PROJECTIZING THE DEVELOPMENT
AND/OR MAINTENANCE PROCESS
FOR EMERGENCY RESPONSE/CONTINGENCY PLANS

Aaron A. (Art) Francis, CEM
Bechtel Nevada
Las Vegas, Nevada, USA

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The attainment of established goals and objects is essential and paramount for all successful projects in business and industry, including the development and/or maintenance of emergency response/contingency plans. The need for effective project management is an ongoing effort. As with any aspect of business, better ways of managing projects have been and are being developed. Those organizations that take the lead in implementing these capabilities consistently perform their projects better, and in the case of emergency management, provide better protection to employees, property, and the environment.
INTRODUCTION

As a member of the Plans Review Subcommittee of the local Chemical Manufacturer’s Association Community Awareness Emergency Response (CAER) Group, I have had the opportunity to review a number of Emergency Response/Contingency Plans (ER/CPs) prepared by the local industry. Many of these plans have been complete and effective, but others appear to be less than adequate when submitted for initial review.

A summary evaluation of identified deficiencies indicates that the problems may have been the result of:

- Changing scope,
- Lack of understanding of requirements,
- Changing expectations of approving authorities and/or local oversight groups, or
- Delivery of a final product without early involvement of the approving authority.

For many years the business/industrial community has recognized that excellence in project management is synonymous with a quality product. The same concept is equally applicable to the development and/or maintenance of ER/CPs. A projectized process based on a generally recognized construction project model will treat the development and/or maintenance of an ER/CP as a project. As a structured project, the process will utilize sound management principals and be defined by its scope, quality, schedule, and cost.

DISCUSSION

Managing the ER/CP effort like a project promotes completion in a reasonable period of time. Experience has shown that ER/CP development and reviews tend to drag out over extended periods of time unless the efforts are disciplined. Activities must be scheduled,
milestones must be established, resources must be identified and provided, and the schedules must be adhered to in order to effectively and efficiently manage the work.

Although interaction is necessary, the review team must maintain a certain degree of independence from the development team. The review team must not interject itself into the development process. A common approach is to conduct a small number of interim reviews of portions of the ER/CP before submitting a review of the entire document at the end and to use a standards-based approach. This should be a key goal.

One factor that may make managing an ER/CP effort challenging in a multi-facility complex is the lack of a single project manager with authority over all of the affected facilities involved. In the process described herein, the organization responsible for developing the ER/CP is assigned the responsibility for overall project coordination, but the success of the effort depends on each organization assuming responsibility for its assigned task and managing its own efforts to comply with project requirements and schedules.

The process outlined here involves several sets of deliverable packages and several reviews for each ER/CP. To be accomplished efficiently, the entire process should be defined and scheduled at the beginning of the effort. The specific reviews and the scope of each review should be defined early in the project, typically in an ER/CP Project Review Plan, which should be an integral part of the ER/CP development plan. Interim milestones and reviews should be scheduled. Advance planning is important to identify necessary resources and to allow review organizations an opportunity to obtain such resources.
PROCESS

The steps outlined in this process are intended as a general guideline. The process should be tailored, as necessary, for each specific ER/CP. Some of the following activities must be conducted in parallel. The order of presentation is typically, but not always, consecutive in nature.

A. Develop a Project Plan and Schedule.

The ER/CP Project Manager will develop a project plan and schedule for ER/CP development, review, and approval. The project plan may be a simple scope statement or a comprehensive document establishing detailed activities relating to ER/CP development. At a minimum, the Project Plan should establish the scope of the ER/CP, applicable standards, requirements, expectations, schedules, and required resources.

B. Appoint a Review Team Leader.

When an ER/CP development effort has been initiated, a Review Team Leader should be appointed.

C. Present the Project Plan and Schedule to the ER/CP Approval Authority.

The ER/CP Project Manager and Review Team Leader will refine the ER/CP Project Plan to accommodate the review and will present the Project Plan and schedule to the approval authority and obtain concurrence.
D. Assemble the ER/CP Development Team.

The ER/CP Project Manager will obtain resources for the ER/CP development effort. Assembling an appropriate project team in a timely fashion is imperative to the success of the project.

E. Assemble the Review Team.

The Review Team Leader will identify the necessary subject matter experts (SMEs) to serve on the review team. The review team will be assembled, as required, over the course of the review to perform necessary team functions.

F. Conduct the Kick-off Meeting.

The ER/CP Project Manager will schedule a kick-off meeting at the appropriate time. Table 1 depicts sample milestones for consideration at the kick-off meeting to ensure that all participants are working the same data set.

G. Prepare the Review Plan.

Before the start of the review, the review team will prepare the specific ER/CP Review Plan. The scope of the plan may vary depending on the scope and complexity of the review effort and may include the following elements:

1. Review objectives and expectations.
2. Review milestones and schedules.
3. Team roles and responsibilities.
4. Protocols and work methods.
5. Quality control, security, and records management considerations.
Table 1. Sample ER/CP Milestones

<table>
<thead>
<tr>
<th>Review Kick-Off Meeting</th>
<th>30% Review</th>
<th>70% Review</th>
<th>90% Review</th>
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<tbody>
<tr>
<td>- Team Orientation.</td>
<td>- Facility description, including facility processes and major activities, are defined.</td>
<td>- Content is updated and comments incorporated.</td>
<td>Finalization of:</td>
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<tr>
<td>- Tour Facility.</td>
<td>- Hazard and accident analysis methodologies.</td>
<td>- Preliminary accident analysis.</td>
<td>- Accident analysis.</td>
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<tr>
<td>- Define review goals and expectations.</td>
<td>- Hazard identification, characterization, and evaluation.</td>
<td>- Any safety function and safety systems described.</td>
<td>- Identification of safety systems, performance requirements, and evaluations.</td>
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<td>- Specification of team roles and responsibilities.</td>
<td>- Risk ranking of postulated accident scenarios.</td>
<td>- Refined performance requirements identified through safety system identification and evaluation.</td>
<td>- Institutional controls.</td>
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<td>- Identification of external reviews and observers.</td>
<td>- Identification of candidate accidents to be analyzed.</td>
<td>- Hazardous material protection programs described.</td>
<td></td>
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<tr>
<td>- Review schedule and milestones.</td>
<td>- Facility description, including facility processes and major activities, are defined.</td>
<td>- Content is updated and comments incorporated.</td>
<td>Finalization of:</td>
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<td>- Outline of ER/CP Review Plan and assignments.</td>
<td>- Hazard and accident analysis methodologies.</td>
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<td>- Accident analysis.</td>
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<tr>
<td>- Security considerations.</td>
<td>- Risk ranking of postulated accident scenarios.</td>
<td>- Refined performance requirements identified through safety system identification and evaluation.</td>
<td>- Institutional controls.</td>
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<tr>
<td>- Team Leader will have primary responsibility for developing ER/CP review plan with team members providing input.</td>
<td>- Identification of candidate accidents to be analyzed.</td>
<td>- Hazardous material protection programs described.</td>
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<td>- Develop protocols for interfacing with facility personnel and ER/CP development team.</td>
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6. Interfaces with other review groups (e.g. Local Emergency Planning Committees, CAER Group, etc.).

7. Review documentation (interim and final).

8. Review criteria.

H. Perform Reviews.

Reviews are normally performed at several stages in the development process. Table 1 shows typical examples of the material that could be included in 30 percent, 70 percent, and 90 percent reviews. These points are recommendations; the number of reviews and the material included in each review should be tailored to the specific ER/CP. Milestones should be established in the initial planning, but the ER/CP Project Leader, in consultation with the Review Team Leader, should negotiate the detailed contents of each review package. The Review Team Leader ensures that comments are prepared rigorously following a set of established comment rules to avoid open-ended comments and to assist the SMEs in resolving the review comments.

I. Resolve Comments.

The ER/CP Project Leader and the ER/CP development team will resolve, in writing, all review comments designated as critical.
J. **Resolve Conflicts.**

Every attempt should be made to resolve review comments. Resolution is referred to successively higher management levels, as needed, to resolve critical comments.

K. **Determine if Changes to Scope are Necessary.**

If changes to the scope of the ER/CP are necessary, both the approval authority and the ER/CP project team will present their recommendations for change. An example of a change in scope may include an additional hazard assessment, etc.

L. **Review Team Concurrence.**

After all comments from the 100 percent review phase have been resolved, the review team will document satisfactory completion of the review with a memorandum to the approving authority. Any dissenting team member opinions will be submitted with this memorandum.

**EXPECTATIONS**

A project management approach may result in a number of favorable expectations to include the following:
• A formal recognition of the scope, schedule, and cost for development/maintenance of an ER/CP;
• A formal method of change control; and
• A method for ensuring product quality.

In addition, SMEs will be able to develop more rigorous reviews using standards-based checklists and comment guidelines.

REFERENCES


NOTE:

1 Aaron A. Francis, CEM, resides in Las Vegas, Nevada. He has in excess of 30 years of experience in fire protection, mine rescue, and national response organizations. He holds a BS from the University of Nevada, Las Vegas; has taught in the University of Nevada Community College System; and is a member of the Southern Nevada CAER Group and an active supporter of the Clark County Local Emergency Planning Committee. He is also a Certified Emergency Manager, and a member of the
American Society of Professional Emergency Planners. For further information on this paper, contact Aaron A. (Art) Francis, CEM, Bechtel Nevada, P.O. Box 98521 M/S NLV080, Las Vegas, NV 89193-8521. Phone: 702.295.1155; Fax: 702.295.1420; E-mail: franciaa@nv.doe.gov.