Supporting Statement
U.S. DEPARTMENT OF ENERGY HYDROGEN PROGRAM KNOWLEDGE AND OPINIONS ASSESSMENT OF SAFETY AND CODES OFFICIALS

A. JUSTIFICATION

1. Why collection is necessary

The U.S. Department of Energy (DOE) Hydrogen Program must assess the level of knowledge held by certain populations in order to design appropriate education programs. The Knowledge and Opinions Assessment of Safety and Codes Officials will measure the level of awareness and understanding of hydrogen and fuel cell technologies among officials responsible for safety, codes, and standards.

In 2004, a baseline survey was conducted to determine the levels of knowledge and opinions related to hydrogen and fuel cell technologies in four populations – general public, students, state and local governments, and end users. At that time, officials responsible for safety and codes were not surveyed.

The purpose of the Safety and Codes Survey is to establish a baseline measurement of the level of knowledge about hydrogen and fuel cell technologies among organizations responsible for developing, adopting, issuing, and enforcing safety and code standards. Information gathered in this assessment will guide DOE's overall education plan for the Hydrogen Program and will provide scientific data for adjusting the focus of the education subprogram if necessary.

The information collection is authorized through the Energy Reorganization Act of 1974; Public Law 93–438; the Department of Energy Organization Act of 1977; 42 U.S. Code Sections 5813, 5815, 5817, and 7101. Appropriate sections are provided in Appendix A (U.S. Code Title 42 Sections 5813, 5815, and 5817, from http://uscode.house.gov/usc.htm).

2. By whom and for what purpose

This information collection will be used by the DOE Hydrogen Program. DOE is working with domestic and international organizations to identify the current gaps in the standards and address barriers to the development of standards. In addition, it is generally believed that there is currently a lack of understanding of hydrogen and hydrogen system safety needs among officials (for example, fire marshals) responsible for enforcing codes and standards. The survey will gauge the level of understanding and assist DOE in designing the appropriate education programs for individuals involved in the development and enforcement of hydrogen-related codes and standards.

The respondent universe for the safety and codes survey will consist of four groups:

- International Code Council (ICC)
- National Fire Protection Association (NFPA)

- National Association of State Fire Marshalls (NASFM)
- International Association of State Fire Chiefs (IAFC)

These agencies are responsible for developing codes and standards related to hydrogen and fuel cell technologies; for adopting and enacting codes related to buildings and fire safety; and for enforcing the codes and standards.

This is not an annual survey. It is possible that the results of the current survey will indicate the need for adjustments to improve the effectiveness or efficiency of the education subprogram. In addition, the survey will be repeated in three or four years to determine whether further modifications to the education subprogram are needed.

3. Use of information technology

A computer-assisted telephone interview (CATI) format will be used to conduct the survey. In addition to maximizing efficiency of the personnel administering the survey, the CATI approach also minimizes the burden on survey respondents—by streamlining the question and answer process and by efficiently handling scheduled call backs. CATI automatically records responses in an electronic database during the survey interview. Note, however, that CATI surveys are computer-assisted, not computer-driven; that is, the "interviewer" is a human, not a computer.

After data collection, the data will be statistically analyzed using electronic data processing. (See discussion below in subsection "Estimation Procedure" under Section B.2.)

4. Avoiding duplication

A literature review originally conducted in 2004 concluded that no scientific survey relating to hydrogen and fuel cell knowledge and opinions had been conducted in the United States. In 2007, the literature review was updated. Since publication of the 2004 literature review, a few additional surveys related to hydrogen or fuel cell issues have been conducted. As in the years prior to the 2004 literature review, however, these surveys are inadequate for the U.S. DOE Hydrogen Program's use. For the most part, they have been limited by geographical location (e.g., conducted in Europe), content (e.g., containing no technical questions), or statistical validity (e.g., not designed for statistical analysis). In addition, few surveys included plans to repeat the survey at a future point to assess changes. The original literature review is available at http://www.ornl.gov/~webworks/cppr/y2001/rpt/118840.pdf or on request from Lorena F. Truett (TruettLF@ornl.gov) at 865-946-1306. The 2007 updated draft literature review is available from Lorena F. Truett; a final version of the updated literature review will be available in late June 2008.

5. Impact on small businesses

The information collection is not expected to impact small businesses or other small entities.

6. Consequences of no collection

If the hydrogen assessment data collection is not conducted, it is possible that DOE's education subprogram will be inadequately focused and will fail to accomplish all of the program's goals. One purpose of the data collection is to assess the *current* (i.e., at the time of the survey) knowledge and opinions about hydrogen and fuel cell technologies. The findings of this assessment will be considered the baseline for this population. In 2011, it is planned to repeat the survey. When the survey is repeated, changes in knowledge and opinions will be measured. An education program should be based on some standard; in this case, the standard (i.e., the current knowledge level at a point in time) is the baseline established by the 2008 survey.

7. Special circumstances

None of the special circumstances itemized in the instructions are pertinent to this information collection.

8. Federal Register notice

The 60-day Federal Register Notice was published on January 3, 2008, *Federal Register* Vol. 73, No. 2, p. 482. One comment was received on this announcement. This comment confirmed that the survey of safety and codes personnel was necessity. The 30-day Federal Register Notice was published in the Federal Register on April 30, 2008, *Federal Register* Vol. 73, No. 84, p. 23453

9. Payments or gifts

No gifts or other remuneration will be provided to respondents of the survey.

10. Confidentiality assurance

Confidentiality of individual responses will be maintained through the procedures of the market research firm conducting the surveys. Where confidential information is involved in the information collection, the provision for dealing with the confidential information is set forth in related Departmental regulations and is normal to the handling of management and program information by the Department.

11. Sensitive questions

No questions of a sensitive nature are included in the survey.

12. Hour burden

The time burden for the current survey (an average of 12 minutes) is estimated based on the actual survey times for similar surveys conducted in 2004. The total hour burden for the respondent population of 200 is 40 hours.

No time is needed to search data sources, gather information, or review information. The time burden is limited to the time necessary to answer the questions.

13. Cost burden to respondents or record-keepers

No recordkeeping is required for the respondents. There are no capital or start-up costs. There are no operation and maintenance costs. There is no requirement to purchase services or equipment.

The cost burden to respondents or record-keepers for the survey is $0.

14. Cost to Federal government

The proposed budget for the contract to conduct and analyze this survey is $52,236, as shown in the table below. This budget includes 50 hours planning and preparing for the survey, which includes preparation of OMB materials, publishing a compendium of related surveys conducted since the 2004 literature review, establishing a contract with a professional polling organization, and preparation of a data analysis plan. The second budget item is the cost for a professional polling organization using a CATI system to conduct the survey. This budget item was estimated by a professional polling organization. The third line in the table below includes database development, statistical analysis, calculation of the baseline, and preparation of reports, presentations, and other documentation. There is no additional cost to the government for operational expenses. The labor cost of DOE staff for oversight of contract administration is part of the normal job duties.

Cost burden to the Federal Government		
Tasks	**Hours**	**Cost**
Prepare OMB materials, publish compendium of related surveys, conduct bids and prepare contract with polling organization, write data analysis plan	50	$8,010
Conduct surveys (professional polling organization)	Contracted*	$23,400
Manage/monitor surveys, analyze data, compare results with baseline, write final report, and prepare other documentation as appropriate	130	$20,826
Total	180	$52,236
*This cost was estimated by a professional polling organization.		

15. Program changes

There are no program changes.

16. Plans for publication

Tabulated survey results will be published on the Hydrogen Program website. (The web site URL will be part of the information provided to survey interviewers for respondents who inquire about the survey results, ask questions, or otherwise show interest in the survey material.) Tabulated and analytical results may be published elsewhere as well. Analytical techniques are discussed under the subsection "Statistical Methods" below. A report documenting the survey process, the data, and the results of the statistical analysis will be published.

17. Expiration date

For the CATI (telephone) surveys, the expiration date of the OMB approval will be made available to survey respondents who request it.

18. Exceptions

No exceptions are being requested.