

SUPPORTING STATEMENT
U.S. Department of Commerce
National Institute of Standards and Technology
Usage of Elevators for Occupant Evacuation Questionnaire
OMB Control No. 0693-XXXX

A. JUSTIFICATION

This is a request for Office of Management and Budget approval of a new information collection.

1. Explain the circumstances that make the collection of information necessary.

The Final Report on the collapse of the World Trade Center (WTC) Towers recommended that tall buildings be designed for timely full-building evacuations from both building-specific and large-scale events. Since the WTC study, project efforts were established within the NIST Engineering Laboratory (EL) to better understand occupant egress from buildings using elevators. The goal for this project is to improve occupant safety during building evacuations, and one critical way to achieve this goal is to conduct an information collection using the proposed questionnaire (Use of Elevators for Occupant Evacuation Questionnaire). The U.S. General Services Administration (GSA) is providing the funds for this project, and their database of lead/primary GSA property managers will be used for potential respondents.

The data obtained from the questionnaire will help to better understand how elevators are currently used by occupants of existing multi-story buildings in the United States during fire emergencies. Currently, most of the research on elevators has primarily focused on the technical aspects of ensuring safe and reliable evacuation for the occupants of tall buildings. In addition, the International Code Council and the National Fire Protection Association provide requirements for the use of elevators for both occupant evacuation and fire fighter access into the building. However, there still is little understanding of how occupants use elevator systems during fire emergencies. Without this understanding, much needed evacuation procedural guidance on how occupants should use elevators to ensure cost-effective, safe and efficient evacuation cannot be developed.

This research aims to summarize emergency plans and procedures from U.S. buildings that make use of one or multiple elevators from the existing elevator system (used for normal building traffic) for the evacuation of building occupants during fire emergencies. This data is necessary to improve current egress procedures for multi-story buildings that will provide a higher level of safety for building occupants.

2. Explain how, by whom, how frequently, and for what purpose the information will be used. If the information collected will be disseminated to the public or used to support information that will be disseminated to the public, then explain how the collection complies with all applicable Information Quality Guidelines.

The data obtained from the questionnaire will be used by NIST/EL to discover how the various ways in which buildings in the U.S. are currently using elevators for evacuation during fire emergencies. This understanding will be used to eventually develop science-based guidance containing recommendations on occupant use of elevators for evacuation during fire emergencies.

This questionnaire will contain a set of questions that will be distributed to selected individuals, such as building managers and designated safety personnel, who are familiar with or in charge of developing emergency procedures for multi-story buildings in the United States, including both federal and private sector buildings. All individuals will receive the same set of questions by logging into a secured online website to provide responses for each question. The location of the questionnaire (i.e., the website) will be advertised (via email or listservs) to building managers or designated safety personnel of federal and private buildings in the U.S. and then it will be up to the individual, if he/she wishes to participate. This is a one-time only survey.

Data will be viewed and analyzed by NIST/EL only.

Even though statistical sampling methods are not being used, NIST is interested in performing simple statistical analyses on the data to determine inter- and intra-building similarities and differences. NIST may use basic analysis techniques such as simple difference of means tests and basic regression analysis.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological techniques or other forms of information technology.

The questionnaire will be posted online using a secured website for building managers and designated safety personnel to answer at their convenience.

4. Describe efforts to identify duplication.

This is the only study of this nature. No duplication was identified.

5. If the collection of information involves small businesses or other small entities, describe the methods used to minimize burden.

NIST may receive questionnaire responses from building managers or designated safety personnel from buildings where small businesses reside. Any burden to the small business is minimized by the fact that any response to this questionnaire is voluntary.

6. Describe the consequences to the Federal program or policy activities if the collection is not conducted or is conducted less frequently.

If NIST did not conduct this research, building owners, building managers, safety personnel, and engineers still would not understand the current methods that buildings are implementing regarding the use of elevators during emergencies, which is essential to know before developing guidance on how to use elevators in fire emergencies in the future. The questionnaire results will eventually lead to better designed evacuation procedures using elevators during building emergencies, which in turn, may result in egress designs that overestimate the needs of the population and building (resulting in higher costs of the building) or underestimate the needs the population and building (resulting in a lower level of safety for building occupants evacuating in fires).

7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.

There are no special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.

8. Provide information of the PRA Federal Register Notice that solicited public comments on the information collection prior to this submission. Summarize the public comments received in response to that notice and describe the actions taken by the agency in response to those comments. Describe the efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

A Federal Register Notice soliciting public comments was published on March 31, 2011 (Vol. 76, pg. 17838). No comments were received.

9. Explain any decisions to provide payments or gifts to respondents, other than remuneration of contractors or grantees.

There are no payments or gifts to respondents.

10. Describe any assurance of confidentiality provided to respondents and the basis for assurance in statute, regulation, or agency policy.

No assurance of confidentiality is provided.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.

Not Applicable.

12. Provide an estimate in hours of the burden of the collection of information.

It is estimated that 1,500 respondents will complete the questionnaire and 15 minutes per respondents. The estimated total burden hours will be 375.

13. Provide an estimate of the total annual cost burden to the respondents or record-keepers resulting from the collection (excluding the value of the burden hours in Question 12 above).

Not Applicable.

14. Provide estimates of annualized cost to the Federal government.

The estimated Federal government cost is \$40,000 to review, analyze results and compose the report.

15. Explain the reasons for any program changes or adjustments.

This is a new collection thus no program change or adjustment.

16. For collections whose results will be published, outline the plans for tabulation and publication.

The results of the questionnaires will be analyzed in order to identify trends in the use of elevators during evacuation in U.S. buildings. More specifically, this information will be used in order to eventually develop guidance on how best to use elevators in U.S. buildings during emergencies, including recommendations on elevator strategies and procedures for people with disabilities. General trends of elevator usage will be reported and no mention will be made of the

specifics of any building or any building's evacuation plan. The results will be published as NIST technical reports. No specific quotes or individual responses from this information collection will be included in these reports.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate.

Not Applicable.

18. Explain each exception to the certification statement.

None.