

Emergency Preparedness Frequently Asked Question (EPFAQ)

EPFAQ Number: 2020-01

Date Accepted for Review: 1-6-2019

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Organization: Nuclear Energy Institute

Relevant Guidance: U.S. Nuclear Regulatory Commission (NRC) NUREG/CR-7002, "Criteria for Development of Evacuation Time Estimate Studies"

Applicable Section: 5.4, "Reviews and Updates"

Status: Complete

QUESTION OR COMMENT:

Background

On March 31, 2021, the data from the 2020 decennial census will be released. With this data, a licensee must prepare and submit updated Evacuation Time Estimates (ETEs) by March 30, 2022, in accordance with Title 10 *Code of Federal Regulations* (10 CFR) 50, Appendix E, Section IV, Item 4, which states:

4. *Within 365 days of the later of the date of the availability of the most recent decennial census data from the U.S. Census Bureau or December 23, 2011, nuclear power reactor licensees shall develop an ETE analysis using this decennial data and submit it under § 50.4 to the NRC.*

The baseline ETE study done after each decennial census includes a sensitivity study to determine what percentage increase in permanent resident population in the 2-mile zone, 5-mile zone, or entire 10-mile emergency planning zone (EPZ) results in a 25% increase in ETEs versus the most recent baseline ETE study, or 30 minutes, whichever is less. In accordance with 10 CFR 50, Appendix E, Section IV, Items 5 and 6, licensees perform annual ETE updates to determine the percent change in permanent resident population, and whether that change meets or exceeds the threshold identified in the baseline ETE study, thereby necessitating a new baseline ETE study.

5. *During the years between decennial censuses, nuclear power reactor licensees shall estimate EPZ permanent resident population changes once a year, but no later than 365 days from the date of the previous estimate, using the most recent U.S. Census Bureau annual resident population estimate and State/local government population data, if available.*
6. *If at any time during the decennial period, the EPZ permanent resident population increases such that it causes the longest ETE value for the 2-mile zone or 5-mile zone, including all affected Emergency Response Planning Areas, or for the entire 10-mile EPZ to increase by 25 percent or 30 minutes, whichever is less, from the nuclear power reactor licensee's currently NRC approved or updated ETE, the licensee shall update the ETE analysis to reflect the impact of that population increase. The licensee shall submit the updated ETE analysis to the NRC under § 50.4 no later than 365 days after*

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the licensee's determination that the criteria for updating the ETE have been met and at least 180 days before using it to form protective action recommendations and providing it to State and local governmental authorities for use in developing offsite protective action strategies.

The last decennial census based ETE of record for most licensees is dated December 2012; therefore, these licensees complete their annual ETE update by December of each year. Looking ahead, the work to prepare the 2021 annual ETE updates, which projects permanent resident population to 2021 based on the 2010 decennial census data, will occur in the same timeframe as that needed to develop the next baseline ETE study based on the 2020 decennial census data (i.e., after March 31, 2021). This means the 2021 annual ETE update (per Appendix E, Section IV, Item 5) would serve no purpose because even if it indicates that population has grown enough to trigger a new baseline ETE study, all licensees will already be in the process of preparing the next full baseline ETE study based on 2020 Census data (per Appendix E, Section IV, Item 4).

Question

Can licensees get generic relief from performing the 2021 annual ETE update as they will already be doing a full baseline ETE study based on the 2020 Census data?

PROPOSED SOLUTION:

Yes; generic relief from performing the 2021 annual ETE update can be provided. The method for providing the requested relief will need to be determined by the NRC.

NRC RESPONSE:

Licensees should not need relief from performing the 2021 annual ETE update. The NRC intends to issue a revision to NUREG/CR-7002, "Criteria for Development of Evacuation Time Estimate Studies," which would clarify the regulatory requirement to perform the annual ETE update (e.g., in 2021) in the same timeframe as the decennial census. The revised NUREG/CR-7002 would provide guidance on ETE reviews and updates to clarify when an update should be performed subject to the availability of decennial census data. The guidance would clearly define the "decennial period" and the relationship to "annual update" as it applies to 10 CFR Part 50, Appendix E, Section IV.5 and IV.6.

RECOMMENDED FUTURE ACTION(S):

- ☐ INFORMATION ONLY, MAINTAIN EPFAQ
- ☒ UPDATE GUIDANCE DURING NEXT REVISION

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