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SUBJECT: NUREG-0654/FEMA-REP-1/Rev. 1 Supplement 3, Guidance for  
Protective Action Recommendations for General Emergencies

Reference: Federal Register, Volume 75, No. 109, June 8, 2010, p. 32493

Docket ID: NRC-2010-0080

Dear Sir or Madam:

Entergy Indian Point Energy Center takes this opportunity to comment on the draft NUREG-0654/FEMA-REP-1/Rev. 1 Supplement 3, Guidance for Protective Action Recommendations for General Emergencies, as requested in the June 8, 2010 Federal Register (Reference).

Enclosed please find a spreadsheet which provides general and specific comments on the document with supporting rationale.

Thank you for the opportunity to provide comment on these documents.

If you have any questions, please contact Mr. Alain Grosjean of my staff at 914-734-6805.

Very truly yours,

Brian A. Sullivan  
Manager  
Emergency Planning

SUNSI Review Complete  
Template = ADM-013

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**Comments on the " NUREG-0654/FEMA-REP-1, Rev. 1, Supplement 3, Guidance for Protective Action Recommendations for General Emergencies, Draft Report for Comment ", Issued March 8, 2010**

The following table provides general and specific comments on NUREG-0654/FEMA-REP-1, Rev.1, Supplement 3 with supporting rationale.

**General Comments**

Issue	Relevant Section(s) of NUREG-0654, Supplement 3 and/or March 8, 2010 Federal Register Notice	Comments	Rationale
<b>Unavailability of Supporting Documentation, Comprehensive Revision of NUREG-0654 and Implementation Schedule</b>	Draft NUREG-0654/FEMA-REP-1, Rev.1, Supplement 3, Section 6, "References", page 15: and Federal Register Notice, March 8, 2010 (Re: NRC-2010-0800), states: "The NRC expects to issue the guidance in final form in mid-2011 and nuclear power plant licensees to implement the guidance in their emergency preparedness programs within one year of the issuance of this guidance document in final form".	<p>A key supporting document listed under the Supplement 3 references, NUREG/CR-0653 Volume III, has not yet been issued for public review and comment. Given that this document is an important underpinning of the NRC's proposed PAR guidance, it is essential that the information be made available to all stakeholders for understanding and validation of the Supplement 3 recommendations.</p> <p>Furthermore, it has been universally suggested that NUREG-0654, Rev.1, in existence since 1980, should be rewritten in its entirety.</p> <p>Therefore, the implementation schedule for Supplement 3 should encompass as a minimum the final issuance of Volume III. Optimally, Supplement 3 guidance should be integrated into a comprehensive NUREG-0654 revision. Doing otherwise, represents a "piecemeal" and inefficient approach. NRC should extend its planned Supplement 3 implementation schedule accordingly.</p>	It is inappropriate for the NRC to request comments and proceed with the Supplement 3 implementation process when organizations impacted by this change have not had the opportunity to review all of the supporting information. Implementation of the revised Supplement 3 guidance should be issued at a later time as an integrated, comprehensive package to avoid needless duplication of effort in the future.

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<p><b>Coordination of Supplement 3 Implementation and Updated Evacuation Time Estimate Studies</b></p>	<p>Federal Register Notice, March 8, 2010 and Draft NUREG-0654/FEMA-REP-1, Rev.1, Supplement 3, "Protective Action Recommendation Logic Diagram" and supporting notes, pp. 17-20.</p>	<p>NRC emphasizes in the PAR Logic Diagram and in several of the supporting notes that site-specific PAR schemes will be dependent on ETE study results. The availability of new ETE results will hinge on two ongoing activities, namely, the completion of rulemaking changes (that will dictate ETE methodologies and scope), and the completion of the 2010 U.S. Census. The results of new ETE studies will not be completed, reviewed and properly integrated in revised PAR procedures unless flexibility is provided in the Supplement 3 proposed implementation. A more logical schedule should allow for: 1) completion of the 2010 Census, 2) finalization of NRC's revised ETE rulemaking requirements, 3) completion of updated, site-specific ETE studies, and 4) incorporation of approved ETE information in site-specific PAR logic.</p>	<p>Information and insights provided by updated ETE studies following the 2010 Census will not be available to meet NRC's current implementation milestones for Supplement 3.</p> <p>The schedule published in the original Federal Register associated with the draft Supplement 3 (Vol. 75 No. 44 dated March 8, 2010) indicated that licensees would be required to implement the guidance by mid-2012. It is unlikely that revised site-specific ETEs based on the 2010 Census and the final rulemaking requirements will be available at that time.</p>
<p><b>More Outreach to OROs is Needed By Both FEMA and NRC</b></p>	<p>Draft NUREG-0654/FEMA-REP-1, Rev.1, Supplement 3, (all)</p>	<p>Over several years, OROs coordinated with licensees to customize PAR strategies to fit site-specific conditions. Many OROs do not see the benefit of significant changes to PAR strategies that were established to meet long-standing federal requirements. The concepts contained in the proposed Supplement 3 guidance represent a major "paradigm shift" for many OROs. We suggest that FEMA as well as NRC consider conducting more coordinated regional outreach to OROs by way of "town hall meetings" or other forums. This will permit both agencies to directly address the public health merits of the proposed changes.</p>	<p>Further focused and coordinated outreach by both NRC and FEMA at the regional level will assist licensees in gaining ORO acceptance of new PAR strategy changes and help OROs in maintaining the confidence of their constituents.</p>
<p><b>Offsite Response Organization's Independent Protective Action Decision-making</b></p>	<p>Draft NUREG-0654/FEMA-REP-1, Rev.1, Supplement 3, "Protective Action Recommendation Logic Diagram" and supporting notes</p>	<p>While PAR planning discussions between licensees and OROs may achieve general consensus on changes to the site-specific PAR framework, the final decision-making authority during actual emergency conditions must rest</p>	<p>The licensee version of the PAR logic diagram cannot and should not encompass all possible offsite conditions that may exist during an actual</p>

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	Nos. 2, 4,7,8,9,10 and 11, pp. 17-20.	with OROs. Therefore, the development of site-specific PAR logic diagrams must contain a caveat that OROs will have additional information (e.g., evacuation impediments status) that may warrant deviations from licensee recommendations. The basic message throughout the proposed Supplement 3 should reflect the view that the primary licensee responsibility is to focus on the science of the plant emergency conditions, and the ORO(s) to focus on offsite control of the emergency response, including impediments.	emergency. By regulation, OROs retain the final authority for protective action decision making.
<b>Application of PAR Guidance to ERPAs and Areas</b>	Draft NUREG-0654/FEMA-REP-1, Rev.1, Supplement 3, Section 1 – “Introduction” page 2, and Section 2 – “Implementation of Guidance”, page 5.	The proposed guidance focuses on radial distances from the plant. However licensees and OROs usually translate PARs and PADs into ERPAs or other locally identified sub-areas. The proposed Supplement 3 should state explicitly that PAR revisions can use existing ERPAs or sub-areas and that the NRC and FEMA are not requiring reconfiguration of current boundaries.	Suggested wording would assist in ORO understanding and acceptance of the intended scope of Supplement 3 revisions.
<b>Compatibility with Proposed FEMA REP Program Manual</b>	Revised FEMA REP Program Manual, Standards I and J; Draft NUREG-0654/FEMA-REP-1, Rev.1, Supplement 3,	Draft Supplement 3 makes no reference to the Draft FEMA REP Program Manual that was issued for comment in May, 2009 and does not state that NRC and FEMA will assure that final technical guidance on protective actions for the public is coordinated in a consistent manner for licensees and OROs. The proposed Supplement 3 guidance will significantly impact ORO plans and procedures, and yet does not have the formal endorsement of FEMA. This is worrisome to OROs because the implementation of draft Supplement 3 may ultimately conflict with the proposed revisions to the FEMA REP Program Manual which is now undergoing adjudication. The implementation timeline of the revised Supplement 3 should await the published results of the comment adjudication process, particularly as it applies to the implementation of Planning Standards I and	Licensees and OROs are expected to discuss and presumably agree on acceptable PAR strategies. However, until the Supplement 3 guidance receives formal FEMA endorsement, OROs will be reluctant to commit to significant departures from established PAR philosophies methodologies.

		J, and ETE-related guidance contained in the REP Program Manual.	
<b>Acceptability of PAR Site-Specific Strategies and Methodology</b>	Draft NUREG-0654/FEMA-REP-1, Rev.1, Supplement 3, Section 2 – “Implementation of Guidance” page 5, first paragraph, states” <u>The PAR Logic Diagram( Attachment 1) is not intended to be used without site-specific modification</u> ”; and “Protective Action Recommendation Logic Diagram” and supporting notes, pp 17- 20.	<p>Our preliminary review of the proposed Protective Action Recommendation Logic Diagram indicates that the standard format and content will require substantial revision to be meaningful to licensee and ORO users.</p> <p>For example, the entire section from the “Do impediments to evacuation exist?” decision diamond and all boxes to the right (the “yes” path) would be deferred to OROs. Only OROs will have access to meaningful, current information on the status of impediments, whether the impediments are emerging or clearing.</p> <p>In addition, there is not enough guidance for licensee shift personnel to determine that the decision diamond “Rapidly progressing severe accident?” is a “yes”. Therefore, it is entirely likely that the final, agreed upon site-specific logic diagram could reduce down to the center part of the proposed logic diagram. The Supplement 3 wording in Section 2 should clearly state that site-specific PAR schemes are fully acceptable in a greatly simplified format as long as they have a sound technical basis and are agreeable to OROs.</p>	The development of site-specific PAR methodology should allow any “logic diagram” format and content that is meaningful and useful to licensee and ORO personnel, even if it departs substantially from the NRC version proposed in draft Supplement 3.
<b>Human Factor Elements Associated with the Proposed PAR Logic Diagram</b>	Draft NUREG-0654/FEMA-REP-1, Rev.1, Supplement 3, Section 1 – “Introduction” and Section 2 – “Implementation of Guidance” page 5, second paragraph.	The proposed model PAR Flow diagram is complex and cumbersome with its numerous supporting notes, etc. The licensee, in particular operational shift personnel will have difficulty implementing this guidance in a timely and accurate manner unless the flow charts are significantly simplified. Supplement 3 implies the potential need to develop three PAR Flow Diagrams – one for licensee operational shift personnel, one for the augmented licensee ERO	The added complexity of the proposed PAR logic diagrams may contribute to confusion and delay in issuing timely and effective protective actions.

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		and one for OROs for protective action decision-making. The ACRS recommended against making PAR strategies overly complicated, such that they slow down decision making during emergencies.	
<b>Required Documentation to Support Adopted PAR Flow Diagrams</b>	Supplement 3, Introduction, page 3 states: "This supplement is considered "Federal Guidance" as referred to in the regulation, and it will be used to aid in determining compliance with 10 CFR 50.47(b)(10)". In Section 2, Implementation of Guidance, page 5, paragraph two states:" The NRC suggests that nuclear power plant licensees and the OROs responsible for implementing protective actions discuss and agree to various elements and criteria of the licensee and ERO PAR logic diagram(s)".	<p>This paragraph should be clarified to better define what type of supporting documentation will be adequate to demonstrate that the licensee meets 10 CFR 50 requirements during NRC compliance inspections. We also recommend that NRC define the type of supporting documentation that would need to accompany submissions of revised plan and procedure changes.</p> <p>We recommend that the draft Supplement 3, Section 2 clarify that all background information, analyses, assumptions, unique site-specific characteristics and ORO inputs be contained in a companion document, and not required to be part of the body of the licensee PAR implementing procedure.</p>	Comment provided to seek clarification for compliance.

<b><i>Specific Comments</i></b>			
<b>Issue</b>	<b>Relevant Section(s) of NUREG-0654, Supplement 3 and/or March 8, 2010 Federal Register Notice</b>	<b>Comments</b>	<b>Rationale</b>
<b>Prompt Protective Actions Following A Rapidly Progressing Severe Accident</b>  <b>– Event Recognition and Timeliness</b>	Draft NUREG-0654/FEMA-REP-1, Rev.1, Supplement 3, "Protective Action Recommendation Logic Diagram" and supporting Notes Nos. 1, 4, 5, 9 and 10, pp. 17-20.	Note 1 of the model PAR Logic Diagram defines a rapidly progressing severe accident as a General Emergency (GE) with rapid loss of containment integrity and loss of ability to cool the core, and furthermore requires a determination under these conditions that a radiological release is expected in less than 1 hour. Draft Supplement 3 correctly states that this condition is very unlikely, but at the same time, the licensee is still required to make a PAR involving the potential, immediate evacuation of nearby populations within 15 minutes of declaring the GE. It will be very difficult to properly diagnose a rapidly progressing severe accident, which could lead to a delay in meeting the 15-minute PAR requirement. Many, if not most licensees will likely default to the "No" path if this scenario cannot be readily determined (as is allowed in the note), and will follow the PAR logic down the center of the PAR Logic Diagram.	
<b>Prompt Protective Actions Following A Rapidly Progressing Severe Accident</b>  <b>– ORO Implementation Concerns</b>	Draft NUREG-0654/FEMA-REP-1, Rev.1, Supplement 3, "Protective Action Recommendation Logic Diagram" and supporting Notes Nos. 1, 4, 5, 9 and 10, pp. 17-20.	Many OROs are uncomfortable with consenting to an immediate evacuation under rapidly progressing accident without major supporting elements being in place (for assessment of impediments and traffic control). Even with improved messaging to the public, ORO emergency managers believe that prompt evacuation may lead to chaotic conditions and confusion of the public if the OROs are not yet	

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		operational. They also believe that prompt, uncontrolled evacuations could present a greater burden on ORO resources to regain control of the emergency response. The draft Supplement 3 should state this concern and make the "rapidly progressing severe accident "Yes" logic path entirely optional.	
<b>Prompt Protective Actions Following A Rapidly Progressing Severe Accident</b>  <b>– Staged Evacuation Initiation</b>	Draft NUREG-0654/FEMA-REP-1, Rev.1, Supplement 3, "Protective Action Recommendation Logic Diagram" and supporting Note No. 10, pp. 17-20.	<p>In the last box in the bottom left-hand corner of the PAR Logic Diagram, the meaning of "When safer to do so, begin staged evacuation of all affected areas" is not adequately explained by Note 10. The note states that shelter-in-place times in excess of 4 hours reduce dose, and that dose is not reduced in less than 4 hours. This appears contrary to the reduced effectiveness of sheltering protection over time that is shown in the PAR Study, Volume I. If the note statement is assuming that a concurrent release would make premature staged evacuation (less than 4 hours) following sheltering- in- place undesirable from a dose perspective, then the statement should be clarified.</p> <p>The statement "when safer to do so" is also unclear. Does it mean that offsite exposure rates have significantly decreased at that time, or is it referring to a PAG that would prompt a staged evacuation?</p> <p>Furthermore, the term "all affected areas" is vague, and should instead say "all affected areas where a PAG is reached or exceeded". The language in the note should be clarified.</p>	
<b>Expansion of PAR Only to Areas Where PAGs Could Be Exceeded After GE Conditions Are</b>	Draft NUREG-0654/FEMA-REP-1, Rev.1, Supplement 3, "Protective Action Recommendation Logic	The wording/logic contained in the box found in the lower right-hand corner contradicts the wording in Note 6. Assuming the answer is "No" to "GE conditions remain?", then there should	Comment provided to highlight inconsistency in the guidance.



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<b>Terminated</b>	Diagram” and supporting Note No. 6. pp. 17 and 19.	be no reason to expand PAR. The wording in the box and the note should be changed to “Continue to monitor the emergency” or equivalent.	
<b>Public Confusion Resulting from Staged Evacuation</b>	Draft NUREG-0654/FEMA-REP-1, Rev.1, Supplement 3, “Protective Action Recommendation Logic Diagram” and supporting Notes Nos. 3, 4 and 5. pp. 17-20.	Spontaneous, voluntary evacuation is still probable even for staged evacuation. Messaging, even when well intended can lead to public confusion, mistrust and uncertain response. This could lead to a greater burden on ORO resources to control the emergency response.	
<b>Appropriate Selection of ETE Information</b>  - ( Note 7)	Draft NUREG-0654/FEMA-REP-1, Rev.1, Supplement 3, “Protective Action Recommendation Logic Diagram” and supporting Notes No. 7, pp. 19, states: These (ETE) values should be representative for the site and should not include special events...the shift staff is expected to make this PAR without conferring with OROs”.	The statement in Note 7 is unrealistic for two reasons. First, this is a very complex determination for the operational shift to make, as it competes with other plant accident mitigation duties.  Furthermore, at this time “T=X hours” following the expected 2-mile evacuation (90 <sup>th</sup> percentile), the shift staff should have relinquished command and control to the augmented ERO, which would be in communication with the ORO(s). The OROs at this time would have more specific information on which set of ETes to select based on offsite conditions.	
<b>Timeframes Provided in the PAR Logic Diagram</b>  - (Note 9)		Draft Supplement 3 provides timeframes such as...(Note 9)...which appear to be fixed. The language should be clarified to state these as examples only and appropriate time values would be developed by site-specific analysis.	
<b>Messaging for Evacuation of Various Population Groups</b>	Draft NUREG-0654/FEMA-REP-1, Rev.1, Supplement 3, Appendix, Section 3, “Public Information Materials”, page A-6 through A-7 (pets); Section 4, “Emergency Alerting and Instructions”, Sections 4.2.2.1 – 4.2.2.6 pp. A-15 through A-17.	Several useful messaging suggestions are embedded in the text of these sections (which focus on pets, staged evacuation, school evacuation, shadow evacuation, transient dependent people, special needs people and special facilities). We recommend that the key messaging elements be presented as more concrete recommendations in a “bullet” format for ease of use.	Comment presented to improve usability of the messaging guidance.

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<b>Adequacy of Public Communications Systems</b>	Draft NUREG-0654/FEMA-REP-1, Rev.1, Supplement 3, Appendix, Section 5, "Additional Guidance for More Effective Messaging", page. A-19, states: "A better approach is to ensure adequacy of the available systems and for emergency response agencies to use these services as well, to provide additional information to the public".	The wording as stated could be expanded into more specific, concrete recommendations on how to implement guidance on how available communications services can be used.	Comment presented to improve usability of the messaging guidance.
<b>Special Needs Population Assistance</b>		The variety and extent of suggested outreach methods for assistance of special needs populations may artificially raise expectations for other non-radiological emergencies. The common wisdom has been for such groups and individuals to pre-plan and obtain help from family, friends and neighbors.	