

January 29, 2001

MEMORANDUM TO: File

FROM: Jack N. Donohew, Senior Project Manager, Section 2
Project Directorate IV & Decommissioning */RA/*
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

SUBJECT: RESPONSES TO QUESTIONS ON EP PLAN CHANGE (TAC NO. MA9748)

By letter dated July 18, 2000, the licensee for Callaway submitted a request to extend the response goals in Table 5-2 of the Emergency Preparedness Radiological Emergency Response Plan (RERP) for Callaway. In reviewing the plan change, I also reviewed the current RERP (Revision 23 dated December 1999, up to change CN00-06 dated October 20, 2000) to understand the current emergency plan for Callaway.

Attachment 1 is 23 questions concerning the current emergency plan and the proposed changes to RERP Table 5.2. Included at the end of Attachment 1 are observations I made of the current emergency plan and the proposed plan changes. These were discussed in the phone conference calls of November 3, and 17, 2000, and were the subject of several e-mails from the licensee providing responses to the questions and observations, and the list of additional information to be provided in a submittal in January 2001. These e-mails are provided in Attachments 2, 3 and 4.

The information provided in the e-mails describing the current emergency plan and the proposed changes to RERP Table 5-2 will also be submitted to the NRC by letter before the staff issues its evaluation of the licensee's proposed changes.

Docket No. 50-483

Attachments: 1. Callaway RERP Response Time Goal Change
2. E-mail dated November 13, 2000
3. E-mail dated November 28, 2000
4. E-mail dated December 6, 2000

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EPeyton

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OFFICIAL RECORD COPY

February 1, 2001

CALLAWAY RADIOLOGICAL EMERGENCY RESPONSE PLAN

RESPONSE TIME GOAL CHANGE

QUESTIONS ON THE PLAN CHANGE

In responding to the questions below about the proposed RERP changes submitted in the application dated July 18, 2000, please make references to any relevant RERP sections or to Attachment 1 of the application that contain the requested information:

1. Discuss the reference to "Alert (or higher) emergency declaration" in RERP Section 5.2, page 5-7, in the first sentence of that section that states the mobilization of the emergency response organization (Figure 5-2) is initiated at the Alert (or higher) emergency declaration. RERP Table 5-2 lists the Alert as the response level for the Technical Support Center (TSC) and Emergency Operations Facility (EOF). Does the statement in RERP Section 5.2 mean that the initiation of mobilization of the TSC and EOF could wait until the declaration of an emergency classification higher than an Alert?
2. In the proposed change to footnote + of RERP Table 5-2, the emergency response facilities (ERFs) are to be activated 15 minutes "from arrival at the facility." The staff interprets the word activated to be when the TSC and EOF become operational during the emergency and take over the emergency work from the control room. The definition of facility activation, in Enclosure 1 (page 1 of 8) of the application and proposed footnote # to RERP Table 5-2, is that the facility would be considered activated when the minimum staffing requirements have been met and these positions are ready to assume responsibilities. Discuss if these are the only conditions that must be met for activation of the TSC and EOF. Where in the RERP (besides Table 5-2) is the activation of the TSC and EOF and the conditions for activation discussed? Is this addressed in an emergency plan implementing procedure? By the proposed changes to footnote +, would the ERFs be expected to be activated 15 minutes after the arrival of the minimum staffing at the facility?
3. The proposed footnote # to RERP Table 5-2 identifies six emergency positions as the "Minimum positions needed for facility activation." Except for the TSC communicator, these positions appear to be manager or coordinator positions for directing emergency work. Except for three other emergency positions, they also appear to be all of the responders in the current RERP Table 5-2 with the response goal of 30-45 minutes, instead of the later response goal of 60-75 minutes. For the proposed footnote, discuss the transition from the control room directing and the on-shift staff performing the emergency response to the ERF staffing and activation, including the release of on-shift staff listed in RERP Table 5-1 to the ERFs and the arrival of the staff listed in RERP Table 5-2 that is not considered part of the minimum positions needed for facility activation. Include in this discussion what is meant by the desired numbers listed in RERP Table 5-2 for each emergency position. Explain why the emergency positions of four Rad/Chem support staff, protective measures coordinator, and field monitoring teams which also have the current response goal of 30-45 minutes, were not included in

Attachment 1

the minimum positions needed for facility activation. Discuss the changes to ERF staffing and activation of the current RERP due to the proposed footnote #.

4. For the current RERP Table 5-2, discuss what the response goals of 30-45 and 60-75 minutes in the table mean in terms of the initiation of ERF mobilization, emergency response organization (ERO) personnel driving to the TSC or EOF in response to an emergency, and ERF activation. Explain the effect of footnote + to the table, which states that the response times may vary due to inclement weather and/or road conditions, on the response goals. Are the response goals addressed elsewhere in the RERP (i.e., in addition to the footnote to Table 5-2)? Explain how this part of footnote + affects the proposed response goals.
5. What assistance, if any, is provided by the State to ERO personnel driving to the site in response to an emergency? Is there any assistance so that personnel would arrive sooner at the site? Discuss if adding such assistance to the RERP was considered in the development of the proposed response goals.
6. Discuss the change in the ERF activation goals because of the proposed changes to the response goals in RERP Table 5-2.
7. Explain what was meant by the statement in the change description in Enclosure 1 (page 1 of 8) to the application that "... this revision will give greater assurance that ERO members will arrive safely to their assigned emergency response facilities."
8. Provide the definitions of the following terms in the revised RERP Table 5-2: normal hours and off-hours. Would there be personnel driving to the TSC or EOF in an emergency during normal hours? Assuming normal hours for the response goals in RERP Table 5-2 means the responders are on shift, should not the response goal be immediate (instead of the proposed 15 minutes) as it is in RERP Table 5-1?
9. Why shouldn't the definitions of normal hours, off-hours, and facility activation be added to RERP Chapter I?
10. Discuss what is the overall percentage of the plant staff that is currently available to be the 30-45 and 60-75 minute responders, and what will be the percentage available for the proposed 75-minute response goal.
11. Can personnel in the two emergency positions of Rad/Chem Technician in RERP Table 5-1, for the two functions of health physics operation and technical support, perform the tasks of each function? Discuss if the RERP allows the emergency coordinator to direct these technicians to assist the other in performing the tasks needed to be done in these two functions. Would this also be true for the emergency position of Rad/Chem Technician of the chemistry function (i.e., does this Rad/Chem Technician have health physics training to perform the two health physics functions)?
12. Discuss how the on shift staffing in RERP Table 5-1 would perform the functions of onsite surveys, health physics coverage and inplant surveys, access control, personnel monitoring, dosimetry, offsite surveys, and offsite does assessment during the additional

time until the proposed activation of the ERFs. Discuss any RERP drills or licensee observations in drills, and their documentation, which indicate these health physics functions could be performed by the on-shift emergency staff for the additional time.

13. There is a reference in Enclosure 1 (page 8 of 8) of the application to Callaway operating crews being evaluated in conjunction with the Emergency Preparedness Program, 82701 Inspection, and that operating crews responded for a period of 90-120 minutes without assistance from the TSC and EOF. Discuss the evaluations made of the operating crews and provide references to any documentation of the evaluations. The evaluations were stated to include the control room classifying and declaring the emergency and notifying offsite agencies. Did the evaluations include other work that would have been performed by the TSC or EOF staff if the ERFs had been activated earlier (e.g., emergency team support tasks)? How does the period 90-120 minutes compare to the proposed ERFs activation goal.
14. Compare the personnel access control to the radiological controlled area during an emergency to that control during normal operations. Explain what is meant by the references to electronic dosimetry and electronic dosimeter application in Enclosure 1 (page 6 of 8) of the application. In that ERO personnel report to the TSC (after TSC mobilization is initiated) before responding to the emergency, is there equipment staged at the TSC to minimize the time for personnel access control to the radiological controlled area?
15. When would the data from the year 2000 census be available? Explain the projections on the 1990 census data using the Landview III software and the basis for using this software for population projections. Discuss if a significant increase in the 1990 data for the 5-to-10-mile zone should be expected.
16. For the proposed RERP Table 5-2, page 3 of 6, the reference to the emergency position of on-shift emergency response (RERP Table 5-1) has the proposed response goals of 15 minutes and immediate for normal and off-hours, respectively. Explain why the response goals for the normal and off-hours should not be both immediate because the personnel involved in both cases are on shift?
17. For the proposed RERP Table 5-2, page 3 of 6, the reference to the general emergency position of support area personnel has the response goal of 15 minutes for normal hours and no response goal listed for off-hours. The specific technical areas for the support area personnel are listed below this reference and have response goals listed for both normal and off-hours. Explain why there should be a response goal listed for normal hours for the general emergency position of support area personnel.
18. Are the changes to footnotes + and # the only proposed changes to page 6 of 6 of RERP Table 5-2?

new questions (post phone call of 11/03/00):

19. Does the footnote ** of RERP Table 5-1 that states positions filled by existing personnel on-shift mean that the 15 individuals identified in Table 5-1 could perform the

emergency functions of notifications and communications, and repair and corrective actions?

20. Are the task descriptions for each emergency function discussed in the RERP, or only listed in RERP Table 5-2?
21. Have there been inspections of drills that occurred after normal hours where all of the personnel filling the positions listed in RERP Table 5-2 came from offsite? Have there been such drills without inspections and what were the results?
22. For the inspections of the operating crews that are documented in Inspection Reports (IRs) 50-483/98-14, 98-23, and 20-04, did the operating crews include all the on-shift staff listed in RERP Table 5-1? Were there other drills of the operating crews that were conducted without NRC inspections that tested the crews against the key emergency functions of emergency classification, declaration, notification, dose assessment, protective action recommendations, and mitigation of the event? Did these include all the on-shift staff listed in RERP Table 5-1? What were the results of these drills?
23. The current RERP does not address ERF activation in terms of a time after the arrival of the minimum staffing in RERP Table 5-2 identified by the proposed footnote #. What was the average time to activate the ERFs after arrival of the minimum staffing?

Attachment: Observations from Application and
11/03/00 Conference Call

OBSERVATIONS FROM APPLICATION AND 11/03/00 CONFERENCE CALL

1. The proposed RERP changes are only to RERP Table 5-2 and are the following: (1) new augmentation staff response goals for normal and off-hours with a specific goal of 15 and 75 minutes, respectively, for each time period, (2) footnote "+" is revised to add the requirement that facility activation will be as soon as practical with a goal of being 15 minutes later than the augmentation staff response goal, and (3) a new footnote "#" to identify the minimum staffing needed for ERF activation and to state that an ERF is considered activated when the minimum staff is ready to assume their responsibilities.
2. The response goals in RERP Table 5-2 of 30-45 and 60-75 minutes (i.e., rapid and later responders) are the times from declaration of the Alert (or higher) classification to when the identified personnel walk into the ERFs. This is not stated in the RERP. The proposed response goals have this same meaning. The footnote "+" concerning inclement weather and/or road conditions means that the response goals are only for good weather and road conditions, and this meaning is not being altered by the proposed RERP changes.
3. The first part of the proposed RERP changes is to change the current augmentation staff response goals of 30-45 and 60-75 minutes to 15 minutes for normal hours and 75 minutes for off-hours. Normal hours are 7:00 a.m. to 3:30 p.m., Monday through Friday (i.e., the core hours), and off-hours are the remaining hours of the week. The licensee has not defined these hours and should provide a description in terms of plant operation and staff onsite of the difference between these two times. The proposed change is doing away with the rapid versus late responders in RERP Table 5-2, but will have the response goal for off-hours no later than the current 75 minutes for late responders.
4. The second part of the proposed RERP changes is to have the ERF activation goal be as soon as practical, but within 15 minutes of when the identified minimum staffing (for ERF activation) is at the ERFs. The current RERP does not specify a goal for ERF activation after staff augmentation. There is no requirement to activate the ERFs as soon as practical in the current RERP.
5. Upon declaration of an emergency (not the emergency classification), the shift supervisor becomes the acting emergency coordinator (EC) for the emergency until relieved by the emergency duty officer (EDO, a predesignated senior management representative that may not be on-site). The ERFs are mobilized (i.e., the call-up of augmenting on-shift staff is started) at the Alert (or higher) classification, which is not being changed.
6. ERF activation means that the ERF staff is ready to take over from the control room; however, the EC in the control room may decide to delay this changeover. The EC can transfer the responsibility of emergency functions to the ERFs one function at a time (although the notification and dose assessment functions must go together). The ERFs become operational with the complete changeover of emergency functions and the EC is in the TSC. The staffing for the TSC in RERP Table 5-2 includes the EC in the TSC; however, this position becomes effective only when the responsibility is transferred to

the TSC by the EC in the control room. None of this is described in the RERP. This process is not being changed by the proposed RERP changes; however, the proposed RERP changes will add a 15-minute goal to activate the ERFs after the augmentation staff arrival at the ERFs. In the current RERP, there is no time-period goal for ERF activation after augmented staff arrival at the ERFs. The current time goal for ERF activation with respect to RERP Table 5-2 staff augmentation for the current RERP and its relationship to the proposed 15 minutes should be discussed.

7. The proposed on-shift staff augmentation and ERF activation goals for normal hours will be earlier than that given in the current RERP (i.e., the 15 minutes for augmentation and 15 minutes for activation is less than the 45 minutes for rapid responders in RERP Table 5-2). The proposed goals for off-hours means that the rapid responder arrivals and ERF activation could be 30 minutes later than that allowed by the current RERP. For normal hours, the late responders will arrive earlier than the current 60-75 minute goal of the current RERP. For off-hours, the rapid responders would be delayed, but the late responders would still arrive at the 75 minutes allowed by the current RERP. The off-hours goal would delay only 14 of the 55 individuals (i.e., the 30-45 minute rapid responders) listed in RERP Table 5-2 for the ERFs.
8. The third part of the RERP changes identifies 7 of the 14 rapid responders as the minimum staffing to activate the ERFs. The reason for this 7-position minimum staffing to activate the ERFs is not in the RERP or the application, but the licensee considers these 7 positions as the minimum needed to activate the ERFs. The minimum staffing before ERF activation is not addressed in the RERP. These 7 positions are not being changed by the proposed RERP changes and the proposed RERP changes merely identify this minimum staff needed to activate the ERFs. The licensee has activated the ERFs in the past based on this minimum staff. The licensee needs to state this.
9. The desired number listed in RERP Table 5-2 is not the minimum number that the licensee has committed to have at the ERFs by the response goal times in the table because RERP Table 5-2 identifies the entire emergency response organization (ERO) for the emergency. The desired number is the ERO staffing for the event. There is no discussion on this subject and the desired number is not addressed in the RERP. The desired number is not being changed by the proposed RERP changes. The licensee has not defined a minimum staffing level for augmentation of the on-shift emergency staffing in RERP Table 5-2, or elsewhere in the RERP. The RERP Table 5-1 does list the minimum on-shift emergency response staffing, which is 15 individuals.
10. The coordinators listed in RERP Table 5-2 are trained to perform the tasks specified in the table for the staff of the coordinator. This is not stated in the RERP.
11. There are 3 Rad/Chem Technician emergency positions in RERP Table 5-1 that have the 3 emergency functions of Health Physics (HP) Operation (surveys, sampling, monitoring analysis, job coverage, emergency team support), HP Tech Support (evaluate effluent monitors and perform offsite dose projections), and Chemistry (chemistry sampling, radiochemical analysis, and PASS). The technicians for HP Tech Support and Chemistry are trained to do the HP Operations work, but the reverse is not true. This is not described in the RERP. The RERP stated that the EC can augment

the on-shift with any personnel determined necessary to mitigate or terminate the emergency and can augment independent of activating the ERFs. The EC can also direct individuals to perform work as it is needed to meet the emergency, although this may not be stated in the RERP.

12. There are no definitions of ERF activation, ERFs becoming operational, normal hours, and off-hours in the RERP.
13. The proposed RERP changes are to allow more time for ERO personnel to come to the site in the off normal hours, and is not changing any other part of the RERP. The licensee wants to increase the group available for responding to emergencies.

Added after the 11/17/00 call:

14. The licensee should provide a description of the roads leading to Callaway from major population centers listed in Enclosure 1 to the application (except for Fulton, Missouri) that will be used by the responders: two or four lanes, straight or windy, good or poor conditions (ruts). The licensee should state that there is no help from state or local police to help drivers come in faster. This would add to the description on page 4 of 8 of Enclosure 1 of the application.

[Note: the underlined information identifies additional information that was needed to be submitted by the licensee.]

EMAIL DATED NOVEMBER 13, 2000

From: "Shafer, David E" <DShafer@ameren.com>
To: "Donohew Jack (E-mail)" <jnd@nrc.gov>
Date: Mon, Nov 13, 2000 12:17 PM
Subject: FW: Jack Donohew Telecon

Jack, here is the file that contains information on the initial 18 items that you sent to us. The information that we prepared ahead of the 11/3/00 telecon is shown in "red" and the information updated as a result of the call is shown in "green". You may want to print it out on a color printer so that you can make these distinctions.

Dave Shafer

Phone 314-554-3104
Fax 314-554-3558
Email dshafer@ameren.com

> -----Original Message-----

> From: Crawford, Stanley J.
> Sent: Friday, November 10, 2000 10:03 AM
> To: Shafer, David E
> Cc: Evans, Michael S.; Pendergraff, Gary R.
> Subject: Jack Donohew Telecon

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>

> <<Callaway.doc>>

> Stan Crawford
> Emergency Preparedness
> AmerenUE, Callaway Plant
> (573) 676-8505
> sjcrawford@cal.ameren.com
>

CC: "Crawford, Stanley J." <sjcrawford@cal.ameren.com>

CALLAWAY RERP RESPONSE TIME GOAL CHANGE

QUESTIONS ON THE PLAN CHANGE

In responding to the questions below about the proposed RERP changes submitted in the application dated July 18, 2000, please make references to any relevant RERP sections or to Attachment 1 of the application that contain the requested information:

Responses from Callaway.

A teleconference was held on Friday November 3rd at 10 am to discuss the numbered items below. Information from that telecon follows each item.

1. Discuss the reference to "Alert (or higher) emergency declaration" in RERP Section 5.2, page 5-7, in the first sentence of that section that states the mobilization of the emergency response organization (Figure 5-2) is initiated at the Alert (or higher) emergency declaration. RERP Table 5-2 lists the Alert as the response level for the TSC and EOF. Does the statement in RERP Section 5.2 mean that the initiation of mobilization of the TSC and EOF could wait until the declaration of an emergency classification higher than an Alert?

No. As per our program mobilization will occur at the ALERT. The (or higher) is for any case where we initially go straight to a SITE or GENERAL EMERGENCY. In this case there is no question mobilization is required.

After discussion, this item was closed.

2. In the proposed change to footnote + of RERP Table 5-2, the emergency response facilities (ERFs) are to be activated 15 minutes "from arrival at the facility." The staff interprets the word activated to be when the TSC and EOF become operational during the emergency and take over the emergency work from the control room. The definition of facility activation, in Enclosure 1 (page 1 of 8) of the application and proposed footnote # to RERP Table 5-2, is that the facility would be considered activated when the minimum staffing requirements have been met and these positions are ready to assume responsibilities. Discuss if these are the only conditions that must be met for activation of the TSC and EOF. Where in the RERP (besides Table 5-2) is the activation of the TSC and EOF and the conditions for activation discussed? Is this addressed in an emergency plan implementing procedure?

Activation is not clearly defined in the body of the RERP. We will add it to the definition section of Chapter 1. We define activation as being when our minimum staff (presently called RAPID RESPONDERS) are in the facility and ready to take their individual responsibilities from the Control Room. It is here that we say the facility is activated. This is what we want to put the mobilization time clock on. There is no control on situations where the Control Room makes a declaration and wants to make the notification prior transferring. In this case being operational would be delayed.

Final understanding was that the ERF is activated when it is staffed with Rapid Responders (minimum staff) and ready to accept responsibility from the Control Room. THESE DEFINITIONS WILL NEED TO BE ADDED TO THE RERP AND MAY BE PART OF A FOLLOW-UP COMMUNICATION WITH MR. DONOHEW REGARDING THE ENXTENSION REQUEST.

3. The proposed footnote # to RERP Table 5-2 identifies six emergency positions as the "Minimum positions needed for facility activation." (1) Except for the TSC communicator, these positions appear to be manager or coordinator positions for directing emergency work. Except for three other emergency positions, they also appear to be all of the responders in the current RERP Table 5-2 with the response goal of 30-45 minutes, instead of the later response goal of 60-75 minutes. (2) For the proposed footnote, discuss the transition from the control room directing and the on-shift staff performing the emergency response to the ERF staffing and activation, including the release of on-shift staff listed in RERP Table 5-1 to the ERFs and the arrival of the staffing listed in RERP Table 5-2 that is not considered part of the minimum positions needed for facility activation. Include in this discussion what is meant by the desired numbers listed in RERP Table 5-2 for each emergency position. (3) Explain why the emergency positions of four Rad/Chem support staff, protective measures coordinator, and field monitoring teams which also have the current response goal of 30-45 minutes, but were not included in the minimum positions needed for facility activation. (4) Discuss the changes to ERF staffing and activation of the current RERP due to the proposed footnote #.

(1) All positions are trained to fulfill the requirements that report to them. The Offsite Liaison Coordinator is also qualified EOF Communicator. The Dose Assessment Coordinator actually does the dose calculations. The Recovery Manager is qualified in our Protective Action Recommendation procedures. The EDO and the Technical Assessment Coordinator are both trained in accident mitigation and Emergency Action Levels.

Manager/Coordinator were discussed. It was understood that these personnel also perform the duties and have the responsibility for the activities that will be transferred from the Control Room.

Mr. Donohew emphasized that the NRR STAFF will read the RERP and submittal quite literally so it may be necessary to point out some information that may not be understood.

(2) The Emergency Duty Officer (EDO), who is on call or duty for all plant events, becomes the Emergency Coordinator. Unless the Control Room is uninhabitable for some reason, the EDO will report initially to the Control Room and get a turnover on the event. Since, as stated above, he is on call for all plant events this may be prior to any classification. Once the ALERT is declared and personnel are at the TSC, he will move to the TSC.

Personnel on shift not actively pursuing emergency actions will also move from Control Room control to TSC control. Initially the Technical Assessment Coordinator will direct the activities of these on shift personnel from the TSC and the Emergency Coordinator will assess plant and Emergency Action Levels.

The TSC (ENS) Communicator will take NRC communications from the Control Room, thus freeing up an I&C Technician. When the Off Site Liaison Coordinator is at the EOF

Notifications will be transferred and this frees another I&C Technician. When the Dose Assessment Coordinator arrives at the EOF then Dose Assessment is transferred freeing a HP Technician.

Desired numbers are the numbers that we want but except for Rapid Responders indicated by # "minimum needed" we can function without.

Transition from the Control Room to the Emergency Response Facilities was discussed. It was explained that once the minimum ERO staff is in place and ready to accept responsibilities the facility is activated. The transfer of responsibilities will be at the Control Room's discretion.

Transfer of responsibilities may not occur all at the same time, although, Dose Assessment and Offsite Notifications must be transferred to the EOF at the same time. Discussion turned to the difference between "Desired Number" and "Minimum Number" in columns on Table 5-2. This is somewhat confusing and the STAFF may interpret the desired number, as the minimum number required. Adding another column could change this.

Mr. Donohew recommended that we hold off on making any change such as this until after the review of the request is complete.

Later discussion on this topic revealed that the TABLE 5-2 is the entire team that would respond to an event. Mr. Donohew recommended this be clarified on the table.

(3) The Protective Measures Coordinator is not a Rapid Responder. This is an error on the table. In the body of the RERP, this position is not designated as a Rapid Responder.

Looking back at the documentation, it looks as though the error happened in putting things back after the reactive inspection (Change Notice 98-004 REV 21 changing them from 90 minutes to 60-75minutes) then REV 22 has them down for 30-45 minutes, it was also overlooked in Revision 23.

The other positions are for dose assessment monitoring purposes. These positions are assigned, as a top priority, as personnel arrive. They are not required to relieve the Control Room of any activities. We assume an initial ground level release and monitor using the installed process monitors. The 30-45 minutes is to get them here, briefed, and dispatched as soon as possible.

This was explained to Mr. Donohew's satisfaction.

(4) We see no changes.

Mr. Donohew understood that there are no changes in the processes other than response times.

4. For the current RERP Table 5-2, discuss what the response goals of 30-45 and 60-75 minutes in the table mean in terms of the initiation of ERF mobilization, emergency response organization (ERO) personnel driving to the TSC or EOF in response to an emergency, and ERF activation. Explain the effect of footnote + to the table, which states that the response times may vary due to inclement weather and/or road conditions, on the response goals? Are the response goals addressed elsewhere in the RERP (i.e., in addition to the footnote to Table 5-2)? Explain how this part of footnote + affects the proposed response goals.

Our plan and procedures presently are silent on facility activation times. We have drilled for the NRC in the past and tested quarterly and always used from declaration time to arrival time at the facility. Snow, ice, flooding, tornadoes, and other natural hazards may cause commute times to be greater.

Discussion centered around our present program that "Declaration of ALERT starts the clock and walking in facility and signing in on the board stops the clock" for determining whether or not we were successful in meeting our time requirements.

Mr. Donohew questioned the reason for the span of 30-45 minutes and why there wasn't a definite number rather than the span. It was explained that this was negotiated at the time of licensing the Plant and never changed. We strive for 30 minutes but will except 45. Gives us a gauge as to how well we are doing before we fail. An example is that if all personnel are responding at 44 minutes then action should be taken to get it closer to 30.

The +footnote regarding inclement weather was discussed. There is no distinction between minor and major inclement weather. In reference to road conditions it was unclear if the statement was made on weather or the curves and hills. We stated this statement was in regard to weather.

5. What assistance, if any, is provided by the State to ERO personnel driving to the site in response to an emergency? Is there any assistance so that personnel would arrive sooner at the site? Discuss if adding such assistance to the RERP was considered in the development of the proposed response goals.

Activating at the ALERT does not afford any assistance from the local or state, as they too are in the initial phases of activation. Such assistance was never considered. The roads coming to the plant are such that assistance would not provide for quicker response times. In the rural setting, traffic is not a factor. Road conditions and layout are the factors that must be considered for safety purposes.

There is nothing in either the Plant or State/local plan for this assistance, until Site and General Emergency classifications.

6. Discuss the change in the ERF activation goals because of the proposed changes to the response goals in RERP Table 5-2?

Our plan and procedures presently are silent on facility activation times. We have drilled for the NRC in the past and tested quarterly and always used from declaration time to arrival time at the facility. We are now willing to place some goal on the Activation process that was not there previously. Why wasn't it added in the past, because we would draw attention to something that everyone new we have trouble in meeting.

It was further clarified that there are no proposed changes for the activation process other than the extended response time.

7. Explain what was meant by the statement in the change description in Enclosure 1 (page 1 of 8) to the application that "... this revision will give greater assurance that ERO members will arrive safely to their assigned emergency response facilities."

With an emergency goes a certain amount of stress. Placing additional stress of shorter response time requirements adds to the possibility of using unsafe means to meet those goals. Giving an individual additional time will provide the opportunity to consider safety in the commute.

It was understood that safety issue is dealing with the added stress involved with shorter response time.

8. Provide the definitions of the following terms in the revised RERP Table 5-2: normal hours and off-hours? Would there be personnel driving to the TSC or EOF in an emergency during normal hours? Assuming normal hours for the response goals in RERP Table 5-2 means the responders are on shift, should not the response goal be immediate (instead of the proposed 15 minutes) as it is in RERP Table 5-1?

The definitions will be provided. The EOF is approximately a mile away and personnel will drive from the plant site to the EOF. There are personnel who will respond to the TSC and Control Room that are at the Training Center and Callaway Multipurpose Building outside the protected area. We do not consider these personnel immediate.

It will take time to get into the plant and to the TSC, and it will take time to drive and to the EOF from the plant.

On shift personnel are quite likely to be in the plant and therefore can be dispatched with out responding to a specific area. That is why Table 5-1 has immediate for response time. It is now understood that the response time for the ERO during normal working hours is to allow them to get from their work area to the Emergency Response Facility. We do not have personnel responding from more than a mile away during normal work hours.

9. Why should not the definitions of normal hours, off hours, and facility activation be added to RERP Chapter I?

We will add the definitions.

10. Discuss what is the overall percentage of the plant staff that is currently available to be the 30-45 and 60-75 minute responders, and what will be the percentage available for the proposed 75-minute response goal?

Total pool of pager eligible employees (439) = (396) management + (43) R/C Techs

Using 40 minutes or less commute (5 minutes allowed for pager activation) there are 190 personnel available for those duties, or 43.3%

Using 70 minutes or less commute (5 minutes allowed for pager activation) there are 429 personnel available for those duties, or 97.7%.

There is no increase in total pool.

Although all personnel now filling positions are qualified, the increased response time will allow experience and other factors to be used in selecting ERO members.

This was the information needed, and will be sent to Mr. Donohew.

11. (1) Can personnel in the two emergency positions of Rad/Chem Technician in RERP Table 5-1, for the two functions of health physics operation and technical support, perform the tasks of each function? (2) Discuss if the RERP allows the emergency coordinator to direct these technicians to assist the other in performing the tasks needed to be done in these two functions. Would this also be true for the emergency position of Rad/Chem Technician of the chemistry function (i.e., does this Rad/Chem Technician have health physics training to perform the two health physics functions)?

(1) The Rad/Chem Technician Technical Support is qualified Dose Assessment. This technician is also qualified to perform all the duties the Rad/Chem Technician Operations can do. The Rad/Chem Operations Technician cannot perform Dose Assessment.

(2) Yes, 5.2.1, says the EC directs the Emergency Response Organization from the TSC after relieving the Shift Supervisor, 5.1.5 and 5.1.6 says these two positions reports to the Shift Supervisor.

(3) The Chemistry Technician is qualified to perform function of Rad/Chem Support page 3 of 6 Table 5-2.

Mr. Donohew noted that this was not a complete cross training between functions, but it was close.

12. Discuss how the on shift staffing in RERP Table 5-1 would perform the functions of onsite surveys, health physics coverage and in plant surveys, access control, personnel monitoring, dosimetry, offsite surveys, and offsite dose assessment during the additional time until the proposed activation of the ERFs. Discuss any RERP drills or licensee observations in drills, and their documentation, which indicate these health physics functions could be performed by the on-shift emergency staff for the additional time.

We take advantage of technology, not only in emergencies, but also during normal operations.

Automated access allows personnel to sign in to a RCA themselves. Electronic (Self-Reading) Dosimetry allows them to monitor their own dose and dose rate. As stated before, all our initial assumptions are of a ground level release and therefore offsite dose assessment is limited to monitor readings and projection calculations. Emergency facilities have operating walk through gamma 10 detectors that eliminate the need to set up friskers.

The TSC has automated access for signing in on the emergency RWP, which is activated and ready at all times. Electronic Dosimeter ready at all times.

We have no documented drills that exercise this on shift capability during emergencies, but it is very much like our normal operations.

Mr. Donohew will review Page 6 of 8 and 7 of 8 in the submittal. He may request further information.

13.

14. There is a reference in Enclosure 1 (page 8 of 8) of the application to Callaway operating crews being evaluated in conjunction with the Emergency Preparedness Program, 82701 Inspection, and that operating crews responded for a period of 90-120 minutes without assistance from the TSC and EOF. Discuss the evaluations made of the operating crews and provide references to any documentation of the evaluations. The evaluations were stated to include the control room classifying and declaring the emergency, and notifying offsite agencies. Did the evaluations include other work that would have been preformed by the TSC or EOF staff if the ERFs had been activated earlier (e.g., emergency team support tasks)? How does the period 90-120 minutes compare to the proposed ERF activation goal?

Documentation can be found in the following Inspection Reports;

Inspection Report 50-483/98-14

Inspection Report 50-483/98-23

Inspection Report 50-483/2000-04

There was no outside help for these evaluations. Directions, for support personnel, were made from the Simulator to a communications cell while the actual tasks were simulated.

We committed in Enclosure 1 of the submittal to conduct these types of drills periodically on the operating crews. Between now and the end of January 2001, each operating crew will be evaluated.

Mr. Donohew will review these reports.

15. Compare the personnel access control to the radiological controlled area during an emergency to that control during normal operations. Explain what is meant by the references to electronic dosimetry and electronic dosimeter application in Enclosure 1 (page 6 of 18) of the application. In that ERO personnel report to the TSC (after TSC mobilization is initiated) before responding to the emergency, is there equipment staged at the TSC to minimize the time for personnel access control to the radiological controlled area?

As stated before, all the capabilities that are available at Access Control is available at the TSC. Access to RCA can be done from the TSC with emergency dosimetry and RWP for what we call FAST ENTRY MODE.

Discussion centered on the types of access control equipment that is located in the TSC and if it was different than that used in normal operations.

The same access control equipment is used in the TSC as at our access control. Personnel can sign into the RCA from the TSC.

16. When would the data from the year 2000 census be available? Explain the projections on the 1990 census data using the Landview III software and the basis for using this software for population projections. Discuss if a significant increase in the 1990 data for the 5-to-10-mile zone should be expected.

2000 Census planned release dates are between Jun – Sept. 2001.

Mr. Donohew requested the following information on LANDVIEW III.

LANDVIEW III is a geographic data viewer and database developed by the Federal Government. Population, demographic and geographic data used in LANDVIEW III is provided by the U.S. Census Bureau, U.S. Geological Survey (USGS), National Oceanographic and Atmospheric Administration (NOAA) and the Environmental Protection Agency (EPA). Some of the EPA data (i.e., power reactor locations) was provided by the Nuclear Regulatory Commission (NRC), as noted on the NRC web site.

In LANDVIEW III, population data from the 1990 Census is provided down to the Census Block Group Level. The Census Block Groups do not correspond to the Emergency Planning Zone (EPZ) sub areas, but are similar in size. LANDVIEW III can use this data to calculate the population within a specified radius around a specified point. For example, by specifying the coordinate location of the center of the Emergency Planning Zone (EPZ), it is possible to calculate the population within 2, 5 or 10 miles, or to other distances as desired.

LANDVIEW III software and data is in the public domain, and may be freely obtained (on a county - by county basis) from the Right-To-Know network web site. Copies on CD-ROM are available (\$99 per disk, or \$549 for 11 disks covering entire U.S.) from the U.S. Census Bureau.

A new product, called LANDVIEW IV, is under development. This product will include population data down to the Census Block level, allowing increased accuracy of population estimates. LANDVIEW IV is not presently available, but will be distributed on a single DVD-ROM covering the entire U.S. An updated version of LANDVIEW using the 2000 Census data is expected to be available by Fall 2001.

17. For the proposed RERP Table 5-2, page 3 of 6, the reference to the emergency position of on-shift emergency response (RERP Table 5-1) has the proposed response goals of 15 minutes and immediate for normal and off hours, respectively. Explain why the response goals for the normal and off-hours should not be both immediate because the personnel involved in both cases are on shift?

This was a mistake the On Shift Response is considered immediate at all times.
Table 5-2 page 3 of 6 will be changed.

Corrected page will be submitted.

18. For the proposed RERP Table 5-2, page 3 of 6, the reference to the general emergency position of support area personnel has the response goal of 15 minutes for normal hours and no response goal listed for off hours. The specific technical areas for the support area personnel are listed below this reference and have response goals listed for both normal and off-hours. Explain why there should be a response goal listed for normal hours for the general emergency position of support area personnel.

Due to the fact that the individual positions are listed below the general topic of Ops Support Personnel, both columns should have said SEE BELOW or something similar.

Corrected page will be submitted.

19. Are the changes to footnotes + and # the only proposed changes to page 6 of 6 of RERP Table 5-2?

Yes.

Mr. Donohew will review the information from this telecon. Another telecon may be set prior to any formal requests for information. An electronic version of today's discussion will be forwarded to Mr. Donohew to compare to his notes.

EMAIL DATED NOVEMBER 28, 2000

From: "Crawford, Stanley J." <sjcrawford@cal.ameren.com>
To: "jnd@nrc.gov" <jnd@nrc.gov>
Date: Tue, Nov 28, 2000 11:49 AM
Subject: Answers to Observations from Application and 11/03/00 Conference Call

Jack,

As per your request, these are the actions to be taken on the underlined verbiage of the above titled document.

<<Donohew NRC Letter.doc>>

Stan Crawford
Emergency Preparedness
AmerenUE, Callaway Plant
(573) 676-8505
sjcrawford@cal.ameren.com

CC: "Shafer, David E" <DShafer@ameren.com>, "Pendergra...

ATTACHMENT 3

November 28, 2000

Mr. Jack Donohew,

Callaway Plant RERP Change Submittal
Response Time Goal Extension

Information per your review, and our discussion, in reference to the Callaway Plant RERP change submittal, the following changes will be made to the RERP, upon approval of the submittal.

Where response time goals are stated in the RERP, response time will be defined as the time that expires from emergency declaration to the responder arriving and signing in to the Emergency Response Facility (ERF).

Where normal working hours are stated in the RERP, normal working hours will be defined as current standard core hours per Company and Plant policies and procedures.

Where ERF activation is stated in the RERP, activation will be defined as when the ERF (TSC or EOF) is ready to accept their respective functions from the Control Room. These functions are Classifications, Notifications, Dose Assessment, and Protective Action Recommendations.

There are 7 out of 14 Rapid Responders that are identified as the minimum needed to activate the Emergency Response Facilities, which will be better explained when activation is defined as per #3 above. This is not a change to our present processes.

Where desired number is stated in the RERP, desired number will be defined as the complete ERO staffing for the event (all positions filled with the number of individuals we consider optimum) so as not to be confused with minimum staffing.

All coordinators listed in RERP Table 5-2 are trained to perform the tasks specified in the table for their staff. Although Callaway feels this is evident, effort will be made to clarify these duties.

RERP section 5.1.5, Rad/Chem Technician, Chemistry, section 5.1.6, Rad/Chem Technician, Health Physics Operations Support, section 5.1.7, Rad/Chem Technician, Health Physics Technical Support, will be expanded to address additional qualifications that are shared among the groups.

EMAIL DATED DECEMBER 6, 2000

From: "Crawford, Stanley J." <sjcrawford@cal.ameren.com>
To: "jnd@nrc.gov" <jnd@nrc.gov>
Date: Wed, Dec 6, 2000 3:26 PM
Subject: FW: Callaway Submittal

Jack,
I made a mistake in the initials for your email. I am not sure who originally got this.
Stan

> -----Original Message-----

> From: Crawford, Stanley J.
> Sent: Wednesday, December 06, 2000 10:22 AM
> To: 'jdn@nrc.gov'
> Cc: Evans, Michael S.; Shafer, David E
> Subject: Callaway Submittal

>

> Jack,
> Here is the document as per your discussion 12/5 with Dave Shafer. If
> there are any other items let us know. Thank you for all your assistance
> in this matter. Your efforts are greatly appreciated.

>

> <<Callawa1.doc>>
> Stan Crawford
> Emergency Preparedness
> AmerenUE, Callaway Plant
> (573) 676-8505
> sjcrawford@cal.ameren.com
>

ATTACHMENT 4

December 6, 2000

Mr. Jack Donohew,

Callaway Plant RERP Change Submittal

Response Time Goal Extension

Information per your review, and our discussion, in reference to the Callaway Plant RERP change submittal, the following changes will be made to the RERP, upon approval of the submittal.

- 1. Where response time goals are stated in the RERP, response time will be defined as the time that expires from emergency declaration to the responder arriving and signing in to the Emergency Response Facility (ERF). This is not a change to our present processes.*
- 2. Where normal working hours are stated in the RERP, normal working hours will be defined as current standard core hours per Company and Plant policies and procedures. The current core hours are 7:00 a.m. to 3:30 p.m. Monday through Friday, and the off hours are the remaining hours in the week. This is not a change to our present processes.*
- 3. Where ERF activation is stated in the RERP, activation will be defined as when the ERF (TSC or EOF) is ready to accept their respective functions from the Control Room. These functions are Classifications, Notifications, Dose Assessment, and Protective Action Recommendations. The Emergency Coordinator (EC) in the Control Room decides when to transfer emergency functions to the ERFs. The functions can be transferred individually or all together. The ERFs become operational when all the functions, including that of EC, are transferred from the Control Room. This is not a change to our present processes.*
- 4. There are 7 out of 14 Rapid Responders that are identified as the minimum needed to activate the Emergency Response Facilities, which will be better explained when activation is defined as per #3 above. This is not a change to our present processes.*
- 5. Where desired number is stated in the RERP, desired number will be defined as the complete ERO staffing for the event (all positions filled with the number of individuals we consider optimum) so as not to be confused with minimum staffing. This is not a change to our present processes.*

6. *All coordinators listed in RERP Table 5-2 are trained to perform the tasks specified in the table for their staff. Although Callaway feels this is evident, effort will be made to clarify these duties. This is not a change to our present processes.*
7. *RERP section 5.1.5, Rad/Chem Technician, Chemistry, section 5.1.6, Rad/Chem Technician, Health Physics Operations Support, section 5.1.7, Rad/Chem Technician, Health Physics Technical Support, will be expanded to address additional qualifications that are shared among the groups. This is not a change to our present processes.*
8. The following Inspection Reports evaluate the ability of control room crews to perform, for periods of up to two hours, the emergency functions of evaluating plant conditions, identifying emergency action levels, classifying the emergency, making timely notifications to offsite agencies, evaluating radiation information and performing dose assessments, and recommending appropriate protective actions: IR 50-483/98-14, IR 50-483/98-23, and IR 50-483/2000-04, which were issued July 17 and October 28, 1998, and February 10, 2000, respectively. The resolution of the two Suggestion Occurrence Solutions (SOSs 98-3628 and 00-0107) for identified control room performance weaknesses would be addressed. Both were resolved.
9. Provide the estimated percentage increase in the pool of eligible rapid ERF responders (i.e., the current 30-45 minute responders). It is these responders which have a proposed increase in their response time goals. Provide the basis for the estimate.
At the present time we have 42 personnel filling our management Rapid Responder positions. The following management personnel live 45 minutes or greater from the Plant and are presently filling non-Rapid Responder positions in our Emergency Response Organization. These personnel would be considered for Rapid Responder positions if the time restrictions were increased as per our submittal.
 - (10) Licensed Senior Reactor Operators
 - (5) Senior Management- VP's, Managers, Superintendents
 - (6) Supervising Engineers
 - (21) Senior Engineers
 - (5) Health Physics Management/ Dose Assessment qualified
 - (6) Management Staff- EOF Communicator/ Offsite Liaison qualified.
 This totals 53 individuals that could be added to our pool of management Rapid Responders. This also has a trickle down effect on the entire ERO. There are very capable personnel presently not even in our ERO due to the fact that there is no room for them. In the non-management ranks, particularly Rad/Chem Support, there are presently 36 personnel that are available. The extended response time would add 19 additional individuals to the pool.
10. Both County Routes O and CC are two-lane roads that traverse the terrain of the Missouri River valley and its tributaries. These roads require maneuvering many curves and hills.