

AUG 21 1981

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8/21/81

MEMORANDUM FOR: Brian K. Grimes, Director
 Division of Emergency
 Preparedness, IE

FROM: John H. Corley, Director
 Division of Facilities and
 Operations, ADM

SUBJECT: REMOVAL OF BEEP TONES FROM NRC OPERATIONS CENTER
 TELEPHONES

As requested by your memorandum, same subject, August 3, 1981, the Telecommunications Branch has identified and analyzed alternative methods of notifying persons calling or receiving calls from the NRC Operations Center that such calls are recorded. Details of the study are enclosed.

The alternatives analyzed are not mutually exclusive from a technical viewpoint. Therefore, different combinations than those presented can be considered, should you so desire.

If the position is taken that, under any conditions, the tones are disruptive and the risk of garbled receipt of critical information is unacceptably great, then the viable alternatives are:

- o Remove the beep tones entirely.
- o Provide a disabling switch so that the beep tones may be turned off at the discretion of an official during emergency responses. Ensure by verbal announcement that personnel unfamiliar with NRC operating procedures are aware of the recording.

If the position is taken that, under any conditions, no person unfamiliar with NRC operating procedures can be recorded without warning, then the only practical alternative is:

Continue automatic imposition of beep tones.

If some intermediate position is taken, alternatives can be tailored to the requirement. For example, if the position is taken that (a) calls involving only NRC personnel and subscribers of NRC emergency networks should be without beep tones, but (b) that all calls to published NRC Operations Center telephone numbers and from the NRC Operations Center to non-subscribers to our emergency networks should have beep tones, the system can be configured to accomplish both these conditions. The cost of such a reconfiguration appears to be minimal, but we have not yet been able to get a firm price or time to complete

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Brian K. Grimes

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the option from the telephone company. Alternatives involving combinations of beeps on some lines but not on others increase complexity and therefore potential for human error and equipment malfunction.

We have been informed that the capability to synchronize beep tones, vary the interval between beeps, and provide for disabling the beeps can be accomplished within a few months at modest cost.

Please inform us when you have decided which alternative(s) you wish us to pursue.

Original Signed by:
John H. Corley

John H. Corley, Director
Division of Facilities and
Operations, ADM

Enclosure:
as stated

cc: K.Perkins, EDO
R.Voegli, ELD
J.Cohen, SEC
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bcc: JGJones
BDBrownell

File: reading, FOS, TB
subject 1730 (Beep Tone)

Completed 8/20/81

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ALTERNATIVES FOR MANUAL AND AUTOMATIC WARNINGS THAT TELEPHONE CONVERSATIONS INVOLVING THE NRC OPERATIONS CENTER ARE BEING RECORDED

No.	Description	Add'l. Cost/Time	Advantages	Disadvantages
1.	Continue to impose beep tones on all recorded conversations.	None	All parties are aware of recording; low cost; minimal probability of human error.	See Notes 1 & 2.
2.	Discontinue all beep tones with widespread public notice through Federal Register, press releases, etc. Verbal announcement by NRC personnel notifies that recording is being made.	No cost; Ten days to effect.	Avoids disadvantages of beeps.	No automatic all-party awareness; potential for human error in forgetting to make announcement.
3.	Apply automatic beep tones to all interconnecting access lines to networks outside the NRC Operations Center.	No firm quotation; cost expected to be less than \$10,000; time up to six months.	All calls involving NRC Operations Center, Emergency Notification System, Health Physics Network, dedicated lines to other agencies can be recorded without beeps. Incoming calls from outside NRCOC comm-network, all but controlled outside calls, and conferences involving "outside parties" would have beep tones.	Complexity creates higher potential for either human error or equipment malfunction. On calls where beep tones are imposed, same disadvantages as alternative 1. Requires some reconfiguration of the system currently being installed. Potential (low) of telephone regulatory difficulty.
4.	Replace current automatic beep tone generators with modified beep tone generators to permit synchronized beeps, adjustable (longer) intervals between beeps, capability to disable entire beep tone system if operational difficulties arise.	No firm quotation; cost expected to be less than \$250/ beep tone generator; time up to six months.	Can be used with any other alternative involving automatic beeps. Reduces the number of beeps. Permits complete removal of beeps when beeps are causing operational difficulty.	Some potential for human error in not restoring beeps when difficulty is over. Potential for recording persons unaware that conversation is being recorded while beep tones disabled. (NOTE: disabling switch is optional.)

Complex. Requires duty officer to manipulate one switch per affected channel. High potential for human error.

Requires engineering development. Potentially higher cost than other alternatives. All incoming calls delayed for recorded announcement. Acquires extensive reconfiguration of system currently being installed. Probable extensive delay.

Permits tailoring of beep tone system to meet special situations.

Assured all party awareness of recording. Beeps only on calls leaving the HRCUC com-network.

- 5. Same as #4, but with same as #4 + (est) selective beep tone disabling switches.
- 6. Recorded announcement on all incoming calls. Beep or recording on all calls outgoing.

- NOTES:
1. Single beep tone can obliterate important information, beeps are annoying, especially in a crisis situation, and can be confusing.
 2. Multiple beep tones as in the existing system compound the problems noted above.
 3. Requirement stated by the Office of Inspection & Enforcement to expand the existing recording capability is being held in abeyance until this issue is resolved. Cost of this upgrade is not considered in the alternatives outlined above.