

DmB

Docket Nos. 50-10, 50-237, 50-249;  
50-254, 50-265; 50-295, 50-304;  
50-373, 50-374; 50-454, 50-455

JUL 26 1983

Commonwealth Edison Company  
ATTN: Mr. Cordell Reed  
Vice-President  
Post Office Box 767  
Chicago, IL 60690

Gentlemen:

We have completed our review of your draft Revision 4 to the generic portion of the Generating Stations Emergency Plan (GSEP) which was submitted to our office by letter dated July 1, 1983. The results of this review are enclosed as an appendix to this letter.

Our review indicates that certain areas of the draft revision have the effect of downgrading the current status of emergency preparedness at all of your facilities. These areas have been identified in the enclosed appendix preceded by an asterisk (\*), and include a description of the actions necessary for the GSEP to continue to meet the planning standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR Part 50. The appendix also contains other comments which are designed to improve or clarify statements made in the draft revision.

In accordance with 10 CFR 2.790(a), a copy of this letter and the appendix will be placed in the NRC's Public Document Room.

Should you have any questions regarding our review, please feel free to contact Mr. M. Phillips of my staff. Your cooperation with us is appreciated.

Sincerely,

*C. J. Paperiello*  
C. J. Paperiello, Chief  
Emergency Preparedness and  
Radiological Safety Branch

enclosure: as stated

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|---------|--------------|----------|----------|------------|----------|----------|----------|
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| DATE    | 7/25/83      | 7/25/83  | 7/25/83  | 7/25/83    | 7/25/83  | 7/25/83  |          |

cc w/encl:

JUL 26 1983

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The following comments are being furnished regarding the draft Revision 4 to your Generating Stations Emergency Plan (GSEP) generic section. For the most part, these comments address spelling errors or clarifications that will make the document easier to understand; however, the first nine items identified with an asterisk (\*) are items which we feel if not revised as indicated below, will result in the downgrading of the effectiveness of your emergency plan and be in violation of 10 CFR 50.54(q) requirements if implemented without correction. Comments or required changes for each page of the draft are listed as follows:

- \*1. Page 3-4, item 3.2, subparts 2, 3, and 4 must be changed to clearly indicate that these emergency managers do not assume direction unless they are located in the appropriate emergency response facility. Therefore, these subparts must read as follows:

1. Shift Engineer while acting as the Initial Station Director; until
2. The Station Director while in the Control Room or Technical Support Center; until
3. The Corporate Command Center Director while at the Corporate Command Center; until
4. The Recovery Manager while at the Emergency Operations Facility or other emergency response facility.

Only the highest directorate level within the GSEP Organization activated at that time has the authority to classify an emergency condition or make protective action recommendations to offsite authorities. This authority may not be delegated.

- \*2. Page 3-4, fourth (next to last) paragraph, must be revised to clearly indicate that an excessive amount of time should not be taken to classify the event. We recommend that the following statement taken from QEP 110-2 be added as the last sentence to this paragraph: "It is not prudent, however, to use excessive amounts of time to classify the emergency and to avoid the inevitable timely notifications that must be made.
- \*3. Page 5-9, item C.2 must be revised to replace the word "imminent" with the word "probable" in the third line of this EAL. This is to conform with the definition used in section 2 of your draft revision and the meaning of the item as described in NUREG-0654, Revision 1.
- \*4. Figure 6.1-1(B) appears to have added an additional individual into the call chain between the SPSO and the CCC Director that was not there before. This additional individual will probably result in excessive amounts of time being used in the notification of the State and local authorities after the declaration of an emergency. As the regulations state, offsite agencies must be notified within fifteen minutes of an emergency declaration. This additional notification call may inhibit that capability. Since we were under the impression that all NDOs were qualified CCC Directors, this additional layer is unnecessary. Both notification phone chains could be revised to indicate that the NDO notifies State and local agencies as well as the CCC Director, thereby eliminating one phone call. This proposal would

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also result in the revising of Tables 6.1-2 through 6.1-4 to include the notifications listed under step 4.b of these respective tables.

- \*5. Second page of Figure 6.2-1, "Actions from Control Room Indications and/or Plant Indications - Initial NARS Notification. The flow chart must be revised to allow the Shift Engineer to make these recommendations. Enclosed with this review is the chart issued in IE Information Notice 83-28. Please note that this chart is different than that provided you by Mr. M. Phillips, in that it does not require an individual to determine whether actions can be completed prior to completion of evacuation, it defines the term "substantial core damage," and what is considered to be a large fission product inventory in containment. This later term can be directly related to your containment radiation monitor reading based on time after shutdown. Using the flow chart shown on page 2 of Figure 6.2-1, the revised boxes must be marked as follows:
- a. Below the box labeled initiate calls to CECO for activation of TSC/EOF, the core damage box should read: "Is core damage (actual or projected release of 20% gap activity from the core) in progress or projected?"
  - b. Delete the box below "core damage" (labeled TSC/EOF perform ODCS calculations as the following are evaluated).
  - c. If the answer to a. above is yes, the next box directed is the one labeled "Is there large fission product inventory in the containment?" This box should be relabeled as follows: Does containment radiation level indicate large fission product inventory in containment (e.g., greater than gap activity)? This should be a specific value time dependent on time after shutdown, and would start with the value labeled point 2 on the graph included in each GSEP annex and referenced in section 6.2.4 of the generic GSEP.
  - d. If the answer to c. above is no/unknown, the next box should be relabeled as follows: Is containment failure and core damage projected to be imminent or is a release underway? (Containment failure can be further defined as greater than 280 degrees fahrenheit or greater than 61 psig for example using the Dresden set of EALs.)
  - e. If the answer to c. above is yes, the next question should be the following: Is containment failure projected to be imminent or is a release underway? Again the same discussion as is given in d. above applies to the determination of what containment failure is defined as.
  - f. If the answer to d. or e. above are yes, then the protective action recommendation should be revised to read as follows: Complete and transmit: NARS form section 9, "x" C-H,J,K. Action Recommended: Evacuate 2 mile radius ASAP/ 2-10 miles downwind. (This would be the population with the most likely probability of being the most severely impacted).
  - g. In all cases, the line from the protective action recommendation boxes should now be routed to the same box as that from the no/unknown result regarding substantial core damage, namely, to the box labeled "TSC/EOF perform ODCS calculations."

- \*6. Page 7-2, last paragraph of section 7.1.2 on this page. The first sentence must be revised to indicate that these records are available in the TSC rather than that the facility is large enough to hold them. This sentence would then read as follows: The TSC contains a complete set of as-built drawings and other records, including general arrangement diagrams, P&IDs, piping system isometrics, and the electrical schematics.
- \*7. Pages 7-13 and 7-14, Section 7.3.3: Return the objective that the ODCS meets the applicable criteria of NUREG-0654, Revision 1. Proposed GSEP revision contains no such assurance. Return additional descriptive information provided in the current GSEP regarding frequencies and purposes of monitoring systems remote interrogations by meteorological contractor and corporate staff. Proposed GSEP revision is inadequately detailed regarding how meteorological criteria are met.
- \*8. Page 8-6, Section 8.3.1, the provisions for off-hours exercises, which was included as an Open Item in the LaSalle Safety Evaluation Report and was subsequently closed when included in this section has been deleted in the proposed revision. This provision must remain, and is the next to last paragraph currently given in Revision 3 to this section. Accordingly, the next to last paragraph of this section must include the following: "Once every six years, an exercise should be scheduled between the hours of 6:00 PM and midnight, and another between midnight and 6:00 AM."
- \*9. Page 9-3, Section 9.1.2.7, first bullet must also include a description of the OSC and a diagram of its location within the facility, so that it should read: o Include "as built diagrams" and descriptions of the Station Control Room, the Technical Support Center, Operational Support Center, and the Emergency Operations Facility.

The following items are provided for clarification of sections or to identify spelling errors:

- 10. Policy statement, page i, fifth line, should read: ...(EIPs) provides a degree...
- 11. Page iv, Heading 5.1 should be deleted, and 5.2 renumbered to 5.1.
- 12. Page 2-1, item 2.5, last line should read: dose equivalent is the rem.
- 13. Page 2-2, item 2.11, third line, should read: ... of personnel from State...
- 14. Page 2-3, item 2.14, definition of Imminent should read as follows: "Ready to take place; an event will happen in time. The probability that an event will occur is about 100%. (This change is necessary since no event has 100% probability prior to its occurrence.)"
- 15. Page 4-9, Figure 4.2-2, item (d), second line should read: Control Room Engineer (SCRE), who performs inline...
- 16. Page 4-24, Figure 4.3-2: Title of the Technical Support Director should be changed to Technical Support Manager to match the title listed in Table 4.3-4 and section 4.3.2. In addition, there are two Communications Directors listed on the table, one in the EOF and one at the Technical Center in Maywood; however, there is no indication in the plan that a Communications Director will also be in Maywood.

17. Page 4-28, fifth bullet from the top, insert the word "and" between the last comma and the word design on the second line so that it reads as follows: procedures or alternate control schemes, and design and coordinate the installation of short-term modifications.
18. Page 4-29, third bullet from the top, first line, Replace the word "an" with the word "and" so that it reads as follows: Direct the activities of an Environs Director and other environmental staff.
19. Page 4-32, last bullet should be deleted since it duplicates the seventh bullet from the top with regards to the direction of the Waste Systems Director.
20. Page 4-41, second bullet, Insert a comma at the end of the first line after the word instrumentation.
21. Page 4-44, first line. Change title to Manpower/Logistics Director to match that in rest of text and title heading on this page.
22. Page 4-55, second paragraph from the bottom. Delete the comma between notify and INPO so that this line will read as follows: Commonwealth Edison will notify INPO (via...
23. Page 4-56, last paragraph. Revise the last sentence to read as follows: The Chairman will transfer control of emergency response activities to the Director of Site Operations when deemed appropriate by the Chairman.
24. Page 4-57, second paragraph, fifth line. The word communications is misspelled.
25. Page 4-57, third paragraph, second line. The word expediently is misspelled.
26. Page 4-57, fifth paragraph, first line. Delete the comma.
27. Page 4-59, section 4.6.4, subparagraph 2). Change the word while to which so that this line reads as follows: Provide a framework through which Federal...
28. Page 5-1, fourth paragraph. Delete the first sentence regarding downgrading. Emergency classifications should transfer to a Recovery phase. The plan does an excellent job of defining the Recovery phase, therefore there is no need to downgrade. Emergency classes are designed to activate personnel for response. If the situation is under control, recovery may proceed.
29. Page 5-1, subpart 6). Renumber this table to Table 5.0-6.
30. Page 5-4, item 16 should read identically to item C.10 from Table 5.0-3 with clarification that this refers to each unit.
31. Page 5-5, Section B should read identical to that in Appendix 1 of NUREG-0654, namely: "Any releases expected to be limited to small fractions of the EPA Protective Action Guideline Exposure levels."
32. Page 5-5, item C.10 should read identically to item C.10 from Table 5.0-4 with clarification that this refers to each unit for a period of time of less than fifteen minutes.

33. Page 5-7, Section B should read identical to that in Appendix 1 of NUREG-0654, namely: "Any releases not expected to exceed EPA Protective Action Guideline exposure levels except near the site boundary."
34. Page 5-7, item C.10 should be clarified that this refers to each unit for more than fifteen minutes.
35. Page 5-9, Section B should read identical to that of Appendix 1 of NUREG-0654, namely: "Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area."
36. Page 5-11. Renumber table to Table 5.0-6. In addition, the second sentence of the first paragraph should be revised to state the following: "Emergency classifications are used to protect the health and safety of the public, the environment, the emergency workers, and the plant equipment by ensuring that commensurate levels of response personnel are activated." The rest of the paragraph would remain the same.
37. Page 5-13. This entire page should be deleted. Since appropriate recovery criteria have been specified, downgrading of an event is not necessary.
38. Page 5-14. This section should be renumbered as section 5.1 rather than 5.2.
39. Page 5-15 should be revised to indicate that emergency classifications flow upward rather than both up and down.
40. Page 6-2, next to last sentence should be revised to eliminate the idea of downgrading so that it reads as follows: "Commonwealth Edison actions for the recovery phase are given in Table 6.1-6."
41. Page 6-10, Table 6.1-3, item 4.e. Revise last two lines to read as follows: (ESDA & DNS) of the recommendation to enter a Recovery mode.
42. Page 6-12, item 4.b of Table 6.1-4. The last bullet should be deleted since it is a duplicate of the previous bullet.
43. Page 6-12, Table 6.1-4, item 4.e. Revise the last two lines to read as follows: (ESDA & IDNS) of the recommendation to enter a Recovery mode.
44. Page 6-14, Table 6.1-5, item 4.d. Revise last two lines to read as follows: State agencies, as appropriate of recommendation to enter a Recovery mode.
45. Delete page 6-16 and page 6-18. Renumber page 6-17 on to account for these two deletions.
46. Copy submitted for review did not contain section 6.2.1, therefore this section was not reviewed. Text in that section should be revised to agree with material discussed above.

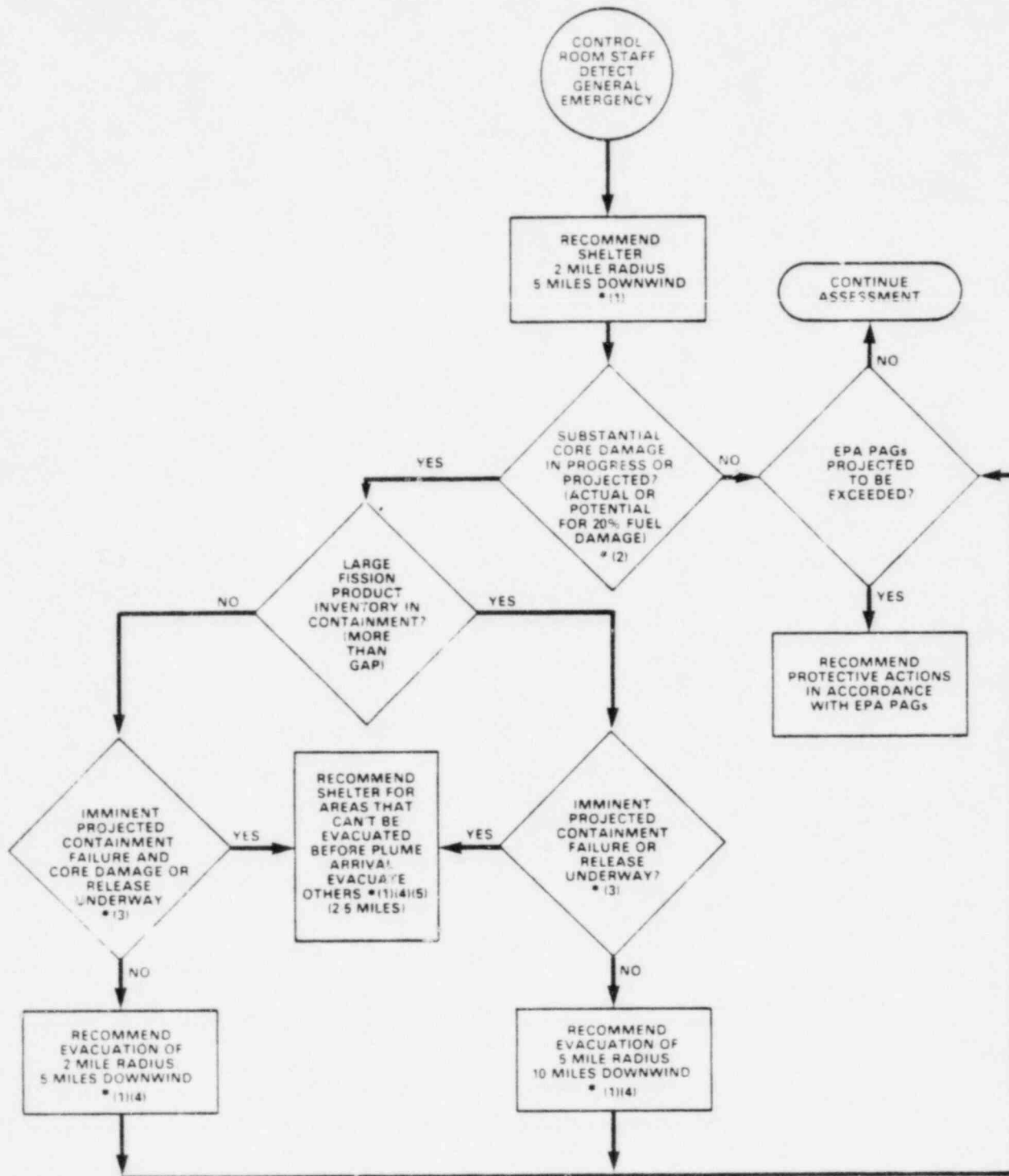
47. Page 6-21, Section 6.3.1. Revise the first sentence to include reference to NUREG-0654, Appendix 1 as follows: "For incidents involving actual, potential, or imminent releases of radioactive material to the atmosphere, the current issue of the "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents" (EPA-520/1-75-001) and the recommendations in Appendix 1 of NUREG-0654 will be used as the basis for recommendations for protective actions for the offsite public." The rest of the paragraph would remain as is. An additional sentence could be added at the end of the paragraph as follows: "Appendix 1 of NUREG-0654 provides protective action recommendations for potential releases."
48. Page 6-21, last paragraph should state: "Figure 6.2-1, tables 6.3-1, 6.3-2, and 6.3-3 summarize possible recommended protective actions to be made to State and local agencies during an emergency."
49. Page 6-22, second paragraph, first sentence. This should read as follows: "The prompt public notification system (PNS) consists of fixed sirens and mobile vehicles with public address (PA) systems." Also, in the next to last line of this paragraph the word plume is misspelled.
50. Page 6-22, third paragraph, last sentence. A preposition (in) is missing between the words presented and the, such that the sentence should read as follows: "A more site-specific description of the various prompt public notification systems is presented in the station-specific annexes to GSEP."
51. Page 6-24, section 6.3.4, first paragraph, fifth line. The word strictly is misspelled. In addition, the last sentence on the page should read as follows: "Some of the conditions to be considered prior to making a recommendation are:"
52. Page 6-26, Table 6.3-1, NARS form section 9 column, Site Emergency Heading. Both numbers 3 and 5 of this heading need to start with 9 instead of 8.
53. Page 6-29, Section 6.4.1, first paragraph, second sentence (actually is not a sentence). This should be revised to read as follows: "For those who must work within the restricted area of the affected site, measures that will be considered are:"
54. Page 6-29, Section 6.4.2, first paragraph. This should be revised to correctly read as follows: "During an emergency situation the Station Director may initiate an assembly of all personnel within the security boundary. The purpose of an assembly is to account for all personnel inside the security boundary, and to assemble emergency personnel at prearranged locations."
55. Page 6-32, Section 6.5.2.3, second line. The word magnitude is misspelled.
56. Page 7-1, Section 7.1.2, second paragraph, first sentence. Delete the word "alert" from the second sentence so that it will now read as follows: "Reporting initially to the TSC for the Site and General Emergencies shall be all directors of the GSEP Station Group, i.e., the Station Director,...."

57. Page 7-2, Section 7.1.3, second paragraph. In cases where the decision is made to deactivate the OSC, records should be available to indicate that this facility was initially activated and that the Station Director made a conscious decision to deactivate this facility because its use was unnecessary. If this practice is to be followed, we recommend that the Station Director's responsibilities be revised to reflect this decision-making process.
58. Page 7-3, Section 7.1.4, second paragraph. There is no sentence here. This paragraph should read as follows: "In addition to the above functions, the CCC will support TSC/EOF environmental activities under the direction of the CCC Environmental Director."
59. Page 7-5, Figure 7.1-1. The line with arrows has been deleted from the TSC to/from Environmental Control Personnel. This appears to be in error, since the text indicates that they do communicate with each other.
60. Page 7-7, Section 7.2.3, second paragraph, third line. This should read as follows: "...Room, the TSC, the EOF, mobile units in Commonwealth vehicles..."
61. Page 7-9, Figure 7.2-1. Although the text indicates that NAWAS extensions are identified on this figure, they have not been included. In addition, the proposed codes for the Byron Station NARS system should be included in this figure.
62. Page 7-10, Figure 7.2-3. The triangles are missing from the letter codes on the left side of the page, and the line between the Control Room and TSC is missing.
63. Page 7-18, Table 7.7-1. Item A.2 should contain a less than symbol prior to the number 0.2; and the third bullet of item A.4 should contain a greater than or equal to symbol prior to the number 50.

Attachment: Flow Chart for General  
Emergency Offsite Protective Decisions

# FLOW CHART FOR GENERAL EMERGENCY OFFSITE PROTECTIVE DECISIONS

The following actions will be based on predetermined observable instrumentation and plant status indicators (EALS) contained in the emergency plan and that have been reviewed by offsite officials. However, responsible offsite officials must decide the feasibility of implementing the protective actions at the time of the accident.



SOURCE: Appendix 1 NUREG 0654 FEMA REP 1 Rev. 1

\* (1) SITUATIONS REQUIRING URGENT ACTION BY OFFSITE OFFICIALS  
(Based on Control Room Indicators, No Dose Projections Required)

15 Minute Decisionmaking, Activation of Alerting System and EBS Message

\* (2) Actual or projected release of 20% gap from core.

\* (3) "Puff" release (rate much greater than designed leak rate)

\* (4) For all evacuations, shelter the remainder of the plume EPZ and relocate the population affected by any ground contamination promptly following plume passage.

\* (5) Concentrate on evacuation of areas near the plant (e.g., may be time to evacuate 2 mile radius and not the 5 mile radius).