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Changing Cargo Security Requirements

January 17th, 2003

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Table of Contents

- 1.0** Two Inter-dependant Economies
- 2.0** Customs Container Security Initiative
- 3.0** Hazardous Materials Transportation Security

Appendices

- A.** *Defence of North America: A Canadian Responsibility: Report of the Standing Committee on National Security and Defence, September 2002 (Canada)*
- B.** *Letter from Canadian International Freight Forwarders Association to U.S. Customs Service re changes to Advanced Detailed Manifest, August 15th, 2002*
- C.** *Presentation of Vessel Cargo Declaration to Customs before Cargo is Laden Aboard Vessel at Foreign Port for Transport to the United States, Customs Service, Department of Treasury 19 C.F.R. Parts 4, 113, and 178 T.D. 02-62; RIN 1515-AD11, 67 Fed. Reg. 66318. Summary only.*
- D.** *VACIS- A Safe, Reliable and Cost Effective Cargo Inspection Technology, Port Technology International*
- E.** *Hazardous Materials: Security Requirements for Offerors and Transporters of Hazardous Materials, Federal Register: May 2, 2002 (Volume 67, Number 85), U.S. D.O.T., Research and Special Programs Administration.*
- F.** *Terrorism in Transportation: Implications for Dangerous Goods Emergency Response Planning, P. Arthur, Transport Canada Dangerous Goods Newsletter, Summer 2002, Vol. 22 #1.*

Changing Security Requirements and Cargo Security

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1.0 Two Inter-dependant Economies

"Latest figures compiled from Statistics Canada, Department of Foreign Affairs and International Trade and Industry Canada present a clear picture of interdependent Canadian-U.S. economies. Canada is the world's sixth largest exporter of goods with a 4 per cent share of the world's exports, and the sixth largest importer. Canada and the United States share the largest and most comprehensive trading relationship in the world. Approximately \$2 billion in goods and services cross the border each day. The two countries are each other's largest customers and biggest suppliers. 86 per cent of Canadian goods exports go to the United States, while 23 per cent of the goods imported by the United States come from Canada.

In the year 2000 Canadians bought more U.S. goods than Mexico and Japan combined. In fact, Canada is a larger market for U.S. goods than all of the countries of the European Union combined and a larger market than all of Latin America. Canada is the primary trading partner of 38 States – for example, Ohio's trade with Canada exceeds the total trade between the U.S. and China and the state of Georgia sells more to Canada than the whole of the U.S. sells to either Italy or France." ¹

¹ *Defence of North America: A Canadian Responsibility: Report of the Standing Committee on National Security and Defence*, September 2002, page 27, Appendix A.

2.0 Customs Container Security Initiative

Important Statistics

	2001
Global Movement of Containers Between Ports	200,000,000
Percentage of World Cargo Moving by Container	90%
Vessels Processed by U.S. Customs	214,000
Sea Containers Processed by U.S. Customs	5,700,000
No. of U.S. Ports of Entry	301
Value of Imported Goods Through 301 U.S. ports of entry	\$1.2 trillion
# of U.S. Seaports	102
Percentage of U.S. Trade by Value by ship	50%

The Customs Container Security Initiative is a proactive stance by U.S. Customs in screening sea containers before they reach the United States in an effort to secure the borders against dangers that might be introduced through commercial traffic.

The Customs Container Security Initiative consists of four core elements:

- a) establishing criteria to identify high-risk containers;
- b) pre-screening those high risk containers before they arrive at U.S. ports;
- c) using technology to quickly pre-screen high risk containers; and
- d) developing and using smart and secure containers.

The fundamental objective of the CSI is to first engage the ports that send the highest volumes of container traffic into the United States.

Top 20 Foreign Ports - Container Traffic to U.S.A.

	Port	# Containers for U.S.	CSI Agreement
1.	Hong Kong	560,000	September 23, 2002
2.	Shanghai, China	330,000	October 25, 2002
3.	Singapore	330,000	June 4th, 2002
4.	Kaohsiung, China	318,000	October 25, 2002
5.	Rotterdam, Netherlands	291,000	June 25th, 2002
6.	Pusan, South Korea	284,000	
7.	Bremerhaven, Germany	257,000	August 1, 2002
8.	Tokyo, Japan	159,000	September 26, 2002
9.	Genoa, Italy	119,000	
10.	Yantian, China	114,000	October 25, 2002
11.	Antwerp, Belgium	115,000	June 26th, 2002
12.	Nagoya, Japan	108,300	September 26, 2002
13.	Le Havre, France	108,300	June 28th, 2002
14.	Hamburg, Germany	103,000	August 1, 2002
15.	La Spezia, Italy	96,700	November 7, 2002
16.	Felixstowe, U.K.	96,700	
17.	Algerciras, Spain	91,000	
18.	Kobe, Japan	91,000	September 26, 2002
19.	Yokohama, Japan	85,300	September 26, 2002
20.	Laem Chabang, Thailand	79,500	
	Halifax, Montreal, Vancouver	500,000	April 3, 2002

On April 3, 2002 the Canadian Customs and Revenue Agency agreed to the exchange of inspectors at seaports to pre-screen containerized cargo.

Many ports have agreed to the placement of a small team of U.S. Customs inspectors to pre-screen and target high risk-containers bound for the U.S.

The bulk of inspections is done by screening of container manifests while only a small percentage (2-10%) of containers are physically inspected. On October 31st, 2001 the U.S. Customs Service issued its final regulations governing the manifesting of shipments prior to loading at the foreign port.² The rules essentially require carriers and NVOCC's to provide Customs with container manifests (which provide information on the shipper, consignee and contents of the container) twenty four hours prior to the loading of the container on board the vessel. The goal is to have these manifests sent electronically to customs for review while the vessel is at sea. Notice of the proposed rules was given on August 8th, 2002 and comments were invited. See Appendix B for the comments provided by the Canadian International Freight Forwarders Association to U.S. Customs. The rules took effect on December 2nd, 2002.

For containers that are targeted for inspection either as a result of manifest reviews or random checks new technologies are being implemented to facilitate the procedure. Vancouver has already made a large investment in the necessary technology. It is the first Canadian port to introduce gamma ray technology to inspect containers. Commissioned in January at a cost of \$2.5 million, this is an investment which may prove necessary for all major container ports.

The VACIS II system (Vehicle and Cargo Inspection System)³ is a truck-mounted gamma ray generator unit with a receiver mounted on a hydraulic arm. The arms straddle a container, which can be driven through on a trailer, or the VACIS can roll past a stationary container. The equipment uses a low-level radiation source to penetrate the vehicles and their cargo. Canada Customs inspection officers will operate the equipment at three container terminals, Deltaport, Centerm and Vanterm.

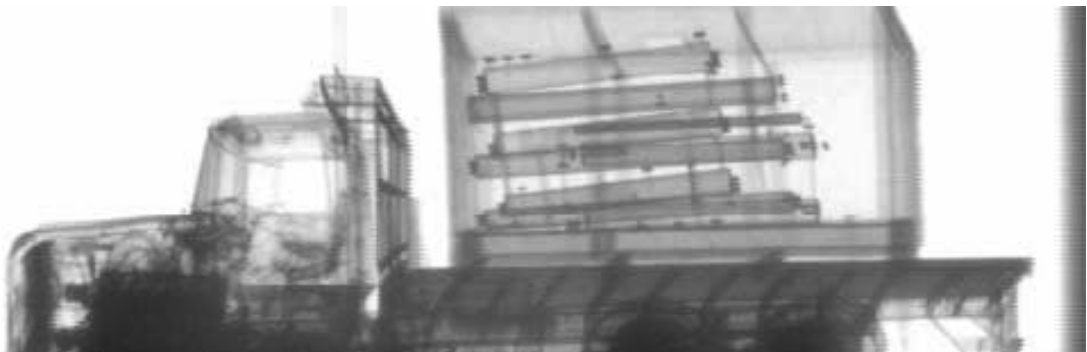
² *Presentation of Vessel Cargo Declaration to Customs before Cargo is Laden Aboard Vessel at Foreign Port for Transport to the United States*, Customs Service, Department of Treasury 19 C.F.R. Parts 4, 113, and 178 T.D. 02-62; RIN 1515-AD11, 67 Fed. Reg. 66318. See TAB C.

³ See *VACIS- A Safe, Reliable and Cost Effective Cargo Inspection Technology*, Port Technology International, <http://www.porttechnology.org/vacis.pdf> - See TAB D.

It is expected that the mobile gamma ray technology will increase the number of containers that can be thoroughly inspected. It permits operators to view radiographic images of the containerized goods on a computer to quickly identify hidden compartments to determine if commercial cargo is consistent with the declared manifest.



Data can then be saved, transmitted and shared with other agencies responsible for cargo verification. Once scanned, the containers are sealed and tracked to their final destination.



The next step will be to develop secure and "smart" containers.

3.0 Hazardous Materials Transportation Security

The U.S. Department of Transportation (DOT) is responsible for ensuring the safety of the public from the inherent risk associated with transporting hazardous materials. The Research and Special Programs Administration (RSPA) coordinates the Department's multi-modal hazardous materials transportation safety program.

The RSPA issues the Hazardous Materials Regulations (HMR), 49 CFR Parts 171-180, governing the packaging and safe transportation of hazardous materials by air, highway, rail, and water. RSPA promotes regulations, outreach and compliance, deals with alternative to regulations and preparedness and response.

There are over 800,000 shipments daily, and 2 billion tons of hazardous materials transported annually in the United States.

- 50,000+ Gasoline Cargo Tanks in Service
- 35,000+ Propane Trucks in Service
- 200,000+ Railroad Tank Cars in Service
- 770,000 (96%) Shipments Move by Truck
- 69% of All Tonnage Moved by Highway
- 24% of All Tonnage Moved by Water
- 7% of All Tonnage Moved by Rail

In the wrong hands, hazardous materials pose a threat. The areas of vulnerability include: Ports, En route land and sea transportation, terminals, warehouses, and distribution centers.

As a result of the terrorist attacks of September 11, 2001, and subsequent threats related to biological and other hazardous materials, the RSPA undertook a broad review of government and industry hazardous materials transportation safety and security programs. As part of this review, RSPA established the Hazardous Materials Direct Action Group (Hazmat DAG). The Hazmat DAG met with

representatives of the hazardous materials industry, emergency response community, and state governments to discuss transportation security issues in the wake of the September 11 attacks and continuing terrorist threats. In addition, RSPA created a DOT Intermodal Hazardous Materials Transportation Security Task Force, which considered attack or sabotage vulnerabilities, existing security measures, and potential ways to reduce vulnerabilities. The Task Force included representatives from the Federal Motor Carrier Safety Administration, Federal Railroad Administration, Federal Aviation Administration, U.S. Coast Guard (USCG), and Office of the Secretary.

Based in part on discussions in the Hazmat DAG and on the results of the Task Force review, on February 14, 2002, RSPA published an advisory notice to inform shippers and carriers of voluntary measures to enhance the security of hazardous materials shipments during transportation (67 FR 6963). These measures included:

Personnel Security

- Ensure detailed background checks have been performed
- Verify U.S. citizenship/immigration status
- Conduct personal Interviews
- Report any suspicious activity to the FBI

Hazardous Materials and Package Controls

- Facility grounds lighted
- HM secured in buildings of fenced enclosure
- Controlled access to HM storage
- Check locks and other protective measures
- Record removal of HM from facility
- Ensure adequate alarms and other security systems
- Driver awareness
- Guards or security personnel as required
- Develop control procedures for HM packages
- Conduct security spot checks
- Do not accept suspicious shipments

- Be conscious of your consignors and consignees
- Be familiar with vendors (suppliers, contractors, housekeeping etc.) that service your facility

En Route Security

- Avoid high population centers to the extent possible
- Use alternate routes where practical to avoid high population areas
- Deliver HM expeditiously
- Instruct drivers to lock vehicles when parked
- Avoid tunnel and bridges where possible
- Review parking and attendance rules in 49 CFR Part 397
- Consider a guard if appropriate

Technical Innovations

- Consider the use of cell phones, GPS and other technical innovations
- Utilize state of the art locks and seals
- Utilize tamper-proof locking devices for 5th wheel
- Utilize blanket type alarm systems
- Utilize electronic engine controls with security system

Management Prerogatives

- Consider finger printing and photographing
- Protect against personal identity theft
- Perform criminal background checks
- Implement security training

Communications

- Develop communication network with others in the industry
- Develop a means of contacting key personnel in cases of emergency
- Insure widest distribution of security related information to employees

On May 2nd, 2002 RSPA published a notice of proposed rulemaking for security requirements for shippers and transporters of hazardous materials.⁴ The RSPA is proposing new requirements to enhance the security of hazardous materials transported in commerce. Proposals include a requirement for motor carriers registered with the agency to maintain a copy of their current registration certificate on each motor vehicle. The RSPA further propose to require shipping papers to include the name and address of the consignor and consignee and the shipper's DOT Hazmat Registration number, if applicable. In addition, the RSPA propose to require shippers and carriers of certain highly hazardous materials to develop and implement security plans. The RSPA also propose to require hazardous materials shippers and carriers to assure that their employee training includes a security component.

In Canada the Transportation of Dangerous Goods Act, 1992 regulates the identification and classification of dangerous goods, the handling of dangerous goods, the training required for every person handling dangerous goods and the remedies and penalties for violation.

In Canada there has not been an overall agency that has taken on the role of providing advise as has the RSPA. Transport Canada has recognized the need for improved security but as yet has not developed an initiative similar to the RSPA.⁵ Individual government authorities have however taken steps to upgrade security in certain areas. Following September 11, 2001 the Canadian Nuclear Safety Commission took steps to require licensees to initiate enhanced security measures at their sites. These measures included:

- providing a capability for immediate armed response on site.
- enhanced security screening of employees and contractors
- protection against forced vehicle penetration of the Protected Area

⁴ *Hazardous Materials: Security Requirements for Offerors and Transporters of Hazardous Materials*, Federal Register: May 2, 2002 (RSPA-02-12064 (HM-232] RIN 2137-AD66, 49 CFR Parts 107, 171, 172, and 177.

⁵ *Terrorism in Transportation: Implications for Dangerous Goods Emergency Response Planning*, Transport Canada Dangerous Goods Newsletter, Summer 2002, Vol. 22 #1.

- improved physical identification checks of personnel
- searching of personnel and vehicles.

CNSC continue to assess the measures taken by conducting site audits and evaluations to ensure appropriate security measures are in place.

Appendix A

Defence of North America: A Canadian Responsibility

Report of the Standing Senate Committee on National Security and Defence

Chair

The Honourable Colin Kenny

Deputy Chair

The Honourable J. Michael Forrestall

September 2002

MEMBERSHIP

37th Parliament - 1st Session

THE STANDING SENATE COMMITTEE ON NATIONAL SECURITY AND DEFENCE

The Honourable Colin Kenny, *Chair*

The Honourable J. Michael Forrestall, *Deputy Chair*

And

The Honourable Senators:

- Atkins
- Banks
- *Carstairs, P.C. (or Robichaud, P.C.)
- Cordy
- Day
- LaPierre
- *Lynch-Staunton (or Kinsella)
- Meighen
- Wiebe

**Ex Officio Members*

The following Senators also served on the Committee during its study: The Honourable
Senators Baker and Taylor.

**DEFENCE OF NORTH AMERICA:
A CANADIAN RESPONSIBILITY**

TABLE OF CONTENTS

INTRODUCTION.....	5
NORAD Stands Alone.....	5
National Policy Needed.....	6
Canada's Self-Interest.....	6
Efficient Use of Resources.....	7
 PART I	
DEFENDING CANADA'S COASTS.....	9
Coastal Challenges	9
Ad Hoc Policing	10
Improving Both Planning and Operational Capacity	11
 RECOMMENDATIONS:	
Defence of Canada's Territorial Waters	13
 PART II	
DEFENCE OF THE CANADIAN AND NORTH AMERICAN	
LAND MASS.....	17
The Need for Greater U.S.-Canadian Cooperation in the Training and Use of Land Forces	17
How Our Brigade and Battle Group Training Vanished	19
The Need for Joint Training in the Context of Northern Command	19

**DEFENCE OF NORTH AMERICA:
A CANADIAN RESPONSIBILITY**

RECOMMENDATIONS:

Defence of Canada and North America.....	21
---	-----------

PART III

THE IMPERATIVES FOR CHANGE.....	23
--	-----------

A The Threat to Canada.....	23
------------------------------------	-----------

B. The NORAD Example.....	24
----------------------------------	-----------

C. The Intelligent Use of America In the Defence of Canada..	26
Security Implications	26

D Defending Two Big Countries, One Huge Economy	27
--	-----------

APPENDICES

APPENDIX I NORAD	29
-----------------------------	-----------

APPENDIX II THE UNIFIED COMMAND STRUCTURE OF THE UNITED STATES MILITARY	33
--	-----------

APPENDIX III CANADA – UNITED STATES DEFENCE RELATIONS	39
--	-----------

APPENDIX IV ORDER OF REFERENCE	43
---	-----------

APPENDIX V WHO THE COMMITTEE HEARD FROM	45
--	-----------

APPENDIX VI ORGANIZATIONS APPEARING BEFORE THE COMMITTEE	59
---	-----------

APPENDIX VII EXHIBITS	61
----------------------------------	-----------

**DEFENCE OF NORTH AMERICA:
A CANADIAN RESPONSIBILITY**

APPENDIX VIII	
STATISTICS ON COMMITTEE ACTIVITIES	65
APPENDIX IX	
MEDIA ACTIVITIES	67
APPENDIX X	
BIOGRAPHIES OF MEMBERS OF THE COMMITTEE	69
APPENDIX XI	
BIOGRAPHIES OF THE COMMITTEE SECRETARIAT	91
APPENDIX XII	
INDEX TO REPORT	99

DEFENCE OF NORTH AMERICA: A CANADIAN RESPONSIBILITY

Report of the Senate Standing Committee on National Security and Defence

INTRODUCTION

In February, 2002, the Standing Senate Committee on National Security and Defence brought down a report that documented the severe underfunding of Canada's Armed forces that is leading to a lack of military preparedness. The report also detailed the lack of adequate security at Canadian air and sea ports. Since then the Committee has continued to conduct examinations and hear witnesses, and at this juncture has decided to release this report, which focuses on two current issues we deem worthy of more specific focus:

The need for the Government of Canada to act quickly to improve the tracking of ships approaching Canadian territorial waters and moving within those waters.

The need for the Government of Canada to act quickly to better prepare Canadian soldiers to act collectively with U.S. or NATO troops in the defence of North America.

NORAD Stands Alone

The Committee notes that the North American Aerospace Defence Command (NORAD), the Canada-U.S. military partnership designed primarily for defence of North America's air space, has successfully filled the need for quick joint reactions to threats to North America from the air (for instance, NORAD was quick to respond to the events of September 11, 2001, with a Canadian officer in command that day at Colorado Springs).

The Committee further notes that no satisfactory joint mechanisms exist between the two countries in the areas of maritime and land defence. Whether a mechanism as deeply integrated as the one provided by NORAD for air defence is necessary in the fields of maritime and land defence remains a matter of debate.

DEFENCE OF NORTH AMERICA: A CANADIAN RESPONSIBILITY

National Policy Needed

It is clear to the Committee, however, that Canada needs to move with some urgency to upgrade the defence of its territorial waters, and that upgrading should include cooperative planning and cooperation with the United States, with the ability to conduct joint operations in cases of emergency.

It is also conceivable that joint operations could be required on land. Canada and the United States should be engaged in joint training of land troops up to and including the brigade level, a practice that has been abandoned during the last decade for a variety of unsatisfactory reasons. Such training is imperative given the dimension of the common threat to the two countries, amply demonstrated by the events of September 11.

Canada's Self-Interest

The Committee's recommendations are based on Canada's self-interest. Canada's military vision must be focused on optimizing the safety and security of 31 million Canadians. However those Canadians, in turn, recognize that their own security depends to a large extent on world security, and particularly the security of North America. Canadians cannot be safe on a globe in disarray, and most certainly would not be safe on a continent in disarray.

While some of the Committee's recommendations apply strictly to Canada's own capacity to defend Canadian territory, other recommendations advocate the enhancement of Canada's current level of military cooperation with the United States. While such cooperation within Canada's overall commitment to collective security has constituted one of the primary pillars of Canadian defence strategy for many decades now, any suggestion that military bonds be strengthened invariably raises questions as to whether Canada's political integrity might somehow be weakened because of this.

It should therefore be emphasized that the recommendations of this Report were predicated on a narrow focus on Canada's national interests, not the wishes of decision-makers in Washington or anywhere else. As members of the Parliament of Canada, it is our primary mandate to promote the well being of Canadians, and the capacity of the Government of Canada to sustain Canadians within a strong and independent nation.

DEFENCE OF NORTH AMERICA: A CANADIAN RESPONSIBILITY

Efficient Use of Resources

It is the view of the members of our Committee that in order to maximize that national capacity, the Government must make intelligent and calculated use of all resources available to it. This includes making prudent use of Canada's proximity to the military strength of the world's one remaining superpower – a nation with which we share both a continent and common enemies.

Lieutenant-General George Macdonald, Vice Chief of Defence Staff, Canadian Forces, told the Committee that Canada and the United States need at least to consider the expansion of the kind of cooperation the two countries engage in the realm of air defence under NORAD to operations at sea and on land.

In later testimony, both LGen Macdonald and Jill Sinclair, Acting Assistant Deputy Minister for Security and Policy at the Department of Foreign Affairs and International Trade, testified that the federal government is not planning any kind of NORAD mechanism for maritime or land operations. In fact, Ms. Sinclair told the Committee that the government is restricting its vision to planning and coordination in these areas and might not make any improvements at all. She said that, at most, interested government departments were looking at "modest, practical measures that may – or may not – be required to enhance existing capacities and capabilities."

The Committee believes that tighter coordination of Canadian and U.S. resources is required. Certainly Committee members strongly disagree with the notion that greater continental coordination of coastal policing and/or use of land troops "may not" be needed. It is needed, and our recommendations reflect that fact.

On the broader issue of greater Canadian-American cooperation in defence of the North American continent, Committee members are convinced that measured expansion of Canada's military partnership with the United States is likely to improve the consultative process between the two countries. It is also likely to make unilateral American military action in defence of the North American continent less probable than it might otherwise be.

**DEFENCE OF NORTH AMERICA:
A CANADIAN RESPONSIBILITY**

PART I

DEFENDING CANADA'S COASTS

Canada's thousands of kilometers of ocean coastline and hundreds of ports combine to make it difficult for Canadian authorities to prevent unauthorized landings. Traditionally, the problem has been countering the smuggling of goods. The additional problem of the smuggling of illegal aliens has become more significant in recent years.

Since September 11, it has become evident that Canada is also faced with the possible incursion of terrorists and weapons of mass destruction. There should be, and must be, a new dimension to protecting Canada's coastlines and waterways.

The technology now exists to allow Canadian authorities to be more prepared for any unwanted vessel approaching Canadian waters. Canada's capacity to interdict these vessels should be upgraded immediately through improved coordination and more stringent reporting regulations.

Coastal Challenges

It is clear that there cannot be an official representing the Government of Canada at every port or cove. The Committee heard testimony that an honour system of customs reporting applies at most remote parts of Canada's coastline. Of course, it is unlikely that smugglers and would-be terrorists would choose to report.

Effective monitoring of Canada's long and jagged coastlines against untoward behaviour depends upon acquiring as much intelligence as possible concerning "vessels of interest" before these ships enter Canadian waters, and while they are moving through them.

In principle, Canadian authorities are supposed to be informed of major sea shipments destined to arrive at Canadian ports from foreign ports of departure. The system in place is voluntary, however. While it appears to work relatively well with regard to major shipping companies, even then it is not always reliable. It becomes ineffective, for instance, if the captain of a particular ship decides not to follow his declared route.

DEFENCE OF NORTH AMERICA: A CANADIAN RESPONSIBILITY

Ships from smaller organizations often do not follow the departure port reporting procedure, and their arrival in Canadian waters often comes as a surprise. And of course, vessels involved in smuggling or terrorism are unlikely to be any more interested in report procedures than they are in voluntary customs declarations.

Ad Hoc Policing

Canada does, of course, police its coastlines at some spots. In both Halifax and Victoria, a Canadian Forces ship is kept in high readiness, prepared to react as necessary. But these are exceptions. Vice Admiral Ron Buck, Commander of the Canadian Navy, testified that while patrols "provide the physical units to take action," they are expensive within the context of Canada's tight military budget.

Canadian Forces Aurora aircraft conduct airborne patrols over logical avenues of approach to Canada on a regular basis, but not on a daily basis.

From time to time, in areas that straddle U.S. and Canadian waters, Canadian ships and aircraft act jointly with U.S. planes and vessels if there is uncertainty as to exactly where approaching vessels are headed. Since Sept. 11, 2001, the U.S. Coast Guard has been tasked to monitor out to its 200-mile territorial limit, with the U.S. Navy responsible for interdiction beyond that range. U.S. military authorities will often inform Canadian counterparts when it appears that a "target of interest" is headed for Canadian waters.

The Royal Canadian Mounted Police, Immigration Canada, Fisheries Canada and the Canadian Customs and Revenue Agency all possess at least limited capacity to interdict incoming and outgoing vessels. Light aircraft occasionally patrol coasts in search of illegal activity. There is some coordination among the departments of the Government of Canada, but no master plan or policy for liaison between various operations centres exists. Pursuit of suspect vessels is done on risk analysis based on available intelligence. When more than one agency or country is involved, coordination takes place on an *ad hoc* basis.

DEFENCE OF NORTH AMERICA: A CANADIAN RESPONSIBILITY

Improving Both Planning and Operational Capacity

Vice-Admiral Buck testified that he is pleased with improved coastal cooperation between Canadian and American authorities since Sept. 11 – as well as among Canadian government departments and agencies – in policing North American coastlines. However, he supports LGen Macdonald who told the Committee that “we have envisaged the establishment of a binational planning and monitoring group to address land and maritime threats.” The Committee’s recommendations reflect the Committee’s belief that there should indeed be both more cooperation on the planning and coordination front, but also on the operational front.

LGen Macdonald did indicate to the Committee that planning and coordination could be followed by joint operations in an emergency. He told us that:

One of the benefits from the planning and monitoring group that we have discussed is to hopefully identify scenarios where that sort of [operational] cooperation would be required and to facilitate the protocols or the process or the plan to enable it to occur on a relatively quick basis so that if there was a requirement for armed forces to cross a border, one way or the other, there would be a mechanism in place to allow them to decide “this is scenario No. 9. This is the contingency. This is what we thought we might do. Do we agree that is what we will do? Fine, let us put that in place.”

The Committee agrees with LGen Macdonald that contingencies should be anticipated in which joint Canadian-U.S. operations are required.

The Committee cannot overemphasize its conviction that live joint Canadian - U.S. training should be conducted in advance of any such deployment to assure familiarity with each nation’s equipment, procedures, and procedures for command and control. This would minimize the risks of both failure and casualties.

**DEFENCE OF NORTH AMERICA:
A CANADIAN RESPONSIBILITY**

RECOMMENDATIONS:

Defence of Canada's Territorial Waters

The Committee believes that the Government of Canada has a responsibility to end the fragmented and largely *ad hoc* defence of Canada's coastlines. The Committee recommends that the Government formulate a National Policy designed to better secure our Atlantic, Pacific and Great Lakes coastlines. Such a Policy would include joint Canada-U.S. planning and coordination units for the continent's East and West coasts, and more stringent monitoring and reporting requirements for vessels planning to enter Canadian waters.

**WITH REGARD TO IMPROVED DEFENCE OF CANADA'S
TERRITORIAL WATERS, THE COMMITTEE RECOMMENDS:**

1. Adoption of a layered approach of reporting and monitoring to provide timely warning of vessels approaching Canadian waters;
2. The Coordination of all Canadian resources – including Navy, Coast Guard, Air Force, Army, Citizenship and Immigration Canada, Canada Customs and Revenue Agency, police forces and agencies responsible for intelligence and satellite surveillance – to improve defence of Canada's coastlines;
3. Greater cooperation and coordination with U.S. counterparts.

THE COMMITTEE SPECIFICALLY RECOMMENDS:

1. The establishment of a Canadian-U.S. joint operational planning group that would include representatives of the Canadian Navy, the Canadian Coast Guard, the U.S. Navy and the U.S. Coast Guard. This unit of approximately 50 people should be located at Colorado Springs, in proximity to NORAD planning staff;

DEFENCE OF NORTH AMERICA: A CANADIAN RESPONSIBILITY

- 2. Effective coordination and utilization of the numerous monitoring resources such as: Shipping position reporting system, Canadian Navy assets to include the Maritime Coastal Defence Vessels and Canadian Patrol Frigates, satellite tracking resources, routine Aurora flights, Department of Fisheries and Oceans patrols and intelligence, the Canadian Coast Guard patrols and intelligence and the Royal Canadian Mounted Police patrols and intelligence;**
- 3. Establishment of multi-departmental operations centres at Halifax and Esquimalt capable of collecting and analyzing shipping intelligence to provide a combined operational picture for all government agencies that deal with incoming vessels; to address coastal threats to North America, while designing procedures to deal with all anticipated threats;**
- 4. That Canada negotiate reciprocal arrangements with other Maritime nations to provide notice to one another when vessels are departing for each other's territorial waters;**
- 5. Mandatory reporting procedures whereby all vessels (of a displacement to be determined by Canadian regulators) planning to enter Canadian waters be required to report from their departure harbour as to their Canadian destination and estimated time of arrival, with periodic updates during their voyage and upon arrival;**
- 6. A requirement that all vessels (of a displacement to be determined by Canadian regulators) planning to enter a Canadian port notify Canadian port authorities 48 hours prior to arrival;**
- 7. A requirement that vessels (of a displacement to be determined by Canadian regulators) intending to enter Canadian waters be equipped with transponders to permit electronic tracking of all approaching vessels;**

**DEFENCE OF NORTH AMERICA:
A CANADIAN RESPONSIBILITY**

- 8. New security measures on the Great Lakes including:**
- i. Mandatory reporting for all vessels (of a displacement to be determined by Canadian regulators) to Canadian authorities 24 hours prior to anticipated entry into Canadian Great Lakes ports;**
 - ii. All vessels (of a displacement to be determined by Canadian regulators) intending to operate in the Great Lakes region be equipped with transponders to permit electronic tracking by Canadian authorities. This requirement would have the added benefit of greatly improving the precision of search and rescue;**
 - iii. Mandatory daily reporting to Canadian authorities for all vessels (of a displacement to be determined by Canadian regulators) operating in Canadian national waters;**
 - iv. Canada's Great Lakes reporting stations will be responsible for receipt and coordination of these reports and for communication with policing agencies.**

DEFENCE OF NORTH AMERICA: A CANADIAN RESPONSIBILITY

PART II

DEFENCE OF THE CANADIAN AND NORTH AMERICAN LAND MASS

Canada does not have large standing armed forces, nor are its forces well-equipped. Despite its responsibility to defend the second-largest land mass in the world, Canada ranks 17th out of 19 NATO countries in defence spending as a percentage of GDP, putting it ahead of only Luxembourg (18th), and Iceland (19th).

To sustain the level of national tasking it has been assigned over the past eight years, the Canadian forces should have been operating with 75,000 trained personnel. The present trained effective strength of the Canadian Forces – about 54,000 – is well below even the government's mandated level of 60,000.

The Need for Greater U.S.-Canadian Cooperation in the Training and Use of Land Forces

Lieutenant-General Michael Jeffery, Chief of Land Staff, Canadian Forces, told the Committee that if Canadian ground troops are going to be adequately prepared for large-scale combat in conjunction with the forces of other nations, there is a desperate need for collective training at the battle group and brigade level of operations.

LGen Jeffery laid much of the blame for the lack of such training in recent years to the frantic tempo at which Canadian Forces troops have been deployed on missions abroad:

It is my firm belief that we must do more battle group and brigade level training. It is only by undertaking training at that level that you practice all the skills and develop the expertise to maintain the type of quality we have had . . . in places like Afghanistan in the past. It has been in the order of ten years since the Canadian army has done any significant training at the brigade level. Over time you lose that skill, that expertise. One of the major challenges for us, given our tempo

DEFENCE OF NORTH AMERICA: A CANADIAN RESPONSIBILITY

and resources, is to get a regular training regime that ensures that, over time, all parts of the army achieve training at both the battle group and, ultimately, the brigade level to maintain that expertise over the long term. That is an extremely important part of what we do. Without it, all that human and equipment investment is, in my view, largely for naught. Without that training you do not have capability, you just have organizations.

British troops continue to train at the battle group level, and occasionally at the brigade level, at the training site they sponsor at Suffield, AB. LGen Jeffery testified that because the Canadian Forces have been so heavily tasked within the confines of their current budget, they have not been able to join the British in these live exercises.

If Canadians are going to play a major role in the defence of both Canada, specifically, and North America, generally, they should be training at this high level with U.S. Army troops. But LGen Jeffery said that his U.S. counterpart has been forced to turn down large-scale Canadian participation in joint training exercises at U.S. locations, indeed with all of its allies, because the Americans feel they do not even have the capacity to give their own troops all the training they require at this level.

LGen Jeffery said that the Americans have left open the possibility of *quid pro quo* large-scale joint training exercises on either U.S. or Canadian soil when the Canadian Manoeuvre Training Centre is opened at Wainwright, Alberta. In further discussion with high-level U.S. authorities the possibility of reciprocal training was confirmed.

The training centre, which will use laser technology on all weapons, coupled with state of the art recording and data analysis equipment to conduct force on force engagements, is scheduled to open in 2004. While the Canadian Manoeuvre Training Centre is currently listed as a funded Canadian Forces budget item, its construction has not yet been contracted. It remains vulnerable to the kind of belt-tightening that has been endemic to Canadian military spending in recent years.

One of the advantages of operating within the NATO security cooperative used to be that troops from NATO countries were regularly involved in joint training exercises, particularly while U.S. and Canadian troops were stationed in Western Europe from 1953 to 1993. Canadian

DEFENCE OF NORTH AMERICA: A CANADIAN RESPONSIBILITY

troops became interoperable with all NATO allies, particularly with the armies located in southern Germany, which included U.S., German and French land forces. At least one major multinational exercise with land and air forces took place each year.

How Our Brigade and Battle Group Training Vanished

All this presented excellent cohesion among NATO forces, and Canadian troops were well prepared for the kind of coalition operations that make a relatively small army much more effective working within a team than it would be standing on its own. The withdrawal of forces from Germany in 1993 ended this joint training opportunity for the Canadian land forces.

Before the decline in DND's budget, the Canadian Forces conducted their own national collective training on a regular basis. Training with U.S. forces was conducted at the unit and occasionally at the brigade level. Budget cuts, coupled with the assignment of onerous peacekeeping duties abroad, resulted in postponement/cancellation of most collective training, even among branches of the Canadian Forces themselves.

Although the value of collective training is still recognized in principle, Canadian land forces have not mounted any live collective training at the battle group level and beyond since 1993.

To enhance overall interoperability to conduct coalition and/or joint operations, there is now a clear need for Canadian troops to train with U.S. forces. Improvements in U.S. military technology continues to outstrip that of its allies.

The Need for Joint Training in the Context of Northern Command

Northern Command, scheduled to come on stream on October 1, 2002, will be a U.S. command unit designed to coordinate American military resources in the defence of North America. Designated for "homeland" defence, NORTHCOM will be one of five global geographic commands designed to coordinate and deploy whatever American air, sea and land operational capabilities are deemed to be required in any given emergency. As described by U.S. authorities, this command will extend

DEFENCE OF NORTH AMERICA: A CANADIAN RESPONSIBILITY

“from Alaska and includes all of the territory of North America including support to Canada, extending across the U.S. homeland, and south to northern Caribbean and Northern Mexico.” (For more details on the Unified Command Structure of the U.S. Military, see appendix II.)

Northern Command will be a strictly U.S. organization. However, it will have the same Commander-in-Chief responsible for joint Canadian-U.S. aerospace defence under NORAD, headquartered in Colorado Springs.

The U.S. Government has made it clear that it intends to make the continent more secure, and that it will undertake this mission on its own, if need be.

The Committee heard commentary from numerous witnesses on the issue of how best to defend Canada. Among the most compelling was offered up by historian Jack Granatstein, Chair of the Council for Canadian Defence and Security in the 21st Century. Said Mr. Granatstein:

The question [of Canadian defence] . . . must be approached with realism. The U.S. is determined to improve its homeland defence and is certain to approach this subject, as it must, from a continental perspective. The news release announcing Northern Command declared its area of responsibility to be all of North America, including Canada and Mexico, and gave its commander in chief the task of “security cooperation and military coordination” with other nations. Canada thus can choose to either stand back and allow the Americans to plan for the protection of Canadian territory, or to participate in the decisions.

**DEFENCE OF NORTH AMERICA:
A CANADIAN RESPONSIBILITY**

RECOMMENDATIONS:

Defence of Canada and North America

**WITH REGARD TO LAND FORCES, THE COMMITTEE
RECOMMENDS:**

That Canada and the U.S. upgrade their joint capacity to defend North America through the use of land forces in three specific ways:

- 1. Battalion or battle group Canadian Forces training exercises – particularly those permitting Canadian and America troops to function effectively in warfare – be re-instituted as quickly as possible to permit Canada's army to work in harmony with the armies of its allies, particularly the army of the United States.**
- 2. The construction of the Canadian Manoeuvre Training Centre at Wainwright, not yet contracted and behind schedule, be expedited and that the facility be prepared for large-scale training exercises for Canadian Forces troops no later than the summer of 2004.**
- 3. A joint Canada-U.S. land force planning unit be established to allow the armies of the two neighbouring countries to plan for potential disasters, natural or otherwise, that jointly threaten both countries. This unit of approximately 25 people should also be located at Colorado Springs, in proximity to NORAD facilities and the recommended Maritime planning staff.**

**DEFENCE OF NORTH AMERICA:
A CANADIAN RESPONSIBILITY**

PART III

THE IMPERATIVES FOR CHANGE

The balance of this report will provide some of the background and analysis that led the Committee to making the recommendations listed above.

A. The Threat to Canada

Canadians are, in the main, not a bellicose people, and for many Canadians one of Canada's greatest attributes is that it has traditionally served as a haven from the tumult and troubles of the outside world. Our relative tranquility has been one of the greatest attractions to the immigrants who have helped build Canada over the years, many of whom came to Canada because of the relative calm with which most Canadians have been privileged to live their lives.

Our great blessing is also a great danger. Peaceful thinking can become passive thinking. It has been nearly 60 years since Adolph Hitler forced Canadians to recognize that one cannot always appease those committed to the downfall of one's way of life. Even after the events of September 11, there remained a sense among many Canadians that "it can't happen here," just as there was a sense among many Canadians (and Canadian political leaders) that World War I had ended all wars, and that there would never be a World War II.

They were wrong, and it would be wrong to think that Canada will never be a target for terrorists. Our lifestyle – so loathed by extremists in the Bin Laden mould – is similar to the lifestyle of Americans. Our economies are intertwined. In little over a decade these two countries have fought twice in a common cause – in the Persian Gulf and Afghanistan. Canada may not be the bull's eye in the sights of most extremists – the United States undoubtedly is. But Canada is clearly positioned as one of the inner rings on the target, and if our country is perceived to be much easier to penetrate than the United States, we will move closer to the centre.

DEFENCE OF NORTH AMERICA: A CANADIAN RESPONSIBILITY

Passivity creates two great risks to the survival and sovereignty of Canadians. The first risk is that terrorists will treat us as the soft underbelly of North America and come at all of North America through us.

The second risk is that the United States will unilaterally move to defend its security perimeter – which it primarily defines as North America – without Canadian knowledge or consent.

The Defence of North America must be as important to Canadians as it is to Americans.

B. The NORAD Example

The success of NORAD is clear evidence that Canadian sovereignty has not been and need not be compromised within the context of continental cooperation.

In the words of Dr. Kenneth J. Calder, Assistant Deputy Minister (Policy), Department of National Defence, who testified before the Committee:

... it seems to us that an arrangement with the United States or any other country that allows us to work together with them but does not in fact force us to work with them in any particular crisis ... and which does not inhibit us from acting independently, does not in fact impact on Canadian sovereignty. We would argue that is the case with NORAD. NORAD gives us a mechanism where the two countries, when they agree, can act together. It does not stop either country from acting individually and separately in the same area, the area of aerospace defence. In fact, for NORAD to function, it must have the agreement of both governments. Therefore, we would say that in fact NORAD is not any sort of diminution of our sovereignty. It is actually an exercise of our sovereignty to be involved in that operation.

NORAD is responsible for aerospace warning and control for North America. It was originally established to detect and defend against the threat of Soviet manned bombers flying over the North Pole to attack North America, but its role has evolved considerably since it was established in 1958.

DEFENCE OF NORTH AMERICA: A CANADIAN RESPONSIBILITY

Prior to September 11, NORAD was mainly responsible for targets entering North American air space and for monitoring internal special interest flights – such as those of the Prime Minister of Canada and the President of the United States. It also provides ballistic missile detection and warning for the North American continent and during the Gulf War, it provided SCUD and other short-range missile detection and warning to coalition forces in the field.

Since September 11 NORAD has taken a more active role in working with the Federal Aviation Administration in the U.S. and Transport Canada, in monitoring and intercepting suspicious flights in the North American continent. NORAD's Commander is an American, and its Deputy Commander is Canadian. Both must be approved by the National Command authorities of each country: the Prime Minister of Canada and the President of the United States. The Commander and Deputy Commander must be from different nations.

Each NORAD region across North America is set up with a similar command structure – the Commander is from the nation responsible for the region while the Deputy Commander is from the other nation.

The NORAD agreement directs continuous contact with the National Command authorities of both Canada and the United States. If a threat arises, the national command centres of both nations are contacted simultaneously. It is the responsibility of the National Command Centre to ensure that the National Command Authority is available to make decisions affecting that nation as a whole. Under normal circumstances, authority to change alert status requires the approval of each national authority. Both nations have designated predetermined scenarios where time is of the essence, for which national authority to increase alert status has been "preauthorized" to ensure that a quick response can be generated.

Canada contributes approximately 20 per cent of NORAD's total personnel while retaining its status as an equal partner in the relationship.

Canadian benefits include access to American resources such as the U.S. satellite system, as well as American command-and-control networks, intelligence systems, and the resources of the U.S. Space command, located adjacent to NORAD at Colorado Springs. [For more details on NORAD, please see Appendix I].

DEFENCE OF NORTH AMERICA: A CANADIAN RESPONSIBILITY

C. The Intelligent Use of America In the Defence of Canada

With respect to our political and military relationship with the United States, Canadians must, of course, act with great care. Canadians do not wish to march in blind support of U.S. political and/or military policy.

The trick for Canadians is – and always has been – to be savvy enough to use America without being submerged by America. Canadian leaders have generally been clever enough over the years to take clear advantage of America's powerful economy and military strength without ceding our political independence or cultural identity. There is no alternative to this prudent approach to dealing with the United States if Canadians wish to remain (a) themselves; (b) secure; and (c) prosperous. And there is no indication that they wish to abandon any of these three components of their lives.

Security Implications

Canada and the United States currently share 80 treaties and 250 memoranda of understanding on defence issues. In none of those documents does Canada agree to relinquish the right to decline to participate in any military operation that U.S. authorities might insist is in the interests of one or both countries. Nor should there ever be such an agreement. Canadians must and do guard their sovereignty with great care.

But we must also guard our sovereignty responsibly. Canada cannot abrogate its responsibility to defend itself, and to share in the defence of North America. If we are not willing to be part of the solution, American decision-makers are likely to start thinking of us as part of the problem. And, in fairness, they would be right. In simple moral terms, Canada must become more committed to the defence of North America. In simple practical terms, if we do not signal a willingness to defend the continent, its defence will be taken out of our hands.

The fact is that a weakening of the link between Canadian and U.S. forces on the ground, plus a failure to join forces to coordinate intelligence operations on serious threats to our coastlines, constitute threats to Canadian sovereignty, and to the security of Canadians.

Appendix B

August 15, 2002

U.S. Customs Service
Office of Regulations & Rulings
1300 Pennsylvania Avenue NW
Washington, D.C. 20229

Attention: Regulations Branch

Dear Sirs:

Pursuant to Federal Register Vol. 67 No. 153 dated August 8, 2002 concerning proposed changes to Customs Regulation 19 CFR Part 4, the Canadian International Freight Forwarders Association, representing 150 international freight forwarders and NVOCCs in Canada, wishes to submit its comments.

May we, at the outset, applaud the strong leadership shown by the U.S. Customs Service in its proactive response to the public concern for enhanced container and port security and to industry's concern for a continuous smooth flow of trade? Canada relies on U.S. ports for a substantial portion of its container traffic inbound and outbound and to a lesser extent, the U.S. Midwest relies on the St. Lawrence Seaway and the port of Montreal, for its trans-Atlantic container traffic. We think CSI is an important element in deterring and preventing terrorists from using containers as a means to attack. Therefore, we see the stationing of U.S. Customs agents at ports overseas as an effective way to enhance container security. We also understand that in order to complement and support CSI, there is a need for timely and meaningful information at those ports. Naturally, a detailed advance manifest information would be one way to secure the necessary information. However, we wish to bring to your attention several issues of concern and to make a suggestion for an alternative approach:

1. With regards to the proposed revision concerning the advance detailed reporting of FROB. As you know, after picking up Canadian exports at the ports of Vancouver and Halifax, container ships sail on to U.S. west coast and east coast ports respectively to pick up U.S. cargo before crossing the ocean. Similarly, prior to calling Canadian ports to discharge foreign imports, container ships may be calling U.S. ports first, depending on the rotation. §4.7(c)(4) would subject all Canadian imports and exports in which the ship also calls U.S. ports to be reported to U.S. Customs at least 24 hours before loading at Canadian ports or at overseas ports. While it should not be a problem for the ocean carrier to report a complete manifest to U.S. Customs as is the present case, the reporting of shipper and consignee names would pose a problem for the

ocean carriers. This requirement has posed a similar problem for NVOCC cargo in the United States, which is being solved by allowing the FMC licensed NVOCC to file its detailed manifest electronically with Customs under the AMS. Canadian NVOCCs and those abroad do not necessarily have FMC licenses and therefore cannot report their manifest information to U.S. Customs using the AMS. The new regulation would obligate the ocean carrier to obtain shipper and consignee names and addresses in a timely manner from foreign and Canadian freight forwarders and NVOCCs and then key this data into their systems in order for them to report it under AMS, 24 hours prior to loading, as otherwise the containers may be denied discharge and the carrier severely fined. Quite often, even with NVOCCs in the United States, the identity of the actual shipper and consignee may not be known to the NVOCC as the bill of lading may be issued to another freight forwarder, in what is known as "co-loading". For commercial reasons there is reluctance among the freight forwarders and NVOCCs to disclose shipper and consignee names to one another and to the ocean carrier.

2. In practical terms, the amount of NVOCC manifest information an ocean carrier must input into its system in order to file under AMS will be overwhelming and we think there will not be sufficient time to do so 24 hours prior to loading. A typical consolidation container of mixed commodities will have anywhere from 5 to 20 LCL consignments. Theoretically, if only 30% of a container vessel of 6,000 TEUs had consolidations, there could be 10,000 to 20,000 individual consignments on that ship. With so much information to be submitted all in one shot, 24 hours before loading, and with so many ships sailing from an overseas port on the same day and multiplied by the hundreds of ports in the world, U.S. Customs would be inundated by literally millions of bill of lading information on any given day. Given that the purpose of obtaining detailed manifest information is not for the sake of collecting information for the sake of having information but for the purpose of security screening and a *timely risk assessment of each individual shipment* and given the limited number of U.S. Customs agents stationed at ports overseas, we wonder how this proposed regulation could achieve its aim.

3. Even if all ocean carriers and non-U.S. NVOCCs were to comply with §4.7(c)(4) and make detailed advance manifest submissions, there would still be a gap of the thousands of intermodal containers from Europe that enter each week into the Midwest by rail and truck off vessels that discharge at the port of Montreal that do not call on any U.S. port and therefore 19 CFR does not apply. There are also an undeterminable number of containers manifested to Canada and re-exported intact to the U.S., off ships that do not call at U.S. ports. U.S. Customs would not have advance manifest information on these.

4. A suggestion we would like to make as an alternative to advance detailed manifest reporting is to implement a "visa" system for cargo. If travelers are pre-screened for entry into the United States by way of visas, why not for cargo also? Anybody wishing to export to the United States would make an export declaration over the Internet to U.S. Customs or at a U.S. consulate in person (such as from a high risk country). A "Unique Shipment Identification Number" or USIN would be issued upon declaration of full details of the intended shipment including the commercial letter of

credit number, if applicable, and Passport number for personal effects shipments. The ocean carrier would be required not to release any empty container to the shipper or accept cargo without the USIN reported to U.S. Customs upon booking. Shipments would proceed smoothly except for those tagged for inspection or interdiction as determined in advance by Customs, from the export declaration that was filed by the foreign shipper. A GPS device can even be placed in the empty container before leaving its depot so that the shipment could be tracked right from the outset, if considered especially high risk. By collecting export declarations in advance, background checks on a shipper or consignee can be done long before the goods are even loaded into a container for delivery to the port of loading. All that would be needed is for the ocean carrier to report the declared contents and the corresponding USIN to Customs as soon as the cargo is received for loading. Customs computers would match that information with the information on the export declaration and unless there are discrepancies or the container was tagged for specific interdiction or random inspection, everything should go smoothly. There would be no need to report actual shipper and consignee names by the ocean carrier or the NVOCC, as that information would be on the import entry, which should match the export declaration also. In any case, the shipper and consignee name given to the carrier by a terrorist would likely be phoney so the veracity of the identities could not be relied upon for security purposes. We feel that a visa system would enable Customs and counter-terrorism intelligence agencies to be able to focus limited resources on the high risk shipments while deterring terrorists. More importantly, we think it would help prevent a security bottleneck at the load ports and ensure a smooth flow of goods.

5. As most G8 nations already have a system of export declarations in place, USINs can be issued against the SEDs, for example. If a foreign country has no system for export declarations, the shipper would file one with Customs or the consulate of the country he wishes to ship to. The ideal situation would be for all shipments on all ships on all the high seas to have a USIN that is linked to a detailed export declaration on file at a nation's Customs authority and for all participating nations to share that information with each others's Customs and intelligence agencies. In the case of FROB, for example, U.S. Customs would request for a scan of the export declarations linked to the USINs issued by other countries. Likewise, other countries could do the same on USINs issued by the U.S. in a multilateral agreement through the WCO.

We hope that you find our comments useful and remain at your disposal for any clarification or additional information.

Yours very truly,
Canadian International Freight Forwarders Association

Tony Young
Chairman, Seafreight Committee

Appendix C

[Federal Register: October 31, 2002 (Volume 67, Number 211)]

[Rules and Regulations]

[Page 66318-66333]

From the Federal Register Online via GPO Access [wais.access.gpo.gov]

[DOCID:fr31oc02-6]

DEPARTMENT OF THE TREASURY

Customs Service

19 CFR Parts 4, 113 and 178

[T.D. 02-62]

RIN 1515-AD11

Presentation of Vessel Cargo Declaration to Customs Before Cargo
Is Laden Aboard Vessel at Foreign Port for Transport to the United
States

AGENCY: Customs Service, Department of the Treasury.

ACTION: Final rule.

SUMMARY: This document amends the Customs Regulations to require the advance and accurate presentation of certain manifest information prior to lading at the foreign port and to encourage the presentation of this information electronically. The document also allows a non-vessel operating common carrier (NVOCC) having an International Carrier Bond to electronically present cargo manifest information to Customs. This information is required in advance and is urgently needed in order to enable Customs to evaluate the risk of smuggling weapons of mass destruction through the use of oceangoing cargo containers before goods are loaded on vessels for importation into the United States, while, at the same time, enabling Customs to facilitate the prompt release of legitimate cargo following its arrival in the United States. Failure to provide the required information in the time period prescribed may result in the delay of a permit to unlade and/or the assessment of civil monetary penalties or claims for liquidated damages.

EFFECTIVE DATE: December 2, 2002.

FOR FURTHER INFORMATION CONTACT:

For Legal matters: Larry L. Burton, Office of Regulations and Rulings, (202-572-8724).

For National Targeting Center issues: David Tipton, (202-927-0108).

||Page 66319||

For Container Security Initiatives: Adam Wysocki, (202-927-0724).

For Trade Compliance issues: Kimberly Nott, (202-927-0042).

SUPPLEMENTARY INFORMATION:

Background

The Customs laws impose certain requirements upon vessels that will arrive in the United States to discharge their cargo. In particular, vessels destined for the United States must comply with 19 U.S.C. 1431, which requires that every vessel bound for the United States and required to make entry under 19 U.S.C. 1434 have a manifest that meets the requirements that are prescribed by regulation. To this end, under 19 U.S.C. 1431(d), Customs may by regulation specify the form for, and the information and data that must be contained in, the vessel manifest, as well as the manner of production for, and the delivery or electronic transmittal of, the vessel manifest.

Currently, Sec. 4.7, Customs Regulations (19 CFR 4.7), requires: That the master of every vessel arriving in the United States and required to make entry have on board the vessel a manifest in accordance with 19 U.S.C. 1431 and Sec. 4.7; and that an original and one copy of the manifest must be ready for production upon demand and must be delivered to the first Customs officer who demands the manifest. Sections 4.7(a) and 4.7a, Customs Regulations (19 CFR 4.7(a) and 4.7a), set forth the documentary and informational requirements that constitute the vessel manifest.

Pursuant to Sec. 4.7(a), the cargo declaration (Customs Form 1302 or its electronic equivalent) is one of the documents that comprises a vessel manifest. The cargo declaration must list all the inward foreign cargo on board the vessel regardless of the intended U.S. port of discharge of the cargo (Sec. 4.7a(c)(1)).

Furthermore, 19 U.S.C. 1448 provides, in pertinent part, that no merchandise may be unladen from a vessel which is required to make entry under section 1434 until Customs has issued a permit for its unloading. In addition, under section 1448, Customs possesses a reasonable measure of regulatory discretion as to whether, and under what circumstances and conditions, to issue a permit to unlade incoming

cargo from a vessel arriving in the United States. Section 4.30, Customs Regulations (19 CFR 4.30), lists the requirements and conditions under which Customs may issue a permit to unlade foreign merchandise from a vessel arriving in the United States.

In addition, 19 U.S.C. 1436(a)(1) and (a)(4) provide that it is unlawful to fail to comply with sections 1431, 1433 or 1434 or any regulation prescribed under any of those statutory authorities. Moreover, 19 U.S.C. 1436(a)(2) states that it is unlawful to present or transmit, electronically or otherwise, any forged, altered or false document, paper, data or manifest to the Customs Service under 19 U.S.C. 1431, 1433(d) or 1434. Under section 1436(b), the master of a vessel who commits any such violation is liable for a civil penalty of \$5,000 for the first violation and \$10,000 for each subsequent violation and any conveyance used in connection with any such violation is subject to seizure and forfeiture.

Proposed Rulemaking: Advance Presentation of Vessel Cargo Manifest to Customs; Required Information

By a document published in the Federal Register (67 FR 51519) on August 8, 2002, Customs proposed to amend Sec. 4.7 to provide that, pursuant to 19 U.S.C. 1431(d), for any vessel subject to entry under 19 U.S.C. 1434 upon its arrival in the United States, Customs must receive the vessel's cargo manifest (declaration) from the carrier 24 hours before the related cargo is laden aboard the vessel at the foreign port. The proposed rule also enumerated the specific informational elements that would need to be included in the submitted cargo manifest.

Necessity for Advance Presentation of Vessel Cargo Manifest to Customs

As explained in the preamble of the Notice of Proposed Rulemaking (67 FR at 51520), the United States Customs Service recently launched the Container Security Initiative ("CSI"). CSI will secure an indispensable, but vulnerable link in the chain of global trade: Containerized shipping. Approximately 90% of world cargo moves by container; 200 million cargo containers are transported between the world's seaports each year, constituting the most critical component of global trade. Nearly half of all incoming trade to the United States (by value) arrives by ship, and most of that is in sea containers. Annually, nearly 6 million cargo containers are offloaded at U.S. seaports.

There is, however, virtually no security for this critical global trading system. And the consequences of a terrorist incident using a container would be profound. As experts like Dr. Stephen E. Flynn, Senior Fellow, Council on Foreign Relations, have pointed out

repeatedly, if terrorists used a sea container to conceal a weapon of mass destruction--a nuclear device, for example--and detonated it on arrival at a port, the impact on global trade and the global economy would be immediate and devastating. All nations would be affected because there would be no mechanism for identifying weapons of mass destruction before they reached our shores and before they posed a threat to the global economy.

Al Qaeda and other terrorist organizations pose an immediate and substantial threat. And the threat is not just to harm and kill American citizens, it is a threat to damage and destroy the U.S. and the world economy.

To address the threat terrorists pose to containerized shipping, Customs developed CSI. Under CSI, U.S. Customs is working with other governments to identify high-risk cargo containers and pre-screen those containers at the foreign ports before they are shipped to the U.S. CSI has four core elements:

(1) Identify "high-risk" containers. In connection with its domestic targeting efforts, Customs has already established criteria and automated targeting tools for identifying "high risk" shipments. Indeed, every one of the shipments that arrives in the United States by sea container is currently assessed for risk using these tools and advance manifest data. If this data were provided earlier, Customs could use these same tools to detect high risk shipments before they were carried to the United States. Accordingly, to enhance domestic targeting and to enable overseas targeting and screening of containers, Customs has proposed a rule requiring accurate and detailed information to be transmitted before shipments are laden on vessels destined for the United States.

(2) Pre-screen containers before they are shipped. As discussed above, to protect the United States and global trade from the risks posed by international terrorists, security screening should be done at the port of departure rather than the port of arrival.

(3) Use technology to screen high-risk containers. Technology enables screening to be done rapidly without slowing down the movement of trade. This technology includes large-scale x-ray and gamma machines and radiation detection devices.

(4) Use more secure containers to ensure the integrity of containers screened overseas.

CSI thus offers real protection, on a day-to-day basis, for the primary system of international trade--a system on which all economies depend. Given the security afforded by CSI, the investments made by ports and

[[Page 66320]]

members of the trade to implement CSI represent relatively inexpensive

forms of insurance against the terrorist threat. In the event of an attack using a cargo container, the CSI network of ports will be able to remain operational because those ports will already have an effective security system in place--one that will deter and prevent terrorists from using it. Without such a network, the damage to global trade caused by a terrorist attack involving international shipping would be staggering.

In addition to protecting global trade, CSI should facilitate the flow of that trade. When a container has been pre-screened and sealed under CSI, U.S. Customs will not, absent additional information affecting its risk analysis, need to inspect it for security purposes when it reaches the U.S. Moreover, this system could reduce the processing time for certain shipments because the screening at a CSI port will in most cases take place during "down time." Most containers sit on a terminal for an average of several days prior to lading. This window of "down time" will be used to screen containers for security purposes. On arrival at the U.S. seaport, the CSI-screened container should be released immediately by U.S. Customs, which could shave hours, if not days, off of the shipping cycle. In this manner, CSI should increase the speed and predictability for the movement of cargo containers shipped to the U.S.

For these reasons, CSI is a critical component of the President's Homeland Security Strategy. It has also been endorsed by the G-8 as well as the World Customs Organization.

As a result of this broad support, CSI has been expanding rapidly. When Customs launched CSI this past January, the first step was to implement CSI as quickly as possible in Canada and the top 20 ports (by volume) that ship to the United States. When fully implemented in these locations, CSI will substantially increase the security of the United States and the global trading system because the top 20 ports alone account for nearly 70% of all the containers shipped to U.S. seaports. To date, Canada, the Netherlands, Belgium, France, Germany, Singapore, Hong Kong, and Japan have agreed to implement CSI. These countries represent 11 of the top 20 ports. Customs anticipates that several other nations will agree to implement CSI in the near term, and that CSI will expand beyond the top 20 ports during the next year.

CSI is already operational in Canada and the Netherlands. It will be implemented at several additional ports within the next 90 days. Given this explosive growth, it is critical that the information necessary to implement CSI fully be provided to Customs in the near term. For this reason, Customs proposed this rulemaking on August 8, 2002 and, following the comment period, is issuing this final rule today.

Non-Vessel Operating Common Carriers (NVOCCs)

Under the proposed rule, the conditions of the International Carrier Bond (19 CFR 113.64) were proposed to be amended to recognize the status of a Non-Vessel Operating Common Carrier (NVOCC) as a manifesting party and to obligate any NVOCC having such a bond and electing to provide cargo manifest information to Customs electronically under Sec. 4.7 and 4.7a to accurately transmit such information to Customs 24 or more hours before the related cargo is laden aboard the vessel at the foreign port. Breach of these obligations would result in liquidated damages against the NVOCC. For purposes of the proposed rule, a non-vessel operating common carrier (NVOCC) as a common carrier that does not operate the vessels by which the ocean transportation is provided, would be considered a shipper in its relationship with an ocean common carrier.

Penalties or Liquidated Damages for False or Untimely Filing of Manifest Data

If the master of a vessel failed to present or transmit accurate manifest data in the required time period or presented or transmitted any false, forged or altered document, paper, manifest or data to Customs, the proposed regulations specified that monetary penalties could be assessed under the provisions of 19 U.S.C. 1436(b). Likewise, if an NVOCC having an International Carrier Bond elected to transmit such data electronically to Customs and failed to do so in the required time period or transmitted any false, forged or altered document, paper, manifest or data to Customs, the NVOCC could be liable for the payment of liquidated damages for breach of the conditions of the International Carrier Bond, in addition to any other applicable penalties.

Issuance of Permit To Unlade Cargo

The proposed rule also provided that if the carrier did not present cargo declaration information to Customs prior to the lading of the cargo aboard the vessel at the foreign port, Customs could, in addition to assessment of civil monetary penalties, delay issuance of a permit to unlade the entire vessel or a portion thereof until all required information was received.

Preliminary Entry

Finally, it was proposed that Sec. 4.8 be amended to make clear that the granting of preliminary entry by Customs would be conditioned upon the electronic submission of the Cargo Declaration (Customs Form (CF) 1302), as well as the provision to Customs either electronically or in paper form of all other forms required by Sec. 4.7.

Appendix D

VACIS™ – A Safe, Reliable and Cost-Effective Cargo Inspection Technology

VICTOR J. ORPHAN, REX D. RICHARDSON & DAVID W. BOWLIN, SAIC, San Diego, CA, USA

ABSTRACT

Non-intrusive inspection has proven quite effective at stemming the flow of contraband, principally drugs smuggled in vehicles and cargo containers entering a country through sea and land ports. In addition to drug interdiction, there are requirements to perform manifest verification, detect smuggling of illegal aliens, and detect weapons and explosives. As a result of the terrorist attacks of Sept. 11, 2001, there is heightened awareness of the need to also detect 'Weapons of Mass Destruction' (WMD) and to enhance the effectiveness of current inspection capabilities, since failure to detect a WMD, such as a nuclear device, has catastrophic consequences. There is also the realisation that WMDs should be detected at the port of origin in order to provide protection to the receiving country.

of VACIS described in a previous Port Technology article [1]. In the design of VACIS, we have carefully optimised the tradeoffs between performance, safety and reliability to achieve cost-effective non-intrusive inspection systems for a wide range of sea and land port applications. For instance, use of a radioisotopic gamma-ray source ensures an inherently higher reliability than is possible with x-ray sources. Nearly 60 VACIS installations have demonstrated an average 98% verified uptime. Use of our proprietary high-efficiency gamma-ray detector arrays allows good image quality, whose adequacy has been dramatically demonstrated by the large number of drug seizures attributed to VACIS by the U.S. Customs Service.

VACIS radiation levels are 50 to 100 times less than those of comparable x-ray systems and provide significantly faster scan speeds. In addition, use of a Cobalt-60 (Co-60) source in VACIS provides enhanced penetration (penetration only equalled by high energy (greater than 2 MeV) x-ray sources), with inherent safety since VACIS operates at a significantly lower radiation dose level (about 5 microRem, which is equivalent to less than 1 minute of natural radiation exposure at 30,000 feet altitude in a passenger airplane). This is an important factor in light of the growing number of cargo inspections in which stowaways may be present.

VACIS™ – SAFE, RELIABLE, AND COST-EFFECTIVE CARGO INSPECTION TECHNOLOGY SOLUTION

The technology used by a non-intrusive inspection system, in addition to being affordable so that wide implementation is feasible, must have the following three characteristics to be highly effective:

- **Safety** – Ensure that operators and the general public are protected from any harm as a result of the inspection process.
- **High Reliability** – Ensure effective inspections are performed without delay – day in and day out.
- **Cost-Effective Performance** – Produce high-quality images that have good resolution and penetration, which will allow a high probability of detecting contraband, in addition to high throughput to avoid undue interruptions to the flow of commerce.

Gamma-ray imaging technology has been widely implemented at sea and land ports in 6 different models

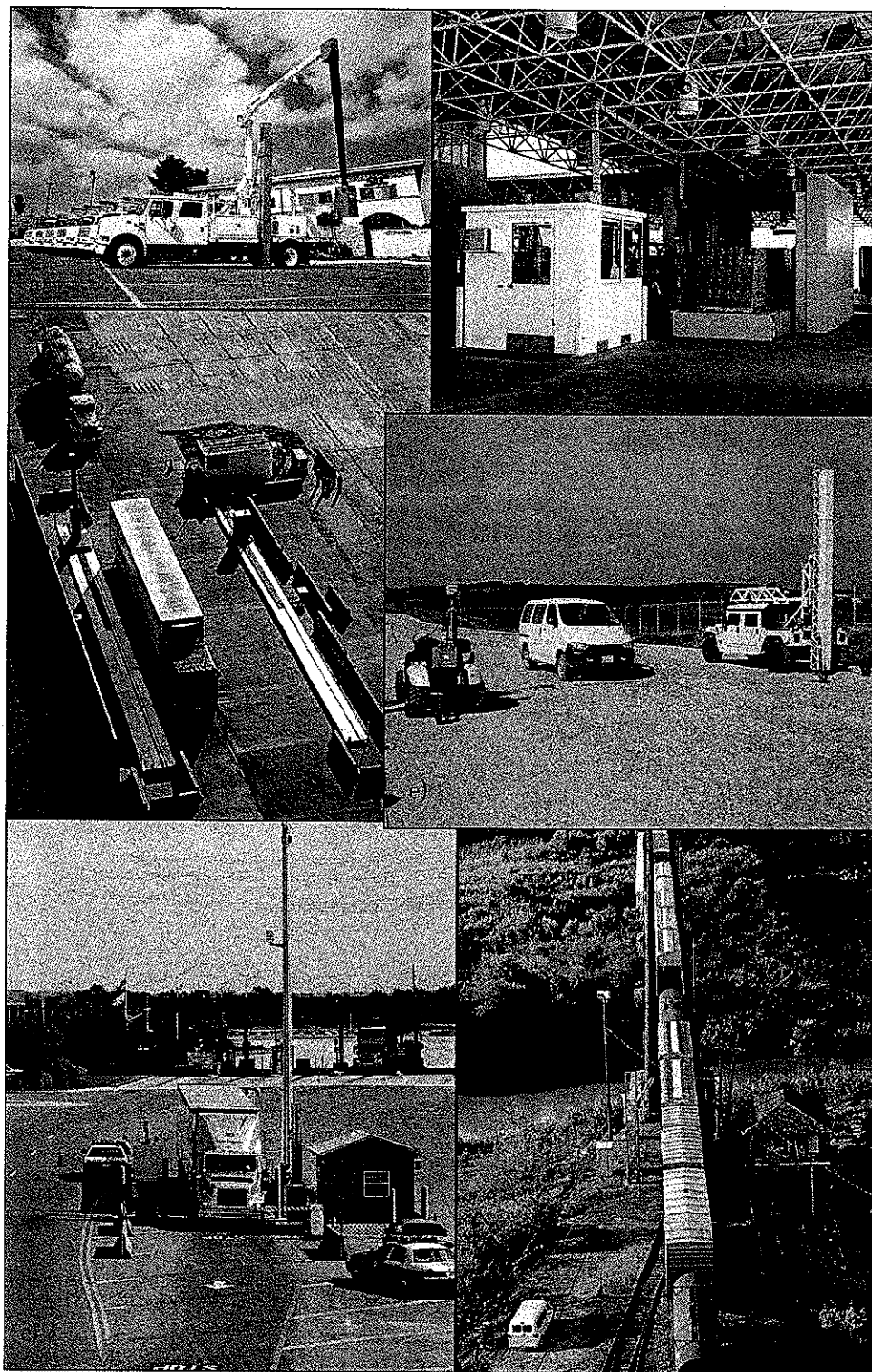
OVERVIEW OF VACIS PRODUCT LINE

Science Applications International Corporation's (SAIC) Vehicle and Cargo Inspection Systems use a gamma-ray source consisting of a radioisotope (a small pellet of Cesium-137 (Cs-137) or Cobalt-60 (Co-60)), a steel and tungsten housing for the source, a tungsten slot shutter, and a motorised actuator to rotate the shutter 90 degrees. The sources used in the VACIS are commercially available and are widely used in the gas and oil industries. They have been leak-tested, explosion-tested, fireproofed and certified by the U.S. Nuclear Regulatory Commission and U.S. Department of Transportation. SAIC currently has 6 variations of VACIS that have been successfully deployed worldwide (see Figure 1).

- **Mobile VACIS** is extremely well suited to the port environment, and is designed around a standard vehicular platform that can be easily serviced and repaired. The Mobile VACIS can be driven to an inspection point within a port, and set up and operational in approximately 10 to 15 minutes by three people. The Mobile VACIS does not permanently occupy scarce port real estate; it requires only a minimal footprint to perform inspections of the cargo at hand.

Figure 1
Variations of VACIS Product Line

- a) Mobile
- b) Relocatable
- c) Portal
- d) Pallet
- e) Military
- f) Railroad



- Relocatable VACIS is designed to be easily disassembled and moved to a new location in about 1 day. The control station is located either in a modified recreational vehicle (for self-contained operation and easy relocation) or in a small portable office enclosure.
- Portal VACIS is a high-throughput system for port gates and roadways and provides a quick and effective tool to detect high-value stolen goods before they leave the country. Engineered to operate in very small areas, Portal VACIS can be deployed in conjunction

with existing vehicle control points, such as weigh scales, and provides permanent protection to port gates and roadways.

- **Pallet VACIS** has a number of industrial uses that can include the inspection of air cargo containers for aviation facilities, and verifying contents of loaded pallets from transport trucks against their declared manifest. The system is operational in only five minutes with just two operators.
- **Military VACIS** is a version of Mobile VACIS designed for military force protection, has the detector array mounted on a Humvee platform. The entire system is easily loaded onto a C-130 transport aircraft. As with the Mobile VACIS, Military Mobile VACIS can be used to scan both stationary and moving target vehicles.
- **Railroad VACIS** is designed to inspect railroad cars as they pass through a specified inspection area. The Railroad VACIS is capable of inspecting trains travelling at speeds of up to 10 miles per hour. As the rail cars move through the gamma beam, their images are individually saved and can be viewed as they are acquired, allowing immediate decisions to further inspect the rail cars if necessary.

INHERENT SAFETY OF VACIS

VACIS offers inherent safety because it has the lowest radiation dose of any non-intrusive inspection system. Its average radiation dose is more than an order of magnitude less than the lowest dose 450 KV x-ray system and about three orders of magnitude less than that of a 2 to 6 MeV x-ray system [2]. VACIS uses a proven Ohmart source shield, certified by the U.S. Department of Transportation and the U.S. Nuclear Regulatory Commission. In addition to the standard shutter, we have added a secondary fast-acting shutter, which provides safety redundancy. Shutter operation is 'fail-safe', in that it will automatically close if power to the source is interrupted.

We have tested the source enclosure under severe explosive blast conditions (simulating the explosion of a large vehicle bomb (5000 pounds of C4) while scanning the vehicle). The source shield remained intact and, more importantly, the integrity of the source capsule was not breached. The source is quite theft-proof, in that it is secured in its heavy lead and tungsten enclosure which itself is locked in a secure enclosure when VACIS is not acquiring images. Furthermore, the systems are stored in a secure and typically guarded facility — such as a USCS border inspection station — providing an additional safety element.

We have obtained a 'Device Registry' [3] for the Relocatable VACIS and anticipate that we will also obtain a Device Registry for Pallet VACIS. This Device Registry is significant, in that it allows users to possess and operate these systems without obtaining a licence to possess the radioactive isotope. Although other VACIS designs are not eligible for Device Registry, securing of a licence to possess the radioisotope used is quite straightforward, as evidenced by the wide deployment of the systems in the United States, and the growing worldwide acceptance of VACIS as a cost-effective means of inspecting vehicles and cargo containers. Figure 2 shows the current VACIS deployment (58 VACIS operational and an additional 45 scheduled in the near term.). Figure 3 shows a Relocatable VACIS at Port Klang in Malaysia, one of the first overseas installations.

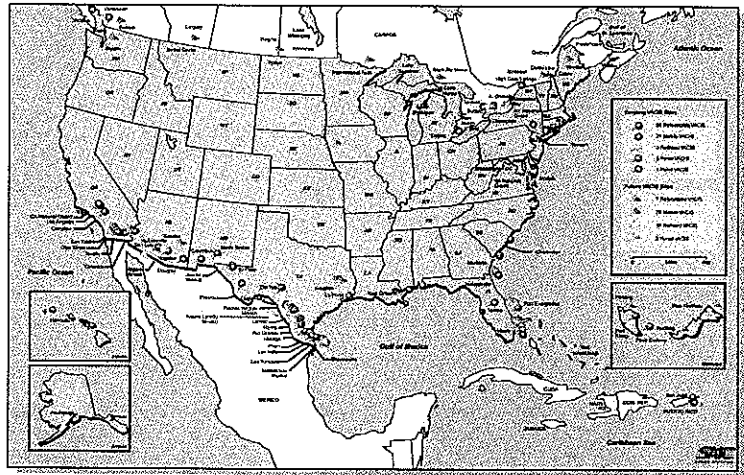


IMAGE QUALITY ENHANCEMENTS

The radiographic images obtained from our products are comparable to those from systems using x-ray generators having about the same penetration. Our approach has been to give the operational and cost aspects high priority, while engaging in a continuous program of research and development to deliver inspection images with the maximum possible information content. For a detailed review of our imaging enhancement research and development program, see Reference 1.

In 2001, U.S. patent number 6,255,654 was awarded to SAIC for the development of gamma-ray imaging systems based upon high-efficiency photon-counting technology. This technology is at the heart of all VACIS products. The cost per pixel for a detector array using our scintillator-photomultiplier design has a lower bound, which sets a limit on increasing the spatial resolution simply by adding a larger number of smaller detectors. Also, we require a relatively large detector collection aperture to reduce statistical noise levels and maintain good image contrast sensitivity.

Together, these limitations have dictated a working spatial resolution of 6 to 25 mm across the product line. For example, the nominal mid-plane resolution of our Mobile VACIS system is 9 mm, while the best comparable x-ray systems claim 2 to 3 mm. Our position is that for large-scale cargo inspection missions, centimetre scale resolution is more than adequate. Even at these resolutions, special proprietary software is required to form low distortion images from our multi-column detector arrays.

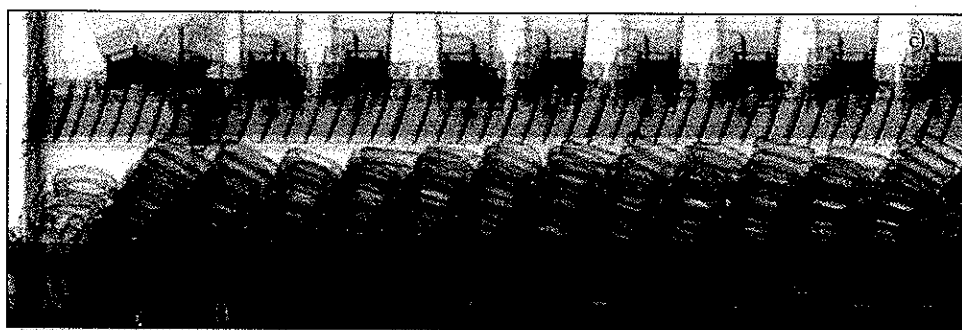
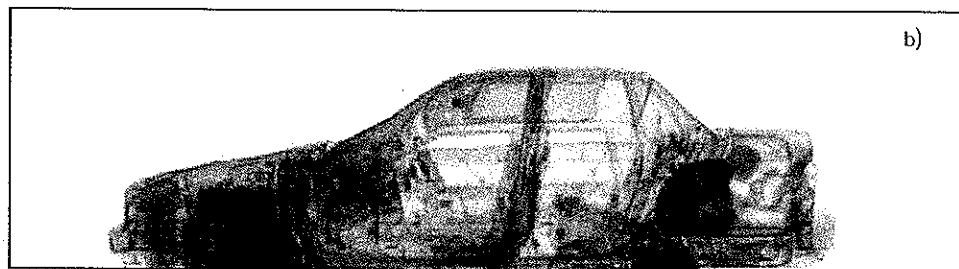
Clearly, we could increase the radioactivity of the gamma-ray sources to overcome some of these limitations. This is analogous to turning up the beam current in a conventional x-ray machine. Similarly, we could slow down the scan time to collect more photons. But, our priority in choosing the gamma-ray source strength was to minimise radiation exposure levels and reduce or

Figure 2 (top)
VACIS Deployment (U.S.,
Canada, Mexico, and
Malaysia)

Figure 3 (above)
Relocatable VACIS install at Port
Klang in Malaysia



Figure 4a, b & c
Cobalt-60 Image Examples



eliminate shielding requirements while retaining high throughput. Again, this has driven the designs to lower effective spatial resolutions.

The gamma-ray sources used in all VACIS products are basically small pellets of Cs-137 or Co-60 radioisotope, all having activities on the order of one curie. This level of activity results in only a few milliwatts of emitted radiation power. X-ray tube and linear accelerator (linac) based cargo inspection systems operate at much higher radiation powers, from tens to thousands of times higher depending upon the system parameters.

How can we equal or exceed the penetration performance and almost match the image quality of much higher power systems costing significantly more? The key is a high efficiency detector coupled with nearly monochromatic (single energy) gamma-ray sources and our proprietary image enhancement software. The radiation power from x-ray generators is emitted in a broad energy spectrum that is inefficient for penetrating dense cargo. VACIS systems with all the current enhancements show penetration up to 114 mm of steel using Cs-137 sources. Changing to a Co-60 source of the same activity increases penetration to 160 mm of steel. These results are obtained, for example, at working scan speeds of 1 km/hr on Mobile or Relocatable VACIS. See Figure 4 for image examples

In the VACIS product line, we believe that we have achieved an effective and practical trade-off between image quality and inspection speed, radiation exposure, system weight/complexity, and cost. The evidence for this effectiveness can be seen in the successful seizures attributed to VACIS. A few examples of the SAIC product successes are listed below:

- **High Tech Tools Help Pinpoint Drug Load**

VACIS screen of tractor-trailer at Presidio, TX port alerts U.S. Customs Inspectors to 234-pound cocaine cache. Wednesday, February 13, 2002.

- **More Than 2 1/2 Tons of Marijuana Confiscated**

U.S. Customs Service Inspectors make record seizure when VACIS scan reveals suspicious packages in tractor-trailer at Santa Teresa port. Monday, February 4, 2002

- **181 Pounds of Cocaine Seized**

U.S. Customs Inspectors use VACIS to seize 181 pounds of cocaine at Hidalgo/Pharr Port of Entry. Wednesday, October 3, 2001.

- **VACIS Makes Record Drug Seizure**

U.S. Customs Inspectors use VACIS to make record drug seizure at Santa Teresa Port Of Entry. Friday, July 13, 2001.

RELIABILITY AND MAINTAINABILITY

Use of an isotopic source avoids the inherent reliability problems associated with x-ray based systems. In addition, unlike x-ray systems that require relatively frequent replacement of expensive components (e.g., x-ray tube), VACIS sources have useful lifetimes of over 20 years for Cs-137 and over 5 years for Co-60. Source replacement, when required, is straightforward and inexpensive. Reliability and maintainability are further enhanced by the relatively simple design and proven, commercially available components used in the systems, like the widely used Altec hydraulic lift mechanism in the Mobile model. The reliability of the VACIS product line is demonstrated by an average equipment uptime of over 98%.

CONCLUSIONS

VACIS gamma-ray imaging systems are a cost-effective means of inspecting vehicles, rail cars, cargo containers and cargo pallets because they offer:

- Inherent safety – 50 to 100 times lower radiation dose per scan
- Comparable resolution to x-ray systems, as well as enhanced penetration compared to comparable x-ray systems and significantly faster scan speeds
- Unmatched reliability and maintainability, as evidenced by over 98% average availability for nearly 60 VACIS systems.

REFERENCES

- [1] Port Technology International, Edition 15, 2001, page 83.
- [2] Siraj Khan, Paul Nicholas and Michael Terpilak, 'Radiation Dose to Stowaways in Vehicles', Proceedings of 2001 ONDCP International Technology Symposium, June 25-28, 2001, San Diego, CA
- [3] California Registry of Radioactive Sealed Sources and Devices – Safety Evaluation of Device – No. CA0215D104G dated August 18, 2000.



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Rex D. Richardson, PhD, VACIS Imaging IR&D program manager for SAIC, has over 22 years' experience in experimental plasma physics, x-ray systems and instrumentation, imaging diagnostics, and accelerator physics.

He joined SAIC in 1983 working in the Defence Technology Group. In early 2000 he joined the Safety and Security Instruments Operation in San Diego as a Principal Scientist working mainly on VACIS-related research and development. Contact: 858-826-6404, rex.d.richardson@saic.com



David W. Bowlin, MBA, has been the Marketing Communications Manager for SAIC's Safety and Security Instruments in San Diego, CA, for three years. He has a Masters in Business Administration and nearly 26 years' experience with various governmental and commercial concerns.

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Appendix E

Hazardous Materials: Security Requirements for Offerors and Transporters of Hazardous Materials

[Federal Register: May 2, 2002 (Volume 67, Number 85)]

[Proposed Rules]

[Page 22028-22035]

From the Federal Register Online via GPO Access [wais.access.gpo.gov]

[DOCID:fr02my02-30]

DEPARTMENT OF TRANSPORTATION
Research and Special Programs Administration
49 CFR Parts 107, 171, 172, and 177
[Docket No. RSPA-02-12064 (HM-232)]
RIN 2137-AD66

Hazardous Materials: Security Requirements for Offerors and
Transporters of Hazardous Materials

AGENCY: Research and Special Programs Administration (RSPA), DOT.
ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The Research and Special Programs Administration is proposing new requirements to enhance the security of hazardous materials transported in commerce. Proposals include a requirement for motor carriers registered with the agency to maintain a copy of their current registration certificate on each motor vehicle. We further propose to require shipping papers to include the name and address of the consignor and consignee and the shipper's DOT Hazmat Registration number, if applicable. In addition, we propose to require shippers and carriers of certain highly hazardous materials to develop and implement security plans. We also propose to require hazardous materials shippers

and carriers to assure that their employee training includes a security component.

DATES: Submit comments by June 3, 2002. To the extent possible, we will consider late-filed comments as we develop a final rule.

ADDRESSES: Submit comments to the Dockets Management System, U.S. Department of Transportation, Room PL 401, 400 Seventh Street, SW, Washington, DC 20590-0001. Comments should identify Docket Number RSPA-02-12064 (HM-232) and be submitted in two copies. If you wish to receive confirmation of receipt of your written comments, include a self-addressed, stamped postcard. You may also submit comments by e-mail by accessing the Dockets Management System web site at "<http://dms.dot.gov/>" and following the instructions for submitting a document electronically.

The Dockets Management System is located on the Plaza level of the Nassif Building at the Department of Transportation at the above address. You can review public dockets there between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, except Federal holidays. You can also review comments on-line at the DOT Dockets Management System web site at "<http://dms.dot.gov/>."

FOR FURTHER INFORMATION CONTACT: Susan Gorsky, (202) 366-8553, Office of Hazardous Materials Standards, Research and Special Programs Administration.

SUPPLEMENTARY INFORMATION:

I. Background

Hazardous materials are essential to the economy of the United States and the well-being of its people. Hazardous materials fuel cars and trucks, and heat and cool homes and offices. Hazardous materials are used for farming and medical applications and in manufacturing, mining, and other industrial processes. Millions of tons of explosive, poisonous, corrosive, flammable, and radioactive materials are transported every day. Hazardous materials move by plane, train, truck, or vessel in quantities ranging from several ounces to many thousands of gallons. The vast majority of hazardous materials shipments arrive safely at their destinations. Most incidents that do occur involve small releases of material and present no serious threat to life or property.

RSPA's hazardous materials transportation safety program has historically focused on reducing risks related to the unintentional release of hazardous materials. The hazardous materials regulations (HMR; 49 CFR Parts 171-180) are designed to achieve two goals: (1) To ensure that hazardous materials are packaged and handled safely during transportation, thus minimizing the possibility of their release should an incident occur, and (2) to effectively communicate to carriers, transportation workers, and emergency responders the hazards of the materials being transported. The HMR specify how to classify and package a hazardous material. Further, the HMR prescribe a system of hazard communication using placards, labels, package markings, and shipping papers. In addition, the HMR prescribe training requirements for persons who prepare hazardous materials for shipment or transport hazardous materials. The HMR also include operational requirements applicable to each mode of transportation.

In the wrong hands, hazardous materials can pose a significant security threat. Hazardous materials in transportation are particularly vulnerable to sabotage or misuse. Security of hazardous materials in the transportation environment poses unique challenges as compared to security at fixed facilities. Hazardous materials are frequently transported in substantial quantities. Such materials are already mobile and are frequently transported in proximity to large population centers. Further, hazardous materials in transportation are often clearly identified to ensure safe and appropriate handling during transportation and to facilitate effective emergency response in the event of an accidental release. While the HMR provide for a high degree of safety with respect to avoiding and mitigating unintentional releases of hazardous materials during transportation, the HMR do not specifically address security threats.

As a result of the terrorist attacks of September 11, 2001, and subsequent threats related to biological and other hazardous materials, the Research and Special Programs Administration (RSPA, we) has undertaken a broad review of government and industry hazardous materials transportation safety and security programs. As part of this review, we established the Hazardous Materials Direct Action Group (Hazmat DAG). The Hazmat DAG met with representatives of the hazardous materials industry, emergency response community, and state governments to discuss transportation security issues in the wake of the September 11 attacks and continuing terrorist threats. In addition, we created a DOT Intermodal Hazardous Materials Transportation Security Task Force, which considered attack or sabotage vulnerabilities, existing security measures, and potential ways to reduce vulnerabilities. The Task Force included representatives from the Federal Motor Carrier Safety

Administration, Federal Railroad Administration, Federal Aviation Administration, U.S. Coast Guard (USCG), and Office of the Secretary.

Based in part on discussions in the Hazmat DAG and on the results of the Task Force review, on February 14, 2002, we published an advisory notice to inform shippers and carriers of voluntary measures that can enhance the security of hazardous materials shipments during transportation (67 FR 6963). The notice addresses personnel, facility, and en route security issues and includes contact points for obtaining additional, more detailed information.

[[Page 22029]]

In addition, we identified a number of regulatory measures that, when implemented, will improve the security of hazardous materials in transportation. In this NPRM, we are proposing to revise requirements in the HMR applicable to registration certificates, shipping documentation, and training. We also propose to establish a new requirement for certain hazardous materials shippers and carriers to have plans in place to assure the security of shipments during transportation.

Many of these proposed requirements already are being implemented voluntarily by the hazardous materials industry, particularly by shippers and carriers of certain highly hazardous materials. If adopted, the measures proposed in this NPRM will facilitate monitoring and tracking of hazardous materials shipments by shippers, carriers, and enforcement authorities; reduce the potential for certain hazardous materials to be targets for terrorists or saboteurs; and increase security awareness for hazardous materials employees. Specific provisions of this NPRM are discussed below.

A. Registration Certificates

Currently, each motor carrier transporting placarded quantities of certain classes or divisions of hazardous materials is required to file with RSPA a registration statement and pay an annual fee (49 CFR Part 107). A Certificate of Registration (certificate), which includes a U.S. DOT Hazmat Registration Number, is then issued by RSPA to the carrier. A carrier must display its registration number on a document carried on each motor vehicle, but need not maintain a copy of the certificate itself on each vehicle.

The registration certificate can substantially assist state and local law enforcement personnel in determining whether a carrier is a legitimate transporter of hazardous materials. Therefore, in this NPRM,

we propose to revise 49 CFR 107.620(b) and Part 177 of the HMR to require each motor carrier registered with RSPA to maintain a copy of its current certificate on each motor vehicle used to transport hazardous materials.

B. Shipping Papers

Many hazardous materials transported in commerce potentially may be used as weapons of mass destruction or weapons of convenience. It is critical to assuring the safety and security of these shipments that transportation of a hazardous material by an unauthorized carrier or vehicle operator is readily apparent to Federal, state, and local regulatory and law enforcement agencies. Shipping papers are an important tool for assisting law enforcement personnel to identify unusual or unauthorized activities involving drivers or vehicles.

Currently, the HMR generally require each person who offers a hazardous material for transportation to describe the material on a shipping paper. However, there is no requirement for a shipping paper to include the name and address of the person offering the shipment or the person to whom the shipment will be delivered. Further, there is no requirement for a shipping paper to include the U.S. DOT Hazmat Registration Number of the person offering the hazardous material for transportation. A requirement to include this information on a shipping paper will assist law enforcement personnel to promptly ascertain the legitimacy of hazardous materials shipments during routine or random roadside inspections and to identify suspicious or questionable situations where additional investigation may be necessary.

Therefore, in this NPRM, we propose to amend Sec. 172.201 of the HMR to require each shipping paper to include the name of the shipment consignor and the address from which the shipment originates and the name and address of each person to whom the shipment will be delivered. In addition, we propose to require each shipping paper to include the U.S. DOT Hazmat Registration Number, if applicable, of the person offering the shipment for transportation. The names and addresses of the consignor and each consignee may be included in an attachment to the shipping paper. If contained in an attachment, the attachment would not be subject to the one-year retention requirement of 49 U.S.C. 5110(e). Note that the proposal requires a shipping paper to include the actual street address from which a shipment originates and the actual street address(es) to which a shipment will be delivered. A billing address, corporate headquarters address, or post office box number would not be acceptable. Moreover, each person who prepares a shipping paper for a given shipment must indicate the location from

which the hazardous material will be transported and the destination to which the hazardous material will be delivered under that shipping paper. As an example, a shipment originates in New York City and is transported to a freight forwarder located in Baltimore to be consolidated with other materials and transported to Atlanta. In this case, the original shipper will complete a shipping paper that includes the origin address in New York City and the destination address in Baltimore. The freight forwarder will complete a new shipping paper for the consolidated shipment that includes the origin address in Baltimore and the destination address in Atlanta.

In this NPRM, we propose to except certain shipments from the requirement to include consignor/consignee names and addresses and U.S. DOT Registration Numbers on shipping papers. The exceptions would apply to limited quantities of hazardous materials and to materials described as: Battery powered equipment; Battery powered vehicle; Carbon dioxide, solid; Castor bean; Castor flake; Castor meal; Castor pomace; Consumer commodity; Dry ice; Engines, internal combustion; Fish meal, stabilized; Fish scrap, stabilized; Refrigerating machine; Vehicle, flammable gas powered; Vehicle, flammable liquid powered; and Wheelchair, electric. The proposed exceptions are identical to current exceptions from the requirement in Subpart G of Part 172 for emergency response information to accompany hazardous materials shipments. The listed materials do not pose a security risk in transportation.

C. Security Plans

Hazardous materials in transit are uniquely vulnerable to theft or attack. To assure public safety, shippers and carriers must take reasonable measures to plan for and implement procedures to prevent unauthorized persons from taking control of or attacking hazardous materials shipments. Therefore, in this NPRM, we propose a new Subpart I in Part 172 to require persons subject to the registration requirements in Subpart G of Part 107 and persons who offer or transport infectious substances listed as select agents by the Centers for Disease Control and Prevention (CDC) in 42 CFR Part 72 to develop and implement written plans to assure the security of hazardous materials shipments. Those persons required to register under Subpart G of Part 107 include persons who offer for transportation or transport: (1) A highway route-controlled quantity of a Class 7 (radioactive) material; (2) more than 25 kg (55 lbs) of a Division 1.1, 1.2, or 1.3 (explosive) material; (3) more than 1 L (1.06 qt) per package of a material poisonous by inhalation in Hazard Zone A; (4) a shipment in a bulk packaging with a capacity equal to or greater than 13,248 L (3,500

gal) for liquids or gases or greater than 13.24 cubic meters (468 cubic feet) for solids; and (5) a shipment that requires placarding. Select agents are infectious

[[Page 22030]]

substances identified by CDC as materials with the potential to have serious consequences for human health and safety if used illegitimately.

The requirements for a transportation security plan are in a new Subpart I of Part 172. In Subpart I, we propose to establish a general requirement for persons who offer hazardous materials for transportation and persons who transport hazardous materials in commerce to have written security plans. At a minimum, a security plan should use a risk management model to assess security risks and develop appropriate measures to reduce or eliminate risk. To assist shippers and carriers to perform appropriate risk assessments, we made a Risk Management Self-Evaluation Framework available on our website (<http://hazmat.dot.gov>). A number of industry associations have also developed guidelines for performing security risk assessments. See our February 14, 2002 advisory notice for a list of Federal agencies and industry associations and organizations that may be of help.

For hazardous materials transportation, a security plan should focus not only on the potential threats posed by the material, but on personnel, facility, and en route security issues, as well. This NPRM does not include a laundry list of actions that must be included in a security plan. Rather, a company should implement a plan that is appropriate to its individual circumstances, considering the types and amounts of hazardous materials shipped or transported and the modes used for transportation.

It is our understanding that the USCG and the International Maritime Organization (IMO) are considering broad, comprehensive security-related requirements for vessels and port facilities. The requirements under consideration would address all vessel and port facility operations, not merely those involving hazardous materials. In addition, the Environmental Protection Agency (EPA) is considering security requirements for fixed facilities that handle hazardous materials. It is not our intention to require shippers or carriers to develop several different security plans in order to comply with regulations that may be issued by other Federal or international entities. Therefore, in this NPRM, we include language to specify that security plans that conform to requirements issued by other Federal or international agencies may be used to satisfy the requirement proposed

for the HMR, provided the security plans address the components specified.

D. Training

The HMR currently require hazmat employees to be trained so they: (1) Are familiar with the general provisions of the HMR and can recognize and identify hazardous materials; (2) are knowledgeable about specific HMR requirements applicable to functions performed; and (3) are knowledgeable about emergency response information, self-protection measures, and accident prevention methods. A hazmat employee is one who directly affects hazardous materials transportation safety (Sec. 171.8). Hazmat employers must ensure that their hazmat employees are trained. For new employees, training must be completed within 90 days after employment or a change in job function. All hazmat employees must receive recurrent training every three years.

The safety training provided by hazmat employers may include the physical security of hazardous materials and ways to prevent vandalism and theft. However, such training may not be adequate to meet current threats. Because many hazardous materials transported in commerce may potentially be used as weapons of mass destruction or weapons of convenience, it is critical to the assurance of public safety that training for persons who offer and transport hazardous materials in commerce include a security component. Therefore, in this NPRM, we are proposing to add a provision to Sec. 172.704 to require the training of each hazmat employee to include a security component. Under this proposal, hazmat employees of persons required to have a security plan under the provisions of this NPRM must be trained in the plan's specifics. All hazmat employees must receive training that provides an awareness of the security issues associated with hazardous materials transportation and possible methods to enhance transportation security. This training must also include a component covering how to recognize and respond to possible security threats. As proposed in this NPRM, all hazmat employees would be required to be trained within three months of issuance of a final rule.

As discussed above under "Security Plans," we are aware that the USCG, IMO, and EPA are considering comprehensive security requirements for operations and facilities under their respective jurisdictions. To the extent that regulations promulgated by other agencies may include security training, such training may be used to satisfy the training requirements proposed in this NPRM, provided the training covers the components specified in this NPRM.

II. Comments on the NPRM

The threat to this Nation's security posed by possible intentional misuse of hazardous materials in transportation in commerce is ongoing and significant. Those responsible for the September 11 attacks on the World Trade Center and the Pentagon are affiliated with an organization possessing a near-global terrorist network. The leaders of the groups constituting this organization have publicly stated that they will attack the United States for incarcerating their members. These groups are also vehemently opposed to U.S. foreign policy and presence in the Middle East. They appear to be willing to and may well be capable of conducting bombings, hijackings, and suicide attacks against domestic U.S. targets. Hazardous materials shippers and carriers must take action to enhance hazardous materials transportation security. Therefore, we are issuing this NPRM with a very short comment period. We encourage persons to participate in this rulemaking by submitting comments containing relevant information, data, or views. We also invite comments concerning the costs and benefits that may result from the provisions of this NPRM and particularly the costs that may be incurred by small businesses. We will consider all comments received on or before the closing date for comments. We will consider late-filed comments to the extent practicable.

III. Regulatory Analyses and Notices

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

This NPRM is not considered a significant regulatory action under Executive Order 12866 and, therefore, was not reviewed by the Office of Management and Budget. This NPRM is not considered significant under the regulatory policies and procedures of the Department of Transportation (44 FR 11034). The costs and benefits associated with the proposals in this NPRM are discussed below.

Although many hazardous materials shippers and carriers have already implemented many of the actions proposed in this NPRM, we recognize that the proposals may impose additional costs on them. Most compliance costs resulting from this NPRM will result from the new requirements for certain shippers and carriers to develop and implement security plans and for hazmat employee training to include a security component.

Security plans. The proposed security plan requirement applies to shippers

and carriers who are required to register with RSPA under Subpart G of 49 CFR part 107 or persons who offer or transport infectious substances listed as select agents by the Centers for Disease Control and Prevention (CDC) in 42 CFR part 72. Those persons required to register under Subpart G of Part 107 include persons who offer for transportation or transport: (1) A highway route-controlled quantity of a Class 7 (radioactive) material; (2) more than 25 kg (55 lbs) of a Division 1.1, 1.2, or 1.3 (explosive) material; (3) more than 1 L (1.06 qt) per package of a material poisonous by inhalation in hazard zone A; (4) a shipment in a bulk packaging with a capacity equal to or greater than 13,248 L (3,500 gal) for liquids or gases or greater than 13.24 cubic meters (468 cubic feet) for solids; and (5) a shipment that requires placarding. Select agents are infectious substances identified by CDC as materials with the potential to have serious consequences for human health and safety if used illegitimately.

About 43,000 shippers and carriers are registered with DOT under the provisions of 49 CFR Part 107 (FY 2000, most recent year available). In addition, about 1,000 shippers apply to CDC each year for permission to transport select agents (OMB Control No. 0920-0199). We estimate that development of a security plan from the ground up would require about 40 hours for all persons (management and technical personnel) involved. However, many industry associations have developed guidance and model security plans for use by their members. As a result, most companies already have implemented many of the elements of a security plan either as part of their standard operating procedures or in response to the events of September 11. Further, to assist hazardous materials shippers and transporters in evaluating risks and implementing measures to reduce those risks, we designed a security template for the Risk Management Self-Evaluation Framework (RMSEF). RMSEF is a tool we developed through a public process to assist regulators, shippers, carriers, and emergency response personnel to examine their operations, and consider how they assess and manage risk. The security template illustrates how risk management methodology can be used to identify points in the transportation process where security procedures should be enhanced within the context of an overall risk management strategy. The RMSEF security template is posted on our website at <http://hazmat.dot.gov/rmsef.htm>.

We estimate that most companies would require about 20 hours to develop and implement a security plan that conforms to the new regulatory requirements. Maintaining and updating the plan as necessary would require about 1 hour each year after the plan is implemented.

Using Bureau of Labor Statistics information on employee compensation (March 2001), we estimate that the cost per hour of developing and updating a security plan is \$30.00. The industry would thus incur an estimated \$26,400,000 in first-year compliance costs, or about \$600 per entity (44,000 affected entities x 20 hrs x \$30.00/hr = \$26,400,000). In subsequent years, we estimate that 200 new entrants would be subject to the security plan requirement, incurring compliance costs estimated at \$120,000. Companies required to update and maintain security plans would incur compliance costs of about \$1,320,000, or \$30 per entity.

Security training. The proposed requirement for security training applies to all hazmat employees, defined in Sec. 171.8 of the HMR as persons employed by a company that offers or transports hazardous materials in commerce (hazmat employer) that directly affect hazardous materials safety. Based on information in the 1997 Economic Census, we estimate that firms involved with the transportation of hazardous materials employ a total of 6 million individuals. Of these, perhaps 5 percent are hazmat employees, as defined in the HMR. Thus, about 300,000 hazmat employees will be subject to the new requirement for security training.

The training requirements in the HMR can be met in a number of ways--classroom instruction, self-instruction, on-the-job training, etc. This flexibility helps to minimize the cost to hazmat employers and allows use of the most efficient, effective training methods to meet the basic requirements. To assist hazmat employers to meet any new security training requirements, we are developing a Hazardous Materials Transportation Security Awareness Training Module directed at law enforcement, industry, and the hazmat community. The training module will be web-based, posted on the HMS website, and presented at multimodal seminars.

We estimate that, on average, a hazmat employee would require one hour of security training to meet the new requirements. The costs of training would vary, depending on the method used. For example, the security training module we are developing will be provided free of charge. The current cost of CDROM hazmat training modules is \$25 per module. Classroom training may cost as much as \$75 per hour. We estimate that the average training cost for one hour of security training will be \$15. Thus, the industry would incur costs of about \$4,500,000 in first-year compliance costs (300,000 hazmat employees x one hour of training x \$15/hour = \$4,500,000). Hazmat employees must be trained at least once every three years. Thus, in subsequent years the industry would incur about \$1,500,000 in recurrent training costs.

The benefits of the security programs proposed in this NPRM are

difficult to quantify. However, the cost of one devastating terrorist attack caused by a crude bomb made from commonly available hazardous materials is illustrative. On April 19, 1995, Timothy McVeigh blew up the Murrah Federal Building in Oklahoma City with a bomb made from fertilizer and fuel oil. The bomb killed 168 people, including 19 children, injured 500 more people, and caused more than \$1 billion in property and economic damage. If the measures proposed in this NPRM prevent even one such terrorist act, the potential costs industry will incur will be more than offset by the benefits.

B. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 et seq.) requires an agency to review regulations to assess their impact on small entities unless the agency determines that a rule is not expected to have a significant impact on a substantial number of small entities. We have determined that, while the requirements in this NPRM apply to a substantial number of small entities, there will not be a significant economic impact on those small entities.

Need for the NPRM. RSPA's hazardous materials transportation safety program has historically focused on reducing risks related to the unintentional release of hazardous materials. The HMR have provided a high degree of safety with respect to incidents that occur during transportation. However, in the wake of September 11, we face a heightened security environment. The risk of hazardous materials falling into the wrong hands poses a significant security challenge.

Description of Actions. In this NPRM, we propose to amend the HMR to:

- Require motor carriers registered with DOT to maintain a copy of their current registration certificate on each motor vehicle.

- Require shipping papers to include the name and address of the shipment consignor and consignee and the

[[Page 22032]]

- shipper's DOT Hazmat Registration Number, if applicable.

- Require shippers and carriers of certain highly hazardous materials to develop and implement security plans.

- Require hazardous materials shippers and carriers to assure that employee training includes a security component.

- Identification of potentially affected small entities. Businesses likely to be affected by the proposals in this NPRM are persons who offer and transport hazardous materials in commerce. We estimate there

are approximately 400,000 persons who offer or transport hazardous materials in commerce subject to requirements in the HMR who will be affected by the proposals involving shipping documentation and security training. Approximately 44,000 entities will be subject to the proposed requirement for security plans.

Unless alternative definitions have been established by the agency in consultation with the Small Business Administration (SBA), the definition of "small business" has the same meaning as under the Small Business Act. Since no such special definition has been established, we employ the thresholds published by SBA for industries subject to the HMR. Based on data for 1997 compiled by the U.S. Census Bureau, it appears that upwards of 95 percent of firms subject to the requirements proposed in this NPRM are small businesses.

Reporting and recordkeeping requirements. This NPRM proposes several new or modified recordkeeping requirements. These are detailed in the section of this preamble entitled "Paperwork Reduction Act." We have built flexibility into the proposed requirements, so that entities can choose the method by which they comply with the proposals. For example, there is no prescribed form for shipping papers. Shippers are permitted to use waybills, bills of lading, and other types of shipping documents provided they include the information required in the HMR. Similarly, there is no form prescribed for security plans. Entities can assess their own situations and tailor the requirements to fit them.

Related Federal rules and regulations. With respect to the security of hazardous materials transported in commerce, there are no related rules or regulations issued by other departments or agencies of the Federal government. However, it is our understanding that certain Federal agencies (such as the USCG and EPA) and international standards-setting organizations (such as IMO) are considering comprehensive security requirements for the entities under their jurisdiction. This NPRM includes language to permit programs implemented in conformance with other Federal or international requirements to be used to comply with the requirements in this NPRM, provided the specific components in this NPRM are covered.

Alternate proposals for small businesses. The Regulatory Flexibility Act directs agencies to establish exceptions and differing compliance standards for small businesses, where it is possible to do so and still meet the objectives of applicable regulatory statutes. In the case of the security of hazardous materials transported in commerce, it is not possible to establish exceptions or differing standards and still accomplish the objectives of Federal hazmat law.

We developed this NPRM under the assumption that small businesses

make up the overwhelming majority of entities that will be subject to its provisions. Thus, we considered how to minimize expected compliance costs as we developed this NPRM.

Conclusion. Based on the discussion of the potential costs of this NPRM in the section of this preamble entitled ``Executive Order 12866 and DOT Regulatory Policies and Procedures," we conclude that, while this NPRM applies to a substantial number of small entities, there will not be a significant economic impact on those small entities. We estimate the cost of developing and implementing a security plan to be about \$600 per company. Updating and maintaining a security plan would cost about \$30 per entity. The costs incurred for providing security training to hazmat employees would be about \$15 per employee.

C. Executive Order 13132

This NPRM has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 (``Federalism"). This NPRM preempts state, local, and Indian tribe requirements but does not propose any regulation with substantial direct effects on the states, the relationship between the national government and the states, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

Federal hazardous materials transportation law, 49 U.S.C. 5101-5127, contains an express preemption provision (49 U.S.C. 5125(b)) preempting state, local, and Indian tribe requirements on certain covered subjects. Covered subjects are:

- (1) The designation, description, and classification of hazardous materials;
- (2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;
- (3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;
- (4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; or
- (5) The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This NPRM addresses covered subject item 3 above and preempts state, local, and Indian tribe requirements not meeting the ``substantively the same" standard. This NPRM is necessary to assure

the security of hazardous materials transported in commerce.

Federal hazardous materials transportation law provides at Sec. 5125(b)(2) that, if DOT issues a regulation concerning any of the covered subjects, DOT must determine and publish in the Federal Register the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of a final rule and not later than two years after the date of issuance. We propose that the effective date of Federal preemption will be 90 days from publication of a final rule in the Federal Register.

We invite comments on whether, and to what extent, state or local governments or Indian tribes should be permitted to impose similar additional requirements to those proposed in this rulemaking. For example, should a state be allowed to require all shippers and carriers of hazardous materials to have security plans?

D. Executive Order 13175

This NPRM has been analyzed in accordance with the principles and criteria contained in Executive Order 13175 ("Consultation and Coordination with Indian Tribal Governments"). Because this NPRM does not significantly or uniquely affect the communities of the Indian tribal governments and does not impose substantial direct compliance costs, the funding and consultation requirements of Executive Order 13175 do not apply.

[[Page 22033]]

E. Unfunded Mandates Reform Act of 1995

This NPRM does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of \$100 million or more, in the aggregate, to any of the following: state, local, or Indian tribal governments, or the private sector. This rule is the least burdensome alternative to achieve the objective of the rule.

F. Paperwork Reduction Act

We submitted the information collection and recordkeeping requirements contained in this NPRM to the Office of Management and Budget (OMB) for approval under the provisions of the Paperwork Reduction Act of 1995, Section 1320.8(d). Title 5, Code of Federal Regulations requires us to provide interested members of the public and

affected agencies an opportunity to comment on information collection and recordkeeping requests. Under the Paperwork Reduction Act, no person is required to respond to an information collection unless it has been approved by OMB and displays a valid OMB control number.

RSPA currently has an approved information collection under OMB Control No. 2137-0034, "Hazardous Materials Shipping Papers & Emergency Response Information" with 6,500,000 burden hours and \$6,500,000 cost. There will be an increase in the burden for OMB Control No. 2137-0034 due to additional information this NPRM requires to be included on shipping papers. In addition, there will be a new information collection burden for a new requirement for a security plan. This new information collection, "Hazardous Materials Security Plans", will be assigned an OMB control number after review and approval by OMB.

We estimate that the new total information collection and recordkeeping burden resulting from the additional information required on shipping papers and for the development and maintenance of security plans under this rule are as follows.

Hazardous Materials Shipping Papers & Emergency Response Information

[OMB No. 2137-0034]

Total Annual Number of Respondents: 250,000.
Total Annual Responses: 260,000,000.
Total Annual Burden Hours: 6,861,111.
Total Annual Burden Cost: \$6,929,722.11.

Hazardous Materials Security Plans

[OMB No. 2137-xxxx]

First Year Annual Burden:

Total Annual Number of Respondents: 44,000.
Total Annual Responses: 44,000.
Total Annual Burden Hours: 880,000.
Total Annual Burden Cost: \$26,400,000.00.

Subsequent Year Burden:

Total Annual Number of Respondents: 44,200.

Total Annual Responses: 44,200.

Total Annual Burden Hours: 48,000.

Total Annual Burden Cost: \$1,440,000.00.

Requests for a copy of this information collection should be directed to Deborah Boothe, Office of Hazardous Materials Standards (DHM-10), Research and Special Programs Administration, Room 8422, 400 Seventh Street, SW, Washington, DC 20590-0001. Telephone (202) 366-8553. Written comments should be addressed to the Dockets Unit as identified in the ADDRESSES section of this rulemaking. We will publish a notice advising interested parties of the OMB control number for this information collection when assigned by OMB.

G. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

H. Environmental Assessment

There are no significant environmental impacts associated with this NPRM.

List of Subjects

49 CFR Part 107

Administrative practice and procedure, Hazardous materials transportation, Packaging and containers, Penalties, Reporting and recordkeeping requirements.

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Incorporation by reference, Reporting and recordkeeping requirements.

49 CFR Part 172

Hazardous materials transportation, Hazardous waste, Labeling,

Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 177

Hazardous materials transportation, Motor vehicle safety, Packaging and containers, Reporting and recordkeeping requirements.

In consideration of the foregoing, we propose to amend Title 49, Chapter I, Subchapters A and C, of the Code of Federal Regulations, as follows:

PART 107--HAZARDOUS MATERIALS PROGRAM PROCEDURES

1. The authority citation for part 107 would continue to read as follows:

Authority: 49 U.S.C. 5101-5127, 44701; Sec. 212-213, Pub. L. 104-121, 110 Stat. 857; 49 CFR 1.45, 1.53.

2. In Sec. 107.620, paragraph (b) would be revised to read as follows:

Sec. 107.620 Recordkeeping requirements.

* * * * *

(b) Each motor carrier subject to the requirements of this subpart must carry a copy of its current Certificate of Registration issued by RSPA on board each truck and truck tractor (not including trailers and semi-trailers) used to transport hazardous materials subject to the requirements of this subpart. The Certificate of Registration must immediately be made available, upon request, to enforcement personnel.

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PART 171--GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS

3. The authority citation for part 171 would continue to read as follows:

Authority: 49 U.S.C. 5101-5127; 49 CFR part 1.

4. In Sec. 171.11, paragraph (d)(18) would be added to read as follows:

Sec. 171.11 Use of ICAO Technical Instructions.

* * * * *

(d) * * *

(18) The shipping paper must include the name of the consignor and the complete address from which the shipment originates, and the name and complete address of each person to whom the hazardous material will be delivered (consignee), in accordance with Sec. 172.201(e) of this subchapter. If the person offering the hazardous material for transportation is subject to the requirements of subpart G of 49 CFR part 107, the shipping paper must include the person's current registration number, identified as "U.S. DOT Hazmat Reg. No." in accordance with Sec. 172.201(f) of this subchapter. The

[[Page 22034]]

requirements of this paragraph (d)(18) do not apply to shipments excepted under Sec. 172.201(g) of this subchapter.

5. In Sec. 171.12, paragraph (b)(21) would be added to read as follows:

Sec. 171.12 Import and export shipments.

* * * * *

(b) * * *

(21) The shipping paper must include the name of the consignor and the complete address from which the shipment originates, and the name and complete address of each person to whom the hazardous material will be delivered (consignee), in accordance with Sec. 172.201(e) of this subchapter. If the person offering the hazardous material for transportation is subject to the requirements of subpart G of 49 CFR part 107, the shipping paper must include the person's current registration number, identified as "U.S. DOT Hazmat Reg. No." in accordance with Sec. 172.201(f) of this subchapter. The requirements of this paragraph (b)(21) do not apply to shipments excepted under Sec. 172.201(g) of this subchapter.

* * * * *

6. In Sec. 171.12a, paragraph (b)(19) would be added to read as follows:

Sec. 171.12a Canadian shipments and packagings.

* * * * *

(b) * * *

(19) The shipping paper must include the name of the consignor and the complete address from which the shipment originates, and the name and complete address of each person to whom the hazardous material will be delivered (consignee), in accordance with Sec. 172.201(e) of this subchapter. If the person offering the hazardous material for transportation is subject to the requirements of subpart G of 49 CFR part 107, the shipping paper must include the person's current registration number, identified as "U.S. DOT Hazmat Reg. No." in accordance with Sec. 172.201(f) of this subchapter. The requirements of this paragraph (b)(19) do not apply to shipments excepted under Sec. 172.201(g) of this subchapter.

PART 172--HAZARDOUS MATERIALS TABLE, SPECIAL PROVISIONS,
HAZARDOUS
MATERIALS COMMUNICATIONS, EMERGENCY RESPONSE
INFORMATION, AND
TRAINING REQUIREMENTS

7. The authority citation for part 172 would continue to read as follows:

Authority: 49 U.S.C. 5101-5127; 49 CFR 1.53.

8. In Sec. 172.201, paragraphs (e), (f), and (g) would be added to read as follows:

Sec. 172.201 General entries.

* * * * *

(e) Consignor and consignee name and address. After [date 20 days after effective date of final rule], a shipping paper must include the name of the consignor and the complete address from which the shipment originates, and the name and complete address of each person to whom the hazardous material will be delivered (consignee). The names and addresses may be included on an attachment to the shipping paper.

(f) Registration number. After [date 20 days after effective date of final rule], if the person offering a hazardous material for transportation is subject to the requirements of subpart G of 49 CFR part 107, the shipping paper must include the person's current registration number, identified as "U.S. DOT Hazmat Reg. No."

(g) Exceptions. The requirements of paragraphs (e) and (f) of this

section do not apply to--

(1) Hazardous materials that are offered for transportation under the provisions of this subchapter applicable to limited quantities; and

(2) Materials properly described under the following shipping names:

- Battery powered equipment
- Battery powered vehicle
- Carbon dioxide, solid
- Castor bean
- Castor flake
- Castor meal
- Castor pomace
- Consumer commodity
- Dry ice
- Engines, internal combustion
- Fish meal, stabilized
- Fish scrap, stabilized
- Refrigerating machine
- Vehicle, flammable gas powered
- Vehicle, flammable liquid powered
- Wheelchair, electric

Sec. 172.203 [Amended]

9. In Sec. 172.203, paragraph (i)(4) would be removed, and paragraphs (i)(5) and (i)(6) would be redesignated as paragraphs (i)(4) and (i)(5), respectively.

10. In Sec. 172.704, paragraph (a) introductory text would be revised and paragraph (a)(4) would be added, and paragraph (b) would be revised to read as follows:

Sec. 172.704 Training requirements.

(a) Hazmat employee training must include the following:

* * * * *

(4) Security training. By [date three months after effective date of final rule], each hazmat employee must receive training on how to assure the security of hazardous materials that are transported in commerce.

(i) For each hazmat employee, security training must provide an awareness of the security issues associated with hazardous materials transportation and methods designed to assure transportation security.

This training must also include a component covering how to recognize and respond to possible security threats.

(ii) Each hazmat employee of a person required to have a security plan that conforms to Sec. 173.14 of this subchapter must be familiar with the security plan and its implementation. Security training must include company security objectives, specific security procedures, employee responsibilities, actions to take in the event of a security breach, and the organizational security structure.

(b) OSHA, EPA, and other training. Training conducted by employers to comply with the hazard communication programs required by the Occupational Safety and Health Administration of the Department of Labor (29 CFR 1910.120 or 1910.1200) or the Environmental Protection Agency (40 CFR 311.1), or training conducted by employers to comply with security training programs required by other Federal or international agencies, may be used to satisfy the training requirements in paragraph (a) of this section to the extent that such training addresses the training components specified in paragraph (a) of this section.

* * * * *

11. Subpart I would be added to read as follows:

Subpart I--Security Plans

Sec.

172.800 Purpose and applicability.

172.802 Components of a security plan.

172.804 Relationship to other Federal requirements.

Sec. 172.800 Purpose and applicability.

(a) Purpose. This subpart prescribes requirements for shippers and carriers to develop and implement plans to assure the security of hazardous materials transported in commerce.

(b) Applicability. Each person subject to the registration requirements of subpart G of 49 CFR part 107 and each person who offers for transportation or transports in commerce a Division 6.2 material, other than a diagnostic specimen, listed as a select agent in 42 CFR part 72 must develop and adhere to a security plan that conforms to the requirements of this subpart.

Sec. 172.802 Components of a security plan.

A security plan must be written, and must be retained for as long

as it remains in effect. Copies of the security

[[Page 22035]]

plan must be available to the employees who are responsible for implementing it. When the security plan is updated or revised, all copies of the plan must be maintained as of the date of the most recent revision. The security plan must include an assessment of possible transportation security risks and appropriate measures to reduce or eliminate the risks. Specific operational details of the security plan may vary commensurate with the level of threat at a particular time. At a minimum, a security plan must include the following elements:

(a) Personnel security. A process to verify the information provided by job applicants on application forms or resumes.

(b) Unauthorized access. A process to assure that unauthorized personnel do not have access to hazardous materials or transport conveyances being prepared for transportation of hazardous materials.

(c) En route security. A process to assure the security of hazardous materials shipments en route from origin to destination, including shipments stored incidental to movement. This process may include one or more of the following elements, as appropriate:

(1) An assessment of the transportation modes or combinations of modes available for transporting specific materials and selection of the most appropriate method of transportation to assure efficient and secure movement of product.

(2) A system for verifying that the carriers used to transport hazardous materials have an on-going transportation security program.

(3) For highway shipments, a system to verify the identity of the carrier and driver prior to releasing a hazardous material for transportation in commerce.

(4) Identification of preferred and alternative routing, including acceptable deviations. Routes should minimize product exposures to populated areas and avoid tunnels and bridges, where possible. Transportation of a shipment to its destination should be accomplished without unnecessary delays or layovers.

(5) A system for communicating with a transport vehicle or its operator.

(6) A system for a customer to alert the shipper if a hazardous material is not received when expected.

Sec. 172.804 Relationship to other Federal requirements.

To avoid unnecessary duplication of security requirements, security

plans that conform to regulations issued by other Federal or international agencies may be used to satisfy the requirements in this subpart, provided such security plans address the requirements specified in this subpart.

PART 177--CARRIAGE BY PUBLIC HIGHWAY

12. The authority citation for part 177 would continue to read as follows:

Authority: 49 U.S.C. 5101-5127; 49 CFR 1.53.

13. In Sec. 177.817, paragraph (e) introductory text would be revised to read as follows:

Sec. 177.817 Shipping papers.

* * * * *

(e) Shipping paper accessibility--accident or inspection. A driver of a motor vehicle containing a hazardous material, and each carrier using such a vehicle, must ensure that the shipping paper required by this section, including an attachment prepared in accordance with Sec. 172.201(e) of this subchapter, is readily available to, and recognizable by, authorities in the event of accident or inspection. Specifically, the driver and carrier must:

* * * * *

14. In subpart A, Sec. 177.820 would be added to read as follows:

Sec. 177.820 Certificates of registration.

Each motor carrier subject to the requirements of subpart G of part 107 of this chapter must carry a copy of its current Certificate of Registration issued by RSPA on board each truck and truck tractor (not including trailers and semi-trailers) used to transport hazardous materials subject to the requirements of this subchapter. The Certificate of Registration must immediately be made available, upon request, to enforcement personnel.

Issued in Washington, DC on April 23, 2002 under authority delegated in 49 CFR part 106.

Frits Wybenga,

Deputy Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration.

FMCSA-02-11650 (HM-232A) TITLE: Security Requirements for Motor Carriers Transporting Hazardous Materials; Supplemental advance notice of proposed rulemaking; extension of comment period; Published 10/8/2002, 67 FR 62681.

SUMMARY: The Research and Special Programs Administration (RSPA) and the Federal Motor Carrier Safety Administration (FMCSA) published a July 16, 2002 Advance Notice of Proposed Rulemaking (ANPRM) seeking comments on the feasibility of implementing security enhancement requirements for motor carriers transporting hazardous materials, and the potential costs and benefits of deploying such enhancements. After receiving a request from an industry association to put a procedure in place to protect potentially security-sensitive comments, we are informing commenters of the procedures currently set forth in RSPA's regulations for requesting confidential treatment. Thus, we are removing the sentence in the ANPRM indicating that ``comments that include information that may compromise transportation security will be disqualified as beyond the scope of the rulemaking." We will consider all comments received. All comments will be placed in the rulemaking docket unless they, or a portion thereof, are determined to be confidential and thereby protected from disclosure under the law. In this supplement to the ANPRM, we are also extending the comment period for an additional 31 days to November 15, 2002.

FMCSA-02-11650 (HM-232A) TITLE: Security Requirements for Motor Carriers Transporting Hazardous Materials; Advance notice of proposed rulemaking (ANPRM); Published 7/16/2002, 67 FR 46622.

SUMMARY: The Research and Special Programs Administration and the Federal Motor Carrier Safety Administration are examining the need for enhanced security requirements for the motor carrier transportation of hazardous materials. The two

agencies are seeking comments on the feasibility of specific security enhancements and the potential costs and benefits of deploying such enhancements. Security measures being considered include escorts, vehicle tracking and monitoring systems, emergency warning systems, remote shut-offs, direct short-range communications, and notification to state and local authorities.

RSPA-02-12064 (HM-232) TITLE: Hazardous Materials: Security Requirements for Offerors and Transporters of Hazardous Materials; Notice of proposed rulemaking (NPRM); correction and extension of comment period; Published 5/23/2002, 67 FR 36138.

SUMMARY: On May 2, 2002, the Research and Special Programs Administration **proposed** new requirements to enhance the security of hazardous materials transported in commerce. In response to requests by members of the regulated community, the comment period for the **proposed** rule is extended until July 3, 2002. In addition, we are correcting a citation in the **proposed** regulatory text.

Appendix F

Transport Canada Dangerous Goods Newsletter Summer 2002 Vol. 22 #1.

Terrorism in Transportation: Implications for Dangerous Goods Emergency Response Planning

by Peter Arthur

The recent events in North America have caused us to see emergency preparedness in a different light, and preparedness for transportation accidents involving dangerous goods is no exception. Transport Canada, through the requirements of the Transportation of Dangerous Goods Act requires companies to plan for accidents involving dangerous goods that present a high public safety risk if they are spilled or released from their means of containment, or present significant explosive, biological or radiological hazard. Transport Canada also assists first responders with critical chemical information, emergency advice, on-scene response specialists and access to industry emergency response assistance plans (ERAPs) through its emergency response centre, CANUTEC, supported by the development and publication of resource materials such as the 2000 Emergency Response Guidebook.

Industry and government have therefore already taken significant steps to plan for dangerous goods releases during transportation whether they are accidental or deliberately caused. However, existing planning has generally focused on planning for the worst probable case while considering likely transportation accident scenarios. Considering the potential for a chemical's use as a terrorist weapon in planning for a transportation incident requires the consideration of significant additional planning and response elements.

The first element is that planning must be for the worst case scenario where any intervention to mitigate the release of product is not possible because of actions taken by the terrorists to frustrate responders. Railway tank cars and tank trucks have many safety features, and a catastrophic release of the product from the tank is extremely rare, leading planners to consider more limited releases and countermeasures that can be taken to stop them. Where catastrophic releases have taken place they have tended to be in lower density or isolated areas, as trains tend to move slower in, and trucks tend to avoid, populated or congested areas and urban centers. In the terror attack, the terrorist is likely to choose an area that will produce the largest number of casualties, and will try to organize the attack in such a way that the release is catastrophic, or the damage, such as a sabotaged valve on a pressure tank car, or a hole below the liquid level on a tank cannot be plugged or repaired. In real life, there is no chance of a tank truck of gasoline or of fuming acid being driven into a crowded shopping mall, a crowded stadium, a large

outdoor concert or a Canada Day celebration. However, the higher the profile of the event, the more the media are present, and the larger the crowd, the higher the location's value as a target of terror becomes. In these cases, conventional industry planning which focuses on putting a fully equipped response team from the chemical manufacturer into the hot zone needs to be augmented by planning for the mass treatment of casualties, the quick assessment of potentials to rapidly create evacuation and exclusion zones (this will need to be over the phone for timeliness), and the advance completion of studies for the potential for shelter in place for the particular product so that effective information is quickly relayed to decision makers. Information such as whether to advise people to head for the second floor (a life saver in Bhopal) to get above a heavier than air gas cloud, or to the basement, to protect against an explosion or radiation is critical in the early minutes, as is the knowledge, given standard sets of atmospheric variables, of how far a lethal gas cloud, or blast radius would extend, given the tank size commonly used by the company.

The second element of an act of terrorism is that the attack may come in stages through the use of a secondary device designed to cripple emergency services and spread terror, hindering a further response. An example might be using a small explosive charge to open the vapor valve on a tank, and then detonating a larger charge under the tank or on a neighboring tank, either by timer or remote control once emergency services have deployed at the scene. The good news is that trains are more or less random mixes of cars and train departures are not predictable, making it difficult to use specific tank cars in a coordinated attack. Chemical tank trucks and pressure tankers would look highly anomalous if driving around in or parked in high profile public areas. However, security personnel and first responders should not count on the presence of placards to warn them of the presence of dangerous goods as these may have been removed or substituted for incorrect placards to increase confusion. For this reason, training and preparedness should include a knowledge of the unique shapes and features of the different types of chemical haulers and tank cars as a guide to what sort of goods they may contain and the risks that would be posed. Once a terrorism incident has been identified, responders should include a security aspect to the response including elements such as establishing the command post in a protected location, and conducting searches for additional explosives or booby traps on other parts of the tank, or possibly on other tank cars in the train, outside the area that has the immediately identified problem. It is also important to note that dangerous goods can be concealed in non traditional packaging. Beware the innocent looking cube van, trailer van, or 20 ft. shipping container. If they are part of the incident scene, they should be opened and searched as well.

A third element of responding to a terrorism incident is decontamination. Conventional emergency response planning considers decontamination in terms of a limited number of victims and a tightly controlled number of responders working in the hot zone. In a terrorism incident, hundreds or potentially thousands of people may be contaminated. The worst case scenario would be the use of a radioactive "dirty bomb", where conventionally available radioactive sources are packed with explosives to particularize radioactive contaminants over a wide area, but other possibilities include the use of highly toxic pesticides, or products such as acids or dermally toxic phenol. The need to decontaminate large crowds of people while moving them rapidly from the hazard area will be incredibly taxing on first responders which may lead to contaminated victims leaving the scene without a proper decontamination. A suggestion in this area is to immediately consider using local stores for supplies such as rubber gloves, plastic rain wear, garbage bags, sheets to replace clothing and highly absorbent materials such as diapers and sanitary napkins for surface scrubbing. The decon should be as dry as possible to minimize cross contamination, and efforts should be made to try to organize people that have come forward to help as ad hoc decon teams, crowd containment and

record keepers, freeing up properly equipped responders to deal with other aspects of the emergency. Company planning should consider a readily faxable protocol for mass rapid decon using common materials for their particular products.

The fourth and potentially most important element of the dangerous goods terrorism incident is that the incident site is a crime scene. Responders must balance the timeliness and effectiveness of their response with the need to preserve evidence. If the perpetrators cannot be identified and caught, it is almost certain that they will use the knowledge they have gained to cause even greater damage the next time. The Oklahoma City bomber was eventually identified from a serial number on a truck part found several blocks from the scene, preventing further attacks. Everything at the scene or near it, and its initial location and condition could be critical to the investigation. Once a thing has been moved or altered, washed down or overturned, its usefulness as evidence that could be used to reconstruct the event, or introduced at a criminal trial is significantly reduced. Chain of custody and good note taking, including photos and sketches of locations of objects are found critical. First responders are already well aware of behaviors such as arsonists and saboteurs wishing to witness what they created, and this may be no less true at the terrorism scene. What will be different is that, as a large scale public disaster, the high level of focus on the dangerous goods aspect of the situation may lead to delays in recognizing or establishing the criminal element of the response. Just as the worst burned person at a structure fire may be the arsonist, one of the victims rushed through decon may have been the perpetrator. In the United States, the FBI would quickly assert jurisdiction if the incident is a criminal act. In Canada we have no similar structure, leaving the local authorities charged with this responsibility.

Planning for an act of terrorism involving dangerous goods requires consideration of the unthinkable, unlikely or impossible. As the elements described in this article show, no matter how extreme the circumstances, awareness of how a dangerous goods terrorism incident is different from an equivalently serious dangerous goods accident will make a difference, both in mitigating the potential severity of the incident and in preventing further incidents such as secondary attacks to the initial strike, and, if the perpetrators can be identified, further attacks in the future.

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Mr. Fernandes practices civil litigation. He is involved in all aspects of transportation law (aviation, marine, trucking, rail, freight forwarding, logistics and warehousing). His insurance practice includes coverage issues, errors and omissions claims, marine and aviation, inland marine, property and casualty liability defence, and subrogation.

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