

NOV 14 1985

In Response Refer to:
Dockets: 50-482/85-29

Kansas Gas and Electric Company
Attn: Glenn L. Koester
Vice President - Nuclear
Wichita, Kansas 67201

Gentlemen:

This letter is to acknowledge receipt and review of the scenario for the annual emergency preparedness exercise scheduled for November, 1985. The emergency preparedness staff has reviewed the scenario. As a result of this review, the following items were identified as requiring additional information or clarification:

1. At 1020, with the containment hatch doors failed and an unidentified 3000 gpm RCS Leak, two fission product barriers have been breached and the potential for the loss of the third exists. These conditions are sufficient to warrant the declaration of a General Emergency.
2. Messages concerning the injured individual do not contain information for pulse rate, respiration, skin color, or presence of sweat. These are all vital signs used to determine if the victim is in shock.
3. Controllers should be instructed not to show the medical/decontamination data sheets to players. Controllers should provide information verbally, only as players actions warrant.
4. There does not appear to be a contingency message to ensure that a PASS sample is taken. Since demonstrating this activity is listed as an exercise objective, a contingency message to initiate this would be prudent.
5. Message number 011 should contain a note to the Controller to ensure that it is not delivered prior to an announcement that an Alert was declared that could have been received by the containment entry team. If it is delivered prior to the actual declaration of an Alert, it would constitute a prompt.
6. Does this plant have high range containment monitors (R/hr)? If so, they are not shown on the Area Radiation Monitor data sheets.
7. The radiation levels shown for the TSC on the "Onsite Facility Dose Rates" graph page 7.88 do not match the TSC area monitor readings, shown on the "Area Radiation Monitors" data sheet.

RIV: EP&SPS
CAHackney: sj
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C: EP&SPS
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C: R&SPB
REHall
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AC: RPSB
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AC: RPB
LEMartin
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8. For the deposition equations given on page 8.26, it is not clear where the Isotopic Ratios would be obtained.
9. On page 5.2, the steam generator pressure is shown to jump up at 0845, but the plant does not trip until 0850.
10. Why does the 3000 gpm leak rate not vary with varying plant parameters? It is constant throughout.
11. What assumptions were made concerning water inventory control (i.e., sump levels, RWST, accumulator level)? It is not clear what injection systems are in use.
 - Why does the sump level hold steady at 8' from 0945 on?
 - Is it possible that operator free play actions might effect water inventory data given in the scenario?
12. Liquid process monitor data (p.7.40 - 7.57) remains the same throughout the scenario. Shouldn't there be at least some change in these readings?
13. At the time, the containment hatch doors fail (1020) there is approximately 5-6 psi of pressure in containment. If either of the hatch doors open inward, it is not likely that it would be possible for it to be opened with differential pressure.
14. The relationship between containment pressure and temperature cannot be reconciled with the timing of the open hatch doors. In other words, containment temperature and pressure don't seem to react as they should, considering the open hatch doors.

In addition, the enclosed memorandum from FEMA-Region VII to the Kansas Director Division of Emergency Preparedness indicates several inadequacies in the exercise scenario support of offsite objectives. You should coordinate with the Kansas state agency to resolve the inadequacies so that the offsite objectives can be demonstrated during this exercise.

If you have any questions, please contact C. A. Hackney, at (817) 860-8188.

Sincerely,

"Original Signed by:"

Dm Huanicutt for

L. E. Martin, Acting Chief
Reactor Projects Branch

cc w/enclosure: (see next page)

Kansas Gas and Electric

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cc w/enclosure:

Kansas Gas and Electric Company
ATTN: Gene P. Rathbun, Manager
of Licensing

P. O. Box 208
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Forrest Rhodes, Plant Superintendent
Wolf Creek Generating Station
P. O. Box 309
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Kansas Radiation Control Program Director

bcc to DMB (IE35) ✓

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Federal Emergency Management Agency

Region VII 911 Walnut Street Kansas City, Missouri 64106

OCT 15 1985

MEMORANDUM FOR: Colonel Mahlon G. Weed, Director
Division of Emergency Preparedness

FROM: *Patrick J. Breheny*
Patrick J. Breheny, Regional Director
Federal Emergency Management Agency

SUBJECT: Review of Wolf Creek Exercise Scenario and Off-Site Objectives

We have reviewed the Wolf Creek Generating Station Exercise Scenario and its ability to enable the off-site authorities to meet their objectives.

As written, the scenario will not be acceptable for the following reasons:

- * Our ground deposition values differ considerably from the scenario ground deposition values calculated from the offsite plume deposition maps and data. This leads me to question the conversion factor ($4.5E-05$) for converting ground deposition smear counts in units of $\text{cpm}/100 \text{ cm}^2$ to ground deposition in units of $\mu\text{Ci}/\text{m}^2$ (see page 8.26 of scenario).
- * All deposition data for environmental samples is calculated from measurements of 100 cm^2 smears of ground deposition. This procedure of using smear data to determine environmental sample concentration is highly questionable, and it is not a standard acceptable practice for environmental measurements.
- * The equations on page 8.26 for calculating environmental sample data do not specify the type of instrument expected to be used for making the measurements used in the equations. Also, most of the equations refer to the use of an isotopic ratio as a part of the calculation. The only tables contained in this scenario manual which are labeled as nuclide ratios are not ratios, they are concentrations in units of $\mu\text{Ci}/\text{cc}$. How are the ratios determined? Which table time frames are to be used with the deposition map data time frames? This whole procedure is prone to too many calculational errors for use during an exercise. The environmental sample data should be calculated and included as a table on the plume deposition maps.
- * The environmental sample data for ingestion pathway samples and recovery and reentry discussions should be related to the data for ground deposition activity which will be present after the plume has dispersed. This will reduce the number of deposition data maps which are required. It is not necessary to have one deposition map for each 15 minute time segment for the duration of the release. It is more important to have these data maps for the appropriate time periods following the termination of the release.

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- * State objective F.3, page 2.7, requires the demonstration of the ability to project dosage to the public via ingestion pathway exposure, based on field data. This would imply that there should be some offsite radiological data for milk samples. However, there is none. Our ground deposition calculations indicate that this will be a significant exposure pathway, e.g., using average release rates, the preventive PAG for milk would be exceeded at 10 miles and using peak release rates, the projected ground deposition would exceed the emergency PAG for milk at 10 miles.
- * Since both ingestion pathway dose projections and recovery and reentry are State objectives for this exercise, it would appear that there should be a break in the scenario time line prior to the offsite recovery and reentry discussions. There should be a sufficient time jump to allow for sample collection and laboratory analyses of the environmental samples, as well as allotting sufficient exercise time for recovery and reentry discussions. (Approximately 1½ to 2 hours.) If milk is to be played as a part of the environmental samples, keep in mind that the peak radioiodine concentrations in milk will not occur until approximately 3 days after ingestion by the cow. Therefore, measurement data for milk samples, which are collected at times less than 3 days following ground deposition, should be less than the peak milk concentrations expected based on the ground deposition data.

Please inform this office as soon as possible, as to when corrections may be expected.

If you should have any questions, feel free to contact either Brad Salmonson, INEL, at (208) 526-3314 or Bob Bissell of my staff at (816) 374-2161.

cc: Kevin Moles, KG&E
Carroll Wilcox, Coffey County Emergency Preparedness
Brad Salmonson, INEL
Bill Brinck, EPA
Charles Hackney, NRC ✓