the issue of concern is a performance deficiency:

   1. Was the issue of concern the result of the licensee's failure to meet a requirement or a standard? Note: A performance deficiency can exist if a licensee fails to meet a self-imposed standard or a standard required by regulation.

   2. Was the cause reasonably within the licensee's ability to foresee and correct and should have been prevented?

b. If the answer to both of the performance deficiency questions is "Yes," then go to Section 1-2 to screen for traditional enforcement.

c. In rare cases, if the answer to either of the performance deficiency questions is "No," and the issue of concern is a violation, work with the Office of Enforcement through the Regional Enforcement Coordinator to determine the severity level of the violation. Go to Section 0612-07 for documentation guidance.

d. If the answer to either of the performance deficiency questions is "No," and the issue of concern is not a violation, then the issue of concern is not generally documented. Go to Section 0612-11 for documentation guidance.

e. If additional information is needed to determine if the issue of concern is a performance deficiency then the issue is an unresolved item (URI) and should be documented in accordance with Section 0612-08 of this manual chapter.

Section 1-2. <u>Screen for Traditional Enforcement</u>

The inspector is expected to refer to the Enforcement Policy/Manual for guidance on addressing the following questions:

- Does the issue have actual or potential safety consequence (e.g., overexposure, actual radiation release greater than 10 CFR Part 20 limits, credible scenarios with potentially significant actual consequences)?

- Does the issue have the potential for impacting the NRC's ability to perform its regulatory function? For example, a failure to provide complete and accurate information or failure to receive NRC approval for a change in licensee activity, or failure to notify NRC of changes in licensee activities, or failure to perform 10 CFR 50.59 analyses etc.

- Has the Office of Investigations determined that there were willful aspects of the violation?

a. If the answer to any of the enforcement questions is "Yes," then the issue of concern should be addressed by traditional enforcement. Go to Figure 2 and Section 2-1 of this appendix.

b. If the answer to all of the enforcement questions is "No," then continue to Section 1-3.

Section 1-3. <u>Screen for More Than Minor - ROP</u>

a. Review the examples of minor issues in Appendix E. If the performance deficiency is similar to a "minor" example description, then the performance deficiency is minor. Go to Section 0612-11 for documentation guidance.

b. If the performance deficiency is similar to the "not minor if" statement of an example in Appendix E , then answer the questions in c below to verify the performance deficiency is more than minor.

c. If the performance deficiency is not similar to a minor example in Appendix E, answer the following questions:

1. Could the performance deficiency be reasonably viewed as a precursor to a significant event?

2. If left uncorrected would the performance deficiency have the potential to lead to a more significant safety concern?

3. Does the performance deficiency relate to a performance indicator (PI) that would have caused the PI to exceed a threshold?

4. Is the performance deficiency associated with one of the cornerstone attributes listed at the end of this attachment and did the performance deficiency adversely affect the associated cornerstone objective?

5. Does the performance deficiency relate to any of the following maintenance risk assessment and risk management issues?

(a) Licensee risk assessment failed to consider risk significant SSCs and support systems (included in Table 2 of the plant specific Phase 2 SDP risk-informed inspection notebook) that were unavailable during the maintenance.

(b) Licensee risk assessment failed to consider unavailable SSCs such as Residual Heat Removal Systems (PWR and BWR) that prevent or mitigate Interfacing System LOCAs.

(c) Licensee risk assessment failed to consider SSCs that prevent containment failure such as containment isolation valves (BWR & PWR), BWR drywell/containment spray/containment flooding systems, and PWR containment sprays and fan coolers.

(d) Licensee risk assessment failed to consider unusual external conditions that are present or imminent (e.g, severe weather, offsite power instability).

(e) Licensee risk assessment failed to consider maintenance activities that could increase the likelihood of initiating events such as work in the electrical switchyard (increasing the likelihood of a loss of offsite power) and RPS testing (increasing the likelihood of a reactor trip).

(f) Licensee risk assessment failed to consider the uncompensated removal or impairment of plant internal and/or external flood barriers.

(g) Licensee risk assessment failed to account for any unavailability of a single train of a system (primary or back-up) that provides a shutdown key safety function.

(h) Licensee's risk assessment has known errors or incorrect assumptions that have the potential to change the outcome of the assessment.

(i) Licensee failed to implement any prescribed significant compensatory measures or failed to effectively manage those measures.

d. If the answer to any of the "more than minor" questions above is "Yes," then the performance deficiency is a finding. Continue to Section 1-4 to determine the significance of the finding.

e. If the answer to all of the "more than minor" questions is "No," then the performance deficiency is minor. Stop. Go to Section 0612-11 for documentation guidance.

Section 1-4. <u>Significance Determination - SDP</u>

a. Determine the significance of the finding using the Significance Determination Process (SDP) in accordance with IMC 0609.

b. If the finding is determined to be Green and is NRC-identified or self-revealing, proceed to Section 1-5 to determine if a cross-cutting aspect should be assigned to the finding.

c. If the finding is determined to be Green and is licensee-identified, go to Section 0612-10 for documentation guidance.

d. If the finding is potentially greater than Green, proceed to Section 1-5 to determine if a cross-cutting aspect should be assigned to the finding. The final significance of the finding will be determined in accordance with IMC 0609.

Section 1-5. <u>Screen for Cross-Cutting Aspect(s)</u>

a. Based on the information developed during the inspection, identify the most significant contributor that provides the most meaningful insight into the performance deficiency. Refer to the guidance in IMC 0305, Section 06.07. There should typically be only one principal cause and one cross-cutting aspect associated with each finding. However, on rare occasions it may be appropriate for some unique or complex inspection findings with multiple root causes to be associated with more than one cross-cutting aspect. In these cases, the regional office must obtain concurrence from the NRR Performance Assessment Branch Chief. For the case of a finding with multiple examples, consistent with the Enforcement Manual guidance, it is appropriate for the multiple examples to have the same cross-cutting aspect.

b. Answer the following questions with respect to the most significant contributor of the performance deficiency to determine if the finding has a cross-cutting aspect:

(NOTE: Not all performance deficiencies have cross-cutting aspects.)

1. Is there a reason why the most significant contributor of the performance deficiency is not reflective of current licensee performance?

Consider all of the following questions when answering the above question:

- When did the performance deficiency or event occur?

- If the performance deficiency or event was the result of a latent issue, when did the cause of the performance deficiency occur?

- If the performance deficiency or event was the result of a latent issue, did the licensee have reasonable opportunities to identify the problem?

  Example: An NRC inspection determines that an engineering calculation contains non-conservative assumptions, if this calculation had been reviewed or used in a modification activity within the recent

performance guideline period, then an opportunity is considered to have existed,

- Have programs, processes or organizations changed such that the problem would not reasonably occur today?

If the most significant contributor is not reflective of current plant performance, the finding does not have a cross-cutting aspect.

2. Is the most significant contributor of the performance deficiency similar to one of the cross-cutting aspects described in section 06.07.c of IMC 0305?

   If so, and the most significant contributor reflects current plant performance, then the finding has a cross-cutting aspect.

c. Proceed to Figure 3 and Section 3-1 of this appendix to determine if the finding should be documented as a FIN, NCV or VIO.

Section 2-1 <u>Screen for Severity Level for Traditional Enforcement</u>

a. Work with the Office of Enforcement through the Regional Enforcement Coordinator to determine the severity level of the violation. (Note: In some cases, the severity level of the violation will be based on the significance of the issue associated with the violation as evaluated through an SDP in accordance with IMC 0609.)

b. If the violation is minor or determined to be licensee-identified and is SL IV, go to 0612-11 or 0612-10, respectively, for documentation guidance.

c. If the violation is determined to be SL IV and is NRC-identified or self-revealing, proceed to Section 1-5 to determine if a cross-cutting aspect should be assigned to the finding.

d. If the violation is potentially SL III or higher, then the finding is an AV. Proceed to Section 1-5 to determine if a cross-cutting aspect should be assigned to the finding. The final significance of the finding will be determined in accordance with the Enforcement Policy.

Section 3-1 <u>Screening for Applicable Enforcement Action</u>

a. Determine whether a violation of NRC requirements occurred.

   1. If no violation occurred, then the issue is a FIN. Stop. Go to Section 0612-06 for documentation guidance.

   2. If a violation occurred, continue:

b. If the significance of the violation is potentially greater than Green or potentially

greater than Severity Level IV, then the finding is an apparent violation (AV) with a significance of TBD. The final significance and appropriate enforcement action will be determined in accordance with IMC 0609 and/or the Enforcement Policy. Go to Section 0612-06 for documentation guidance.

c. If the significance of the violation is Green or Severity Level IV, then continue to Section 3-2.

Section 3-2 <u>Screening for Potential Cited Violation</u>

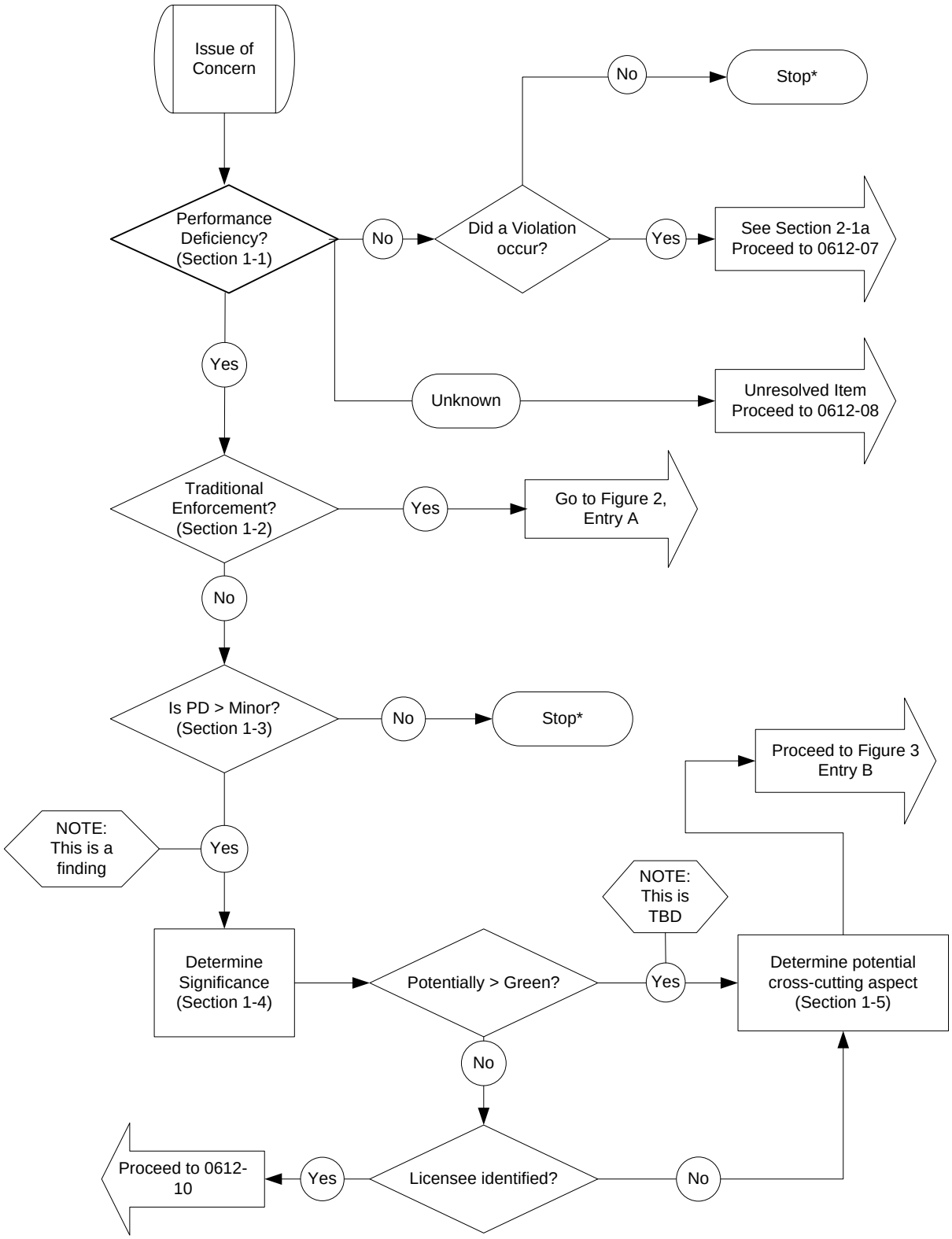
Work with the Office of Enforcement through the Regional Enforcement Coordinator to determine whether the violation should be cited or non-cited. The inspector is expected to refer to the Enforcement Policy/Manual for guidance on addressing the following questions:

- Did the licensee fail to restore compliance?
- Did the licensee fail to enter the violation into their corrective action program?
- Was the violation willful?
- (For traditional enforcement only) Was the violation repetitive and NRC-identified?

a. If the answer to any of the above questions is “Yes”, the violation should be considered for a Notice of Violation. Go to Section 0612-06 for documentation guidance.

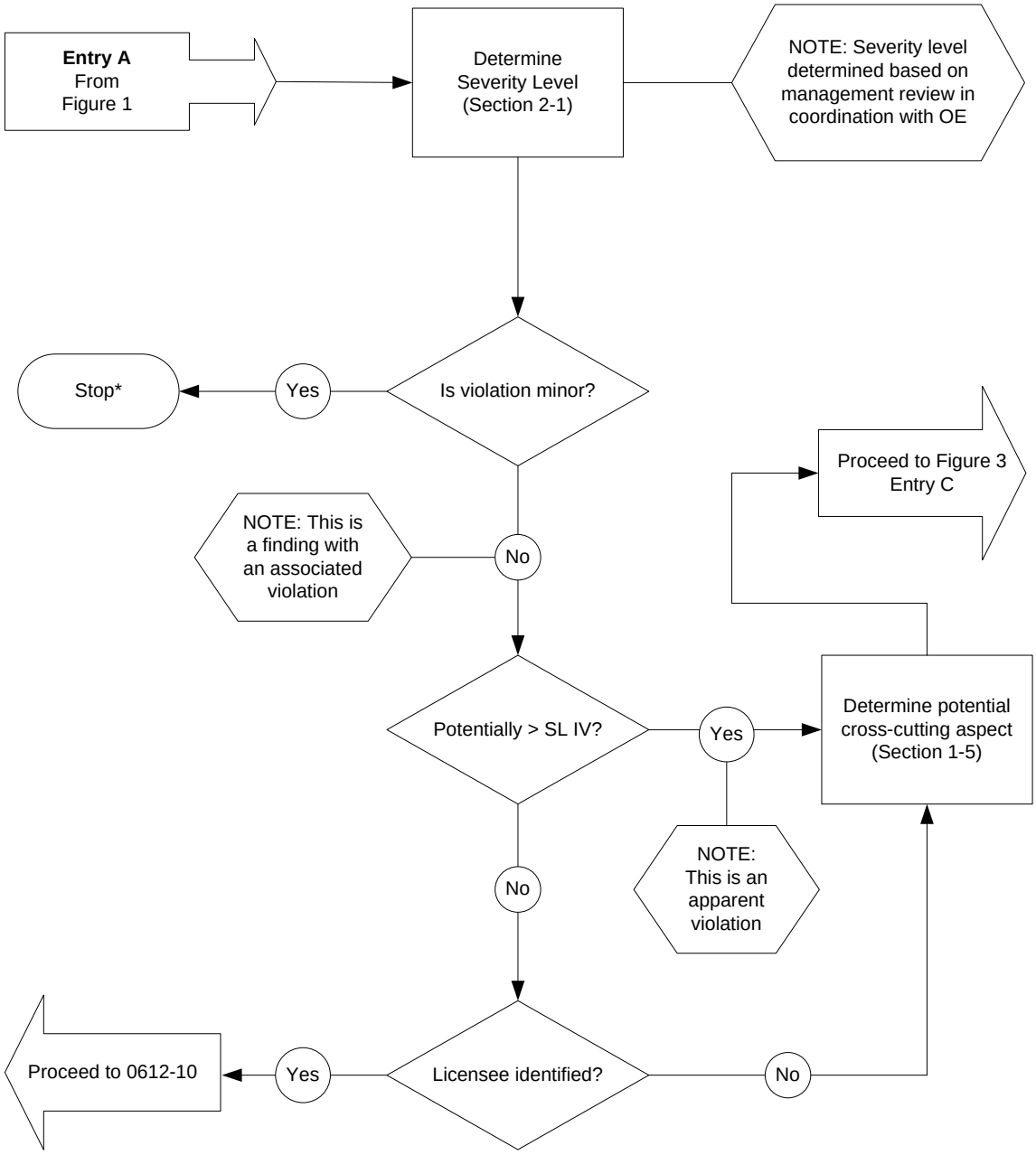
b. If the answer to all of the applicable questions is “No”, the violation may be dispositioned as a non-cited violation. Go to Section 0612-06 for documentation guidance.

Figure 1 – Performance Deficiency and SDP Analysis



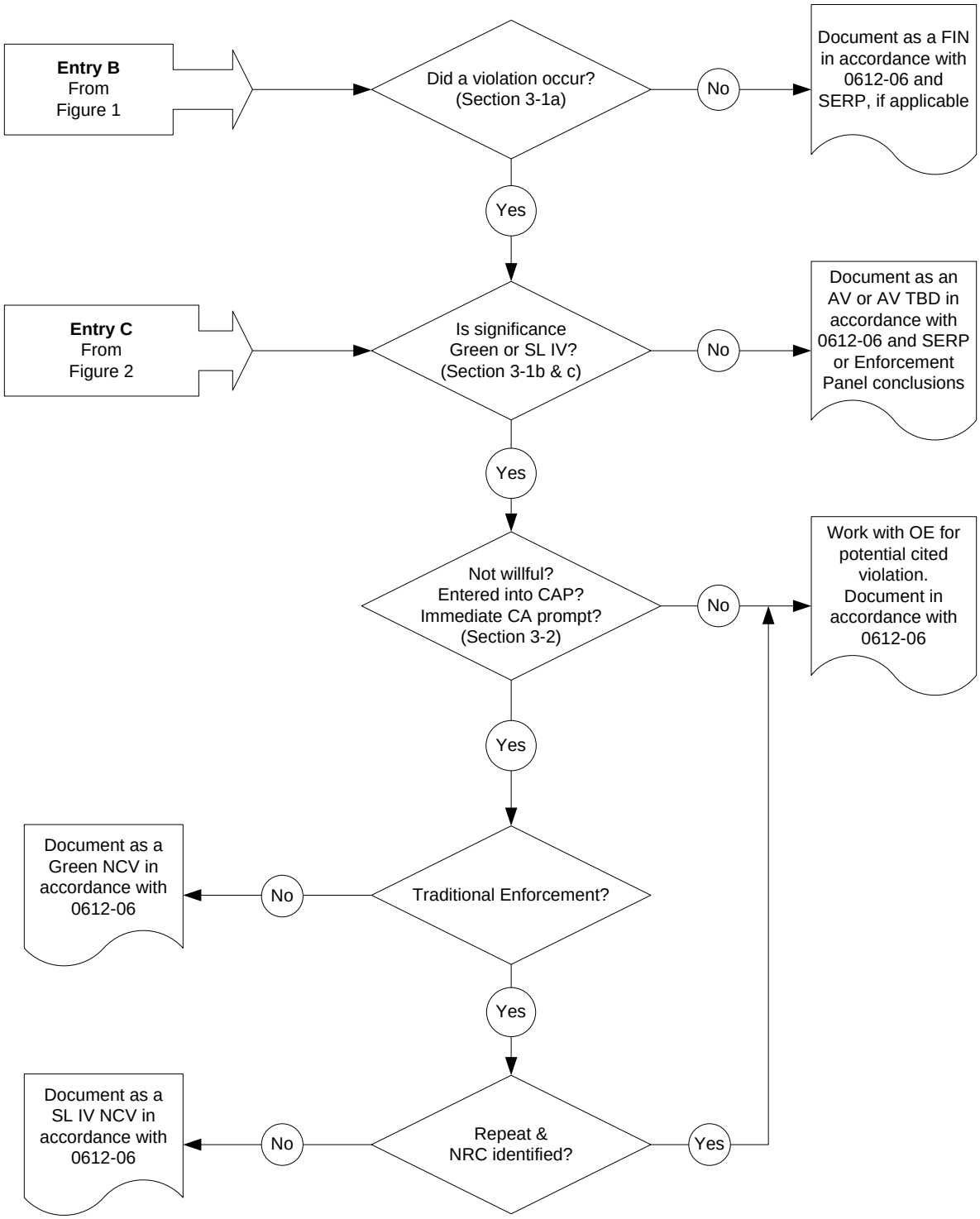
* See Section 0612-11 for documenting minor issues and minor violations

Figure 2 – Traditional Enforcement Analysis



* See Section 0612-11 for documenting minor issues and minor violations

Figure 3 – Applicable Enforcement Action



CORNERSTONE OBJECTIVES AND ATTRIBUTES
(For use with Section 1-3)

Cornerstone: REACTOR SAFETY - Initiating Events

Objective: To limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations.

Attributes:	Areas to Measure:
Design Control:	Initial Design and Plant Modifications
Protection Against External Factors:	Flood Hazard, Fire, Loss of Heat Sink, Toxic Hazard, Switchyard Activities, Grid Stability
Configuration Control:	Shutdown Equipment Lineup, Operating Equipment Lineup
Equipment Performance:	Availability, Reliability, Maintenance; Barrier Integrity (SGTR, ISLOCA, LOCA (S,M,L)), Refueling/Fuel Handling Equipment
Procedure Quality:	Procedure Adequacy (Maint, Test, Ops)
Human Performance:	Human Error

Cornerstone: REACTOR SAFETY - Mitigating Systems

Objective: To ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage).

Attributes:	Areas to Measure:
Design Control:	Initial Design and Plant Modifications
Protection Against External Events:	Flood Hazard, Fire, Loss of Heat Sink, Toxic Hazard, Seismic, Weather
Configuration Control:	Shutdown Equipment Lineup, Operating Equipment Lineup
Equipment Performance:	Availability, Reliability
Procedure Quality:	Operating (Post Event) Procedures (AOPs, SOPs, EOPs); Maintenance and Testing (Pre-event) Procedures
Human Performance:	Human Error (Post Event), Human Error (Pre-event)

Cornerstone: REACTOR SAFETY - Barrier Integrity

Objective: To provide reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events.

(Maintain Functionality of Fuel Cladding)

Attributes:	Areas to Measure:
Design Control:	Physics Testing; Core Design Analysis (Thermal Limits, Core Operating Limit Report, Reload Analysis, 10 CFR50.46)
Configuration Control:	Reactivity Control (Control Rod Position, Reactor Manipulation, Reactor Control Systems); Primary Chemistry Control; Core Configuration (Loading)
Cladding Performance:	Loose Parts (Common Cause Issues); RCS Activity Level
Procedure Quality:	Procedures which could impact cladding
Human Performance:	Procedure Adherence (FME, Core Loading, Physics Testing, Vessel Assembly, Chemistry, Reactor Manipulation); FME Loose Parts, Common Cause Issues

(Maintain functionality of RCS)

Attributes:	Areas to Measure:
Design Control:	Plant Modifications
Configuration Control:	System Alignment; Primary/Secondary Chemistry
RCS Equipment and Barrier Performance:	RCS Leakage; Active Components of Boundary (Valves, Seals); ISI Results
Procedure Quality:	Routine OPS/Maintenance procedures; EOPs and related Off-Normal Procedures invoked by EOPs
Human Performance:	Routine OPS/Maintenance Performance; Post Accident or Event Performance

(Maintain Functionality of Containment)

Attributes:	Areas to Measure:
Design Control:	Plant Modifications; Structural Integrity; Operational Capability
Configuration Control:	Containment Boundary Preserved; Containment Design Parameters Maintained

SSC and Barrier Performance:	S/G Tube Integrity, ISLOCA Prevention; Containment Isolation, SSC Reliability /Availability, Risk Important Support Systems Function
Procedure Quality:	Emergency and Operating Procedures; Risk Important Procedures (OPS, Maintenance, Surveillance)
Human Performance:	Post Accident or Event Performance; Routine OPS/Maintenance Performance

(Maintain Radiological Barrier Functionality of Control Room and Auxiliary Building - PWR, and Standby Gas Trains - BWR only)

Attributes:	Areas to Measure:
Design Control:	Plant Modifications; Structural Integrity
Configuration Control:	Building Boundaries Preserved
SSC and Barrier Performance:	Door, Dampers, Fans, Seals, Instrumentation
Procedure Quality:	EOPs, Abnormal and Routine Operating Procedures, Surveillance Instructions, Maintenance Procedures
Human Performance:	Post Accident or Event Performance; Routine OPS/Maintenance Performance

(Maintain Functionality of Spent Fuel Pool Cooling System)

Attributes:	Areas to Measure:
Design Control:	Plant Modifications; Structural Integrity
Configuration Control:	System Alignment
SSC Performance:	Pumps, Valves, Instrumentation
Procedure Quality:	EOPs, Abnormal and Routine Operating Procedures, Surveillance Instructions, Maintenance Procedures
Human Performance:	Post Accident or Event Performance; Routine OPS/Maintenance Performance

Cornerstone: REACTOR SAFETY - Emergency Preparedness

Objective: To ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency.

Attributes:	Areas to Measure:
ERO Readiness:	Duty Roster; ERO Augmentation System; ERO Augmentation Testing; Training
Facilities and Equipment:	ANS Testing; Maintenance Surveillance and Testing of Facilities, Equipment and Communications Systems; Availability of ANS, Use in Drills and Exercises

Procedure Quality:	EAL Changes, Plan Changes; Use in Drills and Exercises
ERO Performance:	Program Elements Meet 50.47(b) Planning Standards, Actual Event Response; Training, Drills, Exercises
Offsite EP:	FEMA Evaluation

Cornerstone: RADIATION SAFETY - Occupational Radiation Safety

Objective: To ensure the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation.

Attributes:	Areas to Measure:
Plant Facilities/Equipment and instrumentation	Plant Equipment Instrumentation, (ARM Cals & Availability, Source Term Control), Procedures (Radiation Protection and Maintenance)
Program & Process:	Procedures (HPT, Rad Worker, ALARA); Exposure/Contamination Control and Monitoring (Monitoring and RP Controls); ALARA Planning (Management Goals, Measures - Projected Dose)
Human Performance:	Training (Contractor HPT Quals, Radiation Worker Training, Proficiency)

Cornerstone: RADIATION SAFETY - Public Radiation Safety

Objective: To ensure adequate protection of public health and safety from exposure to radioactive materials released into the public domain as a result of routine civilian nuclear reactor operation.

Attributes:	Areas to Measure:
Plant Facilities/Equipment and Instrumentation:	Process Radiation Monitors (RMS) (Modifications, Calibrations, Reliability, Availability), REMP Equipment, Meteorology Instruments, Transportation Packaging; Procedures (Design/Modifications, Equipment Calculations, Transportation Packages, Counting Labs)
Program & Process:	Procedures (Process RMs & REMP, Effluent Measurement QC, Transportation Program, Material Release, Meteorological Program, Dose Estimates); Exposure and Radioactivity Material Monitoring and Control (Projected Offsite Dose, Abnormal Release, DOT Package Radiation Limits, Measured Dose)
Human Performance:	Training (Technician Qualifications, Radiation & Chemical Technician Performance)

Cornerstone: SAFEGUARDS - Security

Objective: To provide assurance that the licensee's security system and material control and accountability program use a defense-in-depth approach and can protect against (1) the design basis threat of radiological sabotage from external and internal threats, and (2) the theft or loss of radiological materials

Attributes:	Areas to Measure:
Physical Protection System:	Protected Areas (Barriers, Alarms, Assessment); Vital Areas (Barriers, Alarms, Assessment)
Access Authorization:	Personnel Screening; Behavior Observations; Fitness for Duty
Access Control:	Search; Identification
Response to Contingency Events:	Protective Strategy; Implementation of Protective Strategy
Material Control and Accounting:	Records; Procedures; Inventories

ATTACHMENT 1

Revision History for APPENDIX B to IMC 0612 - Issue Screening

Commitment Tracking Number	Issue Date	Description of Change	Training Needed	Training Completion Date	Comment Resolution Accession Number
N/A	11/01/2006	Revision history reviewed for the last four years.	NO	N/A	N/A
N/A	04/29/2002 CN 02-021	Appendix B was removed as an attachment to IMC-0612 and was issued as stand alone document.	NO	N/A	N/A
N/A	05/19/2005 CN 05-014	Revised to add Question No. 5 to Minor Questions in Section 3 and Question No. 6 to the SDP Questions in Section 4 to reflect the new maintenance risk assessment and risk management SDP, IMC 0609, Appendix K, “Maintenance Rule Risk Assessment and Risk Management.”	NO	N/A	N/A
N/A	09/30/2005 CN 05-028	Revised to clarify the definition of a performance deficiency and a functionality of the control room. Also, the auxiliary building attribute was added to the cornerstone and objective section.	NO	N/A	N/A
N/A	11/02/06 CN 06-033	Revised definition of performance deficiency to bring the definition in alignment with the basis for performance deficiency as described in ROP basis document, IMC-0308 attachment 3, “Significance Determination Process Basis Document.”	YES	09/06/2006	ML 063000483

N/A	09/20/07 CN 07-029	Revised flow chart and Section 3 guidance to address feedback forms. Corrected formatting error on page B-7.	NO	N/A	N/A
N/A	12/04/08 CN 08-034	Revised Guidance and Flow Chart to be consistent with changes to IMC 0612. Updated Cornerstone Objectives and Attributes to be consistent with IMC 0308.	Yes	12/03/2008	ML083220751