

response and preparedness. The Agency will be considering emergency response and preparedness at common emergencies (e.g., fires or emergency medical and other rescue situations), as well as large scale emergencies (e.g., natural and intentional disasters). OSHA's areas of interest are primarily: personal protective equipment; training and qualifications; medical evaluation and health monitoring; and safety management. The agency will also be evaluating the types of personnel who would constitute either emergency responders or skilled support employees at such events, as well as the range of activities that might constitute emergency response and preparedness.

DATES: Comments must be submitted by the following dates:

Hard copy: Your comments must be submitted (postmarked or sent) by December 10, 2007.

Facsimile and electronic transmission: Your comments must be sent by December 10, 2007.

ADDRESSES: You may submit comments, requests for hearings and additional materials by any of the following methods:

Electronically: You may submit comments, requests for hearings, and attachments electronically at <http://www.regulations.gov>, which is the Federal eRulemaking Portal. Follow the instructions on-line for making electronic submissions.

Fax: If your submissions, including attachments, are not longer than 10 pages, you may fax them to the OSHA Docket Office at (202) 693-1648.

Mail, hand delivery, express mail, messenger or courier service: You must submit three copies of your comments, requests for hearings and attachments to the OSHA Docket Office, Docket No. S-023B, U.S. Department of Labor, Room N-2625, 200 Constitution Avenue, NW., Washington, DC 20210. Deliveries (hand, express mail, messenger and courier service) are accepted during the Department of Labor's and Docket Office's normal business hours, 8:15 a.m.-4:45 p.m., e.t.

Instructions: All submissions must include the Agency name and the OSHA docket number for this rulemaking (OSHA Docket No. S-023B). Submissions, including any personal information you provide, are placed in the public docket without change and may be made available online at <http://www.regulations.gov>.

Docket: To read or download submissions or other material in the docket, go to <http://www.regulations.gov> or the OSHA Docket Office at the address above. All documents in the

DEPARTMENT OF LABOR

Occupational Safety and Health Administration

29 CFR Part 1910

[Docket No. H-010]

RIN 1218-AC17

Emergency Response and Preparedness

AGENCY: Occupational Safety and Health Administration (OSHA), Department of Labor.

ACTION: Request for information.

SUMMARY: Elements of emergency responder health and safety are currently regulated by OSHA primarily under the following standards: The Hazardous Waste Operations and Emergency Response Standard; the personal protective equipment general requirements standard; the respiratory protection standard; the permit-required confined space standard; the fire brigade standard; and the bloodborne pathogens standard. Some of these standards were promulgated decades ago, and none was designed as a comprehensive emergency response standard. Consequently, they do not address the full range of hazards or concerns currently facing emergency responders, nor do they reflect major changes in performance specifications for protective clothing and equipment. Current OSHA standards also do not reflect all the major improvements in safety and health practices that have already been accepted by the emergency response community and incorporated into industry consensus standards.

OSHA is requesting information and comment from the public to evaluate what action, if any, the Agency should take to further address emergency

docket are listed in the <http://www.regulations.gov> index, however, some information (e.g., copyrighted material) is not publicly available to read or download through the Web site. All submissions, including copyrighted material, are available for inspection and copying at the OSHA Docket Office.

FOR FURTHER INFORMATION CONTACT:

Press Inquiries: Kevin Ropp, Director, OSHA Office of Communications, Room N-3647, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210; telephone: (202) 693-1999.

General and Technical Information: Carol Jones, Acting Director, Office of Biological Hazards, OSHA Directorate of Standards and Guidance, Room N-3718, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210; telephone: (202) 693-2299.

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I. Background

There were more than 21 million emergency response incidents in 2002 (see Table 1). Emergency responders include: Firefighters, emergency medical service personnel, hazardous material employees, and technical rescue specialists. Law enforcement officers are also usually considered emergency responders and are often called to assist in emergency response incidents. OSHA notes, however, that it has not promulgated standards specifically addressing occupational hazards that are inherently and uniquely related to law enforcement activities. Many emergency responders are cross-trained and may serve in multiple roles depending upon the nature of the emergency incident. The hazards that emergency responders face will also vary depending upon the type of incident. In addition to emergency responders, skilled support employees can also play an important role in emergency response. Skilled support employees are not emergency responders, but nonetheless have specialized training that can be important to the safe and successful resolution of an emergency incident, such as operating heavy equipment or

shutting down electrical power or natural gas.

Emergency response, which includes firefighting, is one of the most hazardous occupations in America. The United States Fire Administration has recently reported that 111 firefighters died in 2003, and that, on average, 100 firefighters have died each year for the last ten years (excluding the fatalities attributable to the terrorist attacks of September 11, 2001) (Ex. 1-2). Furthermore, the National Fire Protection Association (NFPA) reported that during the 10-year period of 1993-2002, approximately 594,000 firefighters were injured in the line of duty at emergency response incidents. The average annual rate of firefighter injuries is more than 59,000 per year for this period (Ex. 1-2).

TABLE 1.—DISTRIBUTION OF 2002 U.S. EMERGENCY INCIDENTS AS REPORTED BY THE NATIONAL FIRE PROTECTION ASSOCIATION

Emergency response	Number
Fires	1,687,500
Medical Aid	12,903,000
False Alarms	2,116,000
Mutual Aid/Assistance	888,500
Hazmat	361,000
Other Hazardous (Arcing wires, bomb removal, etc.)	603,500
All Other (Smoke scares, lock-outs, etc.)	2,744,000
Total	21,303,500

(Source: Ex. 1-3)

While the preceding statistics concern firefighters, this Request for Information is intended to gather information about all emergency responders and skilled support employees. However, injury and illness rates for other facets of emergency response are difficult to determine due to the multiple roles of some responders (e.g., many firefighters are also EMTs) and a lack of specific data (e.g., injury and illness rates of skilled support employees, such as heavy equipment operators, arising directly from emergency response activities). OSHA is interested in receiving information about the number and types of responder fatalities, injuries, and illnesses incurred during emergency incidents.

A recent report by the U.S. Fire Administration, *A Needs Assessment of the U.S. Fire Service*, examined the condition of the fire service and its ability to respond to incidents, both large and small (Ex. 1-4). The report found that fire departments of all sizes have unmet needs relating to both their traditional firefighting responsibilities

and their new homeland security-related responsibilities. In addition, another report by the U.S. Fire Administration and the National Fallen Firefighters Foundation, *Firefighter Life Safety Summit Initial Report*, found that there are many significant health and safety concerns among the fire service (Ex. 1-5). The report recognized the need for national standards on training, qualifications, medical and physical fitness, as well as for emergency response policies and procedures. A series of three joint reports by the National Institute for Occupational Safety and Health (NIOSH) and the RAND Corporation (RAND) have also recognized a need for further standards in order to improve the operational response to terrorist attacks and better protect the health and safety of emergency responders (*Protecting Emergency Responders: Lessons Learned from Terrorist Attacks; Protecting Emergency Responders (Ex. 1-6); Volume 2: Community Views of Safety and Health Risks and Personal Protection Needs; and Protecting Emergency Responders (Ex. 1-7); Volume 3: Safety Management in Disaster and Terrorism Response (Ex. 1-8)*).

Furthermore, the Homeland Security Act of 2002 (6 U.S.C. 101) and Homeland Security Presidential Directive #8 (HSPD#8), which were established to strengthen the preparedness of the United States to prevent and respond to threatened or actual domestic terrorist attacks, major disasters, and other emergencies, have changed the Federal approach to emergency response and preparedness capabilities at Federal, State, and local entities (Ex. 1-9). In March of 2004, the Department of Homeland Security published the National Incident Management System (NIMS) (Ex. 1-10). This system provides a consistent nationwide approach for Federal, State, local and tribal governments to work effectively and efficiently together to prepare for, prevent, respond to, and recover from domestic incidents, regardless of cause, size, or complexity. Homeland Security Presidential Directive #5 (HSPD#5) requires all Federal agencies to implement NIMS, and also requires Federal agencies to make the NIMS a required element for receiving State and local preparedness grant funding (Ex. 1-11). Additionally, in January 2005, the Department of Homeland Security released the National Response Plan (NRP), which establishes a comprehensive all-hazards approach to enhance the ability of the United States to manage domestic

incidents (Ex. 1–12). The NRP incorporates best practices and procedures from incident management disciplines—homeland security, emergency management, law enforcement, firefighting, public works, public health, responder and recovery worker health and safety, emergency medical services, and the private sector—and integrates them into a unified structure. The NRP forms the basis of how Federal departments and agencies will work together and how the Federal government will coordinate with State, local, and tribal governments and the private sector during incidents. In addition, the NRP establishes protocols that are applicable to emergency responders and skilled support employees in order to help protect the nation from terrorist attacks and other natural and manmade hazards; save lives; protect public health, safety, property, and the environment; and reduce adverse psychological consequences and disruptions to the American way of life.

OSHA addresses the elements of emergency responder health and safety primarily by the following OSHA standards: The hazardous waste operations and emergency response standard (29 CFR 1910.120); the personal protective equipment general requirements standard (29 CFR 1910.132); the respiratory protection standard (29 CFR 1910.134); the permit-required confined space standard (29 CFR 1910.146); the fire brigade standard (29 CFR 1910.156); and the bloodborne pathogens standard (29 CFR 1910.1030). These standards were designed to address the health and safety needs of employees over a broad cross-section of industries and workplaces. None of these standards was designed as a comprehensive emergency response standard, and as a result, specific hazards are addressed in a piecemeal manner, and important concepts in emergency management are not addressed at all.

In addition, the OSHA standards do not address the full range of hazards or concerns currently facing emergency responders. Some of these standards rely on outdated performance specifications for protective equipment. For example, the current standard on firefighters' protective clothing is based on the 1975 edition of the NFPA 1971 standard. Current OSHA standards do not reflect many of the major developments in safety and health practices that have already been accepted by the emergency response community and incorporated into the consensus standards promulgated by the NFPA and other standards development

organizations. For example, the use of an incident management system is currently required only by the Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120). While the Hazardous Waste Operations and Emergency Response Standard does cover hazardous materials incidents, it does not cover most types of emergency incidents (e.g., fires, technical rescue, structural collapse or natural disasters).

In addition, coverage issues impact the Agency's activities in these areas. Many emergency responders are state and local government employees who are covered by requirements in State or local laws, either under the authority of an OSHA-approved state plan or through voluntarily established State protection programs rather than under Federal rules. In the case of the Hazardous Waste Operations and Emergency Response Standard, State and local employees in States without an OSHA-approved plan are also covered under an Environmental Protection Agency standard (40 CFR 311) that incorporates the OSHA requirements by reference.

State and local government employees are excluded from OSHA coverage under the Occupational Safety and Health Act of 1970 (the "OSH Act"). However, pursuant to Section 18 of the OSH Act, there are 26 States and territories operating their own workplace safety and health programs under plans approved by OSHA ("State plans"), which are required to extend their coverage to public sector (State and local government) employees and employers in those jurisdictions, including many emergency responders.

The 21 States and one territory covering both private sector and State and local government employment have primary responsibility for the OSHA program in their jurisdictions. All State plans, including the 4 covering only State and local government, are responsible for adopting and enforcing standards which are "at least as effective as" Federal OSHA standards, and for providing compliance assistance to employers and employees under their jurisdiction. Some State plans have adopted different or supplemental standards or guidance regarding emergency response and preparedness that exceed the existing Federal OSHA standards. Some States have established public employer employee protection programs without OSHA State Plan approval and funding. Many other public sector employers still rely on the OSHA standards as an important guide in safety and health matters, even

though they are not legally required to do so.

OSHA has significant experience and expertise on matters related to emergency responder health and safety. OSHA personnel, as well as personnel from the OSHA-approved State plans, routinely respond to emergencies to provide technical assistance and assure employee safety. Following the terrorist attacks at the World Trade Center on September 11, 2001, OSHA helped establish a strong and effective public-private partnership to help ensure protection for the employees at the site. At the national level, the Department of Labor, OSHA, has been designated the coordinating agency for employee safety and health under the National Response Plan (NRP). Additionally, many of the OSHA-approved State plans are working to establish a parallel role within their State emergency response structure and have implemented or assisted in the development of emergency preparedness and homeland security related initiatives and guidance materials at the State level.

The Agency has developed a wide range of technical assistance and guidance documents about the issue of emergency response as well as emergency responder health and safety (<http://www.osha.gov/SLTC/emergencypreparedness/index.html>). The OSHA Training Institute offers a variety of courses on topics essential to the safety and health of both uniformed emergency responders and skilled support employees (<http://www.osha.gov/dccsp/ote/index.html>). In addition, OSHA, in collaboration with the National Institute of Environmental Health Sciences (NIEHS), has developed a pre-event hazards awareness course for Disaster Site Workers who may respond as skilled support employees to natural or man-made emergencies (e.g., heavy equipment operators, construction workers, and electrical power or natural gas utility employees). This course is taught by OSHA Training Institute Education Centers and OSHA-authorized trainers.

On August 29, 2005, Hurricane Katrina devastated the Gulf Coast of the southeastern United States; the City of New Orleans was particularly affected. The emergency response to Hurricane Katrina underscored the importance of planning and preparedness, as well as the multidisciplinary nature of emergency response. OSHA expects that the lessons learned from this incident will be represented in the responses to this Request for Information alongside the lessons learned from both more common events as well as other events of national significance.

OSHA is requesting information and comment from the public to evaluate what action, if any, the Agency should take to further address emergency response and preparedness.

II. Request for Data, Information and Comments

The following questions have been provided to facilitate the collection of the needed information and to make it easier for the public to comment on relevant issues. The questions are grouped into five broad categories: The scope of emergency response; personal protective equipment; training and qualifications; medical evaluation and health monitoring; and safety. However, commenters are encouraged to address any aspect of emergency response and preparedness that they feel would assist the Agency in considering appropriate action on the matter. The Agency is particularly interested in ways to incorporate flexibility into its standards to make them more suited to the demands of emergency response activities. A detailed response to questions, as well as your rationale or reasoning for the position, rather than simply replying "yes" or "no," is requested. Also, relevant data that may be useful to OSHA's deliberations, or in conducting an analysis of impacts of future Agency actions, should be submitted. In order to assess the costs, benefits or feasibility of any possible regulatory intervention, the Agency needs specific quantitative information on various safety measures being discussed. Therefore, for those instances where you recommend a specific intervention, any data in terms of costs and benefits that helps form the recommendation would be valuable. The usefulness of your response will be increased if they are tied to the categories and sections. Please label your responses with the lettered category and question number.

A. The Scope of Emergency Response

The terms "emergency response" and "emergency responder" have been defined and used differently in various government laws and regulations as well as industry consensus standards and reports. Additionally, emergency response work is unlike many other types of employment, in that the actual work site and hazards will vary based upon the location and nature of the incident. As the Agency considers the issue of emergency response, it is important to define the scope and nature of work activities that might be called emergency response and preparedness, as well as the types of employees and work activities that

might be associated with emergency response and preparedness.

1. Emergency response and preparedness activities occur at both common incidents (e.g., fires, car accidents, or structural collapses) and rare or unexpected incidents (e.g., natural disasters, terrorist attacks, or special events that require enhanced preparedness). If the Agency takes action on emergency response and preparedness, should it consider either all types of emergency incidents (e.g., both common and rare events) or should certain types of incidents be excluded? If you believe a limited range is appropriate, what types of incidents or activities should be included or excluded?

2. Emergency response and preparedness activities have historically included a range of events from pre-planning for an emergency, to the actual emergency response, and, ultimately, to remediation/recovery. Should OSHA consider the full continuum of activities to be considered "emergency response and preparedness"? If not, what is an appropriate range of activities for the Agency to consider, and why?

3. What are the factors that should indicate when the emergency response to an event has fully transitioned into remediation/recovery?

4. What types of work tasks (e.g., interior structural firefighting, exterior firefighting, pre-hospital emergency medical work, technical rescue, heavy equipment operation) should be considered emergency response or skilled support work? What are the hazards associated with each type of work task? Are there any specific work tasks that should be excluded from consideration (e.g., work that is inherently and exclusively performed by law enforcement officers)?

5. Are there any new data that describe the nature, magnitude, or impact of emergency response and preparedness operations (e.g., type and number of incidents, type and quantity of employees considered emergency responders, financial costs, or occupational injuries, illnesses, and fatalities) that OSHA should consider when evaluating the issue of emergency response and preparedness? In particular, are there relevant data on skilled support employees at emergency incidents or during preparedness activities?

6. Many emergency responders are State, county or municipal employees in States with OSHA-approved safety and health plans who are subject to the requirements of the State Plan-equivalent of the current OSHA standards in the same manner as private

sector employees. As OSHA considers the necessity for further action on the safety and health of emergency responders, are there issues or concerns that are specific to such employers or employees that the Agency should consider? If your State has promulgated standards or issued guidance on emergency response and preparedness that differs from the existing OSHA standards and guidance, please describe the action taken as well as the impact and effect on the user community. Are there any concerns specific to the State agencies administering OSHA approved safety and health plans regarding OSHA's consideration of action in this area?

7. In States that do not have OSHA-approved workplace safety and health plans, to what extent are OSHA standards used as guidance for emergency responders who are public sector employees or as guidance for voluntary State public sector protection programs (e.g., personal protective clothing and equipment, training, and safety procedures)?

B. Personal Protective Equipment

Since a great deal of emergency response work occurs in an uncontrolled and dynamic work environment, personal protective equipment is a particularly important aspect of assuring the responding employees' health and safety. This section addresses a variety of types of personal protective equipment that emergency responders might use, depending on the nature of the hazards they face. The Agency is particularly interested in determining appropriate national consensus standards on the design and construction of such equipment as it considers the issue of emergency response and preparedness.

8. The current OSHA standard for firefighters' protective clothing is based upon the 1975 edition of "NFPA 1971, *Standard on Protective Ensemble for Structural Fire Fighting*." The NFPA standard specifies the minimum design, performance, and certification requirements, and test methods for structural firefighting protective ensembles that include protective coats, protective trousers, protective coveralls, helmets, gloves, footwear, and interface components. The OSHA standard still allows treated fabrics as an acceptable outer shell material in firefighters' protective clothing, rather than fabrics that are inherently flame resistant. More recent editions of NFPA 1971, recently renamed the *Standard on Protective Ensemble for Structural Fire Fighting and Proximity Fire Fighting*, require the use of fabrics that are inherently flame

resistant. Inherently flame resistant fabrics are made from fibers where the flame resistance is an intrinsic property of the material, whereas treated materials are only made flame resistant by the application of a secondary chemical that can wear off or wash off over time (Ex. 1–13). Is the 1975 edition of NFPA 1971 still an appropriate standard for firefighters' protective clothing? Is the current edition of the NFPA standard, including the requirement for inherently flame resistant material, appropriate to consider? Should OSHA consider other standards, such as those issued by the International Standards Organization (ISO)?

9. With the exception of the shipyard fire protection standard (29 CFR 1915.505), OSHA standards do not require the use of a personal alert safety system (PASS) device by firefighters in order to help locate missing, trapped, or incapacitated firefighters. Is such a device necessary and appropriate for firefighters' safety in non-shipyard situations? If so, under what circumstances is it to be used? Is the current edition of "NFPA 1982, *Standard on Personal Alert Safety Systems (PASS)*" an appropriate standard to consider (Ex. 1–14)? This standard specifies the NFPA minimum design, performance, and certification requirements and test methods for all PASS to be used by firefighters and other emergency services personnel who engage in rescue, firefighting, and other hazardous duties. Are there additional features of a personnel accountability system, other than these safety devices, that should be an element of an emergency response system? Are there emergency response situations, other than firefighting, that should necessitate the use of a PASS device? Are emergency responders at your workplace provided with PASS devices? What are the costs of PASS devices or an alternate system? What is the expected service life of such a device in your work environment? Are there any data on their effectiveness?

10. It has been OSHA policy to enforce the use of "NFPA 1976, *Standard on Protective Ensemble for Proximity Fire Fighting*" compliant protective clothing and equipment for proximity firefighting (e.g., jet fuel fires) (*Standard Interpretations 04/03/1997—Appropriate protective clothing for aircraft firefighting*) The NFPA 1976 standard has recently been subsumed in the NFPA 1971 standard on firefighter's protective clothing (Ex. 1–13). This standard contains the NFPA minimum design, performance, and certification requirements and the test methods for

proximity protective ensembles, including protective coats, protective trousers, protective coveralls, helmets, gloves, footwear, and interface components. Does the NFPA 1971 standard adequately protect employees performing such proximity firefighting tasks? If not, what other standards should OSHA consider?

11. Under the respiratory protection standard (29 CFR 1910.134), OSHA requires that all self-contained breathing apparatus (SCBA) be certified by the National Institute for Occupational Safety and Health (NIOSH) (42 CFR part 84). Because NIOSH does not test SCBA for exposure to heat and flame, is this certification adequate? Would it be appropriate for all SCBAs used for firefighting or emergency response to be certified by NIOSH and also certified as compliant with the current edition of "NFPA 1981, *Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) Emergency Services*" (Ex. 1–15)? NFPA 1981 specifies the minimum requirements for the design, performance, testing, and certification of open-circuit SCBA and combination open-circuit self-contained breathing apparatus and supplied air respirators (SCBA/SAR) for fire and emergency services personnel and includes tests for heat and flame resistance. NIOSH requires this in its new Chemical, Biological, Radiological, and Nuclear (CBRN) certification (42 CFR part 84). Are the SCBA currently used in your workplace compliant with the NFPA 1981 standard?

12. Emergency response to weapons of mass destruction such as chemical, biological, radiological, or nuclear (CBRN) agents has increasingly become viewed as a component of a local emergency response. The U.S. Department of Homeland Security (DHS) has adopted NIOSH and NFPA standards for CBRN personal protective equipment (PPE). For example, DHS requires CBRN chemical protective clothing to meet "NFPA 1994, *Standard on Protective Ensembles for CBRN Terrorism Incidents*" (Ex. 1–16). This standard specifies the NFPA minimum requirements for the design, performance, testing, documentation, and certification of protective ensembles designed to protect fire and emergency services personnel from chemical/biological terrorism agents. These standards provide more detailed and stringent performance testing requirements for PPE than the OSHA Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120), which requires only minimal testing for chemical resistance and garment integrity. Under what

circumstances is protective clothing tested to meet the NIOSH and NFPA standards necessary (e.g., all emergency responses, or emergency response to a known or suspected CBRN agent, or only during remediation or recovery)? Similarly, the Department of Homeland Security has adopted "NFPA 1991, *Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies*" for use against toxic industrial chemical (TICs) and toxic industrial materials (TIMs) (Ex. 1–17). Are there emergency response situations that would necessitate the use of chemical protective clothing that was certified to NFPA chemical protective clothing standards, which involves more thorough testing than chemical protective clothing currently specified under the Hazardous Waste Operations and Emergency Response Standard? Are there any other standards on chemical protective clothing that OSHA should consider?

13. Emergency medical service providers may be exposed to hazards not common to other employees that have exposure to blood or body fluids (e.g., jagged metal or broken glass from motor vehicle accidents). Currently, OSHA's bloodborne pathogens standard (29 CFR 1910.1030) and respiratory protection standard (29 CFR 1910.134) require personal protective equipment such as gloves, gowns, eye protection, respirators, and surgical masks. Is there any PPE for pre-hospital emergency medical service personnel (EMS), not currently required by the bloodborne pathogens standard or the respiratory protection standard (29 CFR 1910.134), which may be necessary to protect EMS employees (e.g., "NFPA 1999, *Standard on Protective Clothing for Emergency Medical Operations*") (Ex. 1–18)? NFPA 1999 specifies the NFPA minimum design, performance, testing, and certification requirements for emergency medical clothing used by fire and EMS personnel during EMS operations. Is such equipment currently used in your workplace? What would such PPE cost and what is the expected life of the equipment?

14. Is there any PPE for emergency responders providing technical rescue services (e.g., vehicle extrication, high-angle rescue, swift-water rescue) that may be necessary for protecting employees providing such services? If so, under what circumstances should the use of such equipment be considered necessary? Please describe specific tasks and associated equipment that OSHA should consider. What would such PPE cost and what is the expected life of the equipment?

15. Employees performing urban search and rescue (USAR) tasks may be exposed to a variety of physical hazards from building debris as well as incidental exposure to thermal, chemical, or biological hazards. The Department of Homeland Security has adopted "NFPA 1951, *Standard on Protective Ensemble for Technical Rescue Incidents*" for emergency responders conducting USAR operations (Ex. 1–19). NFPA 1951 establishes the NFPA minimum requirements for garments, head protection, gloves, and footwear, for fire and emergency services personnel operating at technical rescue incidents involving building or structural collapse, vehicle/person extrication, confined space entry, trench/cave-in rescue, rope rescue, and similar incidents. What PPE may be necessary for protecting these emergency responders? Is NFPA 1951 an appropriate standard for OSHA to consider on the subject? Are there other standards that OSHA should consider? What equipment is being used currently in your workplace? What does the PPE cost, and how many responders are equipped with it? What is the expected life of the equipment?

16. Is there any other PPE, not already identified, that may be necessary for emergency responders or skilled support personnel? What is the equipment, what would it cost, and how many responders would need to be equipped with it? What is the expected life of the equipment?

C. Training and Qualifications

The knowledge, skills and abilities of emergency responders and skilled support employees will depend largely on the training and qualifications for required work tasks. Training and qualifications typically include both initial training as well as any periodic training (e.g., annual refresher training) that may be necessary to maintain an appropriate level of functional capability.

17. The OSHA Fire Brigade standard (29 CFR 1910.156(c)) contains broadly worded requirements on training and education and requires the quality of such training to be "similar to" a number of State fire training schools. Is this standard adequate to ensure firefighters are appropriately trained to perform required tasks safely? If not, what level of initial training and qualification is necessary to safely perform fire fighting tasks? Is "NFPA 1001, *Standard for Fire Fighter Professional Qualifications*" an appropriate standard to consider (Ex. 1–20)? NFPA 1001 identifies the minimum

job performance requirements for two levels of progression of firefighters whose duties are primarily structural in nature. Are there other standards or recommendations that OSHA should consider? What amount and type of periodic refresher training should be considered the minimum necessary for firefighters? What is the appropriate format for acquiring this training? What are the training practices in your workplace?

18. The U.S. Department of Transportation (DOT), National Highway Traffic Safety Administration (NHTSA), develops the National Standard Curricula for all levels of EMS personnel. What level of initial occupational health and safety training and qualification is necessary to safely perform emergency medical services? Are there any additional initial training requirements beyond the NHTSA standards appropriate for OSHA to consider (e.g., training on emergency vehicle operation or incident scene safety)? What amount and type of periodic refresher training is necessary for EMS personnel? What are the current training practices in your workplace?

19. OSHA does not currently require any specific training for rescue technicians. What level of initial training and qualification is necessary to safely perform technical rescue tasks? Is "NFPA 1006, *Standard for Rescue Technician Professional Qualifications*" an appropriate standard to consider (Ex. 1–21)? NFPA 1006 establishes the NFPA minimum requirements necessary for fire service and other emergency response personnel who perform technical rescue operations. These include rope rescue, surface water rescue, vehicle and machinery rescue, confined space rescue, structural collapse rescue, and trench rescue. Are there other standards or recommendations that OSHA should consider? What amount and type of annual refresher training should be considered the minimum necessary for such emergency responders? What is the appropriate format for acquiring this training (e.g., does this require travel to a specialized training facility)? What are the current training practices in your workplace?

20. Skilled support work at emergency incidents is work that is not performed by an emergency responder (e.g., firefighter or EMS provider) but is nonetheless a critical element of a safe and successful emergency response, such as heavy equipment operation, utility shut-off, and cutting and removal of iron work. The role of skilled support employees at emergency incidents is

only directly addressed in the Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) (29 CFR 1910.120), which does not apply to all types of emergency incidents. The standard requires skilled support employees that are needed on a temporary basis for immediate emergency support work to be given an initial briefing on necessary information but does not require them to receive the full training provisions of the standard (29 CFR 1910.120(q)(4)). What level of initial training and qualification is necessary to safely perform skilled support jobs? Should specific training for skilled support personnel, other than the initial briefing, be considered? Should refresher training on an annual or other basis for such responders be considered? The OSHA Training Institute has developed a 16-hour Disaster Site Worker Course (#7600) which emphasizes knowledge, precautions and personal protection essential to maintaining an employee's personal safety and health at a disaster site. Should skilled support personnel take the OSHA Disaster Site Worker training course, or something similar, before responding to a disaster or is just-in-time training sufficient and appropriate? What are the current training practices in your workplace?

21. OSHA standards do not address the training or qualifications for either emergency responders who operate emergency apparatus or those personnel who may have to work on an active roadway during an emergency response (e.g., responding to a car crash). Traffic accidents involving emergency apparatus, as well as incidents where emergency responders are struck by passing vehicles at incident scenes, constitute a major source of injuries for emergency responders (Ex. 1–22). Is there any training or qualifications on emergency vehicle safety or incident scene safety (e.g., "NFPA 1002, *Standard for Fire Apparatus Driver/Operator Professional Qualifications*") that should be considered for emergency responders as a whole or for individual groups of emergency responders, such as emergency vehicle drivers (Ex. 1–23)? What is the appropriate format for acquiring this training? What are the current training practices in your workplace?

22. The Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120), which does not apply to all types of emergency incidents, requires that incident commanders have specialized training beyond that of other employees. However, the Fire Brigade standard (29 CFR 1910.156) does not

require any additional or specialized training for fire officers that will manage or supervise the emergency response incident. Should the training and qualifications for fire officers be different than for firefighters? If so, what level of training is appropriate for officers? Is "NFPA 1021, *Standard for Fire Officer Professional Qualifications*," an appropriate standard to consider in evaluating this issue (Ex. 1–24)? NFPA 1021 identifies the performance requirements necessary to perform the duties of a fire officer and specifically identifies four levels of training that progress with increasing rank and increasing responsibility. Are there other standards or recommendations OSHA should consider? What are the current training practices in your workplace?

23. OSHA's Fire Brigade standard (29 CFR 1910.156) does not distinguish between industrial fire brigades and other types of fire departments that may respond to a wider range of emergency incidents at a variety of locations. Should the minimum training and qualifications for industrial fire brigade members be different than for other firefighters? If so, what is an appropriate training standard for OSHA to consider (e.g., "NFPA 1081, *Standard for Industrial Fire Brigade Member Professional Qualifications*") (Ex. 1–25)? NFPA 1081 identifies the NFPA minimum job performance requirements necessary to carry out the duties of an individual who is a member of an organized industrial fire brigade providing services at a specific facility or site. Are there other standards or recommendations for fire brigades OSHA should consider? What are the current training practices in your workplace?

24. During an emergency response the Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120), which does not cover all emergency incidents, requires that the individual in charge of the incident command system (ICS) designate a safety official. The safety official has the authority to alter, suspend, or terminate any activities that are deemed to be an imminent danger to employees. The Hazardous Waste Operations and Emergency Response Standard does not establish minimum training and qualifications for a safety official, but the person must be knowledgeable in the operations being implemented and able to identify and evaluate hazards with respect to the operational safety. While the Hazardous Waste Operations and Emergency Response Standard uses the term "safety official," the National Response Plan (NRP) and National

Incident Management System (NIMS) use the term "safety officer." In practical application, is there a distinction between these two individuals or do they essentially perform the same function? The NIMS describes the duties and functions of the safety officer at an emergency incident as monitoring incident operations and advising the Incident Commander on all matters relating to operational safety, including the health and safety of emergency responder personnel. The NIMS also does not specify the minimum training and qualifications to assume the role of safety officer. What are the minimum training and qualifications that a safety officer needs? Aside from responsibilities at an emergency incident, should a safety officer have a role in the management of an emergency response and preparedness program? If so, what should be a safety officer's non-emergency duties and functions and how would they relate to emergency response and preparedness?

25. Recently, there has been a greater emphasis on assuring continuity of incident management from the local and state responder level to the national level at incidents of national significance managed under the National Response Plan (e.g., large natural disasters). What training at the state and local level, if any, is necessary to facilitate seamless emergency operations at a joint field office (JFO) or area field office (AFO)?

26. What is the best way for OSHA to specify training for a given emergency response role? For example:

- By specifying a minimum number of hours of training;
- By specifying training content based on job tasks;
- By specifying that training be adequate to demonstrate specified competencies;
- By a combination of these methods; or
- By some other method.

Additionally, the Federal Emergency Management Agency has been working on a national credentialing system to verify training and qualifications. Should the Agency consider credentialing systems in its evaluation of training and qualifications?

D. Medical Evaluation/Health Monitoring

Emergency responders work in an environment where they may be exposed to a variety of physical, chemical, or biological hazards. The personal protective clothing and equipment that they use, as well as the inherent nature of their work, can pose

an additional physiologic burden on emergency responders. Medical evaluation and health monitoring is an important factor in assuring the health and safety of emergency responders.

27. OSHA requires that hepatitis B vaccinations be made available to employees potentially occupationally exposed to blood or other body fluids in its bloodborne pathogen standard (29 CFR 1910.1030). Are other vaccinations necessary for emergency responders? If so, which vaccinations? What would these vaccinations cost? Would they need to be repeated at some point? Would they be recommended for all emergency responders or a particular subset? What are the current vaccination practices in your workplace?

28. There are currently available vaccinations for anthrax and smallpox, and other vaccinations could be developed in the future for diseases such as hepatitis C. Employers can determine, based upon their own risk assessment, if such vaccines are necessary and should be offered to their employees. If vaccines other than the hepatitis B vaccination are determined by the employer to be necessary for emergency responders, should OSHA consider non-disease specific administrative and recordkeeping procedures similar to those required for the hepatitis B vaccine (29 CFR 1910.1030(f))? These procedures could include requirements that the vaccine be made available at no cost to the employee, available to the employee at a reasonable time and place, and subject to appropriate medical screening. Are there any elements of an assessment process that should be implemented before an employer can determine that a vaccine is necessary, for example, a determination by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices (ACIP) or other appropriate medical recommendation?

29. Medical evaluations for emergency responders are currently regulated under the Fire Brigade (29 CFR 1910.156), Respiratory Protection (29 CFR 1910.134), and Hazardous Waste Operations and Emergency Response (29 CFR 1910.120) standards. The Fire Brigade Standard requires that employers not permit employees with known heart disease, epilepsy, or emphysema to perform emergency response work unless approved by a physician. The respiratory protection standard requires that a physician or other licensed health care professional evaluate an employee's ability to use a respirator. Such an evaluation may consist solely of a medical questionnaire. The Hazardous Waste

Operations and Emergency Response Standard has more extensive requirements for an annual medical evaluation. Is “NFPA 1582, *Comprehensive Occupational Medical Program for Fire Departments*” an appropriate medical evaluation for firefighters (Ex. 1–26)? NFPA 1582 contains descriptive requirements for a comprehensive occupational medical program to ensure that fire department members are medically capable of performing their required duties. Are there other medical evaluation standards that are appropriate for either firefighters or emergency responders who perform tasks other than firefighting? For emergency responders who do not perform firefighting tasks, what elements of a medical evaluation are necessary to assure that they are physically capable of performing essential job tasks while wearing an array of possibly physically burdensome personal protective clothing and equipment? How often should a medical evaluation for emergency responders be conducted? Please address the following types of medical evaluation: Pre-placement, return-to-work, annual fitness for duty evaluation, and periodic medical surveillance. What is the cost to the employer of these recommended medical evaluations for emergency responders? How is the medical evaluation of emergency responders addressed in your workplace?

30. The physiologic burden caused by performing emergency response activities and wearing PPE can be extreme (e.g., over-exertion, heat stress or dehydration). Additionally, cardiovascular fatalities represent a large percentage of firefighters’ fatalities. Is on-scene rehabilitation and providing appropriate assistance (e.g., monitoring workers’ temperature, blood pressure, hydration levels) an appropriate method of preventing or reducing the number of these injuries and fatalities? Is “NFPA 1584, *Rehabilitation of Members Operating at Incident Scene Operations and Training Exercises*” an appropriate standard for such practices (Ex. 1–27)? NFPA 1584 describes recommended practices for developing and implementing an incident scene rehabilitation program, including: Medical evaluations, re-hydration, and protection from environmental conditions. Are there other methods of protection that are available, such as adjusting work/rest regimens or physical training? Are there other standards or recommendations that OSHA should consider? Should defibrillators (either a defibrillator or an automated external defibrillator (AED))

be available at emergency incident scenes in case an emergency responder or skilled support worker has a cardiac event? Do you currently have a defibrillator or AED at emergency events?

E. Safety

The safety of emergency responders and skilled support employees is affected by the employer’s policies and procedures established to govern emergency response operations. Also, the tools and equipment used by emergency responders may affect their ability to detect and monitor hazards as well as communicate those hazards to others at the emergency scene.

31. The use of an incident management system as a means to assure the health and safety of employees is required by the OSHA Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120) for emergency response to hazardous materials incidents and OSHA’s Fire Brigades in Shipyards standard (29 CFR 1915.505). Is an incident management system appropriate for managing all other emergency incidents?

32. The NIMS specifies that a unified command structure be employed for all employees at an incident when there are multiple jurisdictions and agencies involved. Since each employer is responsible for the health and safety of his or her employees at emergency incidents and may affect the safety and health of other employers’ employees, how can a safety management structure be developed that incorporates a multi-employer response that is commanded within a single incident command system for all types of incidents?

33. The NIMS describes the duties and functions of the safety officer at an emergency incident. However, the NIMS does not address non-emergency functions for the safety officer that may be necessary to assure the health and safety of emergency responders and skilled support personnel when an emergency does occur (e.g., assuring training requirements are met, assuring that protective clothing and equipment is adequately maintained, or reviewing and updating standard operating procedures). What are the non-emergency duties and functions that are necessary to assure the proper management of an emergency response and preparedness program? Is a designated safety program manager or administrator needed?

34. Do emergency responders need hazard detection and monitoring equipment capabilities, such as 4-gas monitors, thermal imaging cameras, or

chemical, biological, and radiological detection equipment? If so, for each type of job task what abilities and equipment are needed? How much would these devices typically cost to own and operate? What are the devices’ expected service life?

35. Should emergency response organizations establish written standard operating procedures (SOPs) or standard operating guidelines (SOGs) for expected emergency response activities? If so, what types of issues should be addressed in the SOPs or SOGs? How should employers determine what activities are within the expected range of operations and what activities might be outside the range of expected planning? How should employers plan and prepare for special hazards within their area of operations (e.g., high-rise buildings, industrial facilities, or open-pit mines)?

36. How can communication at emergency incidents be maintained? Is a certain type of communications hardware, such as radio systems, or handheld radios, needed by all emergency responders? What training in communications is needed? Is there evidence that portable radios are necessary for either each individual emergency responder or each team of emergency responders? If new equipment and training would be necessary, how much would they cost?

37. The Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120) gives the incident commander broad authority in managing risk by determining the scope of operations possible at a given incident. The “two in/two out” provision of the Respiratory Protection Standard (29 CFR 1910.134 (g)(4)) for interior structural firefighting implies, but does not directly address, the concept of risk management. How can OSHA more thoroughly address the concept of risk management at emergency incidents? What guidance should be given in weighing the health and safety of emergency responders against victim’s lives, against property loss, or in situations where concerns about immediate safety may have negative consequences for long-term health, such as lung damage? How should risk management guidelines address the various phases of an emergency response from rescue, incident stabilization, through remediation/recovery? How does your workplace address the concept of risk management during emergency response and preparedness activities?

38. Are there specific features of an occupational health and safety program not addressed in previous questions that

are necessary for emergency responder health and safety (e.g., any elements contained in "NFPA 1500, *Fire Department Occupational Safety and Health Program*" such as life-safety rope systems) (Ex. 1–28)? NFPA 1500 provides the NFPA requirements for a fire service occupational safety and health program for fire departments. The Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120(b)) requires that employers develop and implement a written safety and health program for their employees involved in hazardous waste operations (e.g., safety and health training, medical surveillance, necessary interface between general program and site specific activities). Would a health and safety program similar to that required in 29 CFR 1910.120(b) be appropriate for emergency response activities?

39. Are there any other issues or concerns related to the health or safety of all emergency responders, or any particular group of emergency responders, that should be considered? Are there any issues related to the health and safety of skilled support personnel at emergency incidents that should be considered?

F. Additional Information

40. In addition to the specific questions above, the Agency is seeking general information on the cost of safety and health measures undertaken by municipal emergency response agencies (e.g., fire departments) and any other first responders or skilled support employees. From what levels of government are revenues derived to support emergency response and preparedness? What other sources of revenue are available? How are increased costs of operation dealt with (e.g., reduction in service, increase in response time, or increased revenue sources)? How are these issues different for smaller emergency response operations or rural areas than for larger or mid-sized operations? How often are emergency response operations contracted out to specialists, either by companies or communities?

41. Are there any existing OSHA standards, guidelines, or recommendations that, when viewed in conjunction with other Federal, State or local codes and/or the recommendation of consensus standards organizations such as, but not limited to NFPA, ANSI or ASTM, create conflict or uncertainty in the practice of emergency responding, safety and health planning,

in the selection of protective equipment, in the procurement of emergency response equipment, or in the provision of training? If so, what could OSHA do to remedy these situations?

III. Public Participation

You may submit comments in response to this document by (1) hard copy, (2) fax transmission (facsimile), or (3) electronically through the Federal Rulemaking Portal. Because of security-related problems, there may be a significant delay in the receipt of comments by regular mail. Contact the OSHA Docket Office at (202) 693–2350 for information about security procedures concerning the delivery of materials by express delivery, hand delivery and messenger service.

All comments and submissions are available for inspection and copying at the OSHA Docket Office at the above address. Comments and submissions are also available at <http://www.regulations.gov>. OSHA cautions you about submitting personal information such as social security numbers and birth dates. Contact the OSHA Docket Office at (202) 693–2350 for information about accessing materials in the docket.

Electronic copies of this **Federal Register** notice, as well as news releases and other relevant documents, are available at OSHA's Web page: <http://www.osha.gov/index.html>.

IV. Authority and Signature

This document was prepared under the direction of Edwin G. Foulke, Jr., Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor. It is issued pursuant to sections 4, 6, and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657), 29 CFR 1911, and Secretary's Order 5–2002 (67 FR 65008).

Signed at Washington, DC, this 4th day of September, 2007.

Edwin G. Foulke, Jr.,

Assistant Secretary of Labor for Occupational Safety and Health.

Table of Exhibits

- 1–1 Emergency Response and Preparedness Request for Information
- 1–2 Fire Fighter Fatalities in the United States in 2003, U.S. Fire Administration Report FA–283, August 2004
- 1–3 NFPA Report: Fire Loss in the United States During 2002 and U.S. Fire Department Profile Through 2002)
- 1–4 U.S. Fire Administration, A Needs Assessment of the U.S. Fire Service,

(USFA Report FA–240, December 2002 authorized by U.S. Public Law 106–398, Sec. 33(b))

- 1–5 U.S. Fire Administration and the National Fallen Firefighters Foundation, Firefighter Life Safety Summit Initial Report (April 2004)
- 1–6 NIOSH/RAND Protecting Emergency Responders: Lessons Learned from Terrorist Attacks; Protecting Emergency Responders
- 1–7 NIOSH / RAND Volume 2: Community Views of Safety and Health Risks and Personal Protection Needs
- 1–8 NIOSH / RAND Volume 3: Safety Management in Disaster and Terrorism Response
- 1–9 Homeland Security Presidential Directive #8 (HSPD#8)
- 1–10 The National Incident Management System (NIMS)
- 1–11 Homeland Security Presidential Directive #5 (HSPD#5)
- 1–12 National Response Plan
- 1–13 NFPA 1971, Standard on Protective Ensemble for Structural Fire Fighting and Proximity Fire Fighting
- 1–14 NFPA 1982, Standard on Personal Alert Safety Systems (PASS)
- 1–15 NFPA 1981, Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) Emergency Services
- 1–16 NFPA 1994, Standard on Protective Ensembles for First Responders to CBRN Terrorism Incidents
- 1–17 NFPA 1991, Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies
- 1–18 NFPA 1999, Standard on Protective Clothing for Emergency Medical Operations
- 1–19 NFPA 1951, Standard on Protective Ensemble for Technical Rescue Incidents
- 1–20 NFPA 1001, Standard for Fire Fighter Professional Qualifications
- 1–21 NFPA 1006, Standard for Rescue Technician Professional Qualifications
- 1–22 U.S. Fire Administration, Firefighter Fatality Retrospective Study. April 2002 FA–220
- 1–23 NFPA 1002, Standard for Fire Apparatus Driver/Operator Professional Qualifications
- 1–24 NFPA 1021, Standard for Fire Officer Professional Qualifications
- 1–25 NFPA 1081, Standard for Industrial Fire Brigade Member Professional Qualifications
- 1–26 NFPA 1582, Comprehensive Occupational Medical Program for Fire Departments
- 1–27 NFPA 1584, Rehabilitation of Members Operating at Incident Scene Operations and Training Exercises
- 1–28 NFPA 1500, Fire Department Occupational Safety and Health Program

[FR Doc. E7–17771 Filed 9–10–07; 8:45 am]

BILLING CODE 4510–26–P