

British Columbia

**Chemical, Biological,
Radiological and Nuclear
Terrorism Consequence
Management Plan**

(Interim) 2002

**Ministry of Public Safety and
Solicitor General
Provincial Emergency Program**

**Ministries of Health
Provincial Health Officer
Emergency Preparedness Branch**



**BRITISH
COLUMBIA**

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FOREWORD

In concept, the overall approach to dealing with the consequences of a terrorist event involving toxic substances is the same as a response to an incident resulting from the accidental release of hazardous materials. The recommended strategy for containing and managing the consequences of a terrorist event involving the intentional release of a chemical, biological, radiological or nuclear (CBRN) agent involves; proactive communication and public education, protection of responders, early identification of agents and decontamination of casualties and aggressive treatment of symptoms, disease and injuries. Protection of emergency response and health care workers is key to maintaining a response capacity in the emergency response and health services systems.

Under the Emergency Program Management Regulation, the Ministry of Attorney General (now Ministry of Public Safety and Solicitor General) is responsible for terrorism and the Ministry of Health (now Ministry of Health Planning and Ministry of Health Services) is responsible for setting out the manner and means by which the government will respond to the hazard of disease and epidemics. Many of the initial response duties are assigned to the Commander of RCMP "E" Division and the Provincial Health Officer, working with the BC Centre for Disease Control and Medical Health Officers in the regional health authorities and local first responder agencies.

This plan describes the procedure for managing the consequences of a CBRN event, such as degradation of the provincial work-force and support for alternate health care facilities, and the coordination of critical resources required in support of the care and treatment of patients.

The plan has been developed in a quadripartite partnership involving the Ministries of Health Planning and Services, the British Columbia Public Affairs Bureau (PAB) and the Ministry of Public Safety and Solicitor General (PSSG)/Provincial Emergency Program (PEP).

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Annex F - Emergency Medical Stockpile

Annex G - Provincial Hazardous/CBRN Incident Resource Capability Matrix

Annex H - Potential Terrorist Biochemical Agents

- References:
- A. Emergency Program Act
 - B. Health Emergency Act
 - C. Emergency Program Management Regulation
 - D. British Columbia Emergency Response Management System (BCERMS) Overview (2000)
 - E. Central Coordination Group/ Provincial Emergency Coordination Centre Standard Operating Procedures (Draft March 1999)
 - F. PEP Provincial Regional Emergency Operations Centre (PREOC) Guidelines (2001)
 - G. Bioterrorism Response Advisory Team (BRAT) - Exposure to Biological Agents Response Plan
 - H. British Columbia Emergency Public Information Plan

INTRODUCTION

General

Local governments have the primary responsibility for emergency response and recovery. The provincial government acts in support of local government. In unorganized (unincorporated) communities, or where the level of response is beyond the capability of local communities, the provincial government will coordinate the response.

In accordance with the BC emergency management structure, consequence management will be provided by means of an integrated across government response involving a variety of stakeholders, the principal stakeholders being:

- **Ministry of Public Safety and Solicitor General (PSSG)**
 - **Provincial Emergency Program (PEP)** is responsible for coordinating all elements of the provincial emergency response management structure.
 - **Coroners Service (CS)**, is responsible for investigating cause(s) of death, directing the establishment of emergency (temporary) mortuary services and disposal of human remains.

- **Ministry of Health Services (HLTHSVC)/
Emergency Preparedness Branch and Ministry
of Health Planning (HLTHPLN)/Provincial Health
Officer (PHO)** are the lead ministries/agencies with
primary responsibility for coordinating public
health/disease control, emergency health services
and defined hospital services.
- **Royal Canadian Mounted Police (RCMP) “E”
Division** has primary responsibility for provincial
law enforcement and criminal investigation. In the
event of a declaration of a state of emergency, the
Officer in Charge of “E” Division may be appointed
chief constable to exercise control over all police
forces in the province.
- **British Columbia Public Affairs Bureau (PAB)**
has primary responsibility to develop the provincial
communications strategy once the provincial
emergency management structure is activated and
to liaise with the PECC Chief Information Officer
(IO) to ensure all provincial agencies implement the
strategy.

Numerous other ministries provide support based on
their assigned emergency response functions.

Background

Terrorists have the knowledge and the capability to
strike anywhere in the world. Recent examples of
terrorist attacks include the World Trade Center
bombing, February 1993; the Tokyo Subway nerve
agent attack, March 1995; and the Oklahoma City
bombing, April 1995. There have been smaller
bombing incidents, not necessarily classed as terrorist
events, at the 1996 Olympics, at family planning
clinics, and, recently, at social clubs.

All communities--especially those in free societies--are
vulnerable to incidents involving terrorism. Nearly all
communities contain some high-visibility targets
situated such that they have high transportation,
access and congregation potential. Many may have
manufacturing and research facilities. Other locations
that are likely targets for criminal or terrorist activity

include most of the critical commercial and utilities infrastructure.

Terrorism is experienced as the psychologically threatening conjunction of theatre and war, involving the most proscribed behaviors in civilized society. Formally, terrorism is defined as "the unlawful use of force against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in the furtherance of political or social objectives." This definition includes three elements of terrorist activities: the unlawful use of force; intentional intimidation or coercion; and that the actions are committed in support of political, ethnic or social objectives.

Experts generally agree that in addition to the historical use of incendiary and explosive weapons, there are four core categories of terrorist incidents that involve specific agents: chemical, biological, radiological and nuclear (CBRN).

- **Biological Incidents.** Several biological agents can be adapted and used as terrorist weapons. These include anthrax (sometimes found in sheep and similar wild animals), tularemia (or rabbit fever), cholera, encephalitis, the plague (sometimes found in prairie dog colonies), and botulism (found in improperly canned food). There is growing concern among public health officials that smallpox could emerge as a biological weapon of choice.
- **Chemical Incidents.** Chemical agents fall into five classes:
 - Nerve agents (e.g. sarin, VX), which disrupt nerve impulse transmissions.
 - Blister agents (e.g. mustard, phosgene), also called vesicants, which cause severe burns to eyes, skin, and tissues of the respiratory tract.
 - Blood agents (e.g. cyanide), which interfere with the ability of blood to transport oxygen.
 - Choking agents, which severely stress respiratory system tissues.
 - Irritating agents, (e.g. mace, tear gas) which

cause respiratory distress and tearing designed to incapacitate. They also can cause intense pain to the skin, especially in moist areas of the body. They are often called Riot Control Agents.

A table of potential terrorist biochemical agents and their characteristics is provided at Annex G.

- **Radiological/Nuclear Incidents.** There are three fundamentally different threats in this area. The first, and least likely, is the use, threatened use, or threatened detonation, of a nuclear bomb. The second, and not applicable to British Columbia involves direct attacks on nuclear power plants. The third and somewhat more plausible is the detonation, or threatened detonation, of a conventional explosive incorporating commercially available radioactive materials (radiological dispersal devices or RDD). Up until now it has been considered unlikely that a terrorist organization could acquire or build a nuclear device or weapon. The theft of a completed nuclear weapon was also considered unlikely; however, the potential for terrorists to use an actual or threatened radio-nuclear incident as a form of extortion is a new reality.

By centralizing and focusing provincial efforts to effectively counter these threats British Columbia can confidently pursue proper preparation and response in the event of a terrorist CBRN attack.

The recommended strategy for managing the consequences of a terrorist CBRN incident involves:

- early detection and identification of agent(s) employed;
- protection of first responders;
- rapid containment of incident site(s);
- prompt triage and evacuation of casualties;
- decontamination of casualties;
- integrated incident management; and
- effective public information and awareness

PURPOSE

This plan describes the methodology for mounting and coordinating the provincial government's response to a CBRN terrorism event.

Assumptions

Based on historical data, the following assumptions apply:

- an act of terrorism may produce major consequences that would overwhelm response capabilities almost immediately, particularly if multiple locations are affected; (as in the case of a chemical agent) or progressively over time (as in the case of a biological agent)
- no single agency at the local, provincial, federal or private-sector level possesses the authority and expertise to act unilaterally on the many complex issues that may arise in response to a threat or act of terrorism;
- no one person or organization can plan how an entire community will respond to an emergency; and local agencies are the first to respond, assess the situation, determine its scope, and request needed assistance.

Abbreviations and Definitions

A list of abbreviations and definitions for terms used in this plan is provided in Annex A.

CONCEPT OF OPERATIONS

The province is committed to minimizing the impact of a CBRN event on the provincial residents, infrastructure and the economy. The Ministries of Health Services and Health Planning, in conjunction with Regional Health Authorities and the British Columbia Centre for Disease Control, has primary responsibility for disease surveillance and treatment and management of health related consequences involving toxic agents.

Local governments have the primary responsibility for response and recovery from the consequences of CBRN terrorism.

The province, if requested, will support the response efforts of a local government or, if the event occurs in unorganized (unincorporated) communities, the province will direct response operations.

To the extent possible, the province will provide surveillance information to citizens, agencies and local governments to encourage and assist with preparation in advance of an event involving chemical biological or radio-nuclear agents.

The level of provincial response will be directly dependent upon the magnitude of the event.

In responding to a CBRN terrorism event, the actions and decisions of the province will be based on the priorities to protect the following:

- health and safety (save lives, reduce suffering) ;
- provincial infrastructure (roads, communications and utilities);
- private property (buildings, livestock and other animals), excluding land;
- the environment; and
- reduce economic and social losses.

Emergency Response Structure

An integrated provincial emergency management structure will apply for the management of any CBRN related emergencies requiring a provincial multi-ministry coordinated response.

The provincial CBRN response structure will be based on the British Columbia Emergency Response Management System (BCERMS), as described in Reference E, and is comprised of the following:

- Central Coordination Group (CCG);
- Provincial Emergency Coordination Centre (PECC);
- Provincial Regional Emergency Operations Centre (PREOC); and
- Emergency Operations Centres (EOCs) operated in support of site response.

Central Coordination In preparation for coordinating the management of a

Group	<p>CBRN terrorism event, the Director of PEP will call together the core CCG representatives from PSSG, HLTHSVC, HLTHPLN and PAB to begin advance preparation for a coordinated CBRN response. The Director of PEP and the Director Police Services Branch will co-chair the CCG. Depending on the magnitude of the event, the role of the CCG changes from planning and preparedness to that of response support and coordination.</p>
Provincial Emergency Coordination Centre	<p>The PECC manages provincial level resources on behalf of the CCG in response to the emergency needs of the operational area(s). It manages and coordinates mutual aid between regions (PREOCs) and at the provincial central level, and serves as the coordination and communications link with the federal disaster support structure.</p> <p>The PECC may be activated in support of any activated PREOC. In addition, it will be automatically activated immediately following any major emergency/disaster. Staffing is initially based upon the PEP ECC (already augmented once an emergency occurs), PEP headquarters staff and personnel assigned under TEAMS. Personnel from other ministries and auxiliary/volunteer staff also subsequently augment staffing as required.</p>
Provincial Regional Emergency Operations Centre	<p>The primary function of a PREOC is the management of a multi-ministry/agency coordinated response to a CBRN event within a specific geographical region.</p> <p>The function of the PREOC Director will be shared as follows:</p> <ul style="list-style-type: none">• Readiness and Recovery Phases - PEP Regional Manager; and• Response Phase - as directed by CCG/PECC. <p>PHO will provide a clinical assessment specialist to the PREOC planning and intelligence section. Other operating personnel will be assigned to the PREOC under the Temporary Emergency Assignment Management System (TEAMS).</p>

The affected PEP regional manager, as PREOC Director (Phase 2), may:

- Activate the PREOC at “required staffing levels¹” and notify the CCG accordingly.
- Assess the situation in the associated region.
- Liaise with regional health staff and the PECC, especially for problem solving.
- Determine staffing requirements for the region PREOC and field operations.
- Issue a PREOC CBRN terrorism event directive reflecting the duties and responsibilities outlined in this plan, the region plan and CCG directives that have been issued.

The PREOC provides local direction, control and coordination of CBRN terrorism consequence management operations conducted in unorganized areas, and will provide support to local governments on a region priority basis. The staffing level of each PREOC will be determined by the magnitude of the event. Additional staff may be added if the event intensifies or staff may be reassigned as event consequences become more manageable.

While the duties of the PREOC will be in accordance with BCERMS, adjustments to meet CBRN event-specific requirements may be needed to ensure an effective and coordinated response.

Emergency Operations Centres

Local Government

EOCs are established to provide site level support and work directly with the PREOC. There are times, however, when an EOC may be established by a community group other than a local government, i.e., search and rescue groups. They also provide site support and work directly with the PREOC.

¹ The PREOC Director will determine the staff necessary to provide required support in a timely and efficient manner.

Provincial Government	<p>Large areas of the province are not covered by an emergency response by-law enacted by local governments or regional districts. The province has the responsibility of providing CBRN response in these areas. A designated PREOC(s) may be activated to coordinate specific support requirements.</p> <p>Supporting ministries may activate EOCs to manage ministry-specific operations, for example the Ministry of Human Resources (MHR)/Emergency Social Services (ESS) and Ministry of Children and Family Development (MCF).</p>
Regional Boundaries	<p>The PEP regional boundaries (Annex F) will apply for all CBRN response activity.</p>
CBRN Event Management Phases	<p>CBRN consequence management will be undertaken in four phases which correspond to pre-established thresholds, such as initial agent identification, multiple/dispersed casualties and likelihood of fatalities.</p>
Phase 1 – Planning (Pre-Event Preparation)	<p>During this phase all levels of government/agencies are responsible for appropriate planning and CBRN preparedness including:</p> <ul style="list-style-type: none">• risk assessment• maintaining surveillance/monitoring;• developing protection programs;• reviewing response plans; and• issue strategic direction.
Phase 2 – Preparedness (Readiness)	<p>Upon appraisal of a likely event, PEP Regional Managers may, in cooperation with MOH counterparts, establish and maintain a PREOC at an appropriate activation level to coordinate readiness activity within a specific health region. The CCG and PECC may be established to monitor and direct provincial preparedness activity. During this phase all levels of government will undertake appropriate preparedness measures, including:</p> <ul style="list-style-type: none">• initiating protection/sheltering programs;• initiating the dissemination of information to individuals likely to be affected; and

- establishing emergency treatment, triage and decontamination facilities and programs.

Phase 3 – Response

When an event has occurred, full emergency response is initiated. Emergency Operations Centres (EOCs), Provincial Regional Emergency Operations Centres (PREOCs) and the Provincial Emergency Coordination Centre (PECC) are activated as required.

Action will be undertaken to mitigate the impact of CBRN event related consequences on the provincial infrastructure and the health and safety of BC residents.

**Phase 4 - Recovery/
Rehabilitation**

The restoration of infrastructure to pre-event condition, including disposal of fatalities; provision of clinical follow-up and rehabilitation services; and may include implementation of Disaster Financial Assistance (DFA) as deemed appropriate.

ROLES AND RESPONSIBILITIES

**Ministry of Health
Services/Planning
and Health Authorities**

General

- Assign PHO to act as co-chair to the CCG.
- Provide representatives to the PECC.
- Provide emergency medical services, including hospitalization and ambulance services.
- Arrange procurement and delivery of medical supplies, equipment and pharmaceuticals, including blood and blood products.
- Provide occupational health services for monitoring worker health and medical problems.
- Provide water quality survey services.
- Provide radiological and toxicological services.
- Provide sewage disposal expertise.
- Provide public health measures, including epidemic control and immunization programs.
- Provide disease forecasts and bulletins.

Regional

- Respond to CBRN events impacting health care infrastructure.
- Assist regional health officials or PREOC(s) Director in coordinating clinical resources, such as health services personnel, pharmaceuticals and medical supplies and facilities.
- Participate in the development of a Regional CBRN Terrorism Response Plan.
- Provide liaison personnel on a 24-hour basis to the PREOCs.

**Ministry of Public Safety
and Solicitor General**

**Provincial Emergency
Program**

General

- Assign the PEP Director to act as co-chair to the CCG.
- Establish and coordinate staffing² of the PECC and PREOC(s).
- Coordinate provision of support services to the PECC and PREOC(s) for 24/7 operation.
- Appoint PREOC Director for Phases 2 (Readiness) and 4 (Recovery) and Deputy Director for Phase 3 (Response).
- Coordinate the preparation of provincial CBRN response directives.
- Assist in issuing tasking orders and public information advisories and warnings.
- Provide overall direction for finance at the PECC and PREOC levels.
- Assign task numbers and financial authorities.
- Coordinate public information messaging.

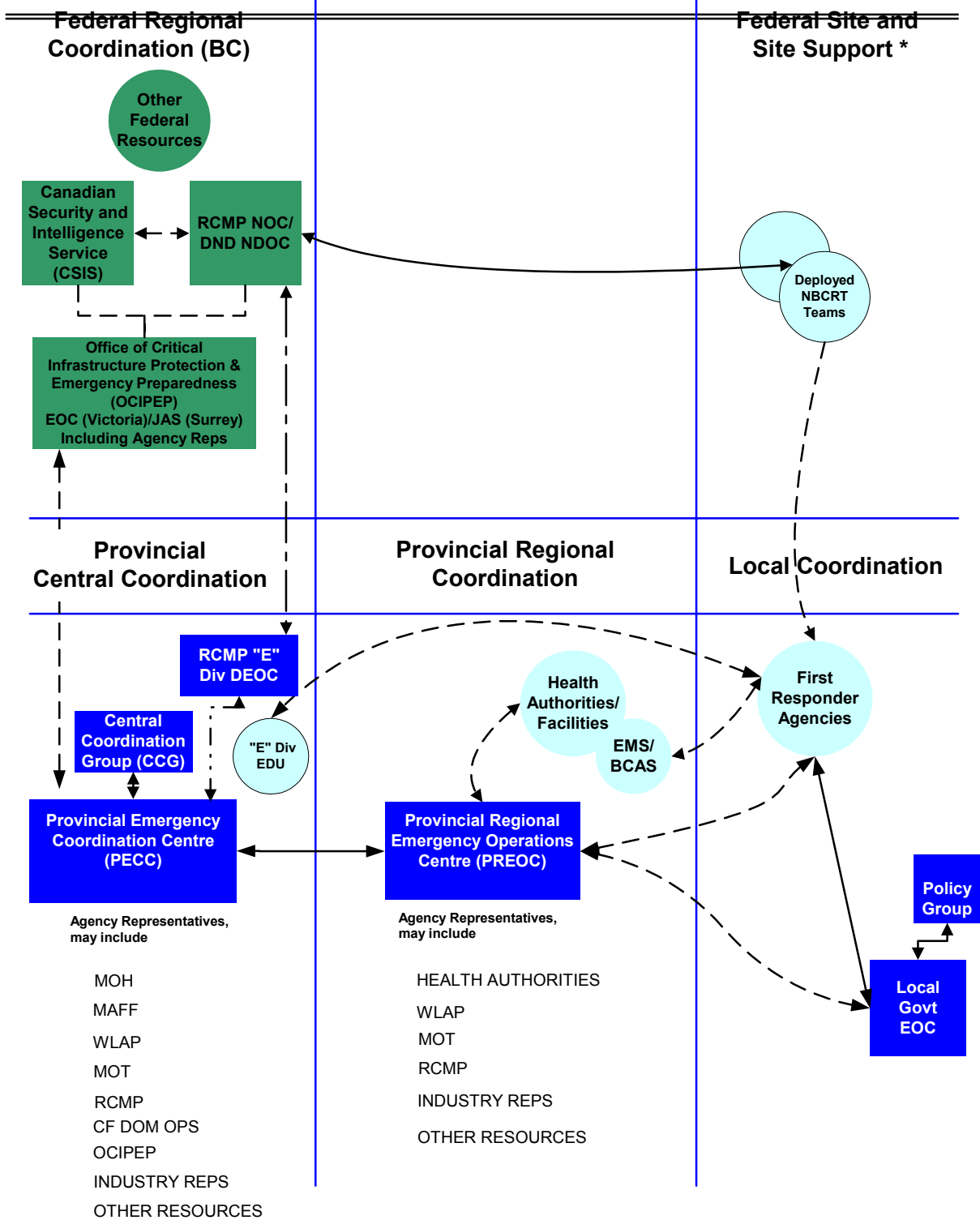
Regional

- Determine response in consultation with PHO; update PEP ECC staff.
- Advise on need for a coordinated regional response.
- Coordinate response as required with health officials and local authorities.

² PECC and PREOC(s) will be staffed by personnel from across government utilizing the Temporary Emergency Assignment Management System (TEAMS).

	<ul style="list-style-type: none">• Provide funding approval and obtain task number.• Compile impact assessments and forecasts.• Approve the tasking orders and regional public information advisories and warnings.• Provide support services and staff on a 24 hours basis to the PREOCs.
Coroner Service	<ul style="list-style-type: none">• Investigate cause(s) of death.• Establish temporary mortuaries.• Regulate the disposal of human remains.
British Columbia Public Affairs Bureau	<ul style="list-style-type: none">• Assign a senior representative to the core CCG.• Implement the Emergency Public Information Plan.• Prepare the provincial communications strategy.• Liaise with PECC Chief Information Officer.• Brief senior government officials on communications issues.• If requested by the PECC Chief IO, may arrange for additional IOs to work in the PREOCs or PECC and/or as needed.
RCMP “E” Division	<ul style="list-style-type: none">• Provide security for provincial infrastructure• Enforce quarantine and/or evacuation orders• Collect evidence and investigate criminal acts
Other Ministries/Agencies	The emergency response functions that will be provided by specific provincial ministries/agencies in response to a CBRN event are detailed in Annex G.
Local Government	<ul style="list-style-type: none">• Develop contingency plan for hazardous substance/materiel incidents.• Implement local emergency response plan(s).• Coordinate site emergency response within capability.• Liaise with supporting agencies
Federal Government	Provide support on request to the Provincial Government.

British Columbia Chemical, Biological, Radiological and Nuclear Terrorism
Consequence Management Plan (Interim 2002)



COORDINATION INSTRUCTIONS

PECC/PREOC Staffing PEP will be responsible for staffing the PECC and

PREOCs by drawing upon Temporary Emergency Assignment Management System (TEAMS) and other provincial government personnel.

**Activation (Staffing)
Levels**

Phase 1:

- *Level 1 - Pre-response/monitoring* status, 0800 - 1630 hours daily with appropriate staffing.

Phase 2:

- *Level 2 - Operational response*, full 24/7 operation with minimum key appointments and support staff.
- *Level 3 - Major emergency*, full 24/7 operation.

**Situation and Incident
Reports**

Upon PREOC activation, a daily situation report will be submitted to the PECC not later than 1700 hours daily.

Incident reports will be used at all levels to provide immediate notification of a significant incident or change in the status of a previously reported incident.

Situation and incident reports will be prepared and distributed in accordance with instructions provided..

**CBRN Alert/Response
Level**

In Phase 3, the following levels will be observed in respect to CBRN alert/response activities:

Level 4 - Low

Received threats do not warrant actions beyond normal liaison notifications or placing assets or resources on a heightened alert (agencies are operating under normal day-to-day conditions).

Level 3 - Medium

Intelligence or an articulated threat indicates a potential for a terrorist incident. However, this threat has not yet been assessed as credible.

Level 2 - High

A threat assessment indicates that the potential threat

is credible, and confirms the involvement of CBRN in the developing terrorist incident. The threat has developed into a situation requiring an immediate process to identify, acquire, and plan the use of provincial resources to manage the consequences of a terrorist use or employment of CBRN.

Level 1 - Imminent (CBRN Incident)

A CBRN terrorism incident has occurred which requires an immediate process to identify, acquire, and plan the use of provincial resources to augment local authorities in response to limited or major consequences of a terrorist use of CBRN. The provincial consequence management response will focus on contingency planning and pre-positioning of tailored resources, as required.

All Clear

Demobilization and recovery activities commence. EOCs, PREOCs and the PECC remain at Activation Level 1 in case situation deteriorates and/or to support recovery activities.

FINANCE AND ADMINISTRATION

FINANCE

General

During an emergency provincial ministries and local government bodies – including municipalities, regional districts, health authorities and education authorities - may be eligible for financial assistance to offset incremental and extraordinary costs. Planners are encouraged to become familiar with the terms and conditions for possible cost-recovery³. Information regarding available emergency financial assistance will be posted on the Provincial Emergency Program web site at www.pep.bc.ca

Expenditure Control

A PEP task number will be assigned to regions, via PEP regional managers for PREOC set-up. Task

numbers for CBRN related emergency responses will be issued as and when required.

The following will be observed with respect to expenditure management:

- All expenditures must be pre-authorized by the director PEP/PECC director or PEP Regional Manager/Director PREOC. The CCG may, as required, designate such other persons as deemed necessary.
- Upon PREOC activation, an initial Phase 2 expenditure fund allocation will be provided to each PREOC Director for use against the assigned task numbers.
- During Phase 3 response operations, PREOC Directors or designated principal PREOC staff, may authorize expenditures for CBRN response or support activity for up to \$100,000 per CBRN event response site or jurisdiction to protect life, private property or local or provincial government infrastructure. Any single expenditure exceeding \$100,000 must be pre-authorized by the Director PEP or the CCG co-chair.
- Ministries/agencies must ensure that all expenditures that will result in journal voucher action are authorized using either an expenditure authorization form⁴ (Annex D) completed and signed by the PECC/PREOC director. The agency initiating the expenditure is provided a copy of the authorization form, a copy is retained by the PECC/PREOC and a copy forwarded to PEP headquarters in Victoria.
- All ESS expenditures must be accompanied by an ESS Referral Form completed and signed by a designated spending authority

**INVOICES/EXPENDITURES WILL NOT BE
PROCESSED UNLESS ACCOMPANIED BY DULY**

⁴ A control mechanism to aid in tracking authorized expenditures

COMPLETED AND AUTHORIZED SUPPORTING DOCUMENTATION

Inventory Control

An equipment inventory will be maintained to record all non-consumable⁵ material purchased under a PEP task number. On demobilization, a copy of the inventory indicating current disposition will be forwarded to PEP headquarters as part of the PREOC post-operation report.

Workshop

A financial management workshop will be conducted for ALL designated finance and administration chiefs during Phase 2 (Readiness).

LOGISTICS

General

Beyond the basic personnel and equipment support capability of BCAS and Health Authorities, logistics support is based on the available Ministry of Forests (FOR) Protection Branch/Fire Centre(s), operations support capability.

To incorporate this capability within the province wide CBRN response structure, FOR will:

- Supply logistics support at the PECC and PREOC level, including:
 - a logistics representative to the CCG on request; and
 - a logistics advisor on call to the PECC/PREOCs to assist in all preparatory work, and an on-call logistics operations cell to the PECC/PREOCs (24/7 if necessary) upon activation.
- Establish protocols and procedures with the Purchasing Commission for resource procurement within regions and from provincial, national or international sources.

⁵ Material, such as office equipment, blankets, generators and safety equipment, that is items NOT consumed.

- Identify additional delivery system, storage, accounting and critical equipment and supply control and allocation needs.
- Activate the logistics operations planning and preparedness functions at the CCG/PECC and PREOC levels.
- Incorporate the tasking of air support operations (through existing FOR contractual arrangements), within the logistics element at both CCG/PECC and PREOC levels.

The Purchasing Commission will:

- provide staff member(s) on call to assist CCG/PECC logistics section (24/7 if necessary) for both preparedness planning and during CBRN response (Phase 2) operations. The Commission's transportation management group should also be included as a resource provider (vehicles as necessary).
- ensure that a representative is assigned on call to designated PREOCs on request (24/7 if necessary) to action resource requirements that are beyond government holdings. (PREOC Directors should note the limited regional representation of the Commission and that its personnel support to PREOCs will be prioritized).

**Information
Technology Services**

The following is the telecommunication hierarchy:

- e-mail, the PECC and each PREOC will be provided with a generic e-mail address;
- facsimile machine;
- telephone (line, cellular and satellite, including links);
- satellite phones;
- amateur radio; and
- courier.

Critical Resources The initial assignment, movement of and authority to reposition or distribute critical resources between regions is controlled by the CCG/PECC. Critical resources may include provincial government assigned or designated health services teams, medical evacuation and treatment resources. The disposition of emergency beds and blankets is shown at Annex E. The pre-CBRN event disposition of emergency medical stockpile is provided in Annex F.

Emergency Accommodation for Evacuees The primary supporting ministries are MHR/ESS Branch, the Ministry of Children and Family Development and the British Columbia Housing Management Commission (BCHMC). Municipal requirements and anticipated needs for emergency social services are communicated from the local authority to the PREOC(s), supported where necessary by other agencies as arranged by PREOCs. All coordination with BCHMC is conducted by or through MHR/ESS personnel.

PERSONNEL

General PECC and PREOC Directors may:

- hire or contract administrative support staff;
- hire or contract security services; and
- authorize and place assigned personnel on travel status.

The PECC will authorize, assign and deploy all critical resources to and between regions.

TEAMS/Overtime/Call-out Costs associated with TEAMS, overtime, standby and/or call-out may be authorized by the PECC/PREOC Director and will be charged to the task number.

Staffing Refer to PECC and PREOC shifts and staffing level documents distributed under separate cover.

Identification All personnel assigned to the CCG, PECC or PREOC will be required to wear BCERMS identification vests.

Safety

PREOC Directors are responsible for ensuring that:

- a risk management officer and requisite support staff are assigned at the PREOC; and
- all operational response supervisors and team leaders must ensure proper occupational health and safety measures are enforced.

The risk management officer is part of the command cell at the PECC and PREOCs and has the responsibility of developing and recommending measures for assuring personnel safety and anticipate Workers' Compensation Board (WCB) hazardous and unsafe situations.

When advised, PECC/PREOC Directors will correct unsafe situations in accordance with WCB requirements.

**Supplementary
Personnel Resources**

Supplementary personnel resources may be available for the following functions:

- perimeter cordon;
- traffic Control; and
- general decontamination.

Where possible, supplementary personnel should be provided a minimum of one day training health and safety precautions.

**PUBLIC
INFORMATION**

Public information will be conducted in accordance with the British Columbia Emergency Public Information Plan (Reference F) and BCERMS Overview (Reference E).

Annex A

ABBREVIATIONS/DEFINITIONS

AGF	Ministry of Agriculture, Food and Fisheries
Agency	Branches within provincial ministries and any other government organization which is affected by flood response operations; also the mentioned groups participating in joint response efforts.
BCCDC	British Columbia Centre for Disease Control
BCERMS - British Columbia Emergency Response Management System	The BCERMS represents standard policies and practices adopted by the British Columbia government for emergency management
CCG - Central Coordination Group	The Central Coordination Group provides overall direction to all provincial agencies and resources supporting or assisting with the emergency situation
MEOC - Ministry Emergency Operations Centre	An Operations Centre established and operated by a ministry to coordinate the ministry's emergency response in that region. Structure and function is similar to PREOC.
ECC - Emergency Coordination Centre	The Emergency Coordination Centre at the Provincial Emergency Program headquarters receives and disseminates information from multiple sources regarding emergency situations. The 24-hour Emergency Coordination Centre also serves as the "incident message centre" for the Provincial Emergency Coordination Centre.
EOC - Emergency Operations Centre	A pre-designated facility established by a local government or jurisdiction to coordinate the overall agency or jurisdictional response and support to an emergency.
EEEB	Enforcement and Environmental Emergencies Branch, (Ministry of Water, Land and Air Protection)
ESS - Emergency Social Services	ESS are those services that are provided short term (generally 72 hours) to preserve the emotional and physical well-being of evacuees and response workers in emergency situations.
HLTHPLN - Ministry of Health Planning	The ministry supports the development of the long-term planning necessary to sustain British Columbia's public health care system.
HLTHSVC - Ministry of Health Services	The ministry supports British Columbians in their efforts to maintain and improve their health.

IO	Information Officer for public awareness and media relations.
MHR	Ministry of Human Resources.
PECC - Provincial Emergency Coordination Centre	An Emergency Operations Centre established and operated at the provincial central coordination level to direct and coordinate the provincial government's overall emergency or disaster response and recovery efforts. Located at the Provincial Emergency Program (PEP) headquarters in Victoria.
PEP	Provincial Emergency Program (Ministry of Public Safety and Solicitor General)
PHO - Provincial Health Officer	The senior medical health officer for British Columbia.
PREOC - Provincial Regional Emergency Operations Centre	An Emergency Operations Centre established and operated at the regional level by provincial agencies to coordinate provincial emergency response efforts.
SITREP	Situation Report
TEAMS - Temporary Emergency Assignment Management System	A program where personnel from across government are specifically trained for employment in the PECC and PREOCs with ministries/agencies being reimbursed personnel costs, i.e., salary and benefits.
WCB	Workers' Compensation Board

Annex B

**PROVINCIAL EMERGENCY MANAGEMENT REGIONS
and
PROVINCIAL REGIONAL EMERGENCY OPERATIONS CENTRE
(PREOC) LOCATIONS**



NOTE: Vancouver Island PREOC is co-located with the
Provincial Emergency Coordination Centre (PECC)

Annex C

EMERGENCY RESPONSE FUNCTIONS

The following list identifies emergency response functions that will be provided by specific provincial ministries/agencies in response to a CBRN event. When required, a liaison (contact) officer will be arranged for each ministry or agency, as determined by the PECC or PREOC Director. Any supporting agencies offering assistance will be expected to be self-sufficient with regard to finance and administration. Any incidental costs incurred during response will be settled by the affected agency, and journal vouchered to PEP for cost recovery.

Ministry Responsible for:

Agriculture and Food

- Provide expertise to field teams conducting work in areas of agriculture concern.
- Provide coordination of the evacuation of livestock and their care, including emergency feeding.
- Provide coordination for disposal of livestock carcasses.
- Provide expertise to control animal/crop disease and insect infestation.
- Identify sources of food and water supplies for human use, for distribution by ESS as required.

Community, Aboriginal and Women's Services

- Provide assistance in the provision of fire fighting and prevention services through the Office of Fire Commissioner.
- Provide guidance and assistance to local governments.
- Provide liaison with the safety branch regarding railway and pipeline concerns.

Children and Family Development

Provide care and protection of children, youth and adults with mental handicaps and special needs who are not accompanied by a guardian or custodian

Finance

- Provide consultation, monitoring and claims support for workers' compensation.
- Provide risk management services.
- Purchase response supplies/equipment and inventory (BC Purchasing Commission).
- Provide personnel services and human resources when available.
- Provide government vehicles.
- Provide computer system and telephone services.
- Coordinate the use of government buildings and business machines for PREOC directors.

Forests

- Supply logistics support, including the following, at the PECC and PREOC level when/where available:
 - water pumps and hoses;
 - remote camps;
 - communication services; and
 - response personnel.

Human Resources (Emergency Social Services)

- Coordinate the provision of emergency social services, including the provision of food, clothing, lodging, registration and inquiry services and other services necessary to support the immediate health and well-being of evacuees and responders.
- Provide assistance to local authorities in the planning and operation of emergency social services.

Attorney General (Legal Services)

- Provide legal counsel to CCG.

Public Safety and Solicitor General

- Provide coroner services.
- Provide service to enforce law and order (especially against looting).
- Provide resources to conduct search and rescue for missing persons.
- Provide service to control crowds and traffic.
- Provide resources to implement evacuation plans, as required.
- Manage auxiliary police personnel.
- Provide security patrols in evacuated areas.

Other Support Agencies

- BC Ferry Corporation - Provide marine transportation/accommodation.
- BC Hydro & Power Authority - Ensure control and maintenance of power supply.
- BC Railway - Provide equipment and transportation.
- BC Transit - Provide ground transportation.
- BC Buildings Corporation - Provide buildings and equipment for temporary clinics and treatment facilities.
- BC Housing Corporation - Provide blankets and beds for emergency treatment and housing facilities.
- Provincial Health Services Authority - Provide medical laboratory services through the BC Centre for Disease Control, for agent identification.

Annex D

EXPENDITURE AUTHORIZATION FORM

Log Reference (if applicable) _____

PREOC _____ **Task #** _____

Incident #⁶ _____

Requesting Authorized Person/Agency _____

Location _____

Incident Description⁷

Amount Requested: _____

Expenditure Authorized "Not to Exceed" _____

Signature of Designated Authorizing Person⁸

Position _____

Date _____

⁶ From block of assigned incident numbers allocated to PREOCs on activation.

⁷ Include date/time, location, jurisdiction and nature of response activity or service to be provided.

⁸ PREOC director or designated principal PREOC staff.

(Reverse of Expenditure Authorization Approval Form)

Expenditure Authorization Approval Process

General

Approval of a designated PREOC staff member is required prior to the expenditure of funds.

NO INVOICE OR JOURNAL VOUCHER WILL BE PROCESSED UNLESS
ACCOMPANIED BY A DULY COMPLETED AND SIGNED EXPENDITURE
AUTHORIZATION FORM

Request

Requests will be made by telephone/fax/e-mail to the applicable PREOC. Requests will indicate the nature of incident/requirement and amount of funds requested.

Approval

PREOC will issue a "Not to Exceed" expenditure authority by either telephone/fax/e-mail authority followed by a completed "hard-copy" Expenditure Authorization Approval form.

Completed Expenditure Authorization Approval forms will be distributed as follows:

- Original - requesting person/agency
- Second Copy - PREOC expenditure log
- Third Copy - PEP HQ/ECC

Annex E

EMERGENCY BED AND BLANKET STOCKPILE

NOTE: Distribution of spreadsheet, which provides the location and point of contact for the emergency beds and blankets, will be on a need-to-know basis as determined by the BC Housing Corporation.

Annex F

EMERGENCY MEDICAL STOCKPILE

NOTE: Distribution of spreadsheet, which provides the location and point of contact for the National Emergency Medical Stockpile, will be on a need-to-know basis as determined by MOH Emergency Preparedness Branch.

Annex G

Provincial Hazardous/CBRN Incident Resource Capability Matrix

Jurisdiction	HAZMAT Response and/or Personal Protection Equipment (PPE) Levels ⁹			Detection ¹⁰	Decontamination	Pre-Hospital Care and Evacuation
	Level A	Level B	Level C			
Vancouver Fire-Rescue	X	X	X		X	
Surrey Fire Service	X	X	X		X	
Richmond Fire Service		X	X			
Vancouver Police		X	X			
RCMP EDU (BC)	X	X	X			
BC Ambulance Service		PPE	PPE			X
Vancouver Island Health Authority		PPE	PPE			X
Vancouver Coastal Health Authority		PPE	PPE			X
Fraser Health Authority		PPE	PPE			X
CFB Esquimalt	X	X	X	C-R	X	
CF 19 Wing Comox	X	X	X	C-R	X	

⁹ Does NOT indicated a commensurate level of CBRN training

¹⁰ C=Chemical, B-Biological, R=Radiological

Annex G

Potential Biochemical Terrorism Agents
Biological Agents

Disease	Incubation	Symptoms	Signs	Diagnostic tests	Transmission and Precautions	Treatment (Adult dosage)	Prophylaxis
Inhaled Anthrax	1-6 days Range: 2 days to 8 weeks	Flu-like symptoms Respiratory distress (*Coetaneous Anthrax: Initial itching papule, then 1-3 cm painless ulcer, then necrotic center; fever)	Widened mediastinum on chest X-ray (from adenopathy) Atypical pneumonia Flu-like illness followed by abrupt onset of respiratory failure	Gram stain ("boxcar" shape) Gram positive bacilli in blood culture ELISA for toxin antibodies to help confirm	Aerosol inhalation <i>No person-to-person transmission</i> Standard precautions	Mechanical ventilation Antibiotic therapy Ciprofloxacin 400 mg iv q 8-12 hr Doxycycline 200 mg iv initial, then 100 mg iv q 8-12 hr Penicillin 2 mil units iv q 2 hr -- possibly add gentamicin	Ciprofloxacin 500 mg or Doxycycline 100 mg po q 12 h ~ 8 weeks (shorter with anthrax vaccine) Amoxicillin in pregnancy and children Vaccine if available
Botulism	12-72 hours Range: 2 hrs – 8 days	Difficulty swallowing or speaking (symmetrical cranial neuropathies) Symmetric descending weakness Respiratory dysfunction No sensory dysfunction No fever	Dilated or un-reactive pupils Drooping eyelids (ptosis) Double vision (diplopia) Slurred speech (dysarthria) Descending flaccid paralysis Intact mental state	Mouse bioassay in public health laboratories (5 – 7 days to conduct) ELISA for toxin	Aerosol inhalation Food ingestion <i>No person-to-person transmission</i> Standard precautions	Mechanical ventilation Parenteral nutrition Trivalent botulinum antitoxin	Experimental vaccine has been used in laboratory workers
Plague	1-3 days by inhalation	Sudden onset of fever, chills, headache, myalgia Pneumonic: cough, chest pain, hemoptysis Bubonic: painful lymph nodes	Pneumonic: Hemoptysis; radiographic pneumonia - patchy, cavities, confluent consolidation Bubonic: typically painful, enlarged lymph nodes in groin, axilla, and neck	Gram negative coccobacilli and bacilli in sputum, blood, CSF, or bubo aspirates (bipolar, closed "safety pin" shape on Wright, Wayson's stains) ELISA, DFA, PCR	Person-to-person transmission in pneumonic forms Droplet precautions until patient treated for at least three days	Streptomycin 30 mg/kg/day in two divided doses x 10 days Gentamicin 1-1.75 mg/kg iv/im q 8 hr Tetracycline 2-4 g per day	Asymptomatic contacts; or potentially exposed Doxycycline 100 mg po q 12 h Ciprofloxacin 500 mg po q 12 h Tetracycline 250 mg po q 6 hr all x 7 days Vaccine production discontinued
Tularemia "pneumonic"	2-5 days Range: 1-21 days	Fever, cough, chest tightness, pleuritic pain Hemoptysis rare	Community-acquired, atypical pneumonia Radiographic: bilateral patchy pneumonia with hilar adenopathy (pleural effusions like TB) Diffuse, varied skin rash May be rapidly fatal	Gram negative bacilli in blood culture on BYCE (Legionella) cysteine- or S-H-enhanced media Serologic testing to confirm: ELISA, microhemagglutination DFA for sputum or local discharge	Inhalation of agents <i>No person-to-person transmission but laboratory personnel at risk</i> Standard precautions	Streptomycin 30 mg/kg/day IM divided q 12 hr for 10-14 days Gentamicin 3-5 mg/kg/day iv in equal divided shoulders x 10-14 days Ciprofloxacin possibly effective 400 mg iv q 12 hr (change to po after clinical improvement) x 10-14 days	Ciprofloxacin 500 mg po q 12 hr Doxycycline 100 mg po q 12 hr Tetracycline 250 mg po q 6 hr All x 2 wks. Experimental live vaccine

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Smallpox	12-14 days Range:7-17 days	High fever and myalgia; itching; abdominal pain; delirium Rash on face, extremities, hands, feet; confused with chickenpox which has less uniform rash	Maculopapular then vesicular rash -- first on extremities (face, arms, palms, soles, oral mucosa) Rash is synchronous on various segments of the body	Electron microscopy of pustule content PCR Public health lab for confirmation	<i>Person-to-person transmission</i> Airborne precautions Negative pressure Clothing and surface decontamination	Supportive care Vaccinate care givers	Vaccination
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Chemical Agents and Syndromes (including biologic toxins)

Agents	Symptom Onset	Symptoms	Signs	Clinical Diagnostic Tests	Decontamination	Exposure route and treatment (adult dosages)	Differential diagnostic considerations
Nerve Agents	Vapor: seconds liquid: minutes to hours	Moderate exposure: Diffuse muscle cramping, runny nose, difficulty breathing, eye pain, dimming of vision, sweating. High exposure: The above plus sudden loss of consciousness, flaccid paralysis, seizures	Pinpoint pupils (miosis) Hyper-salivation Diarrhea, Seizures	Blood Cell or serum cholinesterase (whole blood) Treat for signs and symptoms; lab tests only for later confirmation Collect urine for later confirmation and dose estimation	Rapid disrobing Water wash with soap and shampoo	Inhalation & dermal absorption Atropine (2mg) iv or im (titrate to effect up to 6 to 15 mg) 2-PAMCl 600mg injection or 1.0 g infusion over 20-30 minutes Additional doses of atropine and 2-PAMCl depending on severity, Diazepam or lorazepam to prevent seizures if >4 mg atropine given Ventilation support	Pesticide poisoning from organophosphorous agents and carbamates cause virtually identical syndromes
Cyanide	Seconds to minutes	Moderate exposure: Dizziness, nausea, headache, eye irritation High exposure: Loss of consciousness	Moderate exposure: non-specific findings High exposure: convulsions, cessation of respiration	Cyanide (blood) or thiocyanate (blood or urine) levels in lab. Treat for signs and symptoms; lab tests only for later confirmation	Clothing removal	Inhalation & dermal absorption Oxygen (face mask) Amyl nitrite Sodium nitrite (300mg iv) and sodium thiosulfate (12.5g iv)	Similar CNS illness results from: Carbon monoxide (from gas or diesel engine exhaust fumes in closed spaces) H ₂ S (sewer, waste, industrial sources)
Blister Agents	2-48 hours	Burning, itching, or red skin Mucosal irritation (prominent tearing, and burning and redness of	Skin erythema Blistering Upper airway sloughing Pulmonary edema Diffuse metabolic failure	Often smell of garlic, horseradish, and mustard on body Oily droplets on skin from ambient sources	Clothing removal Large amounts of water	Inhalation & dermal absorption Thermal burn type treatment Supportive care	Diffuse skin exposure with irritants, such as caustics, sodium hydroxides, ammonia, etc., may cause similar syndromes. Sodium hydroxide (NaOH) from

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		eyes) Shortness of breath Nausea and vomiting		No specific diagnostic tests		For Lewisite and Lewisite/Mustard mixtures: British Anti-Lewisite (BAL or Dimercaprol)	trucking accidents
Pulmonary Agents (Phosgene etc)	1 – 24 (rarely up to 72 hours)	Shortness of breath Chest tightness Wheezing Mucosal and dermal irritation and redness	Pulmonary edema with some mucosal irritation (more water solubility = more mucosal irritation)	No tests available but source assessment may help identify exposure characteristics (majority of trucking incidents generating exposures to humans have labels on vehicle)	None usually needed	Inhalation Supportive care Specific treatment depends on agents	Inhalation exposures are the single most common form of industrial agent exposure (e.g.: HCl, Cl ₂ , NH ₃) Mucosal irritation, airways reactions, and deep lung effects depend on the specific agent, especially water-solubility
Ricin (castor bean toxin)	18 – 24 hours	Ingestion: Nausea, diarrhea, vomiting, fever, abdominal pain Inhalation: , chest tightness, coughing, weakness, nausea, fever	Clusters of acute lung or GI injury; circulatory collapse and shock	ELISA (from commercial laboratories) using respiratory secretions, serum, and direct tissue	Clothing removal Water rinse	Inhalation & Ingestion Supportive care For ingestion: charcoal lavage	Tularemia, plague, and Q fever may cause similar syndromes, as may CW agents such as Staphylococcal enterotoxin B and phosgene
T-2 myco-toxins	2-4 hours	Dermal & mucosal irritation, blistering, and necrosis Blurred vision, eye irritation Nausea, vomiting, and diarrhea Ataxia Coughing and dispend	Mucosal erythema and hemorrhage Red skin, blistering Tearing, salivation Pulmonary edema Seizures and coma	ELISA from commercial laboratories Gas chromatography/Mass spectroscopy in specialized laboratories	Clothing removal Water rinse	Inhalation & dermal contact Supportive care For ingestion: charcoal lavage Possibly high dose steroids	Pulmonary toxins (O ₃ , NO _x , phosgene, NH ₃) may cause similar syndromes though with less mucosal irritation.