December 9, 2002

MEMORANDUM TO: Christopher I. Grimes, Program Director
Policy and Rulemaking Program
Division of Regulatory Improvement Programs, NRR

FROM: Peter C. Wen, Project Manager ***/RA/***
Policy and Rulemaking Program
Division of Regulatory Improvement Programs, NRR

SUBJECT: SUMMARY OF NOVEMBER 21, 2002, MEETING WITH NUCLEAR ENERGY INSTITUTE ON TOPICS RELATED TO THE EMERGENCY PREPAREDNESS ISSUES

On November 21, 2002, the NRC staff held a publicly observed meeting with the Nuclear Energy Institute (NEI) at NRC headquarters to discuss emergency preparedness related issues. The meeting attendees are listed in Attachment 1.

I. Emergency Preparedness Significance Determination Process

The staff distributed the latest draft revision of NRC Inspection Manual Chapter 0609, Appendix B, Emergency Preparedness Significance Determination Process (Attachment 2). The changes made since the last draft, to incorporate the comments made during the September 12, 2002, meeting, were discussed. (Refer to ADAMS:ML022820168 for that meeting summary). The staff stated that the draft is currently in the process of being distributed to the regional offices for a 30-day comment period.

II. Emergency Action Levels

On October 18, 2002, NEI submitted NEI 99-01, Revision 4, “Methodology of Emergency Action Levels (EALs),” September 2002 version, for staff review and endorsement (ADAMS accession numbers: ML023050207 and ML023050393). This meeting was held to discuss the staff’s comments and questions which were included in the meeting notice (ADAMS accession number: ML023100421).

NEI and industry representatives presented responses to NRC’s comments and questions (Attachment 3). In most instances, clarification of the terminology or expectation for implementation was provided. Initial assessment of most responses was positive, with the exception of the “Release of Toxic or Flammable Gases” issue, that requires further evaluation and assessment. Regarding issues with EALs for Defueled Stations and Independent Spent Fuel Storage Installations, the staff indicated that they are evaluating the need for further Commission guidance on the subject because of the spent fuel pool study.

NEI indicated that it plans to have a workshop on the implementation of NEI 99-01. NEI requested a timeline of the endorsement process to better assess its resource needs and the expectation for licensee submittals. The staff agreed that after evaluating and consulting with management, they will provide NEI with an estimated review schedule.

Representatives of the NRC and the industry agreed that this meeting had been useful for the exchange of information on the discussion topics. Having completed discussion of the agenda items, the meeting was adjourned.

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Attachments: As stated
cc w/att: See next page

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NRC/NEI EMERGENCY PREPAREDNESS MEETING
LIST OF ATTENDEES
November 21, 2002

NAME	ORGANIZATION
Kathy Gibson	NRR/DIPM/IEHB
Tom Blount	NRR/DIPM/IEHB
Robert Kahler	NRR/DIPM/IEHB
Peter Wen	NRR/DRIP/RPRP
Alan Nelson	NEI
Walter Lee	Southern Nuclear
Glenn Miller	PPL Susquehanna
Altheia Wyche	Search Licensing/Bechtel

Attachment 1

Appendix B
Emergency Preparedness
Significance Determination Process

1.0 INTRODUCTION

The framework of the Emergency Preparedness (EP) Cornerstone is described in SECY-99-007 and SECY-99-007a. The Cornerstone Objective and Performance Expectation are the bases for the inspection program and performance indicators. They are repeated here for convenience.

The Emergency Preparedness Cornerstone Objective is to: “Ensure that the licensee is capable of implementing adequate measures to protect the public health and safety in the event of a radiological emergency.”

The Objective is supported by a Performance Expectation: “Demonstrate that reasonable assurance exists that the licensee can effectively implement its emergency plan to adequately protect the public health and safety in the event of a radiological emergency.”

Licensee performance in this cornerstone is assessed by considering the relationship of performance indicators (PIs) with regard to thresholds and the significance of inspection findings. The significance determination process (SDP) provides a method to place inspection findings in context for risk significance in a manner that allows them to be combined with PI results. This information is used to determine the level of NRC engagement in accordance with (IAW) the Reactor Oversight Process Action Matrix (found in Inspection Manual Chapter 0305).

Inspection Manual Chapter 0612 contains criteria for determining which inspection issues should be evaluated through the SDP. The EP SDP is structured such that any finding that enters the SDP will be at least green. The EP SDP is designed such that the significance of a finding reflects: the impact on public health and safety; the potential impact on the public health and safety should an accident occur; or, the impact on the efficacy of the licensee PI response band.

During the development of the EP Cornerstone, the most risk significant EP PROGRAM ELEMENTS were identified as distinct from other EP PROGRAM ELEMENTS. These development efforts were performed by a group of EP subject matter experts, including industry stakeholders, with input from members of the public. The EP SDP methodology recognizes findings in the identified risk significant elements as more significant than findings in other PROGRAM ELEMENTS.

10 CFR Part 50 codifies a set of EP planning standards in 10 CFR 50.47(b) and supporting requirements in Appendix E to Part 50. The SDP logic identifies the LOSS OF PLANNING STANDARD FUNCTION as more significant than noncompliance with administrative REGULATORY REQUIREMENTS. The risk significant elements of EP are a subset of the EP planning standards and supporting requirements. A loss of function of the RISK SIGNIFICANT PLANNING STANDARDS results in a finding of

greater significance than the loss of function of the other planning standards (i.e., a yellow finding vice a white finding.) The stratification of the 10CFR50.47(b) planning standards and supporting requirements in Appendix E to Part 50 are as follows:

- RISK SIGNIFICANT PLANNING STANDARDS (RSPS) 10 CFR 50.47(b)(4), (5), (9) and (10) and related sections of Appendix E.
- planning standards (PS) 10 CFR 50.47(b)(1), (2), (3), (6), (7), (8), (11), (12), (13), (14), (15), and (16) and related sections of Appendix E, and
- other EP related regulations which include various sections of Appendix E not identified in the specific PS sections, 10 CFR 50.54(q), 50.54(t), 50.72, Emergency Plan and other regulatory commitments.

While the EP SDP assigns a color-coded safety significance to findings, it should be understood that a green finding (very low safety significance) does not mean that the performance is acceptable. The finding may represent a violation of a REGULATORY REQUIREMENT. The green determination means that the safety significance of the finding is very low and correction of the item is considered to be within the “licensee response band.”

2.0 DEFINITIONS AND GENERAL GUIDANCE

PLANNING STANDARD (PS) - Sixteen emergency preparedness planning standards found in 10 CFR 50.47(b). Includes the RISK SIGNIFICANT PLANNING STANDARDS and related sections of Appendix E to 10 CFR 50.

RISK SIGNIFICANT PLANNING STANDARD (RSPS) - Any one of the following four Planning Standards found in 10 CFR 50.47(b): 10 CFR 50.47(b)(4), (5), (9) and (10). Includes the related sections of Appendix E to 10 CFR 50.

2.1 Definitions (alphabetical order)

Note: Defined terms are capitalized throughout the text of this appendix.

a. CRITIQUE - For the purposes of this SDP, all formal or documented assessments of a drill or exercise containing PI opportunities.

b. CRITIQUE PROBLEM - CRITIQUE did not identify a drill or exercise WEAKNESS. A finding in this area means that there was a WEAKNESS in a drill or exercise and licensee evaluators failed to identify it.

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c. DEGRADATION OF THE RSPS FUNCTION - PROGRAM ELEMENTS are not adequate or not in compliance, but the function of the RSPS, though degraded, is still met. It may be that (1) certain Plan commitments are not met, (2) the Plan is less than adequate, (3) implementing procedures are not effective, or (4) program design is not fully adequate; but, if the PROGRAM ELEMENT is implemented as designed, it would meet the intended function of the RSPS. "DEGRADATION OF THE RSPS FUNCTION" has been incorporated into the EP SDP to allow an intermediate level of significance (i.e., a white rather than a yellow finding), to be determined where appropriate. Examples of DEGRADATION OF THE RSPS FUNCTION are given for each RSPS in Sections 4.4, 4.5, 4.9 and 4.10 of this Appendix.

d. FAILURE TO COMPLY - A program is in non-compliance with a REGULATORY REQUIREMENT.

e. FAILURE TO IMPLEMENT - FAILURE TO COMPLY with REGULATORY REQUIREMENTS during an actual event where the failure precluded effective *implementation* of PROGRAM ELEMENTS. Most likely it is the result of personnel error. In this case, the PROGRAM ELEMENT is adequate as designed and, if implemented as designed, the program would meet the PS FUNCTION. But, a "FAILURE TO IMPLEMENT" is not always a result of personnel error and may reveal that a PROGRAM ELEMENT itself is not adequate. If this is the case, inspection is appropriate to determine if there is a loss of a PS FUNCTION. Resulting issues would be assessed for significance IAW the criteria for a LOSS OF PS FUNCTION.

f. FULL SCALE DRILL OR EXERCISE - Multiple ERFs participating or simulated with a team of evaluators. It is not limited to the evaluated biennial exercise.

g. INSPECTION CYCLE - The period of time between, and including, sequential biennial evaluated exercises.

h. LOSS OF PLANNING STANDARD FUNCTION - PROGRAM ELEMENTS are not adequate, are in non-compliance with the PSs of 10 CFR 50.47(b) and otherwise not functional to such an extent that the function of the PS is not available for emergency response. It may be that the Plan commitments are not met or are inadequate, implementing procedures are inadequate, program design is inadequate, training is inadequate, etc. The result is that if the PROGRAM ELEMENT was implemented as designed, or personnel are not capable of implementing the PROGRAM ELEMENT, the PS FUNCTION would not be met.

i. PLANNING STANDARD FUNCTION - Defined for each PS. It is not a restatement of the regulations, but rather identifies the significant function of the PS. All regulations must be complied with, but a LOSS OF PS

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FUNCTION may have greater significance than a failure to meet other REGULATORY REQUIREMENTS.

j. PROGRAM ELEMENT - The criteria (e.g., contained in NUREG-0654/FEMA-REP-1 or the licensee's Emergency Plan) that provides specific acceptable methods for complying with the PLANNING STANDARDS of 10 CFR 50.47(b). Note: The failure of a single PROGRAM ELEMENT does not always constitute a LOSS OF PLANNING STANDARD FUNCTION.

k. REGULATORY REQUIREMENT - As used in this Appendix, any EP related requirement, including the planning standards of 10 CFR 50.47(b), Appendix E to 10 CFR 50, the Emergency Plan (Plan), Commission Orders and other commitments.

l. TIME OF DISCOVERY - The time the licensee "knew or should have known" of a problem. This could include some delay after raw data is collected (e.g., an analysis is necessary to realize the problem exists). If an activity (e.g., a surveillance) should have identified the problem, but did not, or the results of the activity were available but not acted on, the licensee "should have known" about the problem. It should be assumed that the problem occurred at the time of its discovery (i.e., "knew") unless there is firm evidence, based on a review of relevant information such as equipment history and the cause of the problem, to indicate that the problem existed previously (i.e., "should have known").

m. WEAKNESS - As applied to emergency preparedness, it is a demonstrated level of performance during a drill or exercise that could have precluded effective implementation of the Emergency Plan in the event of an actual emergency. WEAKNESSES are not confined to performance problems which result in a LOSS OF PS FUNCTION. For example, an inaccurate or untimely classification, notification or PAR development is a WEAKNESS associated with a RSPS (i.e., a DEP PI opportunity failure). However, a WEAKNESS also exists if a performance problem occurs associated with a correct and/or timely classification, notification or PAR development that was anticipated by the scenario (i.e., a DEP PI successful opportunity). For instance, a correct classification may have been made based on misinformation, lack of information or invalid indicators. It is expected that this performance problem be identified as a WEAKNESS associated with a RSPS and critiqued. Thus, if the licensee CRITIQUE fails to identify a performance problem associated with the process of classification, notification or PAR development effort, even though it may have been determined to be a successful DEP PI opportunity per the scenario, it is to be considered a LOSS OF PS FUNCTION 10 CFR 50.47(b)(14). However, since it was a successful PI opportunity and did not affect the outcome of protecting the health and safety of the public, it is of green significance. Failure to correct a WEAKNESS should be analyzed against planning standard 50.47(b)(14) and the Plan for compliance. A failure to identify and/or correct a WEAKNESS associated with an RSPS FUNCTION represents a

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loss of PS 50.47(b)(14) function. The guidance for PS 50.47(b)(14) as it pertains to the correction of WEAKNESSES is provided in Section 5.0 of this attachment. For purposes of this SDP, this includes a deficiency, as the term is used in planning standard 10CFR50.47(b)(14) and Appendix E, Section IV.F.2.g.

2.2 Guidance

a. The NRC Policy Statement on *Safety Goals for the Operations of Nuclear Power Plants*, states that EP is a defense in depth measure. EP and many other elements of reactor safety (e.g., remote siting and containment) are implemented as a matter of prudence rather than in response to a quantitative analysis of accident probabilities. This being the case, the probability of a reactor accident requiring implementation of a licensee's Emergency Plan has no relevance in determining the significance of an EP problem. Rather, in determining the significance of an EP problem, it is assumed that the licensee's Emergency Plan is being implemented in response to an emergency and the impact of the problem assessed against the licensee's ability to effectively implement adequate measures to protect the public health and safety.

b. There are two branches of the EP SDP; "FAILURE TO COMPLY" (Sheet 1), and "Actual Event Implementation Problem" (Sheet 2). Findings should be assessed through both paths, where applicable, and the most significant finding issued. Additionally, some findings have a few contributing issues and each issue should be assessed for significance. Parallel issues (i.e., more than one issue associated with one finding), should be noted in the inspection report, but only the most significant finding is issued. For example, an implementation problem during an actual event may also reveal a LOSS OF PS FUNCTION. If the LOSS OF PS FUNCTION is more significant, it would dictate the color of the finding. Alternately, a FAILURE TO COMPLY with a RSPS may be accompanied by a FAILURE TO COMPLY with a PS. Inclusion of all associated issues in the inspection report provides a complete record and is particularly important should additional information from the licensee cause reconsideration of the preliminary finding (e.g., the FAILURE TO COMPLY with the RSPS but not the FAILURE TO COMPLY with the PS in the above example).

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c. Regulatory Guide 1.101, revision 3, "Emergency Planning and Preparedness for Nuclear Power Reactors", states that the criteria and recommendations contained in Revision 1 of NUREG-0654/FEMA-REP-1 are considered to be acceptable methods for complying with the standards in 10 CFR 50.47 that must be met in onsite and offsite emergency response plans. Further, except in those cases in which the licensee proposes an acceptable alternative method for complying with specific portions of the Commission's regulations, the methods described in Reg Guide 1.101 (e.g., NUREG-0654, NUMARC/NESP-007) will be used in the evaluation of emergency plans.

d. LOSS OF PS FUNCTION is non-compliance with the applicable regulation (e.g., 10 CFR 50.47(b) and Appendix E). However, the regulatory wording of the PS may not be exact and the determination of a LOSS OF PS FUNCTION may not be obvious. The determination of a LOSS OF PS FUNCTION will be based on the criteria provided in this SDP.

There are many elements to a PS and a program may be in non-compliance with some and yet be able to meet the PS FUNCTION. In this case, there may be a noncompliance with the Plan or an inappropriate change to the Plan may have occurred that removed commitments. The PS FUNCTION remains, but a non-compliance exists that should result in a finding.

e. The Enforcement Policy (NUREG-1600) indicates that a failure to make reports required by NRC regulations is an item of noncompliance that cannot be assessed through the SDP process. Under the EP Cornerstone, the failure to classify and notify are integral to the EP SDP and guidance is provided, e.g., a failure to activate ERDS or staff the ENS line during an actual event is a FAILURE TO COMPLY with the requirements of 50.72 and should be considered a FAILURE TO IMPLEMENT under the EP SDP.

Findings that potentially impede the regulatory process (i.e., violations that impact the NRC's ability for oversight of licensee activities), are not to be evaluated through the SDP process. Noncompliances may be significant because they may challenge the regulatory envelope upon which certain activities were licensed. These types of violations include failures to receive prior NRC approval for changes which result in a decrease in effectiveness of the plan (50.54(q) issues). They are to be evaluated in accordance with the guidance in Section IV of the Enforcement Policy (traditional enforcement).

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3.0 ACTUAL EVENT IMPLEMENTATION PROBLEM

Note: Sheet 2 is used when determining the significance of an actual event implementation problem.

Background

This branch of the SDP is used when a FAILURE TO COMPLY with REGULATORY REQUIREMENTS occurs during an actual event. Performance problems exhibited during an actual event should be noted as opportunities to improve, however, there is no regulatory issue unless there was a FAILURE TO COMPLY.

FAILURE TO IMPLEMENT means that there was a FAILURE TO COMPLY in the implementation (only) of PROGRAM ELEMENTS. Generally, FAILURE TO IMPLEMENT is the result of personnel errors. A PROGRAM ELEMENT is adequate, and if implemented as designed, the program would meet the PS FUNCTION.

A “FAILURE TO IMPLEMENT” is a subset of performance problems, (i.e., there could be a performance problem that is not a FAILURE TO IMPLEMENT, but not vice versa). Further, a FAILURE TO IMPLEMENT would be an item of noncompliance. Performance problems could also occur during an actual event that would not rise to the level of a FAILURE TO IMPLEMENT (e.g., an OSC team is not fully briefed and must return for tools, engineering efforts initially mis-diagnose the accident sequence, mis-communication detracts from effectiveness, etc.)

However, a FAILURE TO IMPLEMENT is not always a result of personnel error and may reveal that a PROGRAM ELEMENT itself is not adequate. Inspection is appropriate to determine if there is a LOSS OF PS FUNCTION. Resulting issues would be assessed for significance IAW the criteria for a LOSS OF PS FUNCTION.

The definition of “timely” and “accurate” for the DEP PI are not universally appropriate for determining whether a RSPS was implemented during an actual event. The performance expectation is that classifications will be made as soon as possible after indications are available that an EAL has been exceeded. A 15 minute goal is considered a reasonable period of time for assessing and classifying an emergency. EPPOS No. 2, dated August 1, 1995, provides further clarification on the staff position with regard to timeliness of event classification. Similarly, notifications are expected to be initiated within 15 minutes of classification. EAL classifications and notifications that take longer than 15 minutes should be examined and a determination as to adequacy rendered. There may be good reason for the delay and it may have minimal impact on the EP Cornerstone Objective. It is not the intent to issue findings for classifications or notifications that are longer than 15 minutes when the licensee was performing safety related activities meant to protect the public health and safety. However, errors in recognition, delays not based on competing safety related

activities or delays that deny offsite authorities the opportunity to protect the public health and safety should be assessed as not implementing the RSPS. Each event response must be judged on a case-by-case basis.

Similarly, the definition of “accurate” for the DEP PI is designed to indicate the efficacy of PROGRAM ELEMENTS such as training, drills, procedure quality, corrective actions, etc. During an actual event, an error on the notification form may have little or no impact on offsite agency response efforts, but would have been considered a failure under the PI definition. The effect of such errors should be evaluated against the RSPS FUNCTION to determine if the failure rises to the level of a FAILURE TO IMPLEMENT a RSPS.

Criteria

The Plan was not implemented as appropriate for the declared emergency classification. This is generally determined by reviewing licensee performance during an actual event for compliance with regulations and Plan commitments.

Considerations

Review the affected PS FUNCTION. If the poor performance had little impact on the affected PS FUNCTION, it may be appropriate to note the performance problem as an opportunity to improve (or perhaps a minor violation), rather than a FAILURE TO IMPLEMENT a PS.

4.0 FAILURE TO COMPLY

Note: Sheet 1 is used when determining the significance of a FAILURE TO COMPLY.

“FAILURE TO COMPLY” means that a program is in non-compliance with a REGULATORY REQUIREMENT. “LOSS OF PS FUNCTION” means that PROGRAM ELEMENTS are not adequate, are in non-compliance with the planning standards of 10 CFR 50.47(b) or otherwise not functional to such an extent that the function of the PS is not available for emergency response. It may be that the Plan commitments are not met or are inadequate, that implementing procedures are inadequate, that the program design is inadequate, that training is inadequate, etc. The result is that if the PROGRAM ELEMENT was implemented as designed, or personnel are not capable of implementing it, the PS FUNCTION would not be met. The PS FUNCTION is taken from 50.47(b) and Appendix E. Compliance with all NRC requirements is necessary. However, the PS FUNCTION is identified for the purposes of determining the significance of a FAILURE TO COMPLY. Examples of the LOSS OF PS FUNCTION are provided.

LOSS OF PS FUNCTION is more significant than FAILURE TO COMPLY with individual requirements associated with the PS. The PS often has several elements and Appendix E to 10 CFR 50 contains supporting requirements that generally align with the PS. The Appendix E supporting requirements are cited within the guidance for each PS. However, PS functionality does not require compliance with every

requirement. The failure of a program to comply with one or a few of the associated requirements does not necessarily mean a LOSS OF PS FUNCTION. It must be determined if the PS FUNCTION is met, even with the noncompliance. If the function is met, there is a FAILURE TO COMPLY without the LOSS OF PS FUNCTION.

A LOSS OF RSPS FUNCTION will result in a yellow finding. There may be cases where the RSPS FUNCTION is degraded, but not lost. These cases warrant a finding, but do not rise to the level of a yellow finding. Examples are provided for the degraded RSPS contingency under each RSPS and these findings would be white. A FAILURE TO COMPLY that does not rise to the level of a degraded RSPS, results in a green finding.

4.1 <u>10 CFR 50.47(b)(1)</u>

The PS FUNCTIONS are:

- Responsibility for emergency response is assigned.
- The response organization has the staff to respond and augment on a continuing basis (24 hour staffing) IAW the Plan.

Supporting requirements are found in Appendix E, §IV. A. 1., 2., 3., 4., 5., 6., 7., and 8.

Informing criteria are found in NUREG-0654 § II. A and the licensee's Emergency Plan.

Examples of LOSS OF PS FUNCTION (white finding) include:

- The organization assigned responsibilities in the Plan no longer has the authority, staff or resources to respond on a continuing basis (24 hours).

Examples of a green finding include:

- An individual plant staffing change created an inability to assign a responsibility on a continuous basis.

Examples that do not rise to the level of a finding include:

- A temporary plant staffing change created a lapse in a responsibility assignment.

4.2 <u>10 CFR 50.47(b)(2)</u>

The PS FUNCTIONS are:

- Process to ensure on-shift emergency response responsibilities are staffed and assigned.

- Process for timely augmentation of on-shift staff is established and maintained.

Supporting requirements are found in Appendix E, §IV. A. 2. a., b., and c. and 3 and Appendix E, §IV. C.

Informing criteria are found in NUREG-0654 § II. B and the licensee's Emergency Plan.

Examples of LOSS OF PS FUNCTION (white finding) include:

- EP responsibilities for any key ERO member function (per NEI 99-02) is not assigned.
- Scheduling and/or processes for on-shift staffing allow 2 or more shifts to go below Plan minimum staffing requirements within 30 days (e.g., 2 of 4 weekends in a month, 2 or more backshifts over a 30 day period).
- Staffing augmentation processes are routinely not capable of ensuring timely augmentation of the on-shift emergency response staff to the extent that more than one required ERO function (IAW Plan commitments to NUREG-0654 Table B-1), would not be filled. This example includes a large percentage of test failures, repeated demonstration of process design inadequacies, repeated operator errors, etc., in the absence of adequate corrective actions.
- Changes to the Plan have resulted in a staff that no longer meets applicable guidance of NUREG-0654 Table B-1, an NRC approved alternative staffing level , or is not consistent with previously approved staffing to the extent that more than one required ERO function is not staffed.

Examples of a green finding include:

- Staffing processes permit a shift to go below Plan minimum staffing requirements, but there were no actual instances in which it occurred.
- Changes to the Plan, not approved by NRC, have resulted in a staff that is no longer capable of performing one of the functions described by NUREG-0654 Table B-1, an NRC approved alternative staffing level, or is not consistent with previously approved staffing for any required ERO function.

Examples that do not rise to the level of a finding include:

- On-shift staffing does not comply with Plan commitments for a short period (e.g., 2 hours) while qualified personnel are being called in.
- An individual random occurrence of inadequate on-shift staffing has occurred during the INSPECTION CYCLE.

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- A lapse in ERO augmentation capability occurs, perhaps due to equipment failure or scheduling errors, for which compensatory measures or corrective actions are implemented.

4.3 10 CFR 50.47(b)(3)

The PS FUNCTIONS are:

- Arrangements for requesting and using offsite assistance have been made.
- State and local staff can be accommodated at the EOF IAW the Plan.

Supporting requirements are found in Appendix E § IV. A. 6. and 7.

Informing criteria are found in NUREG-0654 § II. C and the licensee's Emergency Plan.

Examples of LOSS OF PS FUNCTION (white finding) include:

- Emergency Plan commitments for offsite assistance can no longer be met for medical, fire or law enforcement support.
- The EOF has been changed in such a manner that it can no longer accommodate offsite authorities, IAW the Plan.
  Note: Some Plans accommodate offsite authorities through means other than physical presence of personnel in the EOF.

Examples of a green finding include:

- Agreements with organizations committed in the Plan as supporting the response effort have been allowed to lapse, but the agency remains willing to support the Plan.
- Plan elements have degraded to the point that Plan commitments for offsite assistance can no longer be met for support other than medical, fire or law enforcement support.

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Examples that do not rise to the level of a finding include:

- An MOU/Letter of Agreement has lapsed but is under revision and there is a commitment for continuing support.

4.4 10 CFR 50.47(b)(4)

The RSPS FUNCTION is:

- A standard scheme of emergency classification and action levels is in use.

Supporting requirements are found in Appendix E § IV. B and C.

Informing criteria are found in NUREG-0654 § D and the licensee's Emergency Plan.

In Regulatory Guide 1.101, NRC endorsed the criteria and recommendations contained in Revision 1 of NUREG-0654/FEMA-REP-1 and NUMARC/NESP-007 (Revision 2, January 1992) as acceptable standard schemes of emergency classification. Additionally, NRC has allowed certain modifications to the classification scheme as outlined in EPPOS-1.

Examples of loss of RSPS FUNCTION (yellow finding) include:

- EAL changes (not approved by NRC) have downgraded the Emergency Class of an initiating condition (or conditions) such that more than two Alerts, more than one Site Area Emergency or any General Emergency that should be declared under approved guidance would not be declared under the changed scheme.

Examples of DEGRADATION OF THE RSPS FUNCTION (white finding) include:

- EAL changes (not approved by NRC) have downgraded the Emergency Class of an initiating condition (or conditions) such that more than one Alert or any Site Area Emergency that should be declared under approved guidance would not be declared under the changed scheme.

Examples of a green finding include:

- EAL changes (not approved by NRC) have downgraded the Emergency Class of an initiating condition (or conditions) such that any Alert or Notification of Unusual Event that should be declared under approved guidance would not be declared under the changed scheme.

- Changes to the EAL scheme that deviate from approved guidance but do not rise to either of the above levels may be a decrease in effectiveness and in noncompliance with 10 CFR 50.54(q).
- Annual EAL review is not conducted with State and local governmental authorities.
- Non-editorial EAL changes are not discussed and agreed on by State and local governmental authorities prior to implementation.

Examples that do not rise to the level of a finding include:

- A typographical or minor error in an EAL, not affecting the declaration of the proper Emergency Class, is identified for correction.
- Editorial changes that do not change the intent of the EAL

The following table summarizes the significance of a finding associated with EAL changes (not approved by the NRC) that have downgraded the Emergency Class of an initiating condition.

	Yellow	White	Green
General Emergency	1 or more		
Site Area Emergency	2 or more	1	
Alert	3 or more	2	1
Unusual Event			Any

4.5 <u>10 CFR 50.47(b)(5)</u>

The RSPS FUNCTIONS are:

- Procedures for notification of state and local governmental agencies are capable of initiating notification within 15 minutes after declaration of an emergency.
- Administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway,
- The public alert and notification system meets the design requirements of FEMA-REP-10 or is in compliance with the FEMA approved ANS design report and supporting FEMA approval letter.

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Supporting requirements are found in Appendix E §IV. D. 1. and 3.

Informing criteria are found in NUREG-0654 § E and the licensee's Emergency Plan.

Criteria are found in FEMA-REP-10. These criteria are integral to the RSPS FUNCTION.

Case law includes: ASAB-935, Appeal of Seabrook ANS Issues; ASLBP No. 82-472-03, Shearon Harris ANS issues: ASAB-852, Appeal of Shearon Harris ANS issues. It may be noted that ASAB rulings are precedent setting nationally. ASLBP ruling are not, but the guidance therein can inform deliberations.

EPPOS No. 2, dated August 1, 1995, discusses the connection between the notification of offsite authorities with the timeliness of event classification.

Examples of loss of RSPS FUNCTION (yellow finding) include:

- Procedures will not enable personnel to initiate offsite notifications within 15 minutes after declaration of an emergency.
- Communications systems will not enable personnel to initiate offsite notifications within 15 minutes after declaration of an emergency.
- The public alert and notification systems (e.g., sirens, other supporting primary notification methods), have design flaws, test program, maintenance program or procedural deficiencies that result in a major loss of the system (as defined by the licensee's 50.72 notification criteria) for a period greater than 30 days from the TIME OF DISCOVERY without compensatory measures (e.g., automatic backup route alerting).

Examples of DEGRADATION OF THE RSPS FUNCTION (white finding) include:

- The public alert and notification system (e.g., sirens, other supporting primary notification methods), have design flaws, test program, maintenance program or procedural deficiencies that degrade a portion of the system for a period greater than 30 days from the TIME OF DISCOVERY without compensatory measures (e.g., automatic backup route alerting).

- Loss of the capability to notify 100% of the population in the plume exposure pathway EPZ through the primary alert notification system and/or sirens and compensatory measures (e.g., backup route alerting) take longer than 45 minutes.

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- Loss of the capability to determine if primary alert notification system activated (e.g., siren feedback system failure) and compensatory measures (e.g., backup route alerting) take longer than 45 minutes.

Examples of a green finding include:

- An individual siren has not been available for a continuous period of greater than 4 months with inadequate/delayed corrective actions. Note: this finding is not necessary if the ANS PI has fallen below the green band threshold during the period under consideration.

- An individual siren has been available for less than 70% over a period of 12 months as a result of inadequate/delayed corrective actions. Note: this finding is not necessary if the ANS PI has fallen below the green band threshold during the period under consideration.

Examples that do not rise to the level of a finding include:

- An individual siren has been available for greater than 70% over a period of 12 months where the ANS PI is within the green band and compensatory measures (e.g., backup route alerting) are in place.

4.6 <u>10 CFR 50.47(b)(6)</u>

The PS FUNCTIONS are:

- Systems are established for prompt communications among principal emergency response organizations.
- Systems are established for prompt communications to emergency response personnel.

Supporting requirements are found in Appendix E § IV E. 9.

Informing criteria are found in NUREG-0654 § II. F and the licensee's Emergency Plan.

Examples of LOSS OF PS FUNCTION (white finding) include:

- Communications systems have degraded such that no communications channel between any two key ERO members (IAW NEI 99-02) is available in the TSC, EOF, or Control Room, for longer than 24 hours from the TIME OF DISCOVERY without compensatory measures. In the event of major disruptive events (e.g., hurricane, fire, explosion, loss of power) or planned outages,

compensatory measures are acceptable while repair activities proceed with high priority.

- Loss of communications capability, for longer than 7 days from the TIME OF DISCOVERY such that no communications channel between any key ERO member (IAW NEI 99-02) and any of the following she/he is expected to interface with: field monitoring teams, the emergency news facility, the OSC or damage control teams, without compensatory measures. In the event of major disruptive events (e.g., hurricane, fire, explosion, loss of power, etc.), or planned outages, compensatory measures are acceptable while repair activities proceed with high priority.
- Backup power supplies for at least one onsite and one offsite communication systems, as required by Appendix E, are not functional for more than 30 days from the TIME OF DISCOVERY, in the absence of compensatory measures.

Examples of a green finding include:

- Communications equipment for key ERO members (IAW NEI 99-02) in an emergency facility is degraded (e.g., many phones) at the TIME OF DISCOVERY without compensatory measures. In the event of major disruptive events (e.g., hurricane, fire, explosion, loss of power, etc.), or planned outages, compensatory measures are acceptable while repair activities proceed with high priority.
- Backup power supplies for at least one onsite and one offsite communication systems, as required by Appendix E, are not functional for more than 3 days from the TIME OF DISCOVERY, in the absence of compensatory measures.

Examples that do not rise to the level of a finding include:

- A few phones are out of service in any emergency center.
- Communications equipment is significantly degraded (e.g., many phones and more than two circuits) in any emergency center, such that implementation of the Plan would be impacted, for a short time (e.g., less than a day) before repair and compensatory measures are implemented.

4.7 <u>10 CFR 50.47(b)(7)</u>

The PS FUNCTIONS are:

- EP information is made available to the public on a periodic basis within the plume exposure pathway EPZ.
- Coordinated dissemination of public information during emergencies is established.

Supporting requirements are found in Appendix E. §IV. D. 2.

Informing criteria are found in NUREG-0654 § II. G, NUREG-0696 and the licensee's Emergency Plan.

Examples of LOSS OF PS FUNCTION (white finding) include:

- The complete dissemination of EP related public information is not performed in that transient areas, EPZ segments or other localized groups are not sent the information (e.g., hotels, recreational parks, select phone books, zip codes).
- EP related public information documents do not contain the required information (e.g., how the public will notified, what their actions should be, and principal points of contact for information during an emergency).
- Locations routinely visited by the public or worker locations within the licensee's owner controlled area do not receive appropriate EP related public information committed to in the Plan, or in the absence of Plan commitment, federal regulation (10 CFR 50 Appendix E. IV. D. 2). Note: for some locations, signs, and the like, may be an appropriate method for dissemination of public information.
- The lack of coordination for the dissemination of information during emergencies will not allow timely and accurate information releases to such an extent that the health and safety of the public would be compromised during emergencies (e.g., staff not knowledgeable on emergency news center operations, procedures for dissemination of information are not established, augmentation (call out) processes will not ensure timely activation of emergency news center, or untimely methods for information approval).
- The lack of coordination of news briefings on the part of the licensee to such an extent that the health and safety of the public would be compromised during emergencies (e.g., inaccurate, contradictory, and/or delayed information).

Examples of a green finding include:

- EP related public information has not been disseminated for a period longer than that committed to in the Plan or in the absence of Plan commitment, federal regulation (10 CFR 50 Appendix E. IV. D. 2).
- Processes/procedures for dissemination of information to the public are not maintained such that significant elements of the public information process are degraded (e.g., contact lists are not effective, approval process can not be implemented due to organization changes, news releases are untimely, licensee news briefings are not coordinated with offsite agencies, etc.).
- Locations routinely visited by the public or worker locations within the licensee's owner controlled area do not receive EP related public information for a period longer than that committed to in the Plan or in the absence of Plan commitment, federal regulation (10 CFR 50 Appendix E. IV. D. 2). Note: for some locations, signs, and

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the like, may be an appropriate method for dissemination of public information.

Examples that do not rise to the level of a finding include:

- The joint information center does not issue a news release, that does not direct public action, during an Unusual Event or Alert declaration, contrary to Plan commitments.
- Isolated instance of an inaccurate, contradictory or delayed piece of information being released to the public.
- Documentation of the dissemination of EP related public information documents is incomplete.
- Confusion on the part of the news media as to where to assemble for briefings.

4.8 <u>10 CFR 50.47(b)(8)</u>

The PS FUNCTIONS are:

- adequate facilities are maintained to support emergency response
- adequate equipment is maintained to support emergency response.

Supporting requirements are found in Appendix E. §IV. E. 1, 2, 3, 4, 8, and G.

Informing criteria are found in NUREG-0654 § II. H, NUREG-0696 and the licensee's Emergency Plan.

Examples of LOSS OF PS FUNCTION (white finding) include:

- The OSC, TSC or EOF is not functional for a period of longer than 24 hours from the TIME OF DISCOVERY, to the extent that any key ERO member (IAW NEI 99-02 could not perform assigned Plan functions, in the absence of compensatory measures. In the event of major disruptive events (e.g., hurricane, fire, explosion, loss of power, etc.), or planned outages, compensatory measures are acceptable while repair activities proceed with high priority.
- The backup or alternate EOF is not functional (or capable of being activated IAW the Emergency Plan) for a period of longer than 30 days from the TIME OF DISCOVERY, without compensatory measures. In the event of major disruptive events (e.g., hurricane, fire, explosion, loss of power, etc.), or planned outages, compensatory measures are acceptable while repair activities proceed with high priority.
- Equipment necessary to implement the Plan is not available or not functional to an extent that any key ERO member (IAW NEI 99-02) would not be able to perform assigned functions, for longer than 7 days from the TIME OF DISCOVERY, without compensatory

measures (e.g., lack of damage control equipment would prevent OSC Manager from performing functions, lack of engineering documents would prevent TSC Technical Support from performing function). The availability of additional onsite equipment, in a reasonably timely manner, is considered as compensating for the PS FUNCTION.

Examples of a green finding include:

- A significant amount of equipment necessary to implement the plan is not available or functional to such an extent that any key ERO member (IAW NEI 99-02) would not be able to perform assigned functions in the absence of compensatory measures.
- Changes have been made to the OSC, TSC or EOF that do not comply with the Plan, but the facilities remain functional.
- The OSC, TSC or EOF is not functional for a period of longer than 24 hours from the TIME OF DISCOVERY, to the extent that any key ERO member (IAW NEI 99-02) could not perform assigned Plan functions, in the absence of compensatory measures. In the event of major disruptive events (e.g., hurricane, fire, explosion, loss of power, etc.), or planned outages, compensatory measures are acceptable while repair activities proceed with high priority.

Examples that do not rise to the level of a finding include:

- A few equipment or instrumentation items committed to in the Plan are missing or out of calibration and replacement equipment or instrumentation is available onsite.
- Storage or transient items are found in an ERF, but responders are still able to activate the facility.

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4.9 <u>10 CFR 50.47(b)(9)</u>

The RSPS FUNCTION is:

- Methods, systems and equipment for assessment of radioactive releases are in use.

Supporting requirements are found in Appendix E. §IV. B. and E. 2.

Informing criteria are found in NUREG-0654 § II. I and the licensee's Emergency Plan.

Examples of loss of RSPS FUNCTION (yellow finding) include:

- Methods are inadequate (e.g., do not conform with Reg Guide 1.3 or 1.4, are not technically justifiable) to estimate source term and/or project offsite doses resulting from a radioactive release.
- Equipment or systems necessary for dose projection are not functional for longer than 24 hours from the TIME OF DISCOVERY to the extent that the licensee has no capability for immediate dose projection.

- Changes have been made to dose projection systems (e.g., software) that result in loss of all dose assessment capability through failure of software, significant systematic errors (i.e., not due to normal uncertainty in the process) or loss of input parameter capability (e.g., meteorological input is in error), and the condition exists for more than 24 hours from the TIME OF DISCOVERY without compensatory measures.

Examples of a DEGRADATION OF THE RSPS FUNCTION (white finding) include:

- The field monitoring function (at least dose rate measurement and iodine presence determination) is unavailable for more than 72 hours from the TIME OF DISCOVERY without compensatory measures. In the event of major disruptive events (e.g., hurricane, fire, explosion, loss of power, etc.,) or planned outage, compensatory measures are acceptable while repair activities proceed with high priority.
- Equipment or systems necessary for dose projection are not functional for longer than 24 hours from the TIME OF DISCOVERY to the extent that the licensee has no capability for immediate dose projection in onsite emergency response centers as committed to in the Plan.

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Examples of a green finding include:

- Equipment or systems necessary for dose projection are not functional for longer than 24 hours from the TIME OF DISCOVERY without compensatory measures or corrective actions are inadequate or delayed.
- The field monitoring function IAW the Plan is unavailable for more than 72 hours from the TIME OF DISCOVERY, without compensatory measures. In the event of major disruptive events (e.g., hurricane, fire, explosion, loss of power, etc.,) or planned outage, compensatory measures are acceptable while repair activities proceed with high priority.

Examples that do not rise to the level of a finding include:

- Dose projection equipment and systems, or field monitoring capability, is not functional as committed in the Plan, for some period less than 24, or 72 hours from the TIME OF DISCOVERY, respectively.

4.10 <u>10 CFR 50.47(b)(10)</u>

This PS has two aspects that are of differing risk significance. The development of protective action recommendations (PARs) is integral to protection of public health and safety and is considered to be a RSPS. However, this PS also addresses emergency workers. While the protection of emergency workers is very important, it is not as significant as the protection of public health and safety due to an emergency worker's training and experience with regard to radiological issues. The emergency worker protection portion is considered to be a PS, rather than a RSPS.

The RSPS FUNCTION is:

- A range of public protective action recommendations (PARs) is available for implementation during emergencies.

There are no supporting requirements in Appendix E.

Informing criteria are found in NUREG-0654 § II. J. 1., 2., 3., 4., 7., 8., 10, Supplement 3 and the licensee's Emergency Plan.

Examples of loss of RSPS FUNCTION (yellow finding) include:

- Process does not provide PARs that are in accordance with Plan commitments or federal guidance to the extent that in a General Emergency appropriate PARs would not be issued to cover affected populated areas within 5 miles of the site.
- Process does not adequately address the owner controlled area (refer to IN 2002-14) to the extent that procedures, equipment

and/or personnel are not capable of timely evacuation and processing of members of the public that might be present.

Examples of a DEGRADATION OF THE RSPS FUNCTION (white finding) include:

- Process does not provide PARs that are in accordance with Plan commitments or federal guidance to the extent that in a General Emergency appropriate PARs would not be issued to cover affected populated areas within 5 to 10 miles of the site.
- Process does not adequately address the owner controlled area (refer to IN 2002-14,) to the extent that procedures, equipment and/or personnel would not consistently give assurance of timely evacuation and processing of members of the public that might be present.

Examples of a green finding include:

- Process does not provide PARs that are in accordance with Plan commitments or federal guidance to the extent that in a General Emergency appropriate PARs would not be issued to cover affected populated areas beyond the plume exposure pathway EPZ, should they be necessary.

Examples that do not rise to the level of a finding include:

- None

The PS FUNCTION is:

- A range of protective actions is available for emergency workers during emergencies.

There are no supporting requirements in Appendix E.

Informing criteria are found in NUREG-0654 § II. J. 2., 3., 4., 5. and 6 and the licensee's Emergency Plan.

Examples of LOSS OF PS FUNCTION (white finding) include:

- The accountability processes is flawed (as determined by a review) to the extent that it can not ensure that onsite accountability is accomplished and maintained during an emergency.
  (Note: missing a timeliness goal or poor performance during a drill may indicate a problem for review, but in itself is not sufficient to establish a LOSS OF PS FUNCTION).
- A significant fraction (e.g., >25%) of the onsite notification system (e.g., plant page speakers) is out of service in occupied areas that would need to be evacuated during an emergency, without compensatory measures, for longer than 7 days from the TIME OF DISCOVERY.

- Respiratory protective equipment on-site is degraded or personnel are not qualified to use it, to the extent that the minimum complement of control room operators could not be protected for at least 4 hours (if needed) from the TIME OF DISCOVERY, without compensatory measures.
- The site evacuation process is flawed (as determined by a review) to the extent that it can not be accomplished during an emergency. (Note: missing a timeliness goal or poor performance during a drill may indicate a problem for review, but in itself is not sufficient to establish a LOSS OF PS FUNCTION).

Examples of a green finding include:

- A fraction (e.g., >10%) of the onsite notification system (e.g., plant page speakers) are out of service in occupied areas that would need to be evacuated during an emergency, without compensatory measures for longer than 24 hours from the TIME OF DISCOVERY.
- Respiratory protective equipment on-site is not maintained IAW regulations and/or plan commitments.
- Emergency workers required to use respiratory protective equipment are not qualified and/or trained.

Examples that do not rise to the level of a finding include:

- Plant page speakers are out of service in a few occupied areas.

4.11 <u>10 CFR 50.47(b)(11)</u>

The PS FUNCTION is:

- The means for controlling radiological exposures for emergency workers are established.

Supporting requirements are found in Appendix E. §IV. E.. 1.

Informing criteria are found in NUREG-0654 § II. K and the licensee's Emergency Plan.

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Examples of LOSS OF PS FUNCTION (white finding) include:

- Radiological control equipment or instrumentation, necessary to control emergency worker exposures is not available (e.g., out of service or calibration) to such an extent that emergency work necessary to protect the health and safety of the public can not be performed during emergencies. The availability of additional equipment, onsite, in a reasonably timely manner is considered as compensating for the PS FUNCTION.
- Processes for controlling exposures during emergencies will not ensure that exposures are maintained IAW Plan commitments.

Examples of a green finding include:

- Radiological control equipment or instrumentation, necessary to control emergency worker exposures is not available to such an extent that emergency work necessary to protect the health and safety of the public is impaired during emergencies. The availability of additional equipment, onsite, in a reasonably timely manner is considered as compensating for the PS FUNCTION.

Examples that do not rise to the level of a finding include:

- A few equipment or instrumentation items committed to in the Plan are missing or out of calibration and replacement equipment or instrumentation is available at the storage location or onsite with reasonably rapid accessibility.

4.12 <u>10 CFR 50.47(b)(12)</u>

The PS FUNCTION is:

- Arrangements are made for medical services for contaminated injured individuals.

Supporting requirements are found in Appendix E. §IV. E. 5., 6. and 7.

Informing criteria are found in NUREG-0654 § II. L and the licensee's Emergency Plan.

Examples of LOSS OF PS FUNCTION (white finding) include:

- No agreement exists with any qualified, properly equipped, hospital for the care of contaminated injured personnel.

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Examples of a green finding include:

- Agreements for medical support with organizations have been allowed to lapse, but the agency remains willing to support the Plan.

Examples that do not rise to the level of a finding include:

- An MOU/Letter of Agreement has lapsed but is under revision and there is a commitment for continuing support.

4.13 <u>10 CFR 50.47(b)(13)</u>

The PS FUNCTION is:

- Plans for recovery and reentry are developed.

There are no supporting requirements in Appendix E.

Informing criteria are found in NUREG-0654 § II. M and the licensee's Emergency Plan.

Examples of LOSS OF PS FUNCTION (white finding) include:

Due to the non-emergency nature of recovery efforts, there is no LOSS OF PS FUNCTION that would be assigned for failures in this area (i.e., any FAILURE TO COMPLY would not exceed a green finding).

- None.

Examples of a green finding include:

- Recovery efforts are not preplanned.
- The recovery process is not exercised.

Examples that do not rise to the level of a finding include:

- None

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4.14 10 CFR 50.47(b)(14)

The PS FUNCTIONS are:

- A drill and exercise program (including radiological, medical, HP, etc.) is established.
- Full scale drills and exercises are assessed via a formal CRITIQUE process in order to identify WEAKNESSES associated with a RSPS.
- Identified RSPS WEAKNESSES are corrected.

Supporting requirements are found in Appendix E. §IV. F. 1 and 2.

Informing criteria are found in NUREG-0654 § II. N and the licensee's Emergency Plan.

Examples of LOSS OF PS FUNCTION (white finding) include:

- More than two drills/exercises (excluding biennial exercise) during the INSPECTION CYCLE (e.g., radiological, medical, HP, etc.) have not been conducted IAW the Plan.
- A biennial exercise is not conducted during a 2 year (calendar) period without receiving an exemption.
- Biennial exercises are not varied sufficiently such that all RSPS PROGRAM ELEMENTS are not tested within a five-year period.
- The drill and exercise CRITIQUE process does not properly identify a WEAKNESS associated with a RSPS that is determined as a DEP PI opportunity failure during a FULL SCALE DRILL OR EXERCISE. See PS discussion below.
- Formal CRITIQUES are not conducted for more than two scheduled drills/exercises during the INSPECTION CYCLE.
- Failure to correct an RSPS WEAKNESS. See Section 5.0, Corrective Actions.

Examples of a green finding include:

- A drill has not been conducted during the INSPECTION CYCLE IAW the Plan.
- The biennial exercise is not technically accurate and/or challenging to the extent that it does not adequately test the plans, procedures, equipment, and implementation of the licensee's emergency response capabilities.
- Biennial exercises are not varied sufficiently such that all PS PROGRAM ELEMENTS are not tested within a five-year period.
- The drill and exercise CRITIQUE process does not identify a WEAKNESS associated with a non-RSPS during a FULL SCALE DRILL OR EXERCISE or any PS WEAKNESS during a limited facility interaction drill where there is a limited team of evaluators

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(e.g., facility table-top training drill, operator training simulator drill, individual facility training drill). See PS discussion below.

- The drill and exercise critique process does not identify a WEAKNESS as a result of a performance problem associated with a RSPS that is determined as a DEP PI successful opportunity, during a FULL SCALE DRILL OR EXERCISE. See PS discussion below.
- The drill and exercise critique process does not properly identify a WEAKNESS as a result of a performance problem associated with RSPS 10 CFR 50.47(b)(9).
- Failure to correct a non-RSPS WEAKNESS. See Section 5.0, Corrective Actions.

Note: Appendix E, Section IV.F.2.g. requires that WEAKNESSES be identified and corrected. The identification and correction of WEAKNESSES is of fundamental importance to the Cornerstone Objective (guidance for the correction of WEAKNESSES is provided in Section 5.0). The failure of a CRITIQUE to identify a WEAKNESS is a violation of this planning standard and Appendix E, Section IV.F.2.g and shall be dispositioned in accordance with NUREG-1600, Enforcement Policy, Section IV.A.5 and VI.A.1.

Examples that do not rise to the level of a finding include:

- A drill is rescheduled or canceled, but the program remains in compliance with the Plan.
- Drill/exercise has not been conducted IAW the Plan due to extenuating circumstances which have been self identified and appropriately rescheduled with NRC approval.

GUIDANCE ON DRILL OR EXERCISE CRITIQUE PROBLEM

Background

This guidance is for inspector issues identified through the baseline program inspection of licensee drills and exercises. Inspection Procedure Nos. 71114.01 and 71114.06 instruct inspectors to observe exercises and drills and identify WEAKNESSES (i.e., a demonstrated level of performance that could have precluded effective implementation of the emergency plan in an actual emergency.) A CRITIQUE PROBLEM occurs when the licensee does not identify the WEAKNESSES observed by the inspector.

The SDP stratifies a failure to CRITIQUE a WEAKNESS as either white or green, as follows:

- A CRITIQUE that fails to identify a WEAKNESS associated with a RSPS that is determined as a DEP PI opportunity failure during a FULL SCALE DRILL OR EXERCISE, where there are multiple ERFs participating (more than one) and a team of evaluators,

represents a LOSS OF PS FUNCTION and is potentially a white finding.

- A CRITIQUE that fails to identify a WEAKNESS as a result of a performance problem associated with a RSPS that is determined as a DEP successful opportunity, during a FULL SCALE DRILL OR EXERCISE, is potentially a green finding.

- A CRITIQUE that fails to identify a WEAKNESS associated with a non-RSPS during a FULL SCALE DRILL OR EXERCISE, is potentially a green finding.

- CRITIQUES that fail to identify any PS WEAKNESS during a limited facility interaction drill and there is a limited team of evaluators (e.g., facility table-top training drill, operator training simulator drill, individual facility training drill) is potentially a green finding.

The EP Cornerstone licensee response band is created by the PI system and the licensee's corrective action program. Data for the DEP and ERO PI values comes from drill and exercise CRITIQUES. If the CRITIQUE program is not identifying performance problems, the EP licensee response band comes into question. The white finding for a single failure to identify a WEAKNESS associated with a RSPS during a FULL SCALE DRILL OR EXERCISE is a high standard based on the NRC need to ensure the efficacy of the licensee CRITIQUE program and hence the licensee response band.

RSPS performance problems should be given the highest priority in the CRITIQUE process. The baseline inspection program is based on accurate PI data to properly reflect licensee performance. The DEP PI is based on the licensee's ability to determine if a PI opportunity is successful or not. Thus, a licensee's ability to observe, evaluate and CRITIQUE a WEAKNESS associated with a RSPS is critical. If the licensee CRITIQUE fails to identify an inaccurate or untimely classification, notification or PAR development (i.e. a DEP PI opportunity failure), it is considered a LOSS OF PS FUNCTION (white finding). This is because the licensee's capability to observe and evaluate the process associated with a RSPS is questionable. However, a WEAKNESS also exists if a performance problem occurs associated with a correct and/or timely classification, notification or PAR development that was anticipated by the scenario (i.e., a DEP PI successful opportunity). For instance, a correct classification may have been made based on misinformation, lack of information or invalid indicators. It is expected that this performance problem be identified as a WEAKNESS associated with a RSPS and critiqued. Thus, if the licensee CRITIQUE fails to identify a performance problem associated with the process of classification, notification or PAR development effort, even though it may have been determined to be a successful DEP PI opportunity per the scenario, it is to be considered a LOSS OF PS FUNCTION 10 CFR 50.47(b)(14). However, since it was a successful PI opportunity and did not affect the outcome of protecting the health and safety of the public, it is of green significance. *Overall,*

the expectation is for the licensee's CRITIQUE to emphasize evaluation of performance in the RSPS areas.

Licensees perform CRITIQUES in many different ways and the baseline inspection instructs inspectors to be flexible in accepting mechanisms for problem identification. The critical feature of any CRITIQUE is that a WEAKNESS is captured and entered into a corrective action system with appropriate priority. If the inspector can be assured that the WEAKNESS will be entered into a corrective action system, prior to disclosing a finding, the CRITIQUE should be considered successful.

The disposition of CRITIQUE findings varies among sites. The licensee must evaluate numerous evaluator observations and prioritize resources for correction. Indeed, some evaluator suggestions may be counter productive as determined by responsible EP management. Care should be taken to understand the logic for suggestion disposition before it is identified as a CRITIQUE PROBLEM. However, disregard for well founded evaluator identified WEAKNESSES should be considered as a CRITIQUE PROBLEM (e.g., if the WEAKNESS would have been a FAILURE TO IMPLEMENT in an actual event, the NRC expectation is that it will be captured by the CRITIQUE and entered into a corrective action program).

The Plan contains the commitments for NRC regulations. The implementing procedures are the licensee's methods of implementing those commitments and may be used to judge effective, timely and accurate implementation. If the Plan or procedures themselves are inadequate, it is not a drill/exercise CRITIQUE issue. Rather, it is a FAILURE TO COMPLY with a PS and the applicable PS found in this section should be used to determine significance. Licensee mistakes and mis-steps that only detract from implementation should not initially be considered WEAKNESSES. Mistakes are likely to happen in the course of an exercise and when these are corrected by the ERO it reveals an organizational strength rather than a WEAKNESS.

The RSPS include 10 CFR 50.47(b)(9). This RSPS is covered by the DEP PI in an indirect manner (i.e., classification and PARs may be based on dose projections). The expectation is for the CRITIQUE to emphasize evaluation of performance in the RSPS areas and associated WEAKNESSES should be identified and corrected.

<u>Criteria</u>

A licensee's CRITIQUE of a drill or exercise failed to identify a WEAKNESS observed by NRC inspectors.

<u>Considerations</u>

The WEAKNESS that was missed by the CRITIQUE must be a demonstrated level of performance that could have precluded effective implementation of the emergency plan in an actual emergency. Some mis-steps in performance may

not rise to the level of a WEAKNESS and/or were corrected by the subsequent actions of the ERO.

CRITIQUE processes differ among licensees and a licensee should be given credit if the WEAKNESS was entered into a corrective action process whether the WEAKNESS was verbalized at a CRITIQUE meeting or not.

4.15 10 CFR 50.47(b)(15)

The PS FUNCTION is:

- Training is provided to emergency responders.

Supporting requirements are found in Appendix E. §IV. F. 1.

Informing criteria are found in NUREG-0654 § II. O and the licensee's Emergency Plan.

Examples of LOSS OF PS FUNCTION (white finding) include:

- Emergency response personnel are not available (e.g., lapsed training) to provide continuous coverage (24 hours) for a key ERO function as defined by NEI 99-02. Note: If personnel have been removed from EP duty, their training qualifications are not a regulatory concern.
-

Examples of a green finding include:

- Emergency response personnel are not available (e.g., lapsed training) to provide continuous coverage (24 hours) for a any ERO position listed in the licensee's Emergency Plan. Note: If personnel have been removed from EP duty, their training qualifications are not a regulatory concern.

- Unqualified personnel (e.g., lapsed training) are maintained on the ERO duty roster and are relied upon to respond during an emergency.

Examples that do not rise to the level of a finding include:

- Personnel have not received required EP training but there are other qualified personnel available to staff the affected positions.

4.16 10 CFR 50.47(b)(16)

The PS FUNCTION is:

- Responsibility for Plan development and review is established.

There are no supporting requirements in Appendix E.

Informing criteria are found in NUREG-0654 § II. P and the licensee's Emergency Plan.

Examples of LOSS OF PS FUNCTION (white finding) include:

Due to the non-emergency nature of Plan development efforts, there is no LOSS OF PS FUNCTION that would be assigned for failures in this area, i.e., any FAILURE TO COMPLY would not exceed a green finding.

- None

Examples of a green finding include:

- Responsibilities for Plan development are not established.

Examples that do not rise to the level of a finding include:

- None

5.0 CORRECTIVE ACTIONS

5.1 INTRODUCTION

NRC Reactor Oversight Process EP Cornerstone is based on the licensee response band created by the PI program and the licensee problem identification and resolution (PI&R) program. As related to EP, PI&R encompasses the drill and exercise CRITIQUE program, CRITIQUE of actual events and other assessment activities such as QA audits and reviews performed IAW 50.54(t), as well as the corrective action program. The EP Baseline Inspection Program provides oversight of licensee efforts to CRITIQUE drills and exercises and correct WEAKNESSES. 10 CFR 50.47(b)(14) and Appendix E § IV. F. 2. g. require drills and exercises be formally assessed and that identified WEAKNESSES be corrected.

The EP Cornerstone is designed to foster drill and exercise programs that develop and maintain emergency response organization skills. It is the nature of a drill program that performance errors will occur and that equipment, facility and procedure problems will surface. The identification and correction of these WEAKNESSES is a positive and vital aspect of the program. The Drill and Exercise Performance PI provides a 90% success threshold for the licensee response band. This infers that a level of performance error (in drills/exercises) is acceptable and that correction of errors and problems is within the licensee response band. The regulations require that WEAKNESSES identified during training and drills be corrected.

5.2 TIMELINESS

Guidance is provided on the timeliness aspect of correction of WEAKNESSES. The timeliness guidance should not be interpreted as a requirement. Rather, the guidance delineates when it is appropriate for an inspector to review corrective action efforts for timeliness.

The licensee determines the safety significance of WEAKNESSES and sets priorities IAW commitments and corrective action programs. The appropriateness of those priorities are judged in the context of the problem. The timeliness guidance may be used as a limit for inspector involvement (e.g., if the WEAKNESS is corrected in a shorter time than that suggested in the guidance, the inspector probably does not need to review the basis for timeliness of corrective actions).

Root cause analyses, common cause analyses and the like may take 60 days, or longer in some cases, to complete. While immediate corrective actions, such as briefings or lessons learned summaries may be implemented rapidly, they may not represent actual correction of the WEAKNESS. The expectation is that the licensee will resolve problems in a manner appropriate to the risk significance. While that will often be in less time than suggested below, there may be times when a licensee should take more time. When the time is longer, the inspector should review the scheduling rationale for reasonableness and any potential to impact the public health and safety. Should a corrective action item be scheduled in a manner that is not reasonable, or potentially impacts the public health and safety (in that the Plan can not be implemented effectively), a finding may be appropriate for FAILURE TO COMPLY with PS 50.47(b)(14).

- A RSPS related drill/exercise performance WEAKNESS is typically corrected within 90 days of identification.
- A PS related drill/exercise performance WEAKNESS is typically corrected within 180 days of identification.
- Resolution of other drill/exercise performance WEAKNESSES is expected within the next evaluated biennial exercise cycle due to the lower risk significance of these efforts and expected lower priority of such efforts.

EP related corrective action systems may track enhancement suggestions that result from the drill program. These suggestions often add value to the EP program, but are not required and do not address WEAKNESSES. There is no NRC timeliness expectation for resolution of enhancement suggestions.

<u>Criteria</u>

The timeliness of the resolution of a drill/exercise performance WEAKNESS is not appropriate for its risk significance. If the problem is RSPS related, the failure to correct should be considered a LOSS OF PS FUNCTION for 50.47(b)(14) (i.e., a white finding), otherwise it should be considered a FAILURE TO COMPLY with REGULATORY REQUIREMENTS (i.e., a green finding).

Considerations

It is not appropriate to consider the timeliness of enhancement items. The lack of timeliness in corrective actions should be well in excess of the suggested guidance and judged as inappropriate in view of the significance of the WEAKNESS.

5.3 FAILURE TO CORRECT DRILL AND EXERCISE WEAKNESSES

Determination of a failure to correct a drill/exercise WEAKNESS requires a detailed review of the WEAKNESS and the corrective actions. It is not intended that a single repeat of a WEAKNESS (e.g., in a drill) automatically be judged as a failure of the corrective action system. Conversely, success in a drill/exercise (e.g., by one well drilled team) should not necessarily be considered as a demonstration of problem resolution. When an apparent failure to resolve a problem is observed, a review of specific corrective actions should be conducted. Similar occurrences in response to actual events, drills, exercises and training evolutions should be reviewed. The status of relevant PIs should be considered. Corrective action, self assessment and inspection records should be reviewed for an INSPECTION CYCLE with emphasis on similar problems. Completion of corrective actions should be verified. Assessment of the effectiveness of the corrective actions should be based on the complete history of the issue. Obtain a reasonably complete picture of the current problem by reviewing previous corrective actions. The intent is to see a pattern of recurring performance problems in similar activities in order to identify ineffective corrective actions.

Background

10 CFR 50.47(b)(14) requires that *Periodic exercises are conducted to evaluate major portions of emergency response capabilities, periodic drills are conducted to develop and maintain key skills and deficiencies identified as a result of exercises and drills are (will be) corrected*. Appendix E, section IV, F, g, states *All training, including exercises, shall provide for formal CRITIQUES in order to identify weak or deficient areas that need correction. Any WEAKNESSES or deficiencies that are identified shall be corrected.*

The DEP PI system collects performance data from a broad cross section of drills and the licensee response band allows for ERO members to fail in the process of developing and maintaining key skills associated with DEP

PI's. The correction of these drill/exercise WEAKNESSES is within the licensee response band. Thus, if NRC oversight unduly penalizes failures in drill performance, it would detract from the development and maintenance of key skills. This same philosophy must be applied when considering performance associated with areas not covered by the DEP PI.

The DEP PI allows a 10% failure rate threshold for the licensee response band in the most risk significant areas of the EP Cornerstone. If the PI crossed the threshold, the licensee would plan actions to correct the performance WEAKNESS and a white input would be documented. However, no finding against corrective actions would be necessary, even though the failure to correct WEAKNESSES may be part of the root cause for crossing the PI threshold. In performance areas not covered by the DEP PI, there is no PI threshold for which regulatory oversight is increased (i.e., the performance failure rate in non-DEP PI areas is not compiled). Therefore, data from drill CRITIQUES may be used to determine the effectiveness of corrective actions. However, the same philosophy used to permit the DEP PI 10% failure rate threshold for the licensee response band must be considered when evaluating areas not covered by the DEP PI.

If corrective actions are not adequate and the WEAKNESS involves a RSPS area not covered by the DEP PI (e.g., 50.47(b)(9)), a LOSS OF PS FUNCTION should be assessed (i.e., a white finding). All non-RSPS areas would be green.

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Criteria

The licensee has failed to correct WEAKNESSES in drill/exercise performance, in areas not covered by the DEP PI.

Failure to correct WEAKNESSES associated with a RSPS should be assessed as a functional failure of PS 50.47(b)(14), (i.e., a white finding). Other failures to correct WEAKNESSES would be no greater than green.

Considerations

If corrective actions are aggressive and appear to be complete, but are not yet fully effective, consideration may be given to allow more time for performance improvement. Future drills would be expected to show performance improvement. Actions taken to enhance or improve performance, and not specifically implemented to correct weaknesses, are not to be evaluated for their effectiveness by the EP SDP.

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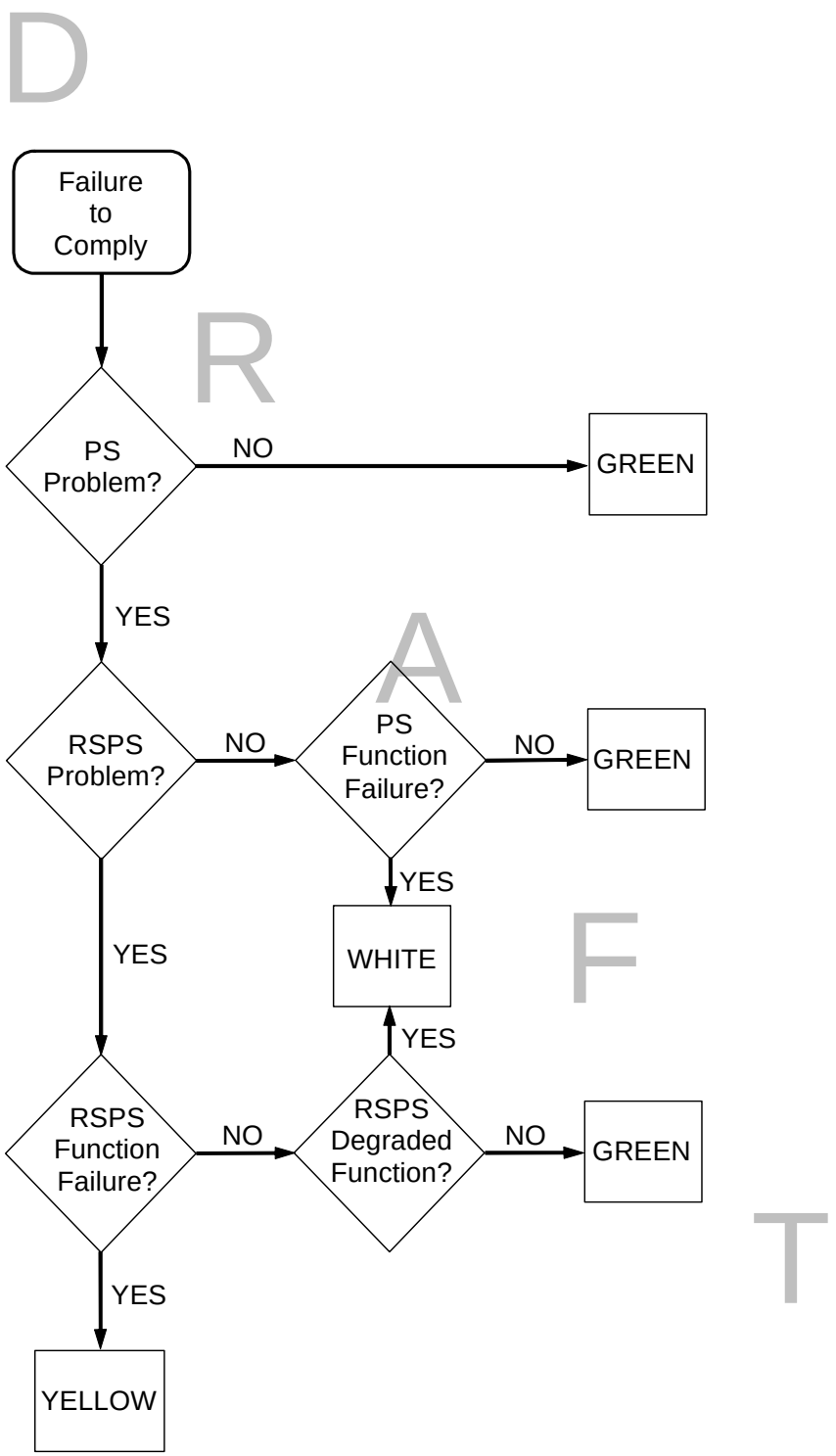
Emergency Preparedness Significance Determination Process

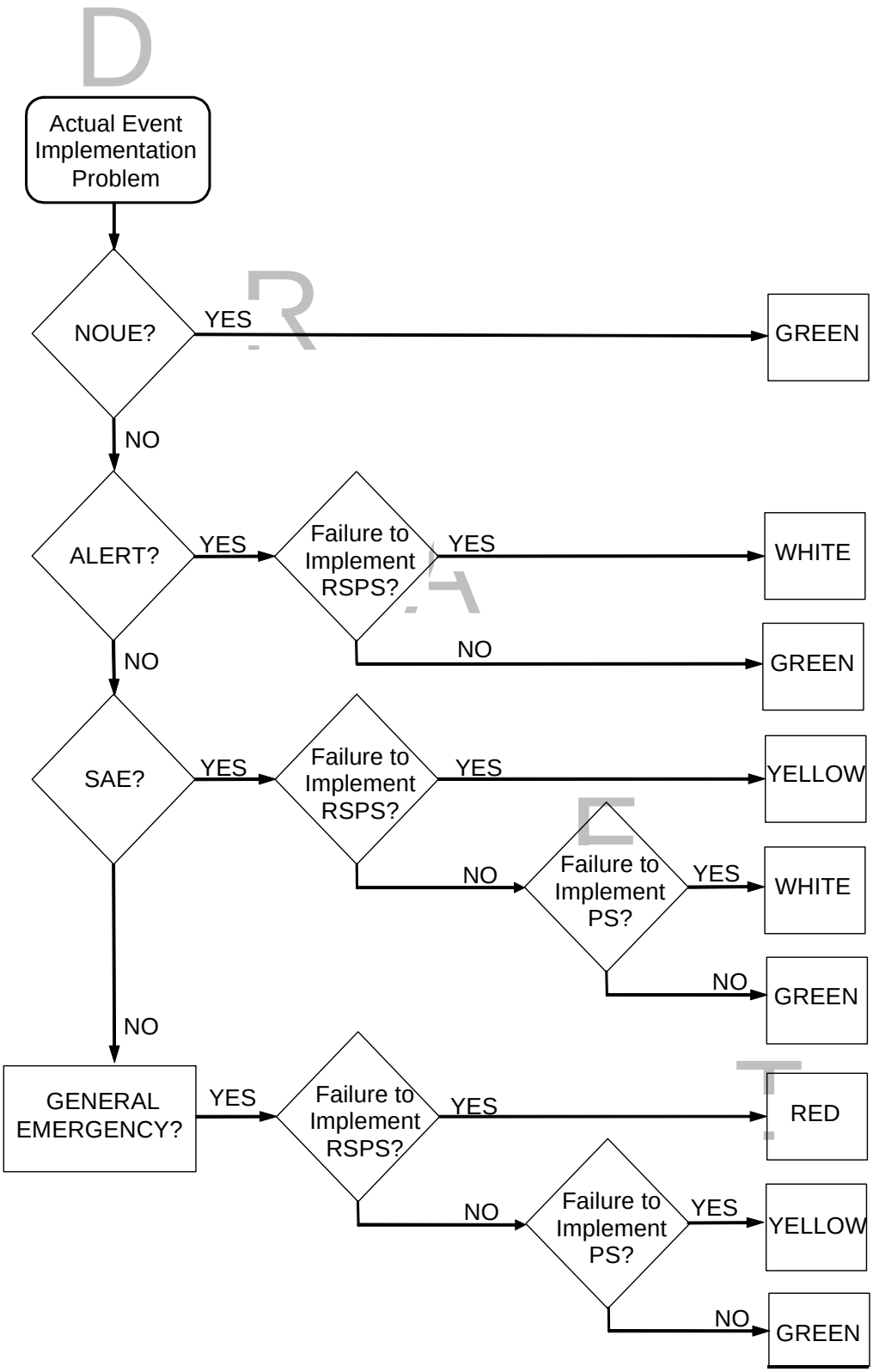
Sheet 1



NOTE: PS/RSP S Function Failure is equivalent to LOSS OF PS/RSPS FUNCTION

Emergency Preparedness Significance Determination Process

Sheet 2



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