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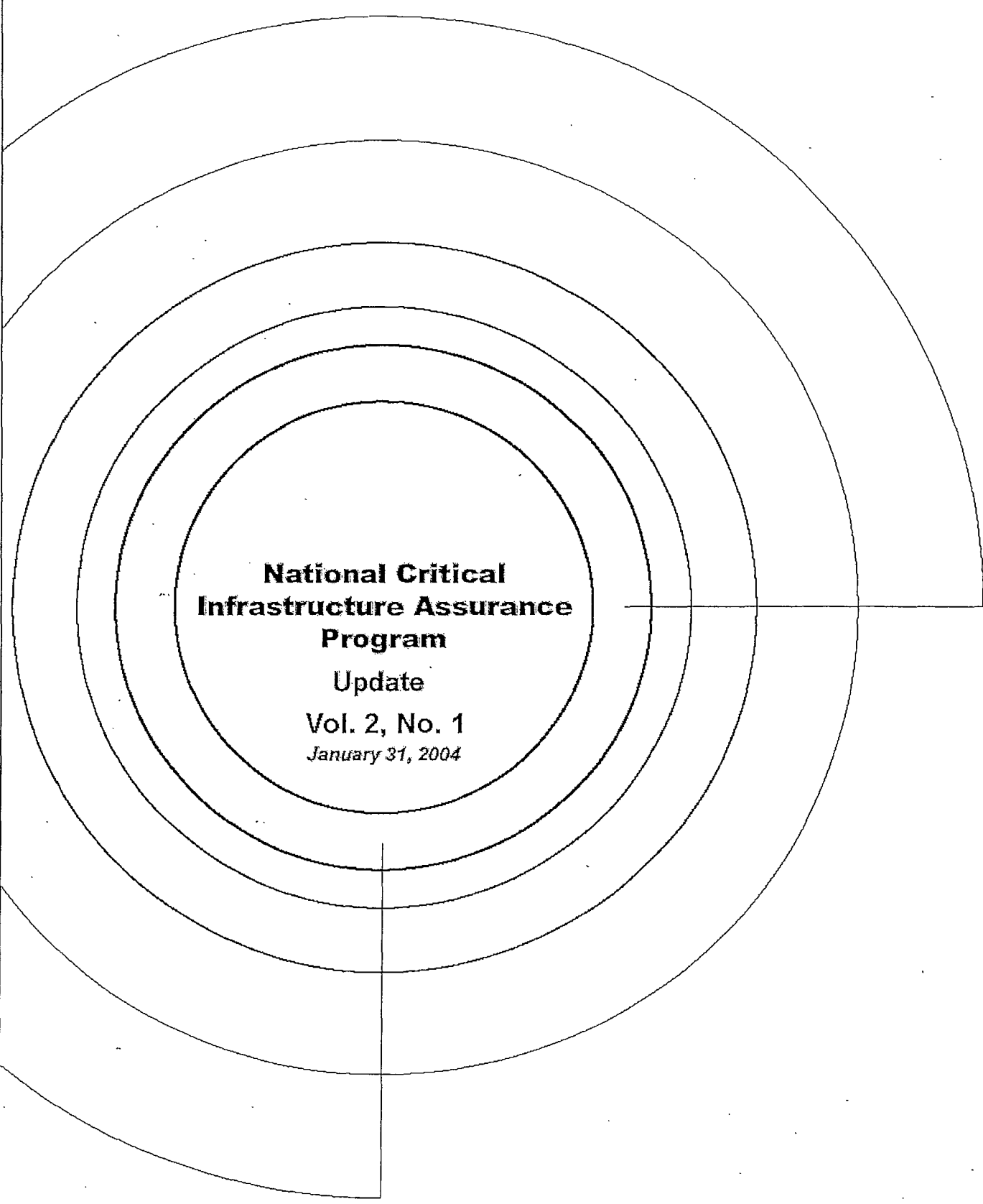
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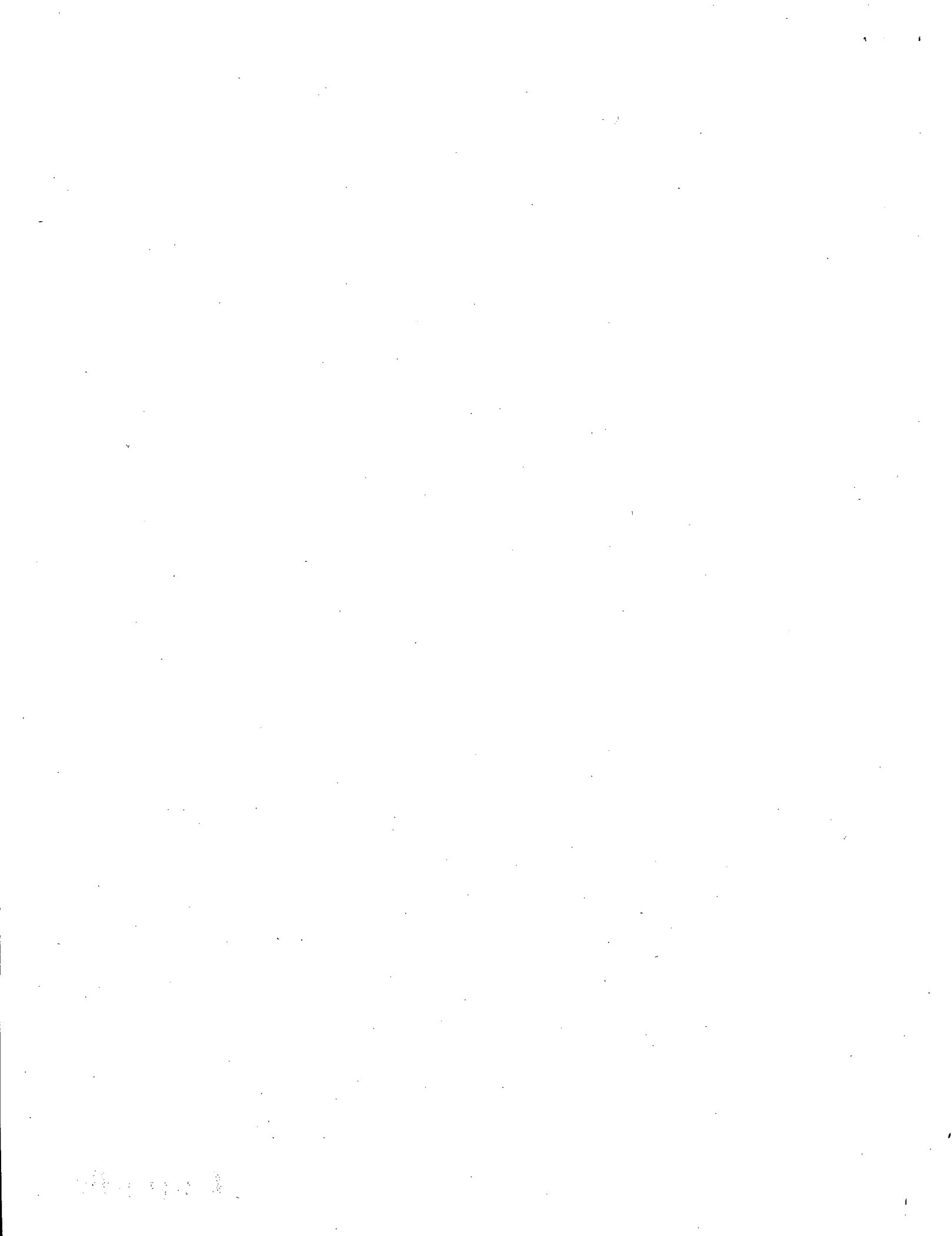


**National Critical
Infrastructure Assurance
Program**

Update

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Table of Contents

1. Opening Message from Janet Bax	4
2. Public Safety and Emergency Preparedness Portfolio	5
3. Feature Story – NCIAP Position Paper.....	6
4. Feature Sector – Food	7
5. Feature Partners.....	9
6. News Briefs.....	10
7. What's Ahead	15
8. Questions, Comments and Suggestions	16

"NCIAP provides a framework that allows us to stay connected with you – our partners – for a safe and secure Canada."

– Janet Bax, Director General, Programs,
Public Safety and Emergency Preparedness Canada (PSEPC)

1. Opening Message from Janet Bax

The world is changing fast. In the past few years and months we've experienced SARS, BSE, blackouts, tainted water, cyber threats and more. Are we ready for what's to come? Can we improve our response based on events that have already occurred?

As we begin to answer these questions we realize just how connected and highly interdependent Canada's critical infrastructures are. A disruption to a service in one sector may impact on multiple sectors. This is quite evident in the food sector following the discovery of BSE in one Canadian cow last May. The effects are being felt in the poultry, sheep and dairy industries and in the livelihoods of many rural families. Only by working together and sharing our approaches and solutions will we be truly equipped to handle what might be next.

This issue of the NCIAP Update focuses on Canada's critical infrastructures, the players involved and their roles to assure that the needs of Canadians can be met in the event of a disaster or in an emergency situation. As partners we've made significant progress since the last NCIAP Update. We have:

- obtained broad agreement on our approach;
- communicated regularly with one another;
- increased awareness of Critical Infrastructure Protection (CIP); and
- developed more effective ways to provide threat information.

In the NCIAP position paper we go further by proposing directions and goals for all partners and expanding the number of critical infrastructure sectors from six to ten. A summary of the paper is featured in this issue.

PSEPC is committed to staying connected with you – our partners – for a safe and secure Canada. To enable a continuous two-way flow of information we provide these regular updates that highlight activities, accomplishments and challenges, and news on what's to come. We also share pieces of information that may be of mutual interest. We encourage your comments and suggestions.

"We have a number of pieces across government that deal with safety, that deal with emergency operations, and other forms of crises and situations from SARS to blackouts to hurricanes to forest fires. What we want to do is bring the pieces together, work across government and integrate the pieces wherever appropriate to achieve the objective of security for the people who live in this country."

– Anne McLellan, Deputy Prime Minister and Minister of Public Safety and Emergency Preparedness Canada (PSEPC)

2. Public Safety and Emergency Preparedness Portfolio

The newly created Public Safety and Emergency Preparedness (PSEP) portfolio is expected to oversee intelligence and security functions and will act as a coordinating body for border operations, as well as operations to combat natural disasters and security emergencies. The Office of Critical Infrastructure Protection and Emergency Preparedness (OCIPEP) will be incorporated into the new portfolio. In addition, a Canada Border Services Agency will be created to build on the work already undertaken under the Canada-U.S. Smart Border Declaration. For more information visit www.ocipep-bpiepc.gc.ca/relatedlinks/hlinks_e.asp

"Public Safety and Emergency Preparedness will play a fundamental role in securing the safety of Canada, while ensuring that all Canadians continue to enjoy the benefits of an open society. The new portfolio will integrate federal activities under strong leadership, maximize cooperation within government and increase accountability to Canadians."

– Margaret Bloodworth, Deputy Minister, PSEPC

3. Feature Story – NCIAP Position Paper

NCIAP Position Paper

The NCIAP Position Paper is a work in progress designed to advance the development of a national framework for public safety and emergency preparedness in Canada. It presents the Government of Canada's position, developed through extensive consultations with all levels of government, private industry and international partners on:

- An approach to national critical infrastructure assurance including partnership, accountability and seven guiding principles – *citizen-focus, integration, all-hazards, assurance versus protection, risk management, comprehensive and information sharing.*
- NCI Sectors: Energy and Utilities, Communications and Information Technology, Finance, Health Care, Food, Water, Transportation, Safety, Government and Manufacturing. A separate background paper entitled "*An Assessment of Canada's National Critical Infrastructure Sectors*" provides a thorough report on Canada's NCI sectors and sub-sectors and compares Canada to other countries. This paper is available at www.ocipep-bpiepc.gc.ca.
- Stakeholder roles for the Federal / Provincial / Territorial governments, Owners / Operators, and Citizens. The Government of Canada has a unique role to play in national awareness raising, building national leadership and international collaboration, assuring its own critical infrastructure, and for enabling information sharing nationally.

The Position Paper also outlines important elements of the program including:

- Common criteria to identify and rank critical infrastructure (*see Section 7 – What's Ahead for more information on the criteria*).
- Critical Infrastructure lists (information sharing principles are proposed in the paper)
- Interdependency Analysis – the relationships that need to be developed to share information and to undertake integrated risk management.
- Research and development is critical to CIP. It helps build understanding and knowledge of some of the challenges facing our NCI such as interdependencies, cascading effects and system vulnerabilities and provides methods and tools to aid in the assessment and management of risks.
- The need to improve mechanisms for sharing, linking and coordinating threat and warning information in a timely way.

- The need to manage risk by developing CIP programs and activities, sharing best practices and supporting CIP training and education.
- The need to develop agreed upon measures for response and recovery from CI failures.
- Cyber Security is integral to CIP. A national Cyber Security Strategy is needed to focus on a comprehensive approach to managing the cyber risk environment.
- Governance – The NCIAP position paper proposes the creation of a Cyber Security Task Force and a National Advisory Council to raise awareness of critical infrastructure protection (CIP) and provide ongoing advice and recommendations. This Council would report to the Minister responsible for Public Safety and Emergency Preparedness.

The NCIAP Position Paper is currently being revised in light of the recent changes in the federal government. Following these revisions the paper will be widely distributed to our partners for additional input.

4. Feature Sector – Food

“It is critical that the perception of BSE being a problem for the beef sector be corrected. BSE is a threat to every sector and stakeholders in the agriculture and rural community. Citizens across the country feel its indirect impacts every day. Only when this is recognized can we begin to appreciate the ultimate impact of the outbreak.

– Canadian Animal Health Coalition (CAHC), October 2003

- **Managing the Future Implications of BSE**

The Canadian Animal Health Coalition (CAHC) conducted an impact analysis following the outbreak of BSE in May 2003. The analysis, *Managing the Future Implications of BSE*, found that the single case of BSE has had very significant impacts on the Canadian agriculture sector. These impacts are not limited to the beef farmer. All other livestock sectors, supply and service sectors, and processors have been impacted. The impacts have also been felt at the level of rural development and agricultural financing. The paper outlines specific actions that could be taken and provides insight into the nature of the interrelationships within the Canadian agriculture sector.

- **Government of Canada Announces enhancements to BSE measures**

The Government of Canada recently announced enhancements to disease surveillance and animal tracking in order to strengthen the ability of the Canadian Food Inspection Agency (CFIA) to monitor and track the national herd.

- **The US looks at Agriculture as an easy terror target**

A report assessing the vulnerabilities of agriculture and the food chain to a deliberate act of biological terrorism was recently released to the U.S. Senate Governmental Affairs Committee. RAND, the corporation that produced the report, warns that agriculture presents an ideal terrorist target with its concentration facilities (housing up to 10,000 animals at a time); lack of security, including at food processing plants, livestock methods such as crowding and hormone injections that weaken animal immunity to pathogenic agents; and poor communication channels with emergency response personnel. The report also warns that many farmers are hesitant to report diseases for fear they will be forced to destroy livestock with no compensation.

- **CAHC holds Canadian Animal Health Emergency Management Workshop**

The Canadian Animal Health Coalition (CAHC) held a workshop on January 7 and 8, 2004 in Ottawa. Participants took this opportunity to find out how the three projects under the Coalition's Animal Health Emergency Management Strategy have evolved since September 2003 and provided input on plans, recommendations and protocols before the projects are completed in February.

The projects included: **policy recommendations** for cease movement, mass depopulation, on-farm carcass disposal, on welfare slaughter and compensation issues; east-west **zoning** in Canada; and strengthening of **emergency management planning** through coordinated plans.

5. Feature Partners

“A key question I am fielding from our regional partners is related to the new department, specifically the mandate and role of the regional offices. There is a great deal of interest in the positioning of the Critical Infrastructure Protection (CIP) program within the department, and its relationship to the CIP programs of the other government departments. Regionally, there is a hope that the Regional Office will play an increased coordination and leadership role in regional Government of Canada CIP related programs and initiatives.”

– Vaughn Simpson, CD, NCIAP Regional Coordinator, Public Safety and Emergency Preparedness Canada (PSEPC), Manitoba and Saskatchewan

RCMP Proposes New Information-Sharing Initiative in Manitoba

RCMP D Division has proposed a new information-sharing forum for security threats. In a meeting on January 5th, 2004 a number of regional intelligence and decision support organizations agreed in principle to further explore the concept. A sub-committee of the RCMP and PSEPC Regional Office has drafted a basic concept paper for consideration by the proposed partners. When accepted, the mandate will form the core of a business plan for implementing the initiative.

University Education and Training Partners

The Manitoba PSEPC Regional Office has established supporting relationships with both the University of Manitoba and Brandon University. The NCIAP Regional Coordinator, Vaughn Simpson, will be giving lectures in March at both universities on the subject of critical infrastructure protection. Mr. Simpson is also supervising two 4th year students from Brandon University's Applied Disaster and Emergency Studies through a CIP related practicum. This approach is already having an effect: one of the regional CIP partners has undertaken to establish an internship position for one of the students.

Saskatchewan Gets Set to Roll Out Critical Infrastructure Protection (CIP) Program

Saskatchewan plans to roll out its CIP program, which is based on the Australian model, for at least one sector in 2004. To facilitate the exchange of information, contact has been made with Australia, Montana, North Dakota, Alberta, Ontario and PSEPC, and a number of Alberta based energy sector firms with significant assets in Saskatchewan.

Alberta Opens New Emergency Management Alberta Operations Centre

A \$1.4 million, 17,000 square foot Emergency Management Alberta (EMA) Operations Centre serves as a coordination centre for disasters and major emergencies across the province. It houses separate operations facilities to manage counter-terrorism, natural disasters, and the sustainability of critical government services. The operations centre has its own back-up power source, a variety of communications systems, and contains state-of-the-art equipment, computers and software.

The facility is supported by an Emergency Notification System, which uses a 70 inch, Alberta-made touch-sensitive SMART Board™ interactive whiteboard that enables EMA to access more than 340 layers of data from a province-wide view down to an individual street address. With this system, EMA can assess current environmental conditions, critical infrastructure and other factors in all areas of Alberta.

"The safety and security of all Albertans is a top priority for this government. With this new facility we can coordinate with partners from the private and public sectors and all orders of government to better prepare for, respond to and recover from major emergencies and disasters."

– Guy Boutilier, Minister responsible for Emergency Management Alberta (EMA)

6. News Briefs

Critical Infrastructure Assurance

- **These recent headlines indicate the need for all critical infrastructure owners and operators to continually undertake vulnerability assessments**

Worms and Viruses

Last year was a big year for viruses, worms and spam with a record amount of infected e-mails. The ratio of virus-infected e-mails to clean e-mails increased 84 percent. Global businesses lost roughly \$55 billion in damages in 2003, up from \$20 to \$30 billion in 2002. [Source: Washington Post]

Anthrax Fears Prompt Federal Interest in Bio-Sniffers for Ports

Fear of a terrorist attack involving anthrax-laced cargo has prompted the Canadian government to explore the purchase of custom-tailored biological agent detectors. The contraband detection section of Canada's customs agency has invited companies to present products capable of screening containers and other shipments for toxic biological substances.

The objective is to evaluate various models with the aim to purchase the one best suited to detect hazardous biological agents entering Canada through marine ports, international airports or land border crossings. [Source: The Globe and Mail, Dec. 18]

Deadly Drinking Water

A Public Health expert warns that communities in Canada and the United States should brace themselves for more outbreaks of water-borne diseases similar to those that killed people in Walkerton and Milwaukee.

"The truth of the matter is that there have been a lot of improvements in the way we treat water, but nothing is 100 per cent and there are going to be failures," said Dr. Jeffrey Griffiths, director of graduate programs in public health at Tufts University School of Medicine in Boston. There will also be new pathogens and new causes of water-borne disease, said Griffiths, who predicted a SARS-like virus will someday threaten drinking water. [Source: The Record (Waterloo) Nov. 13]

- **The Canadian Chemical Producers' Association (CCPA) reports on Vulnerability Security Assessments for the chemical sector**

The CCPA reports that Vulnerability Security Assessments for the chemical sector are completed for Tier 1 and 2 sites, sites most attractive as terrorist targets. Assessments for tier 3 and 4 sites will be ready later this year. The addition of security aspects to trucker and rail carrier evaluations are underway in conjunction with Transport Canada and the Railway Association of Canada. A Product Stewardship Guide that covers the assurance that chemical products are designed, marketed, purchased and used in ways that protect people and the environment over their life cycles is being prepared and will be released. A multi-level Security Threat Plan preparedness template is currently being developed for member company use. Members can obtain more information from the member-only CCPA Security Bulletin.

Ontario Establishes Committee to Oversee Sector Working Groups

The Ontario Critical Infrastructure Assurance Committee (OCIAC), part of the provincial critical infrastructure program, is being established as a steering committee to oversee the coordination and development of eight sector working groups of the Ontario Critical Infrastructure Assurance Program. The first meeting is planned for February, 2004. The NCIAP Regional Coordinator for Ontario attends this committee in an advisory capacity.

An Ontario critical infrastructure workshop took place on November 5, 2003 with provincial ministry representatives and federal department counterparts. The purpose of the workshop was to maintain a focus on critical infrastructure as part of the provincial emergency management program. This was the second occasion for provincial and federal counterparts to meet before the inaugural meetings of the eight sector working groups expected early this year.

International

- **Interim Report of the Canada-U.S. Task Force on the Blackout**

The Interim Report of the Canada-U.S. Task Force on the Blackout was released on 19 November 2003. The Interim Report assesses conditions on the electric transmission grid that contributed to the blackout; outlines the actual physical causes of the outage; and discusses events and conditions that allowed the blackout to spread.

The Interim Report sets the stage for subsequent phases in the process – the development of recommendations aimed at reducing the possibility of future outages and bolstering the reliability of the electricity infrastructure.

- **The U.S. Federal Energy Regulatory Commission (FERC) assures power grid reliability**

On December 17, 2003 the U.S. FERC directed staff to develop an order that will require transmission system operators to report violations of the industry's power-grid reliability standards. The pending order marks the first step in FERC's exploration of its authority under existing law to assure power grid reliability in the aftermath of the August blackout.

- **U.S. Unveils National Cyber Alert System**

On 28 January 2004, the U.S. Department of Homeland Security (DHS) announced the details of a National Cyber Alert System. As part of this program, the DHS is making a series of information products available that are targeted for home users and technical experts in businesses and government agencies. These e-mail products are intended to provide timely information on computer security vulnerabilities, potential impact and action required to mitigate threats, as well as PC security "best practices" and "how to" guidance. The new National Cyber Alert System is managed by the United States Computer Emergency Readiness Team (US-CERT), a partnership between the National

Cyber-Security Division (NCSD) of the DHS and the private sector. The DHS states that the system "*provides the first infrastructure for relaying graded computer security update and warning information to all users.*" [Source: [US-CERT](#)]

Public Safety and Emergency Preparedness Canada (PSEPC) alerts and advisories are available at http://www.ocipep.gc.ca/opsprods/index_e.asp

In Other News...

- **Environment Canada's New Environmental Emergency Regulations**

Environment Canada has recently implemented new environmental emergency regulations. Under the terms of these new regulations, an environmental emergency plan will be required of all facilities that store or use listed substances at or above specified threshold quantities, in containers also exceeding the specified quantities. The primary objective for requiring environmental emergency planning is to ensure that appropriate risk management measures are adopted and implemented for hazards associated with the manufacture, storage and use of hazardous substances in Canada.

The new regulations are contained in the Canadian Environmental Protection Act (CEPA), effective November 18, 2003. For more information visit the CEPA Registry program Web site at www.ec.gc.ca/CEPARegistry.

- **More Water Inspectors for Ontario**

Ontario is hiring 20 more water inspectors to protect the province's water supply. It is also hiring six investigators, four staff for the Spills Action Centre, one scientist and two program support staff for a total of 33 new quality workers.

- **Expert Panel Looking Into SARS Makes Recommendations**

A committee of experts, established last May to identify the lessons Ontario needs to learn from SARS, calls for:

- Ontario to set up a provincial health protection and promotion agency;
- The provincial chief medical officer to report to the legislature;
- The creation of an office of health emergency preparedness within the provincial ministry of health and more infection control training for all hospital workers.

The committee's final report will be released soon.

- **Study Analyses Consequences of Storm Surge in the Charlottetown, Prince Edward Island Area**

This Charlottetown study illustrates the potential hazard to population, critical infrastructure and industry from the effects of storm surge and wind from hurricanes, tropical storms, and severe winter storms.

www.ocipep.gc.ca/research/scie_tech/natHaz/2001-D005_e.asp

- **Disaster Planning May Require Corporate Makeover**

Computerworld Canada believes disaster planning may require a corporate makeover. With a series of events affecting corporate Canada over the past several months, from SARS and the Ontario blackout to attacks from SoBig and Blaster worms, companies are intensifying their disaster preparedness but finding that a siege mentality often exists between departments. For more information visit www.security.itworld.com.

- **Ontario Management Board Secretariat (MBS) Strives for Integration**

MBS is taking a holistic approach to continuity of government operations by integrating the functions of security, safety, critical infrastructure assurance and business continuity planning under the umbrella of its emergency management program. Emergency Management Ontario (EMO) staff is currently working on continuity guidelines and a training program on continuity of operations planning is being developed for delivery early this year.

- ***Thinking the Unthinkable: Security Threats, Cross-Border Implications, and Canada's Long-Term Strategies***

This paper, by Danielle Goldfarb of the CD Howe Institute, provides some policy discussions by a small group of decision makers and experts from a wide range of disciplines on recent events and border vulnerabilities. The paper highlights critical Canadian vulnerabilities including infrastructure at risk, as well as communication and information-sharing gaps in the country's national, cross-border and other international networks. Participants agreed that Canada needs a focal point for security issues to enable it to better coordinate federal activities, liaise with other levels of government, generate timely and innovative policy ideas, and interact with the U.S. and other countries. At the same time, decision makers must carefully balance security needs against other national interests.

7. What's Ahead

Selection Criteria to Identify and Rank Critical Infrastructure (CI) Assets

This paper, soon to be released, provides tools to identify and rank CI assets with the view that a common risk management process will encourage partners to address CI in a consistent way. The paper identifies five steps to identifying and ranking critical assets and proposes six impact factors.

Steps to identifying and ranking critical assets:

- 1- characterize or standardize asset
- 2- establish criticality
- 3- assess impact of the loss of an asset
- 4- assess consequence of the loss of an asset
- 5- use a rule-set to rank assets

Impact factors:

- 1- concentration of people and assets
- 2- economic impact or direct cost to the enterprise
- 3- critical infrastructure sector
- 4- interdependency or cross-sectoral impact
- 5- service delivery impact to the general economy
- 6- public confidence

Finally, a Critical Infrastructure Assessment Screening Model is proposed. PSEPC will meet with interested stakeholders and partners to review the application of the proposed criteria in this paper.

Global Business Continuity Awareness Week – March 7-13, 2004

This international initiative promotes the awareness and need for Business Continuity in the business community and beyond. A number of organizations are collaborating to ensure Canada, its businesses and citizens are prepared for a variety of events and situations.

A package designed to increase knowledge of the need for business continuity is being prepared for organizations and individuals across Canada by the event sponsors: The groups include: Business Continuity Institute (BCI), Canadian Banks, Canadian Centre for Emergency Preparedness (CCEP), Canadian Information Processing Society (CIPS), Disaster Recovery Information Exchange Canada (DRIE), Disaster Recovery Institute – Canada (DRI), Emergency Preparedness for Industry and Commerce Council (EPICC), and Information Systems Security Association (ISSA), Toronto Chapter.

8. Questions, Comments and Suggestions

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