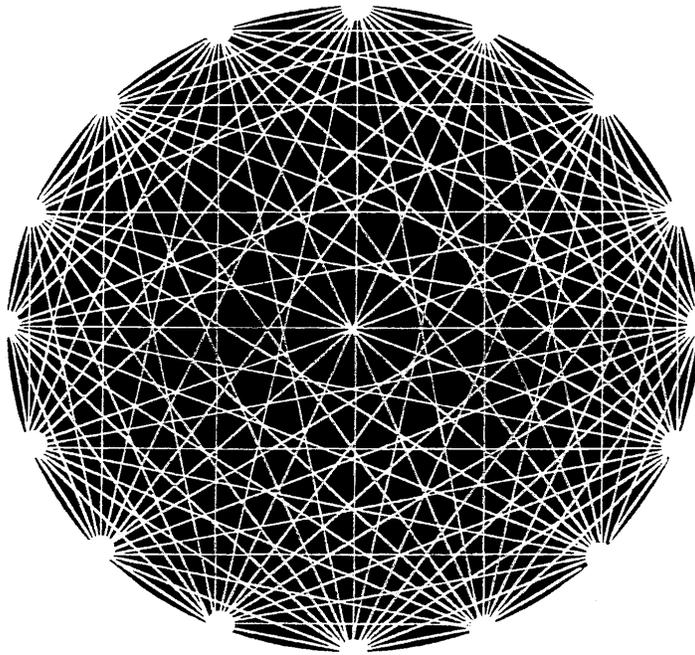




Hazardous Materials Exercise Evaluation Methodology (HM-EEM)



Manual

The Federal Emergency Management Agency (FEMA) has developed the HM-EEM Manual, and its companion guidance, the HM-EEM Evaluation Forms, as guidance and technical assistance to assist State and local governments, first responders, and industry in the development, implementation, and evaluation of their own realistic and challenging exercise programs. Additional assistance, guidance, and training in the design, conduct, and evaluation of exercises is available from FEMA's 10 Regional Offices.

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THE FOUNDATIONS OF EXERCISE EVALUATION

This section presents an overview of the concept of exercise evaluation. It addresses the reasons for evaluation of exercises; the nature and purpose of exercise evaluation; the structure of exercise evaluation; and the results of exercises.

BASIS FOR EXERCISE EVALUATION

The first and most frequent basis for evaluation of an exercise is a determination on the part of State and local governments¹ that it would be useful to their hazardous materials emergency preparedness programs to have their performance in a hazardous material exercise evaluated. They may seek such an evaluation in order to increase the value of the exercise as a test of the adequacy and implementability of their response plan, as a measure of the adequacy of training efforts, or as an indicator of their general level of preparedness for response to a hazardous materials incident.

The second basis for evaluation of an exercise is the existence of a statutory requirement that a State or local government conduct evaluated hazardous materials exercises. For example, a statute in the State of Ohio requires that the State Emergency Response Commission (SERC) participate in an evaluated exercise each year with each Local Emergency Planning Committee (LEPC) located within the State.

The third basis for evaluation of an exercise is a joint decision by State, local governments, and the Federal Government that their mutual interests in greater hazardous materials emergency preparedness, arising from separate but interrelated legal foundations, would be promoted by the conduct of a joint evaluated exercise.

Identifying the Goals of Exercise Evaluation

It is critical that the organizations whose exercise performance will be evaluated develop a set of specific goals that they hope to achieve as a result of the exercise and as a result of the exercise evaluation.

¹Throughout this Manual we have used the generic term State to refer to any State Agency with responsibility for hazardous materials emergency planning. This term refers to the State Emergency Response Commission (SERC) or the State Emergency Management Agency (the precise name of this organization will vary from state to state). The term local government refers to either the chief executive agency of the local jurisdiction (e.g., a county executive or a mayor), the local emergency management agency, or the Local Emergency Planning Committee (LEPC).

Some examples of exercise goals are:

- to test the implementability of these plans and procedures; and
- to train response personnel in the implementation of the response plans and procedures;
- to develop perspective on the current state of preparedness for response to hazardous materials emergencies.

The focus of these goals can be directly related to exercise evaluation. If the goal is to test the implementability of plans and procedures, the objectives of the exercise evaluation can be to develop data on the extent to which the participating organizations can accomplish emergency response functions through the implementation of their plans and procedures. If the goal is to gain perspective on the level of preparedness, the objectives of the exercise evaluation can be to provide an assessment of the current capabilities of the participating organizations to perform critical emergency response functions as required by scenario events.

The approach to exercise evaluation contained in this Manual and the companion HM-EEM is applicable primarily to those exercises with goals related to preparedness assessments.

ENHANCING THE VALUE OF EVALUATION EXERCISES THROUGH THE USE OF THE HM-EEM MANUAL AND HM-EEM

This Manual and the companion document, the HM-EEM, are designed to enhance the value of an evaluated exercise to participating organizations by increasing:

- the ability of the exercise participants and observers to select a set of performance standards by which the demonstration of the participating organizations can be assessed;
- the ability of the exercise evaluation team to conduct an evaluation based upon these standards and to convey its findings to the participating organizations in the context of these standards; and
- the ability of the evaluated organizations to translate the findings of the evaluation team into concrete improvements of plans and overall preparedness.

PERFORMANCE CRITERIA

This Manual establishes performance criteria for each of the exercise objectives. These criteria are presented in language such as "response organizations should demonstrate the capability to..." These criteria are contained in a set of evaluation elements which describe

the functional response capabilities that should be demonstrated by the participating response organization. These criteria provide the basis for a realistic assessment of hazardous materials emergency preparedness capabilities, as demonstrated in exercises. The exercise objectives are derived from planning elements contained within "NRT-1: Hazardous Materials Emergency Planning Guide" (March 1987), and other more recent preparedness guidance and regulations. Objectives 2 and 10 contain performance standards developed by OSHA, published in 29 CFR 1910.120 and 1910.156, and developed by EPA, published in 40 CFR, Part 311. (The use of these standards in exercise evaluations does not and should not be construed in any way as an enforcement action relative to these regulations, as enforcement is within the sole purview of the administering agency.)

The exercise evaluation objectives described within this Manual have a specific functional orientation related to emergency response. Location and/or organization considerations are linked to the 16 basic objectives through Appendix A: HM-EEM Objective and Organization/Location Cross-Reference. Given the linkage to the NRT-1 planning guidance, results of exercise evaluations using these materials can easily be translated into planning and procedural improvements. Ideally, this guidance will also facilitate a peer partnership and evaluation program between communities and among emergency preparedness and response disciplines.

State or local organizations may agree to adopt these criteria explicitly as the measure by which they judge the adequacy of their own preparedness capabilities. Alternatively organizations may agree to apply these criteria to their performance in a specific exercise in order to ascertain their current level of preparedness for hazardous materials emergencies. Additionally, organizations may elect to adapt or modify this guidance to suit their individual needs. The 16 objectives contained and described in the HM-EEM Manual and the HM-EEM Evaluation Forms should not be considered all inclusive -- some objectives may or may not apply in all scenarios, or to all participating organizations and locations. The key to objective-based evaluation using the HM-EEM Manual and Evaluation Forms is to recognize, separate, and use only those objectives applicable and necessary to the situation. There may be cases where objectives "unique" to particular community or geographic area need to be developed for particular exercises to augment the 16 HM-EEM objectives.

THE STRUCTURE OF AN EXERCISE EVALUATION

The HM-EEM Manual and HM-EEM Evaluation Forms provide a structure to the evaluation of a hazardous materials emergency exercise by:

- describing an exercise evaluation team;
- outlining the major activities to be completed by the director of that team;

- describing the process by which the observations of members of the evaluation team are translated into an exercise report designed to maximize the contribution of the exercise evaluation to improved hazardous materials emergency preparedness;
- presenting a standard set of exercise objectives; and
- presenting a standardized evaluation instrument - The Hazardous Materials-Exercise Evaluation Methodology (HM-EEM).

THE STRUCTURE OF AN EXERCISE EVALUATION TEAM

The Team Concept

Hazardous materials exercises are generally evaluated by a evaluation team, that is, a structured team of evaluators organized to accomplish an evaluation in a comprehensive and systematic manner.

Team Size and Composition

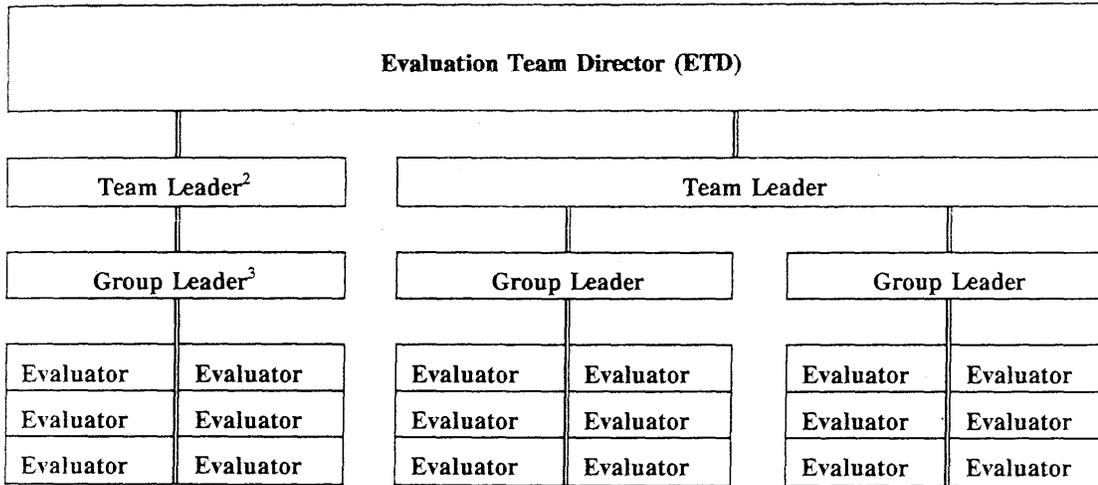
The size of an evaluation team is dependant upon several factors including:

- the type of exercise, (e.g., tabletop, functional, or full-scale);
- the purpose of the exercise;
- its size and complexity (i.e., the number of objectives demonstrated, the number of organizations participating, and the number of locations from which the objectives are demonstrated); and
- the availability of resources needed to conduct an evaluation.

As a general rule, the evaluation team should be large enough to provide for the evaluation of all objectives, organizations, and locations. In a relatively small exercise, with few organizations and a limited number of objectives and locations, a simple organizational structure with a single team leader and a number of evaluators who report directly to this leader will usually suffice.

In a full-scale exercise, in which a large number of objectives are demonstrated by multiple organizations at several locations, a more formal and complex structure is usually required. A typical structure of this type has a team director and a number of team leaders. The latter may direct the evaluation efforts of group leaders and evaluators. Such a team structure is depicted in Table 1.

TABLE 1: THE TEAM CONCEPT



² A team leader is responsible for a specific aspect of the exercise. For example, there may be two team leaders: one for State activities and one for Local activities. Or, in the case of multi-state or regional exercises, there may be a team leader for each participating organization. Team leaders may assign specific responsibilities to one or more group leaders.

³ A group leader may be responsible for specific locations (e.g., different counties), or the evaluation of various functions (e.g., communications, incident assessment, etc.).

ACTIVITIES AND TASKS OF THE EVALUATION TEAM DIRECTOR

The responsibility of the Evaluation Team Director (ETD) is to complete two major activities and their associated tasks. These activities are to plan and manage preparations of the Exercise Evaluation Team, and to manage the development of the Exercise Evaluation Report. The tasks associated with these activities include:

ACTIVITY I: PLAN AND MANAGE PREPARATIONS OF THE EXERCISE EVALUATION TEAM	
Task One:	Determine the Scope of Exercise Evaluation
Task Two:	Determine the Evaluation Team Structure, Size, and Composition
Task Three:	Recruit the Evaluation Team Members
Task Four:	Determine the Exercise Team Schedule of Activities
Task Five:	Arrange for Logistics to Support Evaluation Team
Task Six:	Provide Materials to Evaluators
Task Seven:	Develop the Format and Table of Contents for the Exercise Evaluation Report
Task Eight:	Conduct Pre-Exercise Briefing

ACTIVITY II:

MANAGE THE DEVELOPMENT OF THE EXERCISE EVALUATION REPORT

- Task One: Supervise the Evaluation of the Exercise
- Task Two: Direct the Compilation of Evaluator Reports
- Task Three: Coordinate the Identification of Exercise Issues
- Task Four: Manage the Completion of HM-EEMs and Preparation of Narrative Summaries
- Task Five: Manage the Preparation of the Exercise Evaluation Report

ACTIVITY I: PLAN AND MANAGE PREPARATIONS OF THE EXERCISE EVALUATION TEAM

Task One: Determine the Scope of Exercise Evaluation

This task is to be accomplished by the Evaluator Team Director (ETD) in coordination with the representatives of organizations participating in the exercise.

The ETD coordinates with the participating agencies to determine the objectives to be demonstrated and evaluated during the exercise. In the event that the participating organizations have not decided on which objectives to demonstrate, the ETD should assist them in arriving at such objectives. Based upon which objectives will be demonstrated the ETD can determine how many and what type of evaluator expertise is needed to evaluate the exercise. As a general rule, a full-scale exercise should involve demonstration of at least the 16 objectives described in this Manual.

Based upon this coordination, the ETD determines which organizations and which locations will be demonstrating the objectives selected for the exercise.

The ETD identifies or determines the extent of play for the selected objectives. If the extent of play has already been determined by the participating organizations, the ETD needs only

to ascertain what has been determined for each objective. Otherwise the ETD needs to work with the participating organizations to determine the extent of play.⁴ It is imperative that extent of play agreements are reached ahead of time because they may affect the number of people needed to evaluate or control the exercise.

Typically in the demonstration of the objectives, organizations will be attempting to carry out their emergency functions as they would be carried out in a real emergency, subject to the limitations of conducting them in an exercise or to their exercise specific goals and purposes. For example, a response organization may have new procedures that it wishes to test, which have not yet been formally incorporated into its plan, however, the extent of play agreement provides that the new procedures to be utilized during the exercise.

Extent of play agreements also specify the simulation allowed in demonstrating each objective. For example, the extent of play agreement may state that the responders will not actually fight a fire, rather they can respond to a scene with the proper equipment and personnel; or, EOCs in locations expecting minimal play will not fully activate, rather they must demonstrate the notification procedures and have someone present to answer calls.

Task Two: Determine the Evaluation Team Structure, Size and Composition

In this task, the ETD uses the information developed in Task One to determine a team structure that is the most appropriate to use for evaluating the particular exercise. The size of an evaluation team is dependent upon several factors such as the type of exercise, (e.g., tabletop, functional, or full-scale); the purpose of the exercise; its size and complexity (i.e., the number of objectives demonstrated, the number of organizations participating, and the number of locations from which the objectives are demonstrated); and the availability of resources needed to conduct an evaluation.

Task Three: Recruit the Evaluation Team Members

In the third task, the ETD recruits members of the evaluation team. The recruitment base for evaluators consists of emergency management or response personnel from neighboring jurisdictions, representatives from State agencies or even Federal agencies. Experience has shown that it is not advisable to assign the role of evaluators to personnel belonging to the organizations being evaluated.

In order to properly evaluate many of the exercise objectives, evaluators will need specific technical knowledge (e.g., the evaluator(s) assigned to Objective 2, Direction and Control will need to have a thorough understanding of the Incident Command System). The ETD needs to review the list of objectives to be demonstrated, determine the knowledge and

⁴Extent of play refers to the extent to which the objective will be demonstrated through the completion of response actions corresponding to those that would be accomplished in a real emergency.

experience required for each objective, and seek the services of evaluators with the requisite knowledge and experience.

Appendix C contains a matrix linking objective and the knowledge and experience of evaluators assigned to them. Appendix D contains a matrix linking objectives to organizations or locations.

Task Four: Determine the Exercise Team Schedule of Activities

This task entails the development of a schedule that provides the dates and timeframes for the following activities:

- conduct of the pre-exercise briefing;
- exercise activities; and
- preparation of the exercise evaluation report.

Task Five: Arrange for Logistics to Support Evaluation Team

This task entails the development of logistical arrangements in support of the evaluation team. These arrangements must provide for such matters as meeting facilities, lodging, and transportation arrangements. As a general rule these arrangements need to include securing the use of facilities for plenary team sessions immediately prior to and following the exercise. Unless the exercise is to be conducted at locations that cannot be reached from a central common location in an hour's drive, it is advisable to arrange for lodging for all members of the team in a single facility.

Task Six: Provide Materials to Evaluators

In this task, the ETD provides evaluators with a variety of materials that they will need to prepare for the evaluation effort. This is accomplished most effectively through the distribution of evaluator packets, containing information on such items as:

- scope of the exercise to be evaluated, including objectives to be demonstrated and extent of play agreements;
- structure of the evaluation team, including individual evaluator assignments;
- exercise scenario and controller inputs;⁵

⁵ An exercise scenario is a sequential, narrative account of a hypothetical incident or accident. The scenario provides the catalyst for the exercise and is intended to introduce situations which will inspire responses, and thus allow demonstration of the exercise objectives. Most scenarios are initiated with an accident resulting in a release of, or the potential for a release of, a hazardous material.

- exercise ground rules;⁶
- relevant portions of Manual and EEM;
- copies of plans and procedures for assigned organizations pertinent to assigned objectives, including maps;
- portions of previous evaluation reports including description of issues and recommendations;
- exercise schedule, including schedule of post-exercise activities; and
- logistical information, location of meetings, lodging arrangements, etc.

Several of the items listed are to be secured by the ETD from the participating organizations, however, the last two items of information will have to be developed by the ETD.

Since plans and procedures are the basis for emergency response and review, the ETD should instruct evaluators to review and understand these plans and procedures in order to anticipate the responses that are likely to occur.

Task Seven: Develop the Format and Table of Contents for the Exercise Evaluation Report

In this task, the ETD, in coordination with the participating organizations, develops a format and approach to the exercise evaluation report. The ETD tries to ensure that the report will meet the established objectives of the exercise evaluation and meet the needs of the participating organizations.

Task Eight: Conduct Pre-Exercise Briefing

In this task, the ETD provides a pre-exercise briefing to the evaluation team. In this briefing the ETD needs to make sure that the evaluators understand all the items provided in the evaluator packet. The ETD may also need to brief the team of such matters as:

- recent and significant changes to the emergency plan;
- location-specific protocols;
- local geography; and
- local response structures.

⁶ Exercise rules are a set of general rules on how the exercise will be conducted. Many of the same ground rules may apply in all hazardous materials exercises. Exercise rules define the role and authority of the chief controller(s), other controllers, exercise evaluators, and players. Other rules for exercise conduct may include safety guidelines or information on pertinent State or local laws or regulations that may affect exercise participants and their play. The rules may also include procedures for when and how to terminate an exercise and for giving precedence to real emergencies.

This type of training is typically completed prior to the start of the exercise, either as part of the pre-exercise briefing or in a separate session.

ACTIVITY II: MANAGE THE DEVELOPMENT OF THE EXERCISE EVALUATION REPORT

Task One: Supervise the Evaluation of the Exercise

The critical first step in the preparation of the Exercise Evaluation Report (EER) is the development of data on the performance of the participating organizations during the exercise play. In this task, the ETD monitors and supervises the data collection activities of the exercise evaluation team during the play of the exercise.

A major part of this task will be to coordinate with the exercise controllers on the progress of the exercise and to advise the exercise evaluation team of developments affecting their roles and responsibilities as data collectors. In addition, the ETD may be called upon to reassign evaluators to different objectives or locations if circumstances dictate.

Task Two: Direct the Compilation of Evaluator Reports

In this task, the ETD coordinates the activities of the team and group leaders, or individual evaluators to accomplish the completion of the evaluation forms and the preparation of narrative summaries.

In the completion of this task, the ETD may find it useful to conduct a post-exercise evaluator debriefing in which all members of the team can present their initial impressions of the demonstrated performance, fill in gaps in their data on such performance, and check their preliminary impressions with other team members. These meetings may involve the full exercise team or be limited to team and group leaders.

Task Three: Coordinate the Identification of Exercise Issues

In this task, the ETD coordinates with team and group leaders and individual evaluators to facilitate the identification of exercise issues (i.e., observed or identified problems in an organization's performance in the demonstration of exercise objectives). It is critical that the ETD participate and guide this process to ensure that the issues are described in a consistent manner across objectives and that all issues are directly related to observed performance in the context of the objectives of both the exercise and the exercise evaluation.

Task Four: Manage the Completion of HM-EEMs and Preparation of Narrative Summaries

In this task, the ETD works with team and group leaders and individual evaluators to make sure that all HM-EEM forms are completed and all Points of Review are addressed, if applicable. The ETD also makes sure that narrative summaries are complete and well written, providing descriptions of the major exercise issues and documenting both positive and problematic aspects of performance. The ETD works with the evaluators to collect the HM-EEM forms and narrative summaries for use in the development of the exercise evaluation report.

Task Five: Manage the Preparation of the Exercise Evaluation Report

In this task, the ETD directs the preparation of the exercise evaluation report. In most exercises, the ETD prepares and issues a draft exercise report. The report is based on the evaluators' narrative summaries and the material collected by the evaluators during the exercise. Typically, the draft report is reviewed by the exercise planners, evaluators, the state, and other participating community organizations prior to its release. After the draft report is thoroughly reviewed, the ETD issues a final report.

THE HAZARDOUS MATERIALS EXERCISE EVALUATOR

The purpose of this section is to describe the overall responsibilities of the hazardous materials evaluator. For the new evaluator especially, a brief description of the role of the evaluator and its relationship to others is beneficial in understanding the hazardous materials Exercise Process.

NRT-2, Developing a Hazardous Materials Exercise Program - A Handbook for State and Local Officials, defines the various roles of participants involved in exercises. Frequently used terms that identify these roles include: players, controllers, evaluators and observers. Generally, these terms are defined as follows:

PLAYERS - are exercise participants who have assignments as members of an emergency response organization or team that will be committed to execute or support specific Federal, State or local efforts. These assignments can include saving lives, protecting property and public health, obtaining and managing resources, and maintaining public safety upon the occurrence of an oil or hazardous material spill or release. Players will make decisions and respond to scenario events in as realistic a manner as possible. All players should be familiar with the emergency response structure, functions, and procedures that they will be expected to perform.

CONTROLLERS - are those persons whose role is to ensure that the exercise objectives are sufficiently exercised to permit evaluation, that the level of activity keeps players occupied and challenged, and that the pace of the exercise proceeds according to the scenario.

***EVALUATORS** - are those persons assigned to each major playing element to observe the exercise and gather data. Their primary role is to observe actions taken by players and to record their observations. The evaluators' efforts provide the major portion of the documentation necessary to critique the exercise and produce an exercise report. The evaluators may also assist the controllers in keeping the exercise on track, but will not interfere with the players in the performance of their duties.*

***OBSERVERS** - are typically part of an audience who are spectators only.*

Each person involved in an exercise plays an important role. The "players" are exercise participants who have assignments in an emergency response organization or team. Players make decisions and respond to the events of the scenario or simulated emergency.

"Controllers" help guide the scenario by interjecting control messages to ensure that exercise play conforms to the scenario. Controllers also keep players occupied and challenged and resolve exercise problems and monitor the safety of the exercise. During an exercise, controllers are generally assigned to particular emergency response functions and locations. Persons assigned to the role of controller may be from participating organizations. In many instances, exercise planners often serve as controllers.

In a hazardous materials exercise, "observers" might be emergency management or response personnel from the involved community or neighboring communities who are planning their own exercise and may benefit from observing from the sidelines.

THE EXERCISE PROCESS AND THE HAZARDOUS MATERIALS EVALUATOR

The previous section briefly discussed the different groups of people involved in a hazardous materials exercise. This section will discuss in greater detail the three phases of the exercise process and how an evaluator is involved in that process.

Evaluator activities are completed in three phases of an exercise: *during the pre-exercise phase, during the exercise phase, and during the post-exercise phase.* During all three phases of the exercise, the overall job of an evaluator is to serve as a *reporter*. Associated with each phase of an exercise, an "evaluator's" specific job as a reporter is: *conduct research, observe actions, and evaluate and report results.*

ACTIVITIES AND TASKS OF THE EVALUATOR

Throughout the three phases of a hazardous materials exercise the evaluator is to complete three major activities and their associated tasks. These three major activities and associated tasks are as follows:

PRE-EXERCISE PHASE

ACTIVITY I: RESEARCH AND PREPARE FOR THE EXERCISE

- Task One: Receive and Review Evaluator Materials
- Task Two: Review the Scope of Exercise
- Task Three: Attend Pre-Exercise Briefing

EXERCISE PHASE

ACTIVITY II: CONDUCT THE EXERCISE

- Task One: Observe Actions During the Exercise
- Task Two: Follow Evaluator Guidelines

POST-EXERCISE PHASE

ACTIVITY III: REPORT THE RESULTS OF THE EXERCISE

- Task One: Conduct After-Exercise Evaluator/Participants Interview
- Task Two: Participate in After-Exercise Evaluator Debriefing
- Task Three: Complete HM-EEM Forms and Narrative Summary
- Task Four: Coordinate the Identification of Exercise Issues
- Task Five: Attend After-Exercise Participants' Briefing
- Task Six: Review Draft Exercise Report

ACTIVITY I: RESEARCH AND PREPARE FOR THE EXERCISE

In the pre-exercise phase, the evaluator's job is to *conduct research*. Thorough preparation by an evaluator will ensure an accurate and comprehensive evaluation of an exercise assignment. In doing research, an exercise evaluator must understand some basics about hazardous materials emergency preparedness and complete the following tasks:

Task One: Receive Evaluator Materials

In this task, the evaluator receives from the Exercise Team Director (ETD) an "evaluator packet" containing a variety of materials needed to prepare for the evaluation effort. Evaluator packets generally include information on such items as:

- scope of the exercise to be evaluated, including objectives to be demonstrated and extent of play agreements;
- structure of the evaluation team, including individual evaluator assignments;
- exercise scenario and controller inputs;⁷
- exercise ground rules;⁸
- relevant portions of HM-EEM Manual and HM-EEM;
- copies of plans and procedures for assigned organizations pertinent to assigned objectives, including maps;
- portions of previous evaluation reports including description of issues and recommendations;
- exercise schedule, including schedule of post exercise activities; and
- logistical information, location of meetings, lodging arrangements, etc.

Evaluators should review the information provided in the packet and make any necessary travel and lodging arrangements sufficiently in advance of the exercise.

Task Two: Review the Scope of Exercise

In this task, the evaluator needs to research the materials sent to them by the ETD. Evaluators need to:

- know what exercise objectives will be demonstrated;
- know which objectives the evaluator is responsible for evaluating;
- understand what extent of play agreements have been provided for; and
- review the exercise scenario and exercise rules.

⁷ An exercise scenario is a sequential, narrative account of a hypothetical incident or accident. The scenario provides the catalyst for the exercise and is intended to introduce situations which will inspire responses, and thus allow demonstration of the exercise objectives. Most scenarios are initiated with an accident resulting in a release of, or the potential for a release of, a hazardous material.

⁸ Exercise rules are a set of general rules on how the exercise will be conducted. Many of the same ground rules may apply in all hazardous materials exercises. Exercise rules define the role and authority of the chief controller(s), other controllers, exercise evaluators, and players. Other rules for exercise conduct may include safety guidelines or information on pertinent State or local laws or regulations that may affect exercise participants and their play. The rules may also include procedures for when and how to terminate an exercise and for giving precedence to real emergencies.

Since plans and procedures are the basis for emergency response and review, an evaluator should review and understand these plans and procedures in order to anticipate the responses that are likely to occur. Evaluators should be knowledgeable about the following:

- the plan's organization and concept of operations;
- the organization's primary response authority for the basic functions;
- the important acronyms used in the plan;
- the specific objectives relating to the evaluation of a location or emergency response function and expected responses based on the plans and procedures;
- the status of the plan development;
- the relationship between this exercise and the overall exercise program of the participating organizations; and
- any specific outcome or lessons learned from previous exercises that are being applied to this exercise.

Task Three: Attend Pre-Exercise Briefing

In this task, the evaluator, as part of the evaluation team, will attend a pre-exercise briefing. At the evaluators' briefing, the ETD address such topics as evaluator assignments, extent of play agreements, exercise ground rules, scenario, guidelines for completion of evaluation forms, evaluator protocol, and safety requirements. The ETD may also brief the team on such matters as:

- recent and significant changes to the emergency plan;
- location-specific protocols;
- local geography; and
- local response structures.

ACTIVITY II: CONDUCT THE EXERCISE

In the exercise phase, the evaluator's job is to *observe actions*. Observing actions generally occurs during the conduct of an exercise.

Task One: Observe Actions During the Exercise

The exercise will be conducted under the guidance of the exercise controllers. In this task the evaluator will observe the players' activities, make appropriate notes, record events, gather facts, times, and details relevant to the exercise, and collect copies of the records produced by exercise participants (e.g., sign-in sheets, logs, copies of EBS messages, press releases, and documentation records).

During the exercise, evaluators observe and record the *actions* of the players. Generally speaking, during the exercise phase, evaluators are "invisible" and do not interfere with exercise play, except for safety reasons.

Task Two: *Follow Evaluator Guidelines*

How evaluators present themselves at an exercise affects how successful they are in obtaining necessary information. In this task, the evaluator will follow the suggested guidelines with regard to:

- The evaluator's role and attitude;
- Dress and appearance at an exercise;
- Dealing with the media;
- The fine art of gathering information; and
- Actual emergencies.

The following tables provide some suggestions to commonly asked questions.

EVALUATOR'S ROLE
<p><i>What is the evaluator's role at an exercise and how can the evaluator's function be best described?</i></p> <ul style="list-style-type: none">• <i>The evaluator is much like an unobtrusive reporter; the evaluator is a good listener and is able to document facts without interfering with ongoing activities.</i>• <i>The evaluator is often perceived by players as a guest; be courteous, professional; offerings of refreshments, lunch, and hospitality may be accepted graciously.</i>• <i>Plan ahead, arriving at the specified location with the tools needed (e.g., pens, pencils, paper).</i>• <i>Appropriate interaction with the exercise players helps to establish rapport with them and leads to accurate evaluations. As a professional, avoid ethnic, sexist, religious jokes or comments.</i>

DRESS AND APPEARANCE

What is acceptable clothing to wear at an exercise? Should evaluators wear a suit? And what if evaluators are evaluating field activities?

- *Evaluators will be on their feet for many hours -- so wear comfortable shoes.*
- *Evaluators should dress in a professional manner suitable to the evaluation activity.*
- *Bluejeans and similar leisurewear may be considered appropriate for field activities.*

MEDIA INTERACTIONS

If a reporter from the local newspaper or television station attempts to interview an evaluator what do he/she do?

- *All media inquires should be directed to the media center or the exercise chairperson. Generally, this telephone number is provided at the pre-exercise meeting.*
- *In all cases, an evaluator should never provide evaluation status information or express any personal opinions to the media during the course of the exercise.*
- *An evaluator should very simply state that they are not allowed to provide any information on the results of the exercise.*
- *If asked, provide the appropriate post-exercise meeting information.*

INFORMATION GATHERING VIA QUESTIONING

How does an evaluator find out information that is not obvious, like who a particular individual is talking to on the telephone?

- *Wait until there is a lull in the action.*
- *Do not interrupt the players in their response activities.*
- *If an evaluator does not observe specific aspects of an organization's performance, ask questions of the exercise players after the exercise.*
- *Be sure that questions do not prompt an appropriate response by the players that they normally might have overlooked.*
- *Work with the controller or other evaluators to obtain information.*

ACTUAL EMERGENCIES

Suppose a real emergency takes place during an exercise, what acceptable protocol should an evaluator follow?

- *Real emergencies take precedence over exercise activities.*
- *Document when the "break in the action" occurred.*
- *If the real emergency prevented completion of required activities, document it as such.*
- *Contact the exercise chairperson or team leader if unexpected problem occurs (e.g., credentials, obvious safety concerns) or an evaluator has a personal emergency.*

ACTIVITY III: REPORT THE RESULTS OF THE EXERCISE

In the post-exercise phase, the evaluator's job is to *evaluate and report the results*. Results are usually reported after the exercise and can be presented in one of two ways: written and oral. There are several other after-exercise tasks that an evaluator may be involved in including:

Task One: Conduct After-Exercise Evaluator/Participants Interview

In this task, the evaluator interviews exercise participants in order to gather information needed to complete their HM-EEM forms. This interview generally takes place immediately following the exercise. This time can also be used to solicit the participants' comments and suggestions concerning the exercise. Experience has shown that many exercise participants also evaluate their own performance during an exercise. They may provide the evaluator with additional information to clarify any questions.

At the direction of the ETD, evaluators may generally summarize their observations of the exercise play for the participants. In most cases, the participants are anxious to hear a brief summary of the positive aspects of their play and any indication of possible issues.

Task Two: Participate in After-Exercise Evaluator Debriefing

In this task, the evaluator participates in an evaluator debriefing usually conducted by the ETD. The evaluators meet (some may work with team members) to summarize their exercise observations and documentation and identify any exercise issues. This debriefing time is also used to exchange information with evaluators who watched the same activity at different locations. This exchange of information is critical to filling in the gaps in understanding. Evaluators also participate in the development of a time-line.⁹

Task Three: Complete HM-EEM Forms and Narrative Summary

Written results of an exercise are reported through the completion of HM-EEM forms and narrative summary. The information gathered through the use of the HM-EEM forms provides the data from which the narrative summary is written. Narrative summaries, which are frequently the foundation of the exercise report, provide a written description of the observed actions. Narrative summaries also address any issues identified during the course of the exercise and include recommendations for improvement. Exercise issues are any observed or identified problem in an organization's performance relating to a specific

⁹ A time-line or chronology of exercise events is compiled to provide a frame of reference for evaluating exercise performance and to evaluate time-sensitive actions (e.g., alert and notifications). Time-lines and evaluators' meetings are essential for determining the coordination between the various response organizations.

demonstration of an exercise objective. In addition to written reports, results may be reported during oral briefings presented at various times and locations.

In this task, the evaluator completes the HM-EEM forms for each objective assigned to them. Evaluators complete each "point of review" and prepare a narrative summary for each objective. Much of the information for this narrative summary will come from the completed evaluation forms, but new information may become available at the evaluators' debriefing.

Complete and well-written Narrative Summaries:

- contain a concise description of how the objective was demonstrated;
- are written objectively, stating facts and observations;
- highlight positive aspects, as well as any problems identified;
- avoid opinions (e.g., I think they did a good job); and
- describe and document the issue(s) and recommend an approach for correcting the identified problem.

The completed evaluation forms and narrative summaries are generally submitted to a designated person, usually a group or team leader, shortly after the exercise. The leader reviews the completed forms and ascertains whether all appropriate data and information have been provided by the evaluator.

Task Four: Coordinate the Identification of Exercise Issues

In this task, the evaluator coordinates with the ETD and team and group leaders to identify any exercise issues (i.e., observed or identified problems in an organization's performance in the demonstration of exercise objectives). It is critical that the evaluator follow the guidelines provided by the ETD to ensure that the issues are described in a consistent manner across objectives and that all issues are directly related to observed performance in the context of the objectives of both the exercise and the exercise evaluation.

Task Five: Attend After-Exercise Participants' Briefing

In this task, the evaluator attends a briefing with the ETD and exercise participants to present a preliminary evaluation of the exercise. This meeting provides a means of summarizing and clarifying the results of the exercise. The participants usually present a critique of their own performance. Team leaders also present oral reports.

If an evaluator is requested to present an oral report, it should be brief, and include an overview of the highlights of the exercise, commendations for good performance, and a preliminary assessment of strengths and weaknesses.

Task Six: Review Draft Exercise Report

In this task, the evaluator, in addition to the exercise planners, the state and other participating community organizations, will be asked to review the draft report prior to its release. In most exercises, the ETD prepares a draft exercise report based on the evaluators' narrative summaries and the material collected by the evaluators during the exercise. After the draft report is thoroughly reviewed, a final report is issued by the ETD.

**THE HAZARDOUS MATERIALS-EXERCISE EVALUATION
METHODOLOGY (HM-EEM):
AN INSTRUMENT FOR EXERCISE EVALUATION**

The HM-EEM is an evaluation methodology consisting of a series of modules developed to facilitate evaluation of the performance of participating organizations on 16 major exercise objectives derived largely from the guidance contained in *NRT-1, Hazardous Materials Emergency Planning Guide*. The modules include evaluation forms which are structured to enable evaluators to gather information on the performance of participating organizations for each objective demonstrated at a particular location.

Each evaluation form contains a set of "Points of Review" and a "Narrative Summary" form. Once completed, the evaluation forms provide a composite set of data and information on the overall performance of all participating organizations on each demonstrated objective. These forms can also be reassembled to provide the foundation for an evaluation of the overall performance of all participating organizations on each of the demonstrated objectives. The HM-EEM has been designed as both a companion to the Manual and as a stand alone evaluation instrument. As a companion to the Manual the HM-EEM is to be used as a data gathering instrument by evaluators for the explicit purpose of collecting data that can be used to assess the performance of participating organizations in the context of 16 standard exercise objectives and their associated evaluation elements. As a stand alone document the HM-EEM provides a means for the collection of data on the performance of organizations and the compilation of a descriptive account of this performance.

HM-EEM STRUCTURE

There are several type of questions on the evaluation forms.

1. The "YES, NO, N/A, N/O or TIME" Question

One type of question is requires a "YES, NO, N/A, N/O, or TIME" response on the part of the evaluator. An evaluator should answer the question based on the following guidelines:

- "YES" indicates a positive response based on actual observation.
- "NO" indicates a negative response based on actual observation.

- **"N/A" stands for "not applicable"** and should be used to designate that the indicated activity or function was not agreed to be demonstrated by an organization (either because the organization is not responsible for the activity or function under its emergency plan and procedures or scenario events did not require the organization to demonstrate the activity or function).
- **"N/O" stands for "not observed."** It may mean either that the activity did not occur or that it occurred but the evaluator did not observe it.
- **"TIME"** indicates when a particular activity demonstration occurred at the location being evaluated.

2. The Checklist Question

A second type of question is a checklist. These questions require the evaluator to indicate what items or systems were present at a particular location.

3. The Direct Response Question

A third type of question is the direct response question, such as "specify the organizations with which this assigned group communicated." Typically, these questions often require only a few words or phrases, however, in some cases, a detailed essay may be necessary.

4. The "Sub Point of Review" Question

Some of the "points of review" are followed by subpoints that require the evaluator to explain any negative assessments of performance. In responding to the questions posed by these subpoints, evaluators should describe their observations of demonstrated performance and provide documentation, if available.

STANDARD HAZARDOUS MATERIALS EXERCISE OBJECTIVES

- OBJECTIVE 1: INITIAL NOTIFICATION OF RESPONSE AGENCIES AND RESPONSE PERSONNEL
- OBJECTIVE 2: DIRECTION AND CONTROL
- OBJECTIVE 3: INCIDENT ASSESSMENT
- OBJECTIVE 4: RESOURCE MANAGEMENT
- OBJECTIVE 5: COMMUNICATIONS
- OBJECTIVE 6: FACILITIES, EQUIPMENT, AND DISPLAYS
- OBJECTIVE 7: ALERT AND NOTIFICATION OF THE PUBLIC
- OBJECTIVE 8: EMERGENCY INFORMATION - MEDIA
- OBJECTIVE 9: PROTECTIVE ACTIONS FOR THE PUBLIC
- OBJECTIVE 10: RESPONSE PERSONNEL SAFETY
- OBJECTIVE 11: TRAFFIC AND ACCESS CONTROL
- OBJECTIVE 12: REGISTRATION, SCREENING, AND DECONTAMINATION OF PUBLIC
- OBJECTIVE 13: CONGREGATE CARE
- OBJECTIVE 14: EMERGENCY MEDICAL SERVICES
- OBJECTIVE 15: CONTAINMENT AND CLEANUP
- OBJECTIVE 16: INCIDENT DOCUMENTATION AND INVESTIGATION

OBJECTIVE DESCRIPTIONS

- OBJECTIVE 1:** Demonstrate the ability to notify response agencies and to mobilize emergency personnel.
- OBJECTIVE 2:** Demonstrate the ability to direct, coordinate, and control emergency response activities through operations of an incident command system (ICS) and other direction and control structures.
- OBJECTIVE 3:** Demonstrate the ability to identify the hazardous material(s) involved in an incident/accident and to assess the hazards associated with the material involved during both the emergency and post-emergency phases.
- OBJECTIVE 4:** Demonstrate the ability to mobilize and manage resources required for emergency response.
- OBJECTIVE 5:** Demonstrate the ability to establish and maintain communications essential to support response to a incident/accident.
- OBJECTIVE 6:** Demonstrate the adequacy of facilities, equipment, displays, and other materials to support emergency operations.
- OBJECTIVE 7:** Demonstrate the ability to signal an alert and to provide emergency notifications containing information and instructions to the public.
- OBJECTIVE 8:** Demonstrate the ability to coordinate the development and dissemination of clear, accurate, and timely information to the media.
- OBJECTIVE 9:** Demonstrate the capability to decide upon and direct the implementation of protective actions for the public.
- OBJECTIVE 10:** Demonstrate the ability to protect emergency responder health and safety.
- OBJECTIVE 11:** Demonstrate the organizational ability and resources necessary to implement site security and to control evacuation traffic flow and access to evacuated and sheltered areas.
- OBJECTIVE 12:** Demonstrate the ability to monitor and control hazardous materials decontamination of the public through an appropriate contamination screening, decontamination, and registration process.
- OBJECTIVE 13:** Demonstrate the adequacy of procedures, facilities, equipment, and services the congregate care of evacuees.
- OBJECTIVE 14:** Demonstrate the adequacy of personnel, procedures, equipment, and vehicles for transporting contaminated and/or injured individuals, and the adequacy of medical personnel and facilities to support the operation.
- OBJECTIVE 15:** Demonstrate the ability to implement appropriate measures for containment, recovery, and cleanup of a release of a hazardous material.
- OBJECTIVE 16:** Demonstrate the ability to document a hazardous materials incident/accident and response.

OBJECTIVE 1: INITIAL NOTIFICATION OF RESPONSE AGENCIES AND RESPONSE PERSONNEL

OBJECTIVE

Demonstrate the ability to notify response agencies and to mobilize emergency personnel.

INTENT

This objective is derived from NRT-1, Planning Element C, Response Function 1: Initial Notification of Response Agencies. This objective provides a framework for the evaluation of an organization's ability to notify and mobilize designated response personnel.

This objective focuses on the following actions:

- notifying response agencies regarding the occurrence of a incident/accident
- mobilizing emergency response personnel

EVALUATION ELEMENTS

1. *All organizations that are needed to respond to an incident/accident, or to which notifications must be made, are notified.*

Explanation:

The response organization should demonstrate the capability to receive notification of a incident/accident from the party responsible for the incident/accident or from its own first responding unit. It should then demonstrate the capability to complete a notification call down of all organizations required for emergency response. In addition, it should demonstrate the capability to report the existence of the incident/accident to all external organizations (e.g., LEPC, SERC, etc.) to which it is legally required to report to of the type depicted in the exercise scenario.

2. *The response organization effectively mobilizes emergency response personnel.*

Explanation:

The response organization should demonstrate the capability to mobilize emergency response personnel upon receipt of notification of a incident/accident. It should demonstrate the capability to contact all response personnel promptly via use of a telephone call-down, pagers, or radios to inform them of the existence of a incident/accident and to direct them to report to emergency duty stations.

The response organization should demonstrate the availability and use of procedures that link the number and types of personnel to be mobilized to the emergency classification level of the situation. It should demonstrate the capability to secure the arrival of the mobilized personnel at their duty stations.

CLARIFICATION OF TERMS

Emergency Classification Level: refers to a designated level describing the general characteristics of a emergency resulting from a incident/accident of a hazardous material. Based upon NRT-1 the standard classification levels are:

- ***Potential Emergency Condition:*** refers to "an incident or threat of a release which can be controlled by the first response agencies and does not require evacuation of other than the involved structure or immediate outdoor area. The incident is confined to a small area and does not pose an immediate threat to life or property."

Essentially, *potential emergency condition* indicates that conditions exist that could lead to a release of hazardous materials into the environment.

- ***Limited Emergency Condition:*** refers to "an incident involving a greater hazard or larger area which poses a potential threat to life or property, and which may require a limited evacuation of the surrounding area."

Simplified, *limited emergency condition* indicates that hazardous materials have been released into the environment, but only limited segments of the general public are expected to be endangered.

- ***Full Emergency Condition:*** refers to "an incident involving a severe hazard or a large area which poses an extreme threat to life and property and will probably require a large scale evacuation; or an incident requiring the expertise or resources of county, State, Federal, or private agencies/organizations."

Basically, ***full emergency condition*** indicates that hazardous materials have been released into the environment and present a significant threat to public health and safety.

OBJECTIVE 2: DIRECTION AND CONTROL

OBJECTIVE

Demonstrate the ability to direct, coordinate, and control emergency response activities through operations of an incident command system (ICS) and other direction and control structures.

INTENT

This objective is derived from: 1) NRT-1, Planning Element C, Response Function 2: Direction and Control, which provides that an effective emergency response depends upon the cooperative efforts of involved response organizations implementing the response plan; 2) established principles in emergency management concerning direction and control of emergency response operations; and 3) regulatory requirements at 29 CFR 1910.120 and 40 CFR Part 311 concerning the utilization of a site-specific incident command system.

This objective focuses on:

- establish and manage an ICS at the incident/accident site
- coordinate between the incident/accident site and the direction and control structures of other organizations involved in the response activities accomplished away from the incident/accident site (e.g., at an Emergency Operating Center [EOC])

Demonstration of this objective centers on the actions associated with ensuring that the various components of the response organization responsible for emergency operations at the location of the incident/accident carry out the necessary response actions in a coherent and coordinated manner (e.g., the issuance of directions to take measures to protect response personnel). The substance of these actions are addressed in other objectives (e.g., the accomplishment of actions associated with the protection of emergency response personnel is covered in Objective 10: Response Personnel Safety.)

EVALUATION ELEMENTS

1. *The organization establishes and uses an effective site-specific ICS for the management of its emergency response effort at the location of the incident/accident.*

Explanation:

The response organization at the incident/accident site should demonstrate the capability to accomplish the following actions, in accordance with its response plan:

- establish a visible command post
- establish communications with off-site organizations
- provide information about the incident/accident to off-site response authorities
- assume responsibility for the management of operations at the incident/accident site by a site-specific Incident Commander (IC) - This may include one or more assumptions of responsibility as the IC by arriving senior response officials, who assume command and replace lower ranking on-site officials
- establish an organizational structure for the management of on-scene response operations, including delegations of authority
- coordinate with personnel at the EOC or other off-site response authorities
- manage the ICS interface with the operations of Federal On-Scene Coordinator
- provide direction and control by the IC to all organizations responsible for response actions at the incident/accident site

The first four actions cited above are visible and concrete actions that should be readily observable. The provision of direction and control is less a set of specific actions than it is the cumulative effect of a set of interrelated actions. These actions may include the following:

- issue instructions to staff on response operations
- provide directions on adherence to the plan
- coordinate with and disseminate information to off-site response organizations any director of the off-site response effort
- resolve conflicts
- provide leadership in decision making
- consult with staff
- provide needed authorities for emergency action

2. *Under the direction of or in coordination with the IC, designated personnel with a leadership role in the response organizations provide direction and control to those elements of the overall response for which they are responsible.*

Explanation:

Designated personnel with leadership roles in off-site response organizations (e.g., Emergency Management Director [EMD]) should demonstrate the capability to provide direction and control to those elements of the off-site response structure which function under their leadership. These personnel are to demonstrate the capability to accomplish various activities such as:

- issue instructions to staff
- provide directions on adherence to the plan
- disseminate information
- resolve conflicts
- provide leadership in decision making
- consult with staff
- provide needed authorities for emergency action
- direct or coordinate with other response organizations

CLARIFICATION OF TERMS

Emergency Management Director: refers to the individual responsible for the management of the emergency response away from the incident/accident site.

Emergency Operations Center: refers to where department heads, government officers and officials, and volunteer disaster agencies gather to coordinate their response to an emergency.

Incident Commander: refers to the individual responsible for the management of all incident operations.

Incident Command System: refers a system to manage the combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure with responsibility for the management of assigned resources to effectively accomplish stated objectives pertaining to an incident.

29 CFR 1910.120: refers to a regulation issued by the Occupation Health and Safety Administration (OSHA) on emergency response training for employees involved in operations with hazardous materials and hazardous waste.

40 CFR Part 311: refers to a regulation issued by the U.S. Environmental Protection Agency (EPA) on emergency response training for employees involved in operations with hazardous materials and hazardous waste.

OBJECTIVE 3: INCIDENT ASSESSMENT

OBJECTIVE

Demonstrate the ability to identify the hazardous material(s) involved in an incident/accident and to assess the hazards associated with the material involved during both the emergency and post-emergency phases.

INTENT

This objective is derived from NRT-1, Planning Element C, Response Function 12: Ongoing Incident Assessment. This objective provides a framework for the evaluation of an organization's ability to identify the hazardous material(s) involved in an incident/accident and to assess the hazards associated with the material during both the emergency and post-emergency phases.

This objective focuses on:

- the technical identification of materials
- the assessment of the associated hazards to the public health and safety

EVALUATION ELEMENTS

1. *The response organization demonstrates the technical capability to identify the material involved in an incident/accident.*

Explanation:

Identification of the material involved in an incident/accident is critical to a safe and effective emergency response. The response organization should demonstrate the capability of its designated initial response personnel (e.g., Hazmat Team, local police, or fire department) to complete an initial incident assessment of an incident/accident. The objective of an initial incident assessment is to maximize the safe recovery of information at the incident/accident site and to identify the material and the assess the hazards that may be involved. Those activities concerning protection of response personnel related to and approaching a scene are evaluated under Objective 10: Response Personnel Safety.

The response organization should demonstrate the capability to collect, at a minimum, the following information during the initial assessment:

- determine the type of container or package involved (e.g., tankcar [pressurized or non-pressurized], drum, tank trailer, small package, etc.)
- assess the extent of damage to the container or package
- estimate the quantity of material involved
- secure copies of the shipping papers (from trucks, trains, and vessels) or MSDSs (from fixed facilities)
- observe any placards, identification numbers, markings, or labels (DOT or NFPA 704M labelling systems) to assist in identifying the specific material, or at a minimum, the hazard class of the material involved
- obtain information from knowledgeable persons on the scene (truck driver, train crew, plant manager, etc.).

After evaluating information gathered during the initial incident assessment, the response organization should demonstrate the capability to consult various emergency response resources (e.g., DOT's Emergency Response Guide [ERG]) for initial response information before placing people and property at risk. Additional response information and assistance may be obtained by contacting other responsible agencies, the transporter, shipper and facility management, outside experts, CHEMTREC, and through the use of computer and manual data bases. The response organization should demonstrate the capability to report the observed field data to other response units.

During an exercise, it is not necessary to contact CHEMTREC because that organization may be busy responding to actual incidents/accidents across the country. However, as part of exercise play, the response organization should demonstrate the capability to actually contact other responsible agencies, the transporter, shipper, and facility management, as well as outside experts who are participating in the exercise. The response organization should also demonstrate the capability to actually obtain additional response information through the use of computer and manual data bases, as appropriate.

The response organization should demonstrate the capability to secure the affected area. Site security activities are generally performed by law enforcement personnel and are evaluated under Objective 11: Traffic and Access Control.

Those activities associated with strategies and decision making for containment of the spilled or release material are evaluated under Objective 14: Containment and Cleanup.

2. *The response organization demonstrates the capability to assess the hazard associated with the material involved in an incident/accident.*

Explanation:

Once the initial assessment has been completed and the spilled or released material has been identified, the response organization should demonstrate the capability to assess the potential hazards both at the affected site and to adjacent areas.

The response organization should demonstrate the capability to assess the physical factors affecting the release such as the material state (liquid, gas, solid), actual and projected release rate, and direction of the material released in air or water.

The physical factors associated with the natural setting and type of material being released at the accident site should guide the response organization in structuring the design of a field sampling plan and deployment of field monitoring teams. The response organization should demonstrate the capability to:

- establish a priority for monitoring airborne toxic substances
- develop a strategy for monitoring and using direct reading instruments
- maintain monitoring capabilities for the duration of the release
- identify and respond to atmospheric and geographic conditions
- obtain environmental samples
- analyze the samples
- supplement field monitoring data with risk assessment data that are based on various computer models (e.g., ARCHIE, CAMEO, etc.)

The response organization should demonstrate the capability to use the analysis of the field samples to guide decision makers in developing protective actions for the responders as well as for the general public. Those activities concerning the risk(s) associated with the spilled or release material and the potential for exposure to the public health and safety and the environment are evaluated under Objective 9: Protective Actions for the Public.

CLARIFICATION OF TERMS

Emergency Phase: refers to the initial phase of response actions, during which actions are taken in response to a threat of a release or a release in progress.

Incident/Accident: refers to a release or the potential for a release of a hazardous material.

Post-emergency Phase: refers to the phase of response actions, during which actions are taken after the release or the potential for a release has ceased.

OBJECTIVE 4: RESOURCE MANAGEMENT

OBJECTIVE

Demonstrate the ability to mobilize and manage resources required for emergency response.

INTENT

This objective is derived from NRT-1, Planning Element C, Response Function 6: Resource Management. This objective provides a framework for the evaluation of an organization's ability to determine and implement the resources required for responding to an incident.

This objective focuses on:

- the types and quantities of resources needed and available
- mobilizing internal and external resources
- managing resources

This objective may be demonstrated in the context of an exercise in which the response can be accomplished within a 12 hour period (i.e., in a limited time exercise) or in the context of an exercise in which the response is to be accomplished over a period lasting more than 12 hours and the resources initially mobilized for the response must be replaced or relieved.

EVALUATION ELEMENTS

1. *The response organization determines the types and quantities of resources required for response to the incident/accident.*

Explanation:

The response organization (in most cases this will be the site-specific Incident Commander [IC]) should demonstrate the capability to determine the resources, (e.g., equipment, supplies, personnel, and expertise) that it requires in order to respond effectively to the incident/accident. It should demonstrate that it can complete this activity in support of the implementation of a strategy for containment, clean-up, and recovery from a incident/accident. This means that the organization should be able to define the resource requirements based upon the response strategy and to accomplish the task in time to

facilitate the implementation of the strategy. (For more on the development of this strategy see Objective 14.)

2. *The response organization effectively mobilizes internal resources in support of site-specific response operations.*

Explanation:

The response organization should demonstrate the availability and use of procedures through which the IC or an official at the Emergency Operating Center (EOC), can call upon local governmental agencies and the owners and operators of private sector resources, including the owner and operators of the facility or mode of transportation involved in the incident/accident, to provide the resources required for response. It should demonstrate that the procedures enable the person responsible for this activity to identify the potential sources of the required resources (i.e., equipment, supplies, and personnel) and to contact them promptly upon a determination that their assistance is required.

If the response organization has mutual aid agreements with other fire and police departments, it should demonstrate that it has the capability to call upon those organizations with whom such agreements exist. In this case, organizations may be expected to use formal procedures contained in response plans which provide substantial details on the types of resources that can be made available in this manner. For the purposes of this evaluation element, organizations that provide support to the response organization under mutual aid agreements are considered to be local resource providers.

Under optimum demonstration of this evaluation element, the local sources of required resources participate in the exercise. Under this situation the response organization should demonstrate the capability to confirm that these local sources have the requested resources and that they are able to commit them to the IC. In addition, it should demonstrate the capability to mobilize resources and deploy the resources to the incident/accident site. The effectiveness of the mobilized resources in the performance of response operations will be considered in other objectives, especially in Objective 14.

3. *The response organization effectively mobilizes external resources in support of site-specific response operations.*

Explanation:

The response organization should demonstrate the capability to contact State agencies, external private sources of assistance, such as the American Association of Railroads (AAR), and the Federal Government and to request from them the resources that it requires in support of site-specific response operations. For the purposes of the exercise, this can be demonstrated via calls to control cells or to actual contacts in participating organizations. The response organization should also demonstrate the availability of an up-

to-date list of organizational contacts and telephone numbers to facilitate the accomplishment of this activity, even if no calls are actually made to these contacts.

Under optimum demonstration, external resource providers should demonstrate the capability to participate in the exercise and deploy their mobilized resources to the incident/accident site, following receipt of calls from the response organization. If this occurs, the IC should demonstrate the capability to integrate these resources into the total pool of resources available for the response effort. The effectiveness of these resources in the conduct of actual response operations in the exercise will be evaluated under different objectives, especially Objective 14.

4. *The response organization manages resources to sustain response operations for a protracted period of time.*

Explanation:

The response organization should demonstrate the capability to secure additional resources to replace resources that may be consumed or exhausted during lengthy response operations. In particular, the response organization should demonstrate the capability to staff critical positions on a 24-hour day basis for as long as necessary to support emergency operations. This can be demonstrated through the mobilization and functioning of a second shift.

This element may be demonstrated in exercises in which the response requires operations for more than 12 hours. (This may be 12 hours real time, conducted over more than one day (real time) or in which the scenario provides for an advance of the clock to simulate a later day in which continued response operations are required.

CLARIFICATION OF TERMS

Local Resources: refers to all the resources that have been identified in the organizations emergency response plan as being under the organizations direct control and those resources controlled by other entities within the geographical boundaries of the jurisdiction, including those available through mutual aid agreements.

Mutual Aid Agreement: refers to an agreement between two or more jurisdictions or between a jurisdiction and one or more private entities in which the signatories promise to come to provide assistance to each other when such assistance is requested.

OBJECTIVE 5: COMMUNICATIONS

OBJECTIVE

Demonstrate the ability to establish and maintain communications essential to support response to a incident/accident.

INTENT

This objective is derived from NRT-1, Planning Element C, Response Function 3: Communications. This objective provides a framework for the evaluation of an organization's ability to establish and maintain communications throughout the response organization and between the response organization and supporting jurisdictions and organizations.

This objective focuses on:

- the Incident Commander (IC) establishing and maintaining communications among all response units
- the Emergency Operations Center (EOC) establishing and maintaining communications with all units under direction of the Emergency Management Director (EMD)
- the off-site response organization establishing and maintaining communications

EVALUATION ELEMENTS

1. *The response organization establishes and maintains communications among all units under the direction of the site-specific IC.*

Explanation:

The IC should demonstrate the capability to establish and maintain communications with units responding to the incident/accident. Among the units under the direction of the IC are:

- the first responding units at the incident/accident site
- field teams engaged in operations at the incident/accident location

- all response organizations whose support is required by the IC
- all newly arriving response organizations (including those from other jurisdictions)
- the commanders of all major response organizations
- off-site sources of advice and assistance in the identification of the hazardous materials, and the development and implementation of a strategy for containment, cleanup, and recovery

The IC should demonstrate the availability and effective use of communications systems and equipment in support of the performance of all direction and control activities for which the IC is responsible. (See Objective 2 for a description of these activities.)

2. *The EOC establishes and maintains communications with the IC and all organizational units under command of EOC staff.*

Explanation:

The response organization should demonstrate the capability that its EOC staff can establish and maintain communications with the IC. It should demonstrate that communications can be established quickly over dedicated communications lines and be maintained. It should demonstrate that the communications system can handle all necessary traffic between the two locations.

The EOC staff should demonstrate the capability to establish and maintain communications with response units under their direction and control. It should demonstrate the ability to use the communications system to provide direction and control to the organizations under their command. It should demonstrate the ability to use the communications system to coordinate their activities with other organizations with whom they must coordinate in order to perform their response functions.

3. *Elements of the response organization establish and maintain effective communications.*

Explanation:

Response organizations functioning at locations removed from both the site of the incident/accident and the EOC should demonstrate the ability to establish and maintain communications with other organizations as necessary to support the accomplishment of their emergency response functions.

CLARIFICATION OF TERMS

None.

OBJECTIVE 6: FACILITIES, EQUIPMENT, AND DISPLAYS

OBJECTIVE

Demonstrate the adequacy of facilities, equipment, displays, and other materials to support emergency operations.

INTENT

This objective provides a framework for the evaluation of an organization's ability to provide suitable operating facilities, equipment, and displays necessary for the conduct of efficient emergency response operations.

This objective focuses on:

- the facility from which emergency operations are conducted
- the equipment and displays supporting emergency operations

EVALUATION ELEMENTS

1. *The facility is capable of supporting emergency operations.*

Explanation:

The response organizations should demonstrate the availability of emergency facilities designed to support emergency operations. A facility may be either fixed and located in a building, center, or room(s), or mobile and operated out of mobile unit, or vehicle. For example, an Incident Commander (IC) may operate from a vehicle near the incident/accident. This vehicle could vary in type from a command post designed for such emergencies to a fire or other response vehicle. An Emergency Management Director (EMD) may operate from a fixed facility located in a room in the police department, fire station, county courthouse, or city hall.

The space and key features needed at a facility depend on the function(s) to be performed there. Key response functions can be significantly limited by an inadequate facility design or lack of essential facility features. Some features of a fixed facility may include: bathrooms, kitchen and sleeping facilities, shower facilities, and a backup power supply. Some features of a mobile facility may include: a mobile unit specifically designed with

bathrooms, showers, desks, and a backup power supply, or a fire truck or other type of response vehicle. At a minimum, a suitable facility should accommodate the numbers of emergency personnel activated in a response and facilitate the decision making of the leader of the response.

Whether fixed or mobile, the response organization should demonstrate the capability to control the access to and from the particular facility. Access control generally consists of a sign-in and out log at one entrance and a staff member assigned to this function.

2. *The equipment and displays are sufficient to support emergency operations.*

Explanation:

The response organization should demonstrate that the equipment available at an emergency facility from which emergency operations are conducted is commensurate with the role played by that facility in emergency operations. The specific equipment in each emergency facility will vary with organizational plans and the type of facility. Some examples of equipment available at a facility include: an adequate telephone system, communications equipment, maps, facsimile machine, copier, backup power, and computers.

Each facility used for emergency response should demonstrate the availability of status boards or some means of visually displaying information concerning key events (e.g., response level, chemical involved in accident) and related actions. The response organization should demonstrate the capability to update status boards in a timely manner in order for this information to be beneficial to emergency response personnel. This includes demonstration, as appropriate, of maps and displays showing the incident/accident site and affected areas. Maps should identify familiar landmarks and boundaries, and traffic/access control points. The response organization should demonstrate the availability of reference materials.

CLARIFICATION OF TERMS

Facility: refers to any building, center, room(s), mobile unit(s), or vehicle(s) designed and equipped to support emergency operations.

OBJECTIVE 7: ALERT AND NOTIFICATION OF THE PUBLIC

OBJECTIVE

Demonstrate the ability to signal an alert and to provide emergency notifications containing information and instructions to the public.

INTENT

This objective is derived from NRT-1, Planning Element C, Response Function 4: Warning Systems and Emergency Public Notification. This objective provides a framework for the evaluation of an organization's ability to promptly alert and notify the public in the event of a hazardous material incident/accident.

This objective focuses on the following:

- activating the warning system to alert the public
- providing emergency information and instructions to the public
- alerting and notifying the general public with special needs

EVALUATION ELEMENTS

1. *The response organization provides prompt alert and notification to the general public.*

Explanation:

The response organization should demonstrate the capability to activate the public alert system and to provide emergency instructions and information to the public via the EBS and other planned means such as route alerting.

The response organization should demonstrate the capability to complete the following sequential actions:

- issue a directive to activate the public alert system (typically this is the activation of the sirens and the deployment of teams responsible for route alerting)
- activate the alert system

- disseminate notification messages which provide information and instructions concerning the incident/accident (i.e., specific instructions to the public on protective actions to be taken)

The response organization should demonstrate the capability to accomplish alert and notification once it has been determined that an incident/accident poses a threat to the population and that they need to be alerted and notified. It should demonstrate that this can be accomplished within a timeframe that ensures that the public can be notified of protective actions before such actions need to be taken.

2. *The response organization demonstrates the capability to select appropriate pre-scripted EBS messages or other notification messages or to compose ad hoc messages that provide the public with accurate and timely information and instructions.*

Explanation:

In most hazardous material emergencies, the response organization operates within very tight time constraints, which require very rapid alert and notification activities. This means that most response organizations need the capability to select and modify appropriate pre-scripted notification messages. The response organization should demonstrate the capability to disseminate messages that:

- contain accurate information about the incident/accident
- describe protective actions clearly and succinctly
- instruct the listener on the actions to be taken
- identify the affected areas (recognizable landmarks, route numbers, etc.)
- emphasize the importance of taking these actions as promptly as possible

3. *The response organization demonstrates the capability to provide alert and notification to members of the general public with special needs.*

Explanation:

Organizations should demonstrate the capability to provide alert and notification to members of special population groups (e.g., hearing impaired, visually impaired, mobility impaired, etc.) who may not be capable of receiving the alert and notification signals provided to the general public. Organizations should demonstrate the capability to accomplish alert and notification through alternate means such as tone alert radios, telecommunication devices for the deaf, and the use of a human network.

CLARIFICATION OF TERMS

Alert: refers to a process involving the sounding of a warning signal to the public concerning the existence of an emergency situation to which they may need to respond.

Notification: refers to a process involving the dissemination of the emergency and informational messages provided to the public regarding a hazardous materials incident/accident. This notification process should follow the alert.

Route Alerting: refers to a method of public alert and notification in which the alert signals and notifications are disseminated via equipment and staff which move through populated areas.

Special Populations: refers to individuals with special needs such as the hearing impaired, visually impaired, mobility impaired, school children, nursing home residents, etc.

OBJECTIVE 8: EMERGENCY INFORMATION - MEDIA

OBJECTIVE

Demonstrate the ability to coordinate the development and dissemination of clear, accurate, and timely information to the media.

INTENT

This objective is derived from NRT-1, Planning Element C, Response Function 5: Public Information/Community Relations. This objective provides a framework for the evaluation of an organization's ability to develop and disseminate information to the public in the event of a hazardous material incident/accident.

This objective focuses on:

- the process of presenting information to media representatives
- the contents of the information
- rumor control

This objective is closely related to Objective 7: Alert and Notification of the Public, which deals with the provision of emergency information and instructions directly to the public through the Emergency Broadcast System (EBS) or other appropriate means.

EVALUATION ELEMENTS

1. *Information is provided to the media in a coordinated manner consistent with provisions for the release of time-sensitive information.*

Explanation:

The response organization should demonstrate the capability to establish and use a primary information facility, often referred to as a "media center," where principal organizations can coordinate their activities and interact with the media. The response organization should demonstrate that they have a single designated spokesperson with access to all necessary information and technical staff. It should demonstrate the capability to respond to telephone inquiries from the media.

The response organization should demonstrate the capability to manage a joint information coordination process sufficient to ensure that information developed and disseminated by different organizations is technically accurate and consistent with official notifications to the public. It should demonstrate the capability to provide the media with information it requires in order to perform effectively in an emergency as a major means of getting emergency information to the public. It should demonstrate the capability to provide briefings and press releases shortly after initial emergency developments and periodically between subsequent developments.

The response organization should demonstrate that its various public information officers (PIO) or spokespersons can coordinate their activities prior to the release of information to the media.

2. *The response organization demonstrates the ability to provide accurate, clear, complete, and consistent information to the media.*

Explanation:

The response organization should demonstrate the capability to provide information to the media that meets the following conditions for consistency and clarity:

- information is to be presented in language that is understandable to the media and avoids use of unexplained technical jargon
- information on protective action recommendations (PAR) is consistent with official messages containing PARs
- information is internally consistent (i.e., each item of information and instructions contained in each message is consistent with each related item of information or instruction within the same dissemination).

3. *The response organization demonstrates the capability to take actions designed to control the spread of rumors that may impact on public health and safety.*

Explanation:

As an integral part of its efforts to use the media as an important means of providing emergency information to the public, the response organization should demonstrate the capability to take action designed to control the spread of rumors that could have an adverse impact on the ability and willingness of the public to take those protective actions necessary for their health and safety. The response organization should demonstrate the capability to monitor disseminations of information by the news media in order to identify rumors that could have a negative impact on public health and safety. It should also demonstrate the capability to take measures to provide the media with information that will help to control these rumors.

CLARIFICATION OF TERMS

Media Center: refers to a facility staffed by spokespersons from multiple response organizations for the purpose of providing a single designated point of contact with the media and to facilitate exchange of information among spokespersons from different organizations. This type of facility is also referred to as a Joint Public Information Center (JPIC), a Joint Information Center (JIC), a Joint News Center (JNC), or an Emergency News Center (ENC).

Public Information Officer: refers to a designated point of contact responsible for interface with the media or other appropriate agencies requiring information concerning the incident/accident.

OBJECTIVE 9: PROTECTIVE ACTIONS FOR THE PUBLIC

OBJECTIVE

Demonstrate the capability to decide upon and direct the implementation of protective actions for the public.

INTENT

This objective is derived from NRT-1, Planning Element C, Response Function 9: Personal Protection of Citizens. This objective provides a framework for the evaluation of an organization's ability to promptly assess the severity of the hazard, determine the actions to be recommended, and implement those actions for the protection of the public and special populations.

This objective focuses on:

- protective action decision making
- issuing directives necessary to initiate the implementation of protective actions
- supporting the implementation of protection action for special populations

The implementation of these selected protective actions is addressed in other objectives. Aspects of the implementation of evacuation and sheltering is covered in Objective 7, which addresses the issuance of instructions on protective actions. Objective 11 deals with traffic and access control. Objective 12 deals with monitoring and decontamination of evacuees.

This objective is closely related to Objective 3: Incident Assessment. Input from this objective is critical to decision making on protective actions.

EVALUATION ELEMENTS

1. *The response organization demonstrates the ability to make decisions on actions to protect the public from the risk of exposure to hazardous materials.*

Explanation:

The response organization should demonstrate the capability to provide the results of ongoing incident assessment to officials responsible for protective action decisions. These officials should demonstrate the capability to use data provided on the hazards posed by the material involved in the incident/accident to determine the risk to public health and safety and the protective actions necessary to reduce this risk.

The response organization should demonstrate the capability to determine the geographical areas within which the public is at risk of exposure to the plume produced by the incident/accident. It should demonstrate the capability to determine when the plume will reach the affected area, how long it will remain over the area, how persons could be exposed to the hazardous materials involved, and the potential harm that could come from such exposure.

Based upon these determinations the response organization should demonstrate the capability to determine which protective action (e.g., sheltering or evacuation, alone or in combination) would provide the most effective protection from this potential exposure.

The response organization should demonstrate the capability to revise the calculations described above as conditions change and to make appropriate adjustments in protective action strategies.

2. *The response organization demonstrates the capability to issue directives necessary to initiate and direct protective action implementation.*

Explanation:

The response organization should demonstrate the capability to issue directives to units of the response organization to initiate the implementation of protective actions. It should demonstrate the capability to monitor the results of the implementation efforts and to issue new directives as necessary to keep the implementation on track.

3. *The response organization demonstrates the capability to support the implementation of protective actions for special populations.*

Explanation:

The response organization should demonstrate the capability to notify school system and other institutional officials of the existence of an incident/accident and to provide protective action recommendations for evacuation or sheltering-in-place.

If evacuation is the recommended protective action, the response organization should demonstrate the capability to support the implementation the following actions:

- to evacuate schools to other locations outside of area of risk
- to provide assistance to special institutions such as hospitals and day care centers in the accomplishment of the necessary actions
- to move the residents of these institutions to relocation centers along preplanned routes
- to provide assistance to members of special populations who require assistance, including transportation, in carrying out protective action recommendations

If sheltering-in-place is the recommended protective action, the response organization should demonstrate the availability of plans and procedures for providing assistance to accomplish such actions.

The demonstration of the capability to evacuate special populations could be expanded to include the actual deployment and movement of some of the vehicles needed by members of special populations from pickup points to specified reception centers. If volunteers simulate persons needing medical evacuation, the demonstration should include the provision of assistance to persons in all phases of their evacuation.

CLARIFICATION OF TERMS

None.

OBJECTIVE 10: RESPONSE PERSONNEL SAFETY

OBJECTIVE

Demonstrate the ability to protect emergency responder health and safety.

INTENT

This objective is derived from NRT-1, Planning Element C, Response Function 8: Response Personnel Safety and the OSHA Final Rule on Hazardous Waste Operations and Emergency Response at 29 CFR 1910.120 and the EPA Rule 40 CFR Part 311 on the same subject, as well as the OSHA Rule 29 CFR 1910.156. This objective provides a framework for the evaluation of an organization's ability to protect the health and safety of personnel responding to a hazardous materials incident/accident.

This objective focuses on:

- site control
- response personnel safety
- emergency worker decontamination

EVALUATION ELEMENTS

1. *The response organization demonstrates the capability to establish and maintain a system of one or more zones at the location of an incident/accident.*

Explanation:

The response organization should demonstrate the capability to establish one or more zones and to regulate the movement of response personnel in and out of those zones. It should demonstrate the capability to establish barriers around a restricted zone or "hot zone" and to make the boundaries of that zone clearly visible to all response personnel. The response organization should also demonstrate the capability to limit the number of personnel allowed entrance into the restricted zone to a minimum required for effective response operations and to keep the amount of time that each responder remains in that zone to a minimum.

- 2. The response organization demonstrates the capability to protect response personnel within the restricted zone.*

Explanation:

The response organization should demonstrate the capability to provide protective equipment and clothing to responders based upon the organization's safety and health plan. It should demonstrate the capability to use the results of ongoing incident assessment to determine the level (Level A, B, or C) and types of protection to be provided against identified hazards. It should demonstrate the capability to ensure that no emergency worker enters the restricted zone without the required protective equipment and clothing. It should demonstrate the capability to establish and maintain rules for the use of protective equipment by responders while in the restricted zone. It should demonstrate the capability to ensure that the operations of workers within the restricted zone are under the supervision of a safety officer, who has the authority to alter or suspend emergency operations as necessary to protect the workers.

The response organization should demonstrate that the personal protective equipment provided to fire fighters involved in operations beyond the initial stages of any incident/accident meets the criteria contained at 29 CFR 1910.156(e).

The response organization should demonstrate the capability to ensure that all emergency responders exposed to hazardous materials presenting an actual or potential inhalation hazard wear positive pressure self-contained breathing apparatus while engaged in emergency response, until the IC determines that conditions allow them to dispense with this equipment.

The response organization should demonstrate the capability to ensure that operations in hazardous areas are performed in the "buddy system", in groups of two or more.

The response organization should demonstrate the capability to provide emergency assistance, rescue, first aid, or emergency medical transportation to emergency workers.

- 3. The response organization demonstrates the capability to decontaminate emergency workers.*

Explanation:

The response organization should demonstrate that it has the capability to monitor emergency response personnel for contamination by hazardous materials upon their departure from the restricted zone. It should demonstrate the capability to decontaminate emergency response personnel either before or after this monitoring. Some organizations may routinely decontaminate workers and then re-monitor to make sure that they are decontaminated.

CLARIFICATION OF TERMS

29 CFR 1910.120: refers to a regulation issued by the Occupation Health and Safety Administration (OSHA) on emergency response training for employees involved in operations with hazardous materials and hazardous waste.

29 CFR 1910.156: refers to a regulation issued by the Occupation Health and Safety Administration (OSHA) covering requirements for equipment and procedures for the protection of firefighters.

Restricted Zone: refers to an area to which authorized personnel may enter, but for which protective measures are mandatory to minimize exposure to hazardous materials, also known as "hot zone".

Safety Officer: refers to a person responsible for monitoring and assessing safety hazards or unsafe situations and developing measures for ensuring personnel safety.

40 CFR Part 311: refers to a regulation issued by the U.S. Environmental Protection Agency (EPA) on emergency response training for employees involved in operations with hazardous materials and hazardous waste.

OBJECTIVE 11: TRAFFIC AND ACCESS CONTROL

OBJECTIVE

Demonstrate the organizational ability and resources necessary to implement site security and to control evacuation traffic flow and access to evacuated and sheltered areas.

INTENT

This objective is derived from NRT-1, Planning Element C, Response Function 11: Law Enforcement. This objective provides a framework for the evaluation of an organization's ability to implement site security and protective actions to control and successfully complete an evacuation.

This objective focuses on:

- site security
- traffic and access control

Those activities concerning protection of traffic and access control personnel related to incident assessment and approaching a scene are evaluated under Objective 10: Response Personnel Safety.

EVALUATION ELEMENTS

1. *The response organization implements security procedures at the incident/accident site.*

Explanation:

Because of the risks associated with a hazardous materials incident/accident, the response organization should demonstrate the capability to implement security procedures at the site. Only personnel authorized and necessary to mitigate the incident should be allowed access to the site. The response organization should demonstrate the capability to establish site security through a variety of actions such as:

- cordoning off the area with police tape or roadblocks
- removing unauthorized vehicles and personnel to allow for easier access to the site by the response organization
- diverting all unnecessary traffic away from the area of the incident/accident for the safety of the citizens and to reduce unnecessary congestion

2. *The response organization establishes and staffs traffic and access control points.*

Explanation:

The ability to quickly establish effective traffic and access control will greatly aid in accomplishing an orderly evacuation, if it is necessary. The response organization should demonstrate the capability to deploy personnel to designated traffic and access control points in a timely manner through actual deployment, however, the progress of normal traffic movement should not be impeded.

The response organization should demonstrate the capability to mobilize an adequate number of personnel and resources necessary to direct and control the evacuation traffic flow. During an evacuation, traffic controllers should demonstrate the capability to minimize delays and to be aware of evacuation routes, reception or decontamination points, and reception centers. The response organization should demonstrate the capability to provide local law enforcement personnel with maps depicting the affected area and evacuation routes. In the event the protective action strategy is to shelter-in-place, the traffic controllers should demonstrate the capability to control the access of personnel, equipment, etc. into and from the sheltered area.

Following an evacuation, traffic/access controllers should demonstrate the capability to limit and prevent access to evacuated or hazardous areas, in order to reduce the risk of exposure and to safeguard private property in the area. In addition, personnel should demonstrate the capability to limit access to waterways, railways, and airspace in the affected area. Response organizations may mandate that access into evacuated areas be strictly controlled in order to protect valuable public and private property. These martial law measures are quickly lifted after normal law enforcement protection is available.

3. *The response organization provides information to traffic and access control personnel.*

Explanation:

The response organization should demonstrate the capability to keep field personnel informed of significant developments in the emergency situation. They should demonstrate the ability to communicate instructions to traffic and access control staff on actions to take when changes in protective actions strategies necessitate changes in evacuation patterns or in the area to which access is controlled.

4. *Traffic and access control personnel demonstrate knowledge of their role.*

Explanation:

Traffic and access control personnel should demonstrate accurate knowledge of their roles in the actual exercise play for the following:

- traffic control and access control
- evacuation routes
- location of reception centers
- any relocation, recovery, and re-entry activities for which traffic and access control are pertinent

Traffic and access control personnel's knowledge of protecting their own health and safety is covered under Objective 10: Response Personnel Safety.

CLARIFICATION OF TERMS

Marital Law: refers to the temporary emergency powers which can be given to law enforcement personnel, to protect the lives and property of citizens.

Traffic Controllers: refers to persons assigned to assist in facilitating traffic flow and to restrict access into potentially hazardous areas.

OBJECTIVE 12: REGISTRATION, SCREENING, AND DECONTAMINATION OF PUBLIC

OBJECTIVE

Demonstrate the ability to monitor and control hazardous materials decontamination of the public through an appropriate contamination screening, decontamination, and registration process.

INTENT

This objective is derived from NRT-1, Planning Element C, Response Function 13: Human Services. This objective provides a framework for the evaluation of an organization's ability to provide for hazardous materials monitoring, decontamination, and registration of evacuees at reception centers.

This objective focuses on the following aspects dealing with persons who may be evacuated from the affected area of a hazardous materials incident:

- contamination screening or monitoring
- decontamination
- registration

EVALUATION ELEMENTS

1. *Facilities are available for screening, decontamination, and registration of evacuees.*

Explanation:

As a result of a hazardous materials incident, people may be instructed to leave the affected area. If such a protective action is implemented, the response organization should demonstrate the availability of one or more "reception centers" or "personnel processing points."

Reception centers may be housed in variety of facilities such as a school or fire station or a mobile trailer set up in a parking lot. Regardless of the nature of the facility, the response organization should demonstrate the capability to provide adequate space for conducting the monitoring of evacuees, decontamination activities, and registration operations.

The response organization should demonstrate the capability to minimize possible contamination of the facility. It should demonstrate the capability to segregate "clean" from potentially contaminated areas. It should also demonstrate the capability to separate males and females during the decontamination process.

2. *The response organization implements its procedures for screening, decontamination, and control of contamination.*

Explanation:

The response organization should demonstrate the availability of sufficient staff, equipment, and procedures necessary to detect, decontaminate, and prevent cross-contamination. The response organization should demonstrate the capability to implement and utilize specific procedures and equipment in carrying out their tasks to screen and decontaminate evacuees.

The response organization should demonstrate the capability to process evacuees through the screening process in an orderly fashion. For example, evacuees should enter the reception center at one designated and controlled entrance. The evacuees should be asked several general questions related to what area they arrived from, how they are feeling physically, etc.

The response organization should demonstrate the use of procedures for determining if evacuees are contaminated. The response organization should demonstrate the capability to perform monitoring procedures. This may be accomplished by utilizing personnel from various response organizations such as the fire department, regional hazmat response teams, law enforcement or perhaps county or state personnel who have been activated. The response organization should also demonstrate the availability of medical personnel, to organize contaminated evacuees and begin decontamination procedures.

If an evacuee is found to be contaminated, the response organization should demonstrate the capability to decontaminate evacuees through the use of procedures entailing removal and control of contaminated clothing and other articles and the use of shower facilities. It should demonstrate the capability to contain the spread of contamination through such measures as segregating contaminated and uncontaminated persons, providing changes of clothing for persons who do not have uncontaminated clothing with them, and storing contaminated clothing to prevent further contamination of evacuees or "clean" clothes. It should demonstrate the capability to re-monitor persons who have been decontaminated.

The response organization should demonstrate the capability to refer significantly contaminated individuals who cannot be adequately decontaminated to a medical facility. It should demonstrate the capability to establish and maintain records for persons who are seriously contaminated.

3. *The response organization implements its procedures for registration.*

Explanation:

Following the screening, and if necessary, decontamination processes, the response organization should demonstrate the capability to register evacuees. This function may be managed by volunteer organizations such as the Red Cross, Salvation Army, a local civic or church group, or a county agency such as the Department of Human Services. Registration procedures generally include recording of vital information about each evacuee such as name, address, results of monitoring and time of decontamination if any. Typically this information is recorded on a standardized form designed for evacuee registration.

The response organization should demonstrate the capability to use the registration records as means for locating and reuniting families and providing a record of monitoring results. It should also demonstrate the capability to provide to a central location, a list of those evacuees registered from all open reception centers.

4. *Vehicles arriving at reception centers are monitored for contamination and decontaminated, as necessary.*

Explanation:

The response organization should demonstrate the availability of sufficient staff, equipment, and procedures necessary to detect, decontaminate, and prevent cross-contamination of vehicles arriving at the reception center. The response organization should demonstrate the capability to make a decision on each monitored vehicle, based on action levels appropriate for the hazardous material(s) involved in the incident/accident, whether it is or is not contaminated.

The response organization should demonstrate the capability to:

- segregate contaminated vehicles from clean vehicles
- prevent contact of clean persons with contaminated vehicles, and the decontamination process for vehicles
- provide sufficient parking for the anticipated number of evacuees and to isolate contaminated vehicles

The response organization should demonstrate the capability to either decontaminate the vehicles immediately, or because of the chemical(s) involved, park the vehicles and in a secured area awaiting further equipment and instructions on the proper procedures necessary to adequately clean the vehicles and at the same time manage the waste.

CLARIFICATION OF TERMS

Action Levels: refers to thresholds for contamination that trigger the need for decontamination.

Reception Center: refers to a facility where registration, monitoring, and decontamination of evacuees takes place.

OBJECTIVE 13: CONGREGATE CARE

OBJECTIVE

Demonstrate the adequacy of procedures, facilities, equipment, and services for the congregate care of evacuees.

INTENT

This objective is derived from NRT-1, Planning Element C, Response Function 13: Human Services. This objective provides a framework for the evaluation of an organization's ability to make available and provide food, housing, medical care, and special information for individuals unable to continue their pre-incident living arrangements.

This objective focuses on the following aspects dealing with persons who may be evacuated from the affected area of a hazardous materials incident:

- congregate care
- essential services

EVALUATION ELEMENTS

1. *Facilities are available for congregate care.*

Explanation:

As a result of a hazardous materials incident, people may be instructed to leave the affected area. If such a protective action is implemented, the response organization should demonstrate the availability of one or more congregate care centers. In many instances the congregate care center may be located in a church or school facility.

The response organization should demonstrate the capability to manage the congregate care center. Typically these centers are managed by the Red Cross or other volunteer organization experienced in mass care operations. The center manager should demonstrate the capability to ensure the coordinated and efficient use of limited congregate care resources. The center manager should also demonstrate knowledge about the capacity of the congregate care center.

The response organization should demonstrate the capability to apprise the center manager of how many evacuees to expect. It should also demonstrate the capability to communicate with the center manager.

2. *The response organization implements procedures for essential services at the congregate care center.*

Explanation:

The response organization, through the center managers, should demonstrate the capability to provide a variety of essential services to evacuees. Congregate care centers should demonstrate the capability to provide the following services:

- shelter
- food
- sanitation services
- parking
- secure storage for evacuee personnel belongings
- family assistance
- the capability to care for the disabled or any other type of special needs
- child care
- medical care
- first aid

The response organization should also demonstrate the capability to re-register evacuees arriving from reception centers and to use the registration records as means for locating and reuniting families.

The center manager should demonstrate the availability and ready access to sufficient quantities of cots and blankets, drinking water, food, and first aid supplies. Sometimes, these supplies are available at the center. Other times, arrangements are made with local food suppliers (grocery stores, fast food business) to deliver sufficient quantities of food to the center on an as needed basis. Sleeping supplies are often brought in from regional distribution points such as those maintained by the Red Cross.

The center manager should demonstrate the capability to have available at the center medical personnel to provide first aid and crisis counseling. The center manager should also demonstrate the capability to have police, fire, and rescue units on hand to assist the center manager with evacuee safety.

The center manager should demonstrate the capability to provide to the evacuees accurate and up-to-date information on the status of the incident/accident.

CLARIFICATION OF TERMS

Congregate Care Center: refers to a facility where food, shelter, medical care, and counseling are available to evacuees.

OBJECTIVE 14: EMERGENCY MEDICAL SERVICES

OBJECTIVE

Demonstrate the adequacy of personnel, procedures, equipment, and vehicles for transporting contaminated and/or injured individuals, and the adequacy of medical personnel and facilities to support the operation.

INTENT

This objective is derived from NRT-1, Planning Element C, Response Function 7: Health and Medical. This objective provides a framework for the evaluation of an organization's ability to provide emergency medical service and treatment during the response to a hazardous materials accident. It is critical that a response organization ensure that the injured, who may be contaminated, can receive appropriate medical care without unnecessary risk to the medical personnel and facilities used in treatment.

This objective focuses on the capabilities of the Emergency Medical Service (EMS) personnel to:

- determine the nature and extent of injury or contamination to an accident victim(s)
- implement appropriate contamination control measures
- identify and transport the victim(s) to an appropriate medical facility
- maintain communications with the receiving medical facility

and the receiving medical facility to:

- provide trained staff members at the facility
- prepare for the arrival of the patient(s) and establish appropriate contamination control
- determine whether the victim(s) has external or internal contamination and if necessary remove the external contamination
- maintain contamination control measures during and after treatment of patient(s)

EVALUATION ELEMENTS

1. *The nature and extent of injury or contamination to the person(s) involved in the incident/accident is determined.*

Explanation:

Upon arrival at the scene, the EMS personnel should demonstrate the capability to assess the situation and establish a protective zone around the injured or contaminated person(s). The EMS personnel should also determine from the response organization, if possible, the identity of the hazardous material involved and request for appropriate back-up support if necessary. For the purpose of the exercise, the EMS personnel should be provided information on the identity of the material involved so that the crew can proceed with determining the nature and extent of the injury.

At a minimum, the EMS personnel should demonstrate the capability to determine the nature and extent of the injury through a variety of actions such as:

- referring to an initial response resource (e.g., DOT Emergency Response Guidebook) for immediate first aid for injured patients
- instituting emergency care using the triage concept
- in case of contact with material, immediately flushing the skin or eyes with running water for at least fifteen minutes
- removing and isolating any contaminated clothing and shoes
- keeping the patient quiet and maintaining normal body temperature

2. *Emergency medical personnel implement contamination control measures.*

Explanation:

Ambulance and hospital personnel should demonstrate the capability to limit contamination to themselves and their vehicles/facilities. Controlling access to the area where the contaminated individual is being treated is the first step in limiting exposure.

The ambulance crew should also demonstrate the capability to implement contamination control procedures during transport of contaminated injured persons. Contamination control procedures may consist of:

- using gloves as protection against contamination
- lining the interior and shielding the floor of the ambulance with a protective covering
- wrapping the individual in a sealed sheet or blanket

After delivering a contaminated injured person to a designated receiving medical facility, the response organization should demonstrate the capability to monitor and, if necessary, decontaminate both the ambulance crew and the ambulance. Decontamination procedures may be necessary to ensure that neither the ambulance nor any member of the ambulance crew is allowed to return to regular service without contamination evaluation.

3. *The ambulance crew or central dispatcher demonstrates the capability to identify a medical facility the victim will be taken and promptly transports the victim.*

Explanation:

The response organization should demonstrate its knowledge of which ambulance services are designated to provide transportation for contaminated and/or injured persons. Often, these services are established through Memoranda of Understanding (MOU) between the response organization and the designated ambulance service(s).

Depending on the nature and extent of injury and the problems in the exercise scenario including the hazardous materials involved, it may be necessary for the ambulance crew or the response organization to determine which medical facility an injured individual is to be transported. Ambulance services and response organizations should demonstrate their knowledge of the names, available resources, participating hospitals, and locations of medical facilities equipped for care of such persons. Ambulance crews may actually demonstrate the ability to drive the individual to the selected medical facility.

4. *The ambulance crew maintains communications with the receiving medical facility.*

Explanation:

Adequate communications between emergency site personnel, ambulances, and hospitals are essential throughout an emergency response. So that advance preparations critical for receipt of a contaminated and/or injured individual can be initiated, the ambulance crew should demonstrate the capability to communicate with the receiving medical facility. Ambulance crews should demonstrate the capability to provide, at a minimum, the following information to the receiving medical facility:

- information and data on the individual's physical condition including their assessment regarding internal or external contamination
- vital signs
- the type of hazardous materials involved in the accident
- Material Safety Data Sheet (MSDS) information relating to hazardous material involved, if available
- estimated time of arrival at the medical facility

5. *The receiving medical facility completes effective preparations for arrival of the individual and sets up appropriate contamination control.*

Explanation:

The medical staff at the receiving facility should demonstrate the capability to implement written and established procedures to complete effective preparations for the injured individuals arrival. For example, the medical facility may activate and setup a controlled area where medical treatment will occur as well as implementing contamination control procedures for reception of the ambulance, the patient, other individuals from the controlled area, and facility staff.

The staff should also demonstrate the skills necessary to deal with a variety of chemicals located in their area. For this reason, Material Safety Data Sheet (MSDS) information may be of some use to an area's medical community during a fixed facility hazardous materials incident or the shipping papers in the event of a transportation incident/accident.

Depending upon the chemicals involved, the medical facilities providing medical services to the contaminated injured may find it necessary to secure the services of at least one physician, nurse, and toxicologist, who are experienced in evaluating and treating contaminated injured persons.

The receiving medical facility should also demonstrate the capability to implement procedures to ensure the controlled area is isolated and self-contained. These procedures may include the following actions:

- all doors leading to the area remain closed
- ventilation systems are filtered or independent of other systems within the medical facility
- floors are covered to minimize contamination within the area
- appropriate warning signs are in place
- unnecessary equipment is either removed or covered
- necessary equipment, including a portable x-ray machine, if applicable, is in place
- a buffer zone separating the controlled area from the rest of the facility is established
- medical facility staff who have direct contact with contaminated individuals take the necessary precautions to avoid contact with the contamination

6. *The medical facility staff determines if individual has external or internal contamination and, if necessary, removes the external contamination.*

Explanation:

The medical staff should demonstrate the capability to monitor contaminated injured individuals for external contamination by making an assessment based on the symptoms which are present. For example, medical staff may determine if wounds are contaminated by sampling of secretions and testing them for contamination. If more than one hazardous material was involved in the incident, medical staff should demonstrate the capability to treat the patient with proper priority of the materials involved.

The medical staff should demonstrate the capability to have a toxicologist analyze any samples from injured contaminated persons either at the facility or nearby laboratories and if such analysis is completed, transmit these results to the medical facility staff for use during examination of individuals. The medical facility staff should demonstrate the capability to maintain records of all screening instruments and samples taken.

The medical staff should demonstrate the capability to implement decontamination procedures for cleansing localized areas on the patient with appropriate solutions, such as antidotes and/or neutralizing chemicals. The medical staff should demonstrate the capability to appropriately contain and store these waste solutions for disposal at a later time.

7. *The medical staff maintains contamination control measures during and after treatment of patient.*

Explanation:

The medical staff should demonstrate the capability to implement procedures for disposal or decontamination of instruments, clothing, and medical paraphernalia. These procedures should include provisions to minimize the spread of contamination within the controlled area, other parts of the medical facility, on patients, and upon themselves. After decontaminating the individual, it may be necessary to transfer the injured person to a clean area within the facility in a way that precludes or minimizes the spread of contamination from the controlled area into other areas of the medical facility.

Medical personnel should demonstrate the capability to implement procedures to ensure they are not contaminated before reentering the medical facility from the controlled area. These procedures should include removing all personal protective clothing within the controlled area and monitoring for contamination all staff members and their equipment prior to entering buffer zones.

CLARIFICATION OF TERMS

Buffer Zone: refers to an area adjacent to a restricted zone, to which personnel may enter, but for which protective measures are recommended to minimize exposure to hazardous materials.

Restricted Zone: refers to an area to which authorized personnel may enter, but for which protective measures are mandatory to minimize exposure to hazardous materials.

Triage: is the process of sorting or selection of patients to determine priority of care to be rendered to each.

OBJECTIVE 15: CONTAINMENT AND CLEANUP

OBJECTIVE

Demonstrate the ability to implement appropriate measures for containment, recovery, and cleanup of a release of a hazardous material.

INTENT

This objective is derived from NRT-1, Planning Element D.1, Techniques for Spill Containment and Cleanup, and Planning Element D.2, Resources for Cleanup and Disposal. This objective provides a framework for the evaluation of an organization's ability to implement emergency response measures which are effective for containment, recovery, and cleanup of a spill or release.

This objective focuses on:

- spill control and containment
- resources for cleanup and disposal
- site decontamination
- reentry
- recovery

EVALUATION ELEMENTS

1. *The source of the release is controlled and the released material is contained.*

Explanation:

The response organization should demonstrate the capability to control the source of a release, contain the spilled material, and stabilize an incident/accident. Depending upon the source of leak, the response organization might employ various methods and procedures such as plugging the leak (utilizing various techniques) or turning off or repairing a leaking valve.

Containing the released material also may entail various methods and procedures depending on the type of material, the rate of the leak, the type of container, and the amount of

material spilled. Methods include diking, transferring the material to another container, foaming, adding absorption material, and neutralizing the material.

The response organization should demonstrate the availability of a succinct list of appropriate containment countermeasures for a variety of hazardous materials which may be present in a community either at fixed facilities or transported through the community. At a minimum, the response organization should demonstrate the availability of resources (i.e., DOT Emergency Response Guidebook, AAR Emergency Handling of Hazardous Materials in Surface Transportation, CHEMTREC, representative(s) from the facility or carrier/shipper) which will provide additional information on release containment.

The response organization should also demonstrate the capability to assess the impact of various control and containment strategies/actions on public health and safety and the environment (e.g., to allow a release material to burn or extinguish the fire and then deal with containing and disposing of the material).

2. *Resources used for cleanup and disposal are available.*

Explanation:

Generally, State regulatory agencies focus on clean up details. Federal Regional Response Team (RRT) agencies can provide assistance during the cleanup process. In many cases, it is the releaser's legal and financial responsibility to clean up the spill. The Federal OSC or other government official generally will monitor the clean up activities by the responsible party.

The response organization should demonstrate the capability to contact and readily secure cleanup and disposal contractors as well as any other organizations that may have available resources for use during a hazardous materials incident including personnel, materials, support services, and equipment. It should also demonstrate the availability of a detailed listing of:

- what type of resources are available (public and private)
- how much is stockpiled
- where it is located
- what steps are necessary to obtain the resources

During the exercise, the response organization should demonstrate the capability to actually contact these resources and request assistance.

3. *Strategies for site decontamination and disposal of contaminated materials are implemented.*

Explanation:

Disposal of hazardous materials or wastes is controlled by a number of laws and regulations mandated by Federal, State, county, municipal, and other units of government. Both CERCLA and RCRA regulate waste disposal and it is important that the clean up strategies reflect the requirements of these regulations for on-site disposal, transportation, and off-site disposal. The response organization should demonstrate the availability of an updated list of RCRA disposal facilities for possible use following an incident.

Many States and other units of government have regulations regarding transporting and ultimate disposal of hazardous wastes. Usually such regulations are similar and substantially equal to Federal regulations. The response organization should demonstrate the capability to contact the appropriate State agency offices for information on State requirements for hazardous waste disposal by actually placing telephone calls and requesting assistance.

4. *Decisions for reentry are implemented.*

Explanation:

Reentry of the population to the affected area following a hazardous materials incident is contingent upon determining the safety of the affected area. Reentry procedures may include controlled reentry of emergency workers during or towards the end of an incident for sampling or monitoring purposes. Reentry will also include the returning of evacuees to an affected area following a hazardous materials incident. The decision making activities associated with reentry are evaluated under Objective 9: Protective Actions for the Public.

The response organization should demonstrate the capability to implement, in a controlled manner, policies and strategies on reentry of the evacuated population. It should demonstrate the ability to notify all appropriate response organizations, including those responsible for congregate care of evacuees, or relaxation and reentry decision. It should demonstrate the ability to inform the public on the risk factors affecting the safety of water, food, and the general environment in the affected area. It should demonstrate the ability to initiate traffic and access control and provide transportation assistance necessary to ensure smooth implementation of decision.

During the exercise, the response organization may simulate, through discussions with appropriate staff, those actions required for implementation of reentry decisions. Primarily, activities demonstrated would involve communications and coordination.

5. *Decisions for recovery are implemented.*

Explanation:

Recovery involves the restoration of the affected area to its pre-emergency conditions. This may include water, food, and soil sampling and air monitoring. Recovery actions may include a description and distribution of the clean-up tasks, clean-up oversight responsibilities, and cost effectiveness studies. The decision making activities associated with recovery are evaluated under Objective 9: Protective Actions for the Public.

The response organization should demonstrate the capability to implement policies on recovery. It should demonstrate the capability to establish needs for decontamination efforts in areas with contamination. It should demonstrate the capability to establish priorities for decontamination of specific facilities and locations based on need for immediate use, service to a sensitive population, or other factors. It should also demonstrate the capability to restore vital services in the affected area and prioritize the use of resources necessary for such restoration.

During the exercise, the response organization may simulate, through discussions with appropriate staff, those actions required for implementation of recovery decisions. Primarily, activities demonstrated would involve communications and coordination.

CLARIFICATION OF TERMS

Reentry: refers to the return of evacuees to an affected area following a hazardous materials incident. Also may include the controlled reentry of emergency personnel during or towards the end of an incident for sampling or monitoring purposes.

Recovery: refers to the efforts involved and resources dedicated to returning an affected area to its pre-emergency condition.

OBJECTIVE 16: INCIDENT DOCUMENTATION AND INVESTIGATION

OBJECTIVE

Demonstrate the ability to document a hazardous materials incident/accident and response.

INTENT

This objective is derived from NRT-1, Planning Element E: Documentation and Investigative Follow-Up. This objective provides a framework for the evaluation of an organization's ability to accurately and completely document a hazardous materials incident/accident.

This objective focuses on:

- debriefing the response organization
- investigating the hazardous materials incident/accident
- evaluating the response to a hazardous materials incident/accident
- documenting the response to a hazardous materials incident/accident in a written report

EVALUATION ELEMENTS

1. *The response organization is debriefed immediately following the termination of a hazardous materials incident/accident.*

Explanation:

Immediately following a hazardous materials incident/accident, the response organization should demonstrate the capability to conduct an incident/accident debriefing of all personnel involved in the response. This debriefing provides organizations with an opportunity to exchange information with the involved responders, to summarize observations, documentation and records gathered during the response, and to identify any issues or observed or identified problems in an organization's performance relating to a specific response (or in the case of exercises, a problem in the demonstration of an exercise objective). The response organization should demonstrate the capability to designate one

person to conduct the incident/accident debriefing with the assistance from one or two other personnel serving as recorders of information.

The response organization should demonstrate the capability to compile a "time-line" or chronology of events at a incident/accident debriefing. Time-lines are essential for determining the coordination between the various response organizations and provide a frame of reference for evaluating the response or exercise performance. The time-line documents actual times related to time-sensitive actions such as alert and notifications.

2. *The response organization investigates the hazardous materials incident/accident.*

Explanation:

Investigation of a hazardous materials incident/accident is another post-emergency phase activity. The purpose of the investigation is to determine, to the extent possible, the exact circumstances surrounding the incident/accident. The response organization should demonstrate the capability to identify a person responsible for the post-incident/accident investigation.

The response organizations should demonstrate the capability to instruct key response personnel to maintain accurate logs of their activities during the response which may be useful during the incident/accident investigation and documentation. It may be useful for the organization to secure copies information from the media (e.g., video footage from local television stations, photographs from local newspapers). In some organizations, it may be standard operating procedure to document actual response costs in order to facilitate cost recovery.

3. *The response organization evaluates the response to a hazardous materials incident/accident.*

Explanation:

The response organization should demonstrate the capability to evaluate its organization's response to a hazardous materials incident/accident. Critiques of a hazardous material incident/accident often help to determine if response operations were effective, whether the emergency plan needs to be amended, and what follow-up responder and public training programs are needed. Experience has shown that lessons learned through incident/accident documentation and evaluation have proven invaluable in improving plans, procedures, and the response capability of local communities and States.

4. *The response organization documents the response to a hazardous materials incident/accident in a written report.*

Explanation:

After gathering as much information as possible concerning the release, the response organization should demonstrate the capability to prepare a written incident/accident report. The response organization should ensure that the written report include specific facts and sufficient detail to characterize the entire scope of the emergency response activities and a section for presenting recommendations for improvement. The response organization may want to include with the written report other supporting documents such as photographs, videotape, newspaper accounts, etc. The response organization should demonstrate the capability to prepare complete and well written incident/accident reports which:

- contain a detailed description of what occurred
- objectively state facts and observations
- highlight positive aspects and negative findings
- avoid subjective judgments
- describe and document the issue(s)
- recommend an approach for correcting the identified problem

CLARIFICATION OF TERMS

None.

APPENDICES

APPENDIX A: HM-EMM Objective and Organization/Location Cross-Reference

Location	Objective Number															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Emergency Operations Center	x	x	x	x	x	x	x	x	x	x	x				x	x
Incident Command Post	x	x	x	x	x	x	x	x	x	x	x				x	x
Decontamination Area	x	x		x	x	x				x	x					x
Reception Center	x	x		x	x	x				x	x	x				x
Congregate Care Center	x	x		x	x	x				x	x		x			x
Hospital & Ambulance Crew	x	x	x	x	x	x				x				x		x
Media Center/Joint Information Center	x	x			x	x	x	x							x	x
Traffic & Access Control Points	x	x		x	x				x	x	x					x
Field Response Teams	x	x	x	x	x				x	x	x					x

APPENDIX B: Relationship of Knowledge Requirements by Objective

Knowledge of principles of ...	Objective Number															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Local Plans, location specific protocols, local geography, & response structure	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Exercise scenario, scope of exercise, & controller inputs	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Extent of play agreements & exercise ground rules	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Role of Hazardous Materials Exercise Evaluator and other participants	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Evaluator Guidelines	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Completing HM-EEM & writing narrative summaries	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRT-1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Incident Command System (ICS)		X														
OSHA regulations/EPA regulations																

APPENDIX B: Relationship of Knowledge Requirements by Objective (Contd)

	Objective Number															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Knowledge of principles of ...																
Alert & notification							x									
Media relations								x								
Protective action decision making & implementation									x							
Site safety in emergency operations										x						
Detection & removal of contamination												x				
Emergency medical services														x		
Spill control, clean up, site decontamination, & restoration															x	
Incident documentation & investigation																x

APPENDIX C: ACRONYMS

AAR	Association of American Railroads
ARCHIE	Automated Resource for Chemical Hazard Incident Evaluation
CAMEO	Computer-Aided Management of Emergency Operations
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR	Code of Federal Regulations
CHEMTREC	Chemical Transportation Emergency Center
DOT	Department of Transportation
EBS	Emergency Broadcast System
EER	Exercise Evaluation Report
EMD	Emergency Management Director
EMS	Emergency Medical Services
ENC	Emergency News Center
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
ERG	"Emergency Response Guide" developed by DOT
ETD	Evaluation Team Director
FEMA	Federal Emergency Management Agency
HM-EEM	Hazardous Materials-Exercise Evaluation Methodology
IC	Incident Commander
ICS	Incident Command System
JIC	Joint Information Center
JNC	Joint News Center
JPIC	Joint Public Information Center
LEPC	Local Emergency Planning Committee
MOU	Memoranda of Understanding
MSDS	Material Safety Data Sheet

APPENDIX C: ACRONYMS (CONTD)

NFPA	National Fire Protection Association
NRC	National Response Center
NRT-1	National Response Team - 1 "Hazardous Materials Emergency Planning Guide"
NRT-2	National Response Team - 2 "Developing a Hazardous Materials Exercise Program"
OSC	On-Scene Coordinator
OSHA	Occupational Safety and Health Administration
PAR	Protective Action Recommendation
PIO	Public Information Officer
RCRA	Resource Conservation and Recovery Act of 1976
RRT	Regional Response Team
SERC	State Emergency Response Commission

APPENDIX D: GLOSSARY

Action Levels:	refers to thresholds for contamination that trigger the need for decontamination.
Alert:	refers to a process involving the sounding of a warning signal to the public concerning the existence of an emergency situation to which they may need to respond.
Buddy System:	refers to a system where all personnel entering the Hot Zone work at a minimum in pairs to assure their safety.
Buffer Zone:	refers to an area adjacent to a restricted zone, to which personnel may enter, but for which protective measures are recommended to minimize exposure to hazardous materials.
Congregate Care Center:	refers to a facility where food, shelter, medical care, and counseling are available to evacuees.
Controllers:	refers to those persons whose role is to ensure that the exercise objectives are sufficiently exercised to permit evaluation, that the level of activity keeps players occupied and challenged, and that the pace of the exercise proceeds according to the scenario.
Emergency Classification Level:	refers to a designated level describing the general characteristics of an emergency resulting from an incident/accident of a hazardous material.
Emergency Management Director:	refers to the individual responsible for the management of the emergency response away from the incident/accident site.
Emergency Operations Center:	refers to where department heads, government officers and officials, and volunteer disaster agencies gather to coordinate their response to an emergency.
Emergency Phase:	refers to the initial phase of response actions, during which actions are taken in response to a threat of a release or a release in progress.
Evaluation Packet:	refers to the material that the ETD provides to each evaluator so that he is fully aware of his responsibilities in the exercise.

APPENDIX D: GLOSSARY (CONTD)

Evaluation Team:	refers to the evaluators, controllers, and team and group leaders assigned to evaluate a hazardous materials exercise.
Evaluators:	refers to those persons assigned to each major playing element to observe the exercise and gather data. Their primary role is to observe actions taken by players and to record their observations. The evaluators' efforts provide the major portion of the documentation necessary to critique the exercise and produce an exercise report. The evaluators may also assist the controllers in keeping the exercise on track, but will not interfere with the players in the performance of their duties.
Exercise Rules:	refers to a set of general rules on how the exercise will be conducted. Many of the same ground rules may apply in all hazardous materials exercises. Exercise rules define the role and authority of the chief controller(s), other controllers, exercise evaluators, and players. Other rules for exercise conduct may include safety guidelines or information on pertinent State or local laws or regulations that may affect exercise participants and their play. The rules may also include procedures for when and how to terminate an exercise and for giving precedence to real emergencies.
Exercise Scenario:	refers to a sequential, narrative account of a hypothetical incident or accident. The scenario provides the catalyst for the exercise and is intended to introduce situations which will inspire responses, and thus allow demonstration of the exercise objectives. Most scenarios are initiated with an accident resulting in a release of, or the potential for a release of, a hazardous material.
Extent of Play:	refers to the extent to which the objective will be demonstrated through the completion of response actions corresponding to those that would be accomplished in a real emergency.
Facility:	refers to any building, center, room(s), mobile unit(s), or vehicle(s) designed and equipped to support emergency operations.

APPENDIX D: GLOSSARY (CONTD)

40 CFR Part 311:	refers to a regulation issued by the U.S. Environmental Protection Agency (EPA) on emergency response training for employees involved in operations with hazardous materials and hazardous wastes.
Full Emergency Condition:	refers to "an incident involving a severe hazard or a large area which poses an extreme threat to life and property and will probably require a large-scale evacuation; or an incident requiring the expertise or resources of county, State, Federal, or private agencies/organizations."
Hot Zone:	refers to the area immediately surrounding a hazardous materials incident/accident that extends to such a distance as to prevent adverse effects from the release to personnel located outside of this zone. Also referred to as the exclusion zone of restricted zone.
Incident/Accident:	refers to a release or the potential for a release of a hazardous material.
Incident Command System:	refers a system to manage the combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure with responsibility for the management of assigned resources to effectively accomplish stated objectives pertaining to an incident.
Incident Commander:	refers to the individual responsible for the management of all incident operations.
Issues:	refers to observed or identified problems in an organization's performance in the demonstration of exercise objectives
Limited Emergency Condition:	refers to "an incident involving a greater hazard or larger area which poses a potential threat to life or property, and which may require a limited evacuation of the surrounding area."
Local Resources:	refers to all the resources that have been identified in the organizations emergency response plan as being under the organizations direct control and those resources controlled by other entities within the geographical boundaries of the jurisdiction.

APPENDIX D: GLOSSARY (CONTD)

Martial Law:	refers to the temporary emergency powers which can be given to law enforcement personnel, to protect the lives and property of citizens.
Media Center:	refers to a facility staffed by spokespersons from multiple response organizations for the purpose of providing a single designated point of contact with the media and to facilitate exchange of information among spokespersons from different organizations. This type of facility is also referred to as a Joint Public Information Center (JPIC), a Joint Information Center (JIC), or an Emergency News Center (ENC).
Mutual Aid Agreement:	refers to an agreement between two or more jurisdictions or between a jurisdiction and one or more private entities in which the signatories promise to come to provide assistance to each other when such assistance is requested.
Narrative Summary:	refers to an objective description of the actions observed by the evaluator during the exercise. Identifies issues raised during the course of the exercise activities and includes recommendations for improvement.
Notification:	refers to a process involving the dissemination of the emergency and informational messages provided to the public regarding a hazardous materials incident/accident. This notification process should follow the alert.
Observers:	refers to a part of an audience who are spectators only.
Players:	refers to exercise participants who have assignments as members of an emergency response organization or team that will be committed to execute or support specific Federal, State or local efforts. These assignments can include saving lives, protecting property and public health, obtaining and managing resources, and maintaining public safety upon the occurrence of an oil or hazardous material spill or release. Players will make decisions and respond to scenario events in as realistic a manner as possible. All players should be familiar with the emergency response structure, functions, and procedures that they will be expected to perform.

APPENDIX D: GLOSSARY (CONTD)

Post-emergency Phase:	refers to the phase of response actions, during which actions are taken after the release or the potential for a release has ceased.
Potential Emergency Condition:	refers to "an incident or threat of a release which can be controlled by the first response agencies and does not require evacuation of other than the involved structure or immediate outdoor area. The incident is confined to a small area and does not pose an immediate threat to life or property."
Public Information Officer:	refers to a designated point of contact responsible for interface with the media or other appropriate agencies requiring information concerning the incident/accident.
Reception Center:	refers to a facility where registration, monitoring, and decontamination of evacuees takes place.
Recovery:	refers to the efforts involved and resources dedicated to returning an affected area to its pre-emergency condition.
Reentry:	refers to the return of evacuees to an affected area following a hazardous materials incident. Also may include the controlled reentry of emergency personnel during or towards the end of an incident for sampling or monitoring purposes.
Response Organization:	refers to any organization performing emergency operations in response to exercise scenario.
Restricted Zone:	refers to an area to which authorized personnel may enter, but for which protective measures are mandatory to minimize exposure to hazardous materials; also known as "hot zone".
Route Alerting:	refers to a method of public alert and notification in which the alert signals and notifications are disseminated via equipment and staff which move through populated areas.
Safety Officer:	refers to a person responsible for monitoring and assessing safety hazards or unsafe situations and developing measures for ensuring personnel safety.

APPENDIX D: GLOSSARY (CONTD)

- Special Populations:** refers to individuals with special needs such as the hearing impaired, visually impaired, mobility impaired, school children, nursing home residents, etc.
- Time-line:** refers to a chronology of exercise events. A time-line is compiled to provide a frame of reference for evaluating exercise performance and to evaluate time-sensitive actions (e.g., alert and notifications). Time-lines and evaluators' meetings are essential for determining the coordination between the various response organizations.
- Traffic Controllers:** refers to persons assigned to assist in facilitating traffic flow and to restrict access into potentially hazardous areas.
- Triage:** is the process of sorting or selection of patients to determine priority of care to be rendered to each.
- 29 CFR 1910.120:** refers to a regulation issued by the Occupation Health and Safety Administration (OSHA) on emergency response training for employees involved in operations with hazardous materials and hazardous waste.
- 29 CFR 1910.156:** refers to a regulation issued by the Occupation Health and Safety Administration (OSHA) covering requirements for equipment and procedures for the protection of firefighters.
-