

What should be done to ensure an EAP's effectiveness?

After the Emergency Action Plan for your dam has been developed, approved, and distributed, you should test it. . . . If the plan is not exercised (verified), those involved in its implementation may become unfamiliar with their roles and responsibilities, particularly if emergency response personnel change.

Five types of exercises are recommended to test an EAP. Not every exercise is needed. However, it is advisable to build an exercise program upon competencies developed from simpler exercises to achieve greater success with the more complex exercises. This means that emergency exercises should be developed and conducted in an ascending order of complexity with sufficient time between each exercise to learn and improve from the experiences of the previous exercise. The five exercise types, listed from simplest to most complex, are described below.

Orientation seminar. This exercise is a seminar that involves bringing together those with a role or interest in an EAP, i.e., dam owner and state and local emergency management agencies, to discuss the EAP and initial plans for an annual drill or more in-depth comprehensive exercise. The seminar does not involve an actual exercise of the EAP. Instead, it is a meeting that enables each participant to become familiar with the EAP and the roles, responsibilities, and procedures of those involved. An orientation seminar can also be used to discuss and describe technical matters with involved, non-technical personnel.

Drill. A drill is the lowest level exercise that involves an actual exercise. It tests, develops, or maintains skills in a single emergency response procedure. An example of a drill is an in-house exercise performed to verify the validity of telephone numbers and other means of communication along with the dam owner's response. A drill is considered a necessary part of ongoing training.

Tabletop exercise. The tabletop exercise is a higher level exercise than the drill. The tabletop exercise involves a meeting of the dam owner and the state and local emergency management officials in a conference room environment. The format is usually informal with minimum stress involved. The exercise begins with the description of a simulated event and proceeds with discussions by the participants to evaluate the EAP and response procedures and to resolve concerns regarding coordination and responsibilities.

Functional exercise. The functional exercise is the highest level exercise that does not involve the full activation of the dam owner and state and local emergency management agency field personnel and facilities or test evacuation of residents downstream of the dam. It involves the various levels of the dam owner and state and local emergency management personnel that would be involved in an actual emergency. The functional exercise takes place in a stress-induced environment with time constraints and involves the simulation of a dam failure and other specified events. The participants "act out" their actual roles. The exercise is designed to evaluate both the internal capabilities and responses of the dam owner and the workability of the information in the EAP used by the emergency management officials to carry out their responsibilities.

Full scale exercise. The full scale exercise is the most complex level of exercise. It evaluates the operational capability of all facets of the emergency management system (both dam owner and state and local emergency management agencies) interactively in a stressful environment with the actual mobilization of personnel and resources. It includes field movement and deployment to demonstrate coordination and response capability. The participants actively "play out" their roles in a dynamic environment that provides the highest degree of realism possible for the simulated event. Actual evacuation of critical residents may be exercised if previously announced to the public.

A comprehensive EAP exercise is an in-depth EAP exercise that simulates a dam failure and involves the active interaction and participation of the dam owner with state and local emergency management personnel in a stressful environment with time constraints. Functional and full scale exercises are considered comprehensive exercises. The basic difference between these two exercise types is that a full scale exercise involves actual field movement and mobilization, whereas field activity is simulated in a functional exercise.

A comprehensive exercise provides the necessary verification, training, and practice to improve the EAP and the operational readiness and coordination efforts of all parties responsible for responding to emergencies at a dam, such as failure, misoperation, and sabotage. For most dam owners, the orientation seminar, drill, tabletop exercise, and functional exercise should receive the most emphasis in their EAP exercise programs. It is recommended that dam owners conduct a functional exercise at least once every 5 years. Tabletop exercises are usually conducted on a more frequent basis.

Full scale exercises should be considered as optional emergency exercise activities, and should be conducted primarily when there is a specific need to evaluate actual field movement and deployment.

The following information is adapted from *Federal Guidelines for Dam Safety: Emergency Action Planning for Dam Owners*.