5.2 Making Sure Everybody is Safe

"I was involved in a real evacuation from a building recently because someone burnt some toast in a toaster...The smell of burning makes everyone think that there's a real fire, and they act as they would if the building really was on fire. So, hold an unannounced evacuation, and burn some toast to start off the event!"

Mel Gosling, independent consultant

5.2.1 Emergency Marshals

Throughout the whole of our emergency evacuation planning and thinking, the most important question which should be on our minds at all times is, *How do we make sure everyone is safe?*

You must make *absolutely* certain that *every single person* is accounted for and that all areas of the building are clear. It is for this reason that you will delegate the responsibility for ensuring all the people are evacuated successfully to specific individuals. Many terms are used to describe these key players in your health and safety arrangements. The responsibility may be assigned to members of the normal security staff as an integral part of their normal routine, or you may nominate other members of staff to drop their regular duties and adopt this role temporarily in the event of an emergency or an exercise.

These designated persons may be known as "emergency floor marshals" or simply "floor marshals," in which case they would be assigned to ensure that a particular floor or part of a floor is properly evacuated. Another term in common use when the focus is on escaping from a fire is that of "fire marshal," although the same techniques and principles would apply to any situation in which the premises need to be evacuated. We also come across the title of "fire warden" as an alternative.

According to the Merriam-Webster dictionary a *marshal* is "a high official ...usually in command of the military forces" or "a person who arranges and directs the ceremonial aspects of a gathering." On the other hand a *warden* is either "one having care or charge of something" or "an official charged with special supervisory duties or with the enforcement of specified laws or regulations; e.g., game *warden* or air raid *warden*."

From these two definitions, it seems at first glance that the title of *warden* is the more appropriate for the task we have in mind. However, a *marshal*

would seem to attract more respect as a high-ranking individual who "arranges and directs." Perhaps the marshal is the one who would get the people out efficiently and quickly on the occasion, whereas the warden would make sure that they were looked after in the longer term, taking care of the administration as an integral part of the job. There is a school of thought which believes the term fire marshal applies to the person to whom everybody reports at the assembly area. This person is also the obvious source of information for, and the controller of, the assembled crowd. If all the other people involved in managing and controlling the evacuation are termed fire or floor wardens, then the fire marshal is regarded as the single point of control for the evacuation and subsequent movements of people. For example, it would be the fire marshal who announces the "All Clear" and tells people to return to work or to make their way home.

> **What is really important is how these people carry out their duties rather than the label we put on them....The final choice of title has to be the one which suits the local culture.**

What is really important is how these people carry out their duties rather than the label we put on them. In some parts of world, the common titles are "fire warden" or "floor warden" and in other parts they are usually known as a "fire marshal" or a "floor marshal." The final choice of title has to be the one which suits the local culture; there is no absolute right or wrong in this matter. In the US, the Occupational Safety and Health Administration (OSHA) uses the term "floor marshal" in connection with evacuation planning.

In this book, we will use the term marshal to refer to the temporary officials with these responsibilities.

In practice, of course, we need to issue these marshals the distinctive tools they need for the job, which would include a high visibility vest or jacket. This obvious and distinctive piece of clothing serves two functions. Firstly, it makes them easy to spot and recognize, thus making it easier for them to gain everyone's attention. Secondly, it is a form of uniform and endows wearers with a certain amount of gravitas, making it easier for them to command a degree of automatic respect such that people follow their instructions rather than start to question the wisdom or the timing of what they are being asked to do. In most emergency situations, the majority of the people on site will have little or no idea of what is causing someone to interrupt the routine. It is less common for a disaster to strike in such a blatant manner that everyone is aware of the danger immediately.

Often the authorities, whoever they may be, are reluctant to reveal the whole truth to everyone about an impending threat because they don't want to risk

panic that could aggravate the situation. Perhaps they don't even know the full truth themselves and are reluctant to reveal their ignorance. The belief that normal, sane people are likely to panic at the mere suggestion of danger is probably based upon imaginary fears derived from watching herd behavior among prey species such as antelope. Animals of this kind tend to flee from anything strange because that has proved to be a survival technique in response to the approach of a predator, making it safer to assume that anything unfamiliar has predatory potential. We humans, on the other hand, are not herd animals but hunter-gatherers, and as such we are usually inclined to behave in a more cautious and logical manner. In any case, we don't have the legs or the spring in our step to be able to outrun any serious predator; we have evolved to depend on our wits to keep us out of trouble.

Practical experience suggests that most people behave in a rational and calm manner when confronted by unexpected danger, providing they are in a relatively familiar environment such as the office, college, or supermarket. On occasion, however, people tend to act in accordance with the herd instinct. Herding behavior tends to occur where they have adopted a behavior to suit the place and the occasion, such as part of a football crowd. This herd behavior is exaggerated when the context encourages people to act as a mob rather than as individuals. They gather in groups, identified by their clothing and behavior, as fans of one particular team or another. We see the same effect in the audience at a pop concert, when large groups of people submerge their personal identity into the group identity. If something happens to suggest danger in such a situation, the immediate response is likely to be a fight or flight reaction because people in that situation are primed to think and behave as a herd rather than act as a number of separate individuals who think at different speeds with different views and experiences.

5.2.2 Two Emergency Evacuation Scenarios

We can identify two possible emergency evacuation scenarios. One of these you can handle as part of your normal business planning – the other will require that you be prepared to bring in specialized help.

◗ In the first scenario, when people are interrupted while engaged in the *normal routine of daily life*, we can expect them to try to analyze the situation based on the best information that is easily available to them and then react in what seems to them to be a reasonable manner to escape, avoid, or ignore the danger. When people are in this mode, we need to take steps to inform them in a clear and simple fashion and to provide them with clear and distinct instructions about where to go. We might call this the "inform and instruct" or "tell and guide" approach.

◗ In the second scenario, we are dealing with people acting in *crowd* mode, which means they have either gathered together as a vast group with a common purpose or interest, or they have somehow been forced together by circumstances beyond their control. Their behavior and thinking are likely to be at a primitive level, and they are likely to copy each other's behavior with the potential for a rush or sudden surge which could become catastrophic. When people are in this mode, they have to be controlled and directed in a much more organized or forceful manner. It is necessary to treat them like sheep because that is the way they are disposed to behave in these circumstances. Here we need a control and direction system which offers them no choices, no difficulties, and no obstacles in their way, thus ensuring that everybody automatically moves smoothly in the right direction. We might call this the "iron fist" or "no sympathy" approach. Generally speaking, evacuating such a crowd is a specialized task requiring the more martial tactics of an organized and trained police force. Dealing with large, frightened, or unruly crowds is way beyond the capability of the BC manager or emergency planner.

5.2.3 Pick the Right People

Effective emergency evacuation plans call for a number of marshals who will probably receive a minimum of training for the role which they may never have to play for real. Therefore, it is wisest to select the most suitable characters rather than the most convenient bodies. A really good way of selecting the best people is to run a series of exercises and to watch how different individuals cope. The trick is to do the selection effectively without giving offense to any of the parties involved.

> **Taking part in such exercises gives potential candidates for the emergency response team an opportunity to self-select.**

I worked with one company that sent out a confidential questionnaire to all of the potential candidates for its emergency response team. The candidates were asked how they felt about taking on some of the responsibility for helping their colleagues deal with an emergency. The questionnaire included a brief description of the tasks involved and the sort of training they would receive. They were also told that they could retire from the training program after the first activity, which was to be a fire-fighting lesson in which they would learn about and practice with fire extinguishers. It was literally going to be a baptism by fire for the volunteers.

common template which can then be customized to suit each tenant's needs and culture.

One very important development will be the marshaling arrangements or making sure that the multi-tenanted building is fully evacuated. Normally, tenants would be responsible for their own people, a reflection of the legal perspective. However, you may consider appointing someone to act on behalf of the landlord as the overall fire marshal with the responsibility to ensure the safe evacuation of the whole building. If you should choose this option, do make sure that the arrangements and terms of reference are properly documented and you have a signed copy – just in case!

5.4.3 Factory

Factory premises can vary greatly in size and nature; so we can only generalize and must rely upon you to interpret our advice in a sensible and diligent manner. The majority of factory sites in most parts of the world will be subject to a wide variety of rules, regulations, and restrictions covering the way they operate, the materials they work with, and the goods they produce. Most factory sites will also include some form of warehousing to store supplies, raw materials, and finished products.

Particular problems which may give cause for extra concern in a factory environment include high noise levels which may make it difficult to draw everybody's attention to any form of alarm or alert systems. Also, additional health and safety problems can be caused by dangerous machinery, flammable or toxic substances, hot liquids or surfaces, and the movement of goods and materials. Such challenges usually result in someone being specifically appointed to take responsibility for these issues, and one would expect that person to be suitably trained and qualified for the post. One of your first moves will be to locate that person and develop a working relationship.

Locate the health and safety officer and, with his or her help, understand the particular risks and hazards; decide who is to lead the EEP program; agree upon the evacuation areas; prioritize those areas; investigate each in turn; determine suitable assembly areas; develop escape routes and evacuation procedures; develop, or confirm, emergency communications methods and protocol; document the resultant procedures for each evacuation group; test and review each procedure; conduct a full rehearsal or exercise; and set up an ongoing maintenance and exercise routine.

5.4.4 Business Park

A typical business park will accommodate a number of different independent businesses, most of whom will have little or no knowledge of what their neighbors do or how they do it. You might well become the first person to

have knowingly made contact with all of your neighbors. Several years ago, I was employed by a disaster recovery service whose headquarters were in a small business park. Because of the nature of their business they tried to keep a discreet low profile. When I instigated a group emergency evacuation venture for the whole site, we were surprised to learn that two of our neighbors provided services which could benefit us – one was involved in logistics and helped us with a number of subsequent projects, while the other one provided technical support service which proved useful to a number of our customers. I understand that a number of other business relationships evolved from the sharing of knowledge which the project promoted. In addition, we all felt much safer and more secure as a result of our planning and the subsequent joint exercise.

Some business parks will be light industrial complexes while others will be more of the office type. Your EEP overall approach will be similar in either of these circumstances. Once again, the starting point will be the recognition of a number of discrete, separable evacuation areas and groups. Depending on the scale of the event and the size of the park, there may be an opportunity for you to develop some mutual shelter possibilities which will be particularly beneficial to any of the population who may be disabled or have reduced mobility. One of the difficulties might be finding sufficient assembly area capacity within the business park, since most of the space between buildings may be given over to busy access roads and parking areas. Preferably, a business park should include some open land to provide a security buffer between the occupied zones – but, of course, this ideal is rarely met and safe assembly areas can be difficult to find.

A sizable business park is likely to offer a number of entry and exit points, and evacuation of the whole community might be contemplated only as a reaction to extreme events. For example, if the business park is more than about half a mile across, it should be possible to adopt separate plans for various evacuation groups within the community. If you adopt this concept, then you must allow for incidents occurring in each of these evacuation areas. It is also likely that these groups and areas may overlap in such a manner that some or all of the occupants will have more than one evacuation option according to the nature, scale, and location of the trigger event. Multiple groups mean that your reiterative process is going to cover the same ground from more than one direction as you put your attention on various threat scenarios occurring in different places within or around your business park.

Start with locating whoever is responsible for security and safety within the park and establish what plans and preparations are already in place; contact the local police and the fire and rescue department for advice and guidance,

since they will probably take command of the overall evacuation; arrange a meeting with your peers or someone who can represent each of the businesses on the park; decide who is to take the lead in this program to develop an overall strategy; investigate and agree upon suitable assembly areas, bearing in mind the capacity required; ensure that each business develops their own EEP tactics and plans; and arrange an exploratory desk-top exercise in which all of you play out a number of imaginary emergency responses. The aim of these exercises is to ensure that all the various plans and the options within them are compatible under all circumstances.

Agree to required amendments; develop an action plan; and arrange for a follow-up desktop exercise to confirm that the plans are now fit for purpose. Discuss your plans with the emergency services and ask their advice about the need for, and the wisdom of, an exercise or series of exercises to demonstrate the EEP capability to all concerned. Ask the emergency services if they will assist with, or take part in, your exercise program; it will help both parties to understand each other's needs and intentions.

You should also consider letting the local press know about your EEP intentions and endeavors; it will reinforce the importance of what you are doing and demonstrate your corporate citizenship. However, before going ahead you must clear this initiative with whoever is responsible for PR.

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5.4.5 Retail Park

A retail park or a shopping mall will have many of the characteristics of the business park. The key difference is that the predominant population in a shopping area will be temporary visitors who are not at all familiar with the place and certainly will not be available to take part in any of your training exercises. They may also have children of all ages with them, and some of the visitors are likely to be disabled. If they are caught up in an emergency situation, they cannot be expected to know anything about your evacuation procedures. This unfamiliarity means they have to be given very simple but very precise instructions, and the signage has to be clear and easy to understand. Traffic will also be a major consideration when you are trying to figure out the escape routes. Assembly areas might pose another problem, and you may have to settle for a compromise solution and use areas within the parking areas as temporary refuges. Note that this will not be an acceptable solution if parking is in underground or multi-story garages.

I recommend that you engage the services of a qualified fire engineer and explore the evacuation possibilities using a good software tool which can provide you with a dynamic model of anticipated crowd flows and behavior in an emergency situation.

The actual process of developing a suite of evacuation procedures in a retail park or a shopping mall would otherwise follow more or less the same pattern as that described for the business park. Coverage in the local press could also provide some welcome publicity which would benefit all of the traders on the site.

5.4.6 School

In theory it should be relatively easy to plan for the evacuation of school premises. The pupils are all organized into small groups which are led by a responsible adult. Playgrounds offer temporary assembly areas, and the school register should enable the staff to know precisely who was in the building at the time. While a playground may serve as a temporary assembly area enabling an initial roll-call to be carried out, you will also need to establish a rather more distant option for those situations in which safety depends on getting the population well away from the danger zone.

Any program which seeks to address issues of health and safety of school-children should receive unequivocal support from all those who are in some way concerned with the school. Your role will be to co-ordinate all that support and ensure a practical outcome. While the staff should have copies of the evacuation plan and notices will be posted in each classroom, I do not recommend that the individual children be provided with plans. It is far better for the children to be familiarized with the evacuation procedures through regular demonstrations and practice – this will lead to a much calmer response in the event of a real emergency situation developing.

The actual EEP process in this case is quite straightforward; the main concern in most school buildings will be the question of communication. It is important to be able to raise an alert without causing panic; sound the alarm; and keep the teaching staff informed of what is happening and expected. Drills and exercises can become a regular part of the school routine, ensuring that everyone understands what it is all about and that they are familiar with the process and the signage which will guide them to safety in the event of an emergency.

5.4.7 College Campus

A college or university campus is, in effect, an extended version of the school environment. The key differences from an average school will be a more mature and diverse population; larger numbers of people; multiple faculties,

Discussion Questions – Phase 5

Phase 5 will be considered by many to be the most important stage of the EEP program, although its success is completely dependent upon the efforts and outcomes of the previous phases. It can certainly be regarded as the most productive part of the program because this is the point at which the tangible and visible products that form the real benefits are generated and distributed. It is here that the subject becomes a reality for those whom we are setting out to protect. That means it is due to come under public scrutiny, and so it is wise to be cautious and check that there are no obvious errors or oversights which might invite criticism.

I would invite you to consider your answers to the following questions as a means of consolidating your knowledge and understanding. You must feel at liberty to challenge our ideas; we are not proposing that you should follow our guidelines blindly. Take them with a pinch of salt and adapt them to your own taste and circumstances.

1. How do you think you will approach the question of ensuring that everybody is safe and accounted for? Are there already arrangements in place which can be adopted or adapted to suit your needs? If so, are they tested regularly and is everybody familiar with them? How would you go about improving them?

2. Will you need to arrange for people to be appointed to various management and support roles to carry out the EEP procedures effectively? What will those roles be and how many will be required? Have you considered the need for alternatives or deputies? How will you go about selecting and training these people?

3. Are there any existing arrangements within your organization which might provide assistance, guidance, or counseling to those who have been evacuated? Will you need to develop or adapt some measures to deal with the personal consequences of an emergency, such as an unexpected evacuation of the premises? Do you think those measure will be adequate for all types and scales of emergency?

4. Have you thought about the evacuation arrangements which might be necessary for a large-scale incident such as a major flood or a storm? How will you liaise and co-operate with the emergency services in such an event? Do you know what their advice would be and how it will be disseminated? Is it likely that your people will all follow such instructions or guidance, or will they want to "do their own thing"?

5. Have you thought about who might support you in this important project? How will you ensure that you gain, and retain, their support? Will you need the support of more than one individual or department, such as someone to act as champion and someone to act as sponsor? Have you considered the need for a figurehead as well as the need for both financial and physical support?