SUMMARY OF THE

EMERGENCY SITE MANAGEMENT SYSTEM

FOR CBRN INTERMEDIATE LEVEL COURSE

Canadian Emergency Preparedness College

Pre-Course Reading – CBRN Intermediate Level

Emergency Site Management System

Experience has shown that there is a need for a system to manage and coordinate the many activities during emergencies. The emergency site management system has proven to be extremely useful in this regard because it involves a multi-service, multi-jurisdictional effort. Moreover, it stresses the need for decision making, communication, cooperation, and coordination among various services and jurisdictions to ensure effective emergency response.

The emergency site management system's main focus is to provide one framework (umbrella) to integrate and coordinate services at the site while individual services continue to use their own command systems. The emergency site management system is complementary to the incident command systems. It is not intended to replace or interfere with the command and control structures of the various response services. Under the emergency site management system, the site manager removes his/her agency specific hat and concentrates on the overall management of all activities at the site – this person is a coordinator of all services/activities and not a commander.

The emergency site management system consists of two main components: 1) the emergency site team and 2) the Emergency Operations Centre Group. The emergency site team makes decisions on mitigation strategies and tactics to limit the threat to people, property, and the environment at the emergency site. The site team works in close cooperation with the Emergency Operations Centre Group, which is responsible for supporting the site team and making strategic decisions for the overall municipal emergency response.

If the site manager is not pre designated in the municipal emergency plan, the lead agency concept will apply. In this system, once the EOC has been activated, the EOC confirms or designates the service to lead. The head of the lead service then designates the individual to assume the role of the site manager.

When a site manager is appointed, s(he) invites the control officers (highest ranking) of each service to participate in the site team and designates support staff. Responders at the site maintain their regular reporting relationship in accordance with their service's command structure.

As the CBRN technical expert, you will provide information about threats, progress and results to date and recommendations for new or continued mitigation strategies. Your information will be needed for the site manager to make informed decisions that result in ensuring maximum safety considerations for all responders and effective treatment of casualties. You will be looked upon to answer questions relating to the establishment of control of Hazard Zones, agent identification and mitigation, PPE, casualty treatment, limitations of local response, decontamination ability and evacuation considerations.

In Canada, the emergency site management system has been effectively used for several emergencies. This system demonstrates how threats to people, property, and the environment can be addressed when those involved share common goals, information, and resources. Regrettably, emergencies will continue to occur in Canada and throughout the world. What you offer as trained practitioners is the expertise to minimize the damage, and to approach your tasks in a coordinated fashion.

1. The Emergency Site Management System (ESM)

1.1   What is ESM and why is it needed

The emergency site management system involves a multi-service, multi-jurisdictional effort and stresses the need for decision-making, communication, cooperation, and coordination between various services and jurisdictions to respond effectively in an emergency. It does not intend to undermine, usurp or interfere with the command and control (or reporting) structures of the various response services. While the system designates the responsibility for managing the emergency site to an emergency site manager, this person is a coordinator and not a "commander."

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Canadian municipalities may experience a wide range of emergencies caused by natural forces, accidents, or intentional acts such as terrorism and mass disturbances. Provinces and territories have various laws that obligate elected officials to prepare emergency plans.

Sometimes, emergencies call for a response that exceeds standard municipal operating procedures, available resources and/or expertise. For example, an emergency response may be required when the situation poses danger of major proportions to the entire population of the municipality. In this instance, municipalities would implement their emergency plan.

Experience shows that effective arrangements require a centre to facilitate direction, coordination and support of emergency and regular operations. The design, equipment and staffing of the facility vary with the resources and needs of municipalities. However, its purpose remains constant. This facility is normally called the municipal emergency operations centre, or "EOC" in its short form.

Collaborative approach

No single service can respond unilaterally to a major emergency. Under the emergency site management system, the site team decides on mitigation strategies and tactics. For example, in the case of a hazardous materials release, the emergency site team decides how to control and contain the hazard. The team decides on protective measures for personnel and the public at the site. In brief, the team focuses on understanding the on-site conditions and selecting appropriate mitigation strategies.

The emergency operations centre group (EOCG) makes strategic decisions for the overall municipal emergency response. If there are multiple sites, the EOC group may decide how to allocate limited resources. The EOCG might also decide when and how to announce the names of people who have been killed, or whether to ask for provincial or federal assistance. Finally, the EOCG may be called on to make decisions that go beyond the authority of the emergency site team, such as declaring a state of local emergency. This responsibility for strategic decision making requires foresight and a broad perspective on the emergency situation in the municipality.

The emergency site management system facilitates the effective communications and coordination among the various emergency services at the two primary locations – the EOC and the emergency site.

1.2   Relationship to other incident command systems

The emergency site management system is based on the premise that there will be many diverse services at an emergency site. No single service can respond to an emergency site and have the legal authority, resources, and expertise to mitigate all threats and address all response issues. The following list illustrates some, but not all, of the possible services:

- police
- fire
- public works
- ambulance
- transportation
- public health
- utilities (e.g., electricity, natural gas)
- telecommunications (public and private)
- communications (public information)

- social services
- volunteer groups
- search and rescue specialists
- industrial response teams
- private contractors
- environment ministries/departments
- labour ministries
- provincial and federal regulators/safety boards

These services may feature individual command structures; they typically do not use a common system, hence are not familiar with one another's procedures and resources.

The most common system is the Incident Command System and its variants, including the Unified Command System. These systems allow individual services to manage their resources for emergency response. They provide a framework for operations that normally include pre-defined organizational structure, terminology and functions. While there are many variations of incident command systems, they all generally provide similar features and improve response effectiveness and efficiency.

In Canada, it is common to find that different services within a single municipality use a variation of the incident command system. It is also common to find that additional services that

may respond to an emergency (e.g., industry response teams, environmental response teams) have their own procedures and do not use an incident command system.

<u>Coordinated framework</u>

The emergency site management system's main focus is to provide one framework to integrate and coordinate services at the emergency site while individual services continue to use their own command systems.

For example, a municipality's fire service may routinely use an incident command system. This does not change with the implementation of the emergency site management system. That fire service continues to use its own incident command system to manage its own response. If other fire services are involved through arrangements such as mutual aid, they may all use the incident command system to manage fire operations. This can happen when all services use the same system with identical terminology, organizational structure, roles and responsibilities.

<u>Individual and group responsibilities</u>

The emergency site manager is responsible for coordinating the activities of multiple services at the site. He or she works with a team of senior representatives from each of the key services.

As for the team itself, its members must ensure a coordinated response at the emergency site to limit the threat to the municipality and environment. They share information, participate in a joint decision-making process, and coordinate actions. Control officers for the various services implement team decisions by applying their standard operating procedures.

The team does all of this in coordination with the emergency operations centre group at the municipality's EOC. Accordingly, the site response is integrated with the response in the wider community. This optimizes efforts to mitigate threats to people, property, infrastructure, essential services and the environment. It also promotes public confidence in the ability of the municipality to manage the emergency.

The emergency site management system addresses the following general challenges that are created when multiple services respond to a single site:

- the need to work with large numbers of services and people;
- the existence and persistence of telecommunications problems;
- inter-service coordination problems;
- inter-dependencies of decisions and actions taken by multiple services.

In summary, the emergency site management system does not replace the incident command system. <u>Rather, each one functions in a complementary fashion; both are important in ensuring effective emergency management.</u>

2. Emergency Operations Centre Group

The Emergency Operations Centre Group (EOCG) supports the emergency site team. There are four subgroups: operations group, service group, executive group, and administration group. The EOC ensures that the overall emergency response is well coordinated and that municipal operations continue to function. The EOCG is primarily responsible for addressing threats to: persons (health, safety and well-being); property; infrastructure and essential services; environment; the local economy; and public confidence in the municipality's ability to manage the emergency.

3. Emergency Site Team

3.1 Role

The emergency site team ensures a coordinated *on-site* response to limit threats resulting from an emergency. The team is primarily responsible for addressing on-site threats to: people (health, safety and well-being); property; infrastructure and essential services; and the environment.

3.2 Principal tasks

The team sets up a coordinated emergency response by undertaking a series of six tasks as described below.

Task 1: Mobilize team and address its immediate requirements

Municipal emergency services respond to the incident according to their standard operating procedures and using their incident command systems. When an emergency site manager is appointed, he or she requests that the service control officers already at the site join the emergency site team. The emergency site manager may also mobilize an assistant emergency site manager and other support staff (e.g., duty officer) as required.

Task 2: Design the site layout

Although each site requires a distinct layout, most sites have similar "core" components, the number of which depends upon the nature of the emergency.

- The *inner perimeter* bounds the area where the greatest threat or impact exists.

- The *outer perimeter* bounds the area that includes the inner perimeter and leaves ample area for setting up the emergency site command centre and designated areas (e.g., staging, rest and feeding areas). The outer perimeter is also used to delineate the areas of responsibility for the site team and the emergency operations centre group. All response

operations within the outer perimeter are the responsibility of the site team; those outside the outer perimeter are the responsibility of the EOC.

Task 3: **Establish an emergency site command centre**

The command centre is set up at the actual site of an emergency and consists of command posts, including those of the emergency site manager and services such as police, fire, ambulance and public works.

Telecommunications

The site team requires a telecommunications network that, as a minimum, provides links:

- among emergency site team members;
- between the emergency site and the emergency operations centre;
- between service control officers and their dispatch centres.

Task 4: **Arrange Resources**

The emergency site team may require human resources, equipment, supplies and services (e.g., barricades, buses, catering, sanitation) in order to carry out its tasks. The proper coordination of all resources is critical. In an emergency, resources might be required from two distinct sources: "in service" (within an agency/service) or "out-of-service" (belonging to another agency/service).

Because resource coordination is so critical, service control officers at the site should only request resources from within their own agency/service. The emergency site manager coordinates with the EOC manager to address issues or out-of-service requests that cannot be handled by those services at the site. The EOC is responsible for obtaining all out-of-service resource requests, including those from the province/territorial government. The EOCG is also responsible for all operational aspects outside the site perimeter.

Emergency response logs - the site team keeps logs and any other records in accordance with municipal planning and legal requirements.

Task 5: **Ensure the health, safety and well being of responders at the site**

There are common areas for rest, feeding and personal care. An emergency site team member (the duty officer for example) is assigned the task of setting up and supplying these areas. Each service at the site is responsible for monitoring compliance with health and safety regulations and policies. If any team member becomes aware of a safety issue (e.g., the need for protective equipment), he/she notifies all other team members immediately. If any member discovers that a responder is missing, injured or killed, he/she must immediately inform all other

team members, starting with the site manager. The latter informs the emergency operations centre group without delay. The EOCG coordinates the notification of next of kin through the appropriate service(s).

Task 6: <u>Oversee site access</u>

Public officials may request site tours. Private citizens, including residents and business operators from the affected area, may request site access. The emergency site manager, in consultation with the EOCG, decides when it might be appropriate to allow site access. The decision is normally based on the nature of current operations, remaining threats at the site, and consideration of any individual's need or actual right to visit. Organizing site access includes arranging appropriate security and safety measures.

4. The Planning Cycle

Accurate and timely information is the lifeline of any management system. It is easier to ensure the flow of information if a standard process is followed. Such a process is referred to as the Planning Cycle — an interactive, continuous process whereby information is shared for decision-making and action. The Planning Cycle ensures that the emergency is managed effectively, and consists of six basic steps:

1.   Assess and evaluate

The first step of the process begins by determining: (a) what is happening? and (b) what is required to manage the response effectively? Through this assessment process, the team will be able to ensure a common understanding of the threats and mitigation strategies.

2.   Set levels of priority

The emergency site team collectively sets priorities for addressing the threats, according to their severity. Available information is studied with a view to determining:

- What issues are important? What action can be undertaken? What alternatives exist?

3.   Set objectives

The third step is the formulation of objectives by determining: (a) what is to be achieved, and (b) what resources are needed to reach these objectives.

4.   Develop detailed action plan

The action plan should determine in detail who does what, where, when and how (in other words, how to handle the emergency). It must also address what resources and services are

needed to accomplish the task at hand and assign responsibility to the EOCG for securing them. If any services are already on-site but not required, the service control officers should withdraw them.

5. Implementing the action plan

The fifth step towards limiting threats from an emergency is to put the action plan into effect in an orderly, timely and effective fashion.

6. Monitoring /Reporting

The last step is to set up a monitoring and feedback mechanism to ensure activities are being carried out as planned and to confirm that objectives have been achieved.

Briefings/Situation Reports

Each planning cycle begins with an agreement between the site team and the EOCG on the length of the planning cycle and the timings for briefings.

The emergency site team briefing is conducted first. The site manager:

- listens to service control officers and support staff reports (new information about threats, progress and results during last planning cycle, and recommendations for new or continued mitigation strategies); presents the threats in order of severity and the plan to limit threats according to priority for the next planning cycle; announces a schedule for team briefings.

- As the CBRN technical expert, you will provide information about threats, progress and results to date and recommendations for new or continued mitigation strategies. Your information will be needed for the site manager to make informed decisions that result in ensuring maximum safety considerations for all responders and effective treatment of casualties. You will be looked upon to answer questions relating to the establishment of control of Hazard Zones, agent identification and mitigation, PPE, casualty treatment, limitations of local response, decontamination ability and evacuation considerations.

Overall Coordination

The emergency site manager needs to assure that decisions about actions at the site are consistent with the EOCG decisions. Consistency is achieved by means of regular communication and consultation between the site manager and the EOC manager. For threats that may have an impact beyond the site, the site team recommends mitigation strategies to the EOCG. The EOCG decides on and implements off-site mitigation strategies.

The emergency site team assures that the EOCG has accurate information about conditions and actions at the site to include in press releases or communiqués. If required, press releases or communiqués are provided to media at the site. This is done under the direction of the EOCG.

5. Conclusion

Experience has shown that there is a need for a system to manage and coordinate the many activities during emergencies. The emergency site management system has proven to be extremely useful in this regard because it involves a multi-service, multi-jurisdictional effort. Moreover, it stresses the need for decision making, communication, cooperation, and coordination among various services and jurisdictions to ensure effective emergency response.

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