DEPARTMENT OF HOMELAND SECURITY Office of Inspector General

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Audit of Screening of Trucks Carrying Canadian Municipal Solid Waste



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Office of Audits

OIG-06-21

January 2006

Office of Inspector General

U.S. Department of Homeland Security Washington, DC 20528



Preface

The Department of Homeland Security (DHS) Office of Inspector General (OIG) was established by the Homeland Security Act of 2002 (Public Law 107-296) by amendment to the Inspector General Act of 1978. This is one of a series of audit, inspection, and special reports prepared by our office as part of our DHS oversight responsibilities to promote economy, efficiency, and effectiveness within the department.

This review was conducted at the request of Senators Carl Levin, Debbie Stabenow and Representative John D. Dingell of Michigan. We assessed the Bureau of Customs and Border Protection's process for screening and inspecting trucks carrying Canadian municipal solid waste into the United States. It is based on interviews with employees and officials of relevant agencies and institutions, direct observations, and a review of applicable documents.

The recommendations herein have been developed to the best knowledge available to our office, and have been discussed in draft with those responsible for implementation. It is our hope that this report will result in more effective, efficient, and economical operations. We express our appreciation to all of those who contributed to the preparation of this report.

Richard L. Skinner Inspector General

Landa I L. Sleiner

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Abbrevia	tions	
ATS CBP	Bu	comated Targeting System reau of Customs and Border Protection

ATS	Automated Targeting System
CBP	Bureau of Customs and Border Protection
CES	Centralized Examination Station
GAO	Government Accountability Office
MSW	Municipal Solid Waste
OIG	Office of Inspector General
POE	Ports of Entry
PRD	Personal Radiation Device
RIID	Radiation Isotope Identifier Device
RPM	Radiation Portal Monitor
VACIS	Vehicle and Cargo Inspection System
WMD	Weapons of Mass Destruction

OIG

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Executive Summary

The greater Toronto, Canada area has been shipping municipal solid waste (MSW) to Michigan landfills for disposal since 1998. During calendar year 2004, Michigan landfills received approximately 100,000 truckloads of Canadian MSW, an 8% increase over calendar year 2003. Another 10,000 shipments of MSW enter the U.S. through 9 other ports of entry (POE) that accept Canadian and Mexican MSW. Over the past two years, trucks carrying Canadian MSW were found to contain medical waste, illegal drugs, and illegal currency. At the request of Senators Levin and Stabenow and Representative Dingell, our office reviewed the effectiveness of the Bureau of Customs and Border Protection's (CBP) screening of trucks carrying Canadian MSW.

Our audit work was conducted at CBP Headquarters in Washington, DC, and at the ports of Detroit and Port Huron, Michigan. We evaluated CBP entry and screening procedures and observed CBP personnel implementing those procedures at Michigan landfills and at the ports of Detroit and Port Huron. We also gathered and analyzed information regarding techniques for screening MSW from other northern and southern border ports. In addition, we made site visits to three MSW transfer stations in the greater Toronto area. The audit objective, scope, and methodology are discussed in more detail in Appendix A of this report.

CBP has the authority² to search all persons, baggage, and merchandise arriving in the U.S. to detect and seize smuggled instruments of terror, and other contraband, such as illegal drugs. CBP carries out its responsibility by using screening equipment and physical inspections. For example, every passenger vehicle and truck entering the U.S. at the Detroit and Port Huron POE pass through a radiation portal monitor (RPM) and selected trucks receive a Vehicle and Cargo Inspection

2 19 USC § 1467; 19 CFR § 162.6.

Screening of Trucks Carrying MSW

¹ The request letter is included as Appendix B.

System (VACIS)³ screening. During special operation days, the contents of selected trucks are physically inspected. However, because of the limitations of the screening equipment,⁴ the large number of MSW trucks crossing POE, the limited resources available for conducting time-intensive inspections of MSW, and the difficulty in conducting physical inspections of MSW, the likelihood of finding prohibited items is minimal.

We are recommending that the Commissioner of CBP conduct a risk analysis and develop procedures and minimum requirements for selecting and inspecting trucks carrying Canadian MSW.

Background

According to Title 19 Code of Federal Regulations, Section 162.6, all persons, baggage, and merchandise arriving in the customs territory of the U.S. from places outside thereof are liable to inspection and search by a customs officer.

Over 99% of Canadian MSW coming into Michigan flows through two major POE, the Blue Water Bridge in Port Huron and the Ambassador Bridge in Detroit. During calendar year 2004, these POE accepted approximately 100,000 shipments of MSW for Michigan landfills, an increase from approximately 92,600 during calendar year 2003. The majority of the shipments are from the greater Toronto area. MSW from other areas of Canada and Mexico enter the U.S. through an additional nine POE that processed approximately 10,000 trucks in calendar year 2004.

Screening of Trucks Carrying MSW

³ A VACIS machine uses gamma rays to produce a visual presentation of a truck's contents. The image is similar to an x-ray.

We have reported on the limitations of RPM and VACIS equipment in DHS OIG report number OIG-04-040, September 2004.

Table 1 shows the number of MSW trucks entering the U.S. during calendar year 2004.

Table 1 MSW Truck Entering U.S. Ports Calendar Year 2004				
Ports	Number of Shipments	Percentage 82.1		
Port Huron, Michigan	90,174			
Detroit, Michigan	9,250	8.4		
Buffalo, New York	7,580	6.9		
Sumas, Washington	2,252	2.1		
Sault Ste. Marie, Michigan	534	0.5		
San Luis, Arizona	38	0		
Other Ports	19	0		

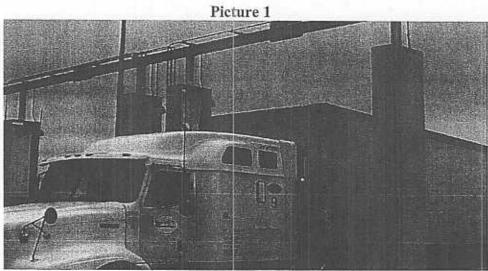
In Toronto, the MSW is unloaded from garbage trucks and reloaded onto larger long-distance tractor-trailers for shipment to Michigan landfills. At some of the transfer stations, the loaded trucks are driven through an RPM prior to departure to the U.S.

CBP Inspections

At the Detroit and Port Huron POE, every passenger vehicle and truck must pass through an RPM. An RPM is a non-intrusive tool that screens vehicles for nuclear and radiological materials.

Screening of Trucks Carrying MSW

Picture 1 shows an MSW truck passing through a RPM.



Truck going through a Radiation Portal Monitor

If an RPM or a Personal Radiation Detector (PRD)⁵ alerts to the presence of radiation, the MSW truck receives a second screening using a different RPM. If the second RPM also alarms, the truck undergoes secondary examination. The secondary examination would involve CBP officers using a Radiation Isotope Identifier Device (RIID) to identify the source of the radiation (specific isotope). The truck may also undergo a VACIS examination. The secondary examination generally involves a physical examination of the vehicle. CBP does not have the capability to unload and inspect the contents of a MSW truck at the POE. Once the source of the specific radiation is determined, the vehicle will be released into the U.S., or processed for immediate return to Canada.⁶ If a violation has occurred, a penalty might be issued. In September 2004 we reported on the limitations of RPM, VACIS, PRD, and RIID equipment in report number OIG-04-040.

Screening of Trucks Carrying MSW

⁵ The PRD is a small, self-contained personal safety device used for detecting radiation.

⁶ Radiation can be present in many commonly used materials such as cat litter and clay tiles.

Special Operations

In July 2003, CBP initiated special operation days called "Dump in Detroit" and "Screen Waste in Port Huron" to determine if trucks hauling MSW into the U.S. are in compliance with import laws and regulations. During the special operations, trucks are selected after they have gone through the RPM. All trucks entering the U.S. at the ports of Detroit and Port Huron drive through an RPM. Trucks cannot be selected for special operations until they have gone through the RPM. The truck driver's entry documents are also reviewed to see if the driver has any outstanding warrants or legal issues in the U.S. or Canada. After the documents are confirmed, the truck is escorted to a landfill for a more thorough examination of its contents. Before the trucks are escorted to the landfill, a canine, if available, will be used to inspect the trucks. Since the special operations began, 629 trucks have been inspected, including 552 at the port of Detroit and 77 at Port Huron.

Results of Audit

Vulnerabilities in Screening Equipment and Physical Inspections

CBP does not have an effective method to screen and inspect the 350 truckloads of MSW that enter the U.S. daily through the Detroit and Port Huron POE. The effectiveness of RPMs and other equipment used to test for the presence of radiation is limited. VACIS visual presentations cannot easily distinguish drugs, weapons, or other contraband in MSW. In addition, physical inspections are of limited value because it is difficult to thoroughly inspect compacted MSW to identify illegal cargo, and relatively few inspections are performed because they are labor intensive. Further, physical inspections of the cab and the tractor are not routinely performed.

RPM and VACIS Examinations

The effectiveness of RPM and VACIS examinations is limited. In a September 2004 classified report, we identified needed improvements in the application of RPM technology. In addition, the effectiveness of the VACIS imaging system is limited by the nature of MSW. Because MSW is dense when compacted for transportation and is not a

Screening of Trucks Carrying MSW

homogenous product, it can be difficult for the officers to identify anomalies in the visual representation. Other commodities present a clearer and more uniform image. However, the imaging system has been useful in detecting some illegal drug smuggling. In one instance, an anomaly in the visual representation was found to be 1,900 pounds of marijuana packed in sports equipment bags. The bags were found in the back of a MSW truck.

The VACIS imaging equipment also has mechanical limitations. At the ports we visited, the truck housing the equipment and the VACIS equipment itself were often out of service due to mechanical problems. The VACIS truck must be driven to a contractor or wait for a technician for repairs. Also, the equipment is often inoperable in inclement weather (electrical, wind, and snow storms).

CBP Inspections of MSW

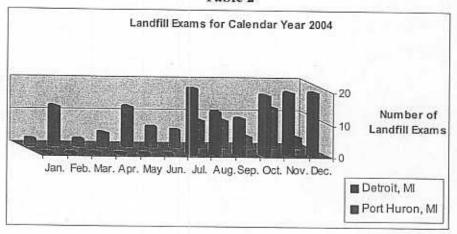
Very few trucks received inspections other than an RPM. All MSW inspections during calendar year 2004 took place under special operation days called "Dump in Detroit" and "Screen Waste in Port Huron." Although the Detroit and Port Huron POE accept 99% of MSW entering Michigan and over 90% of all MSW entering the U.S., the contents of less than 2/10 of 1% of MSW trucks are selected for physical inspections.

During calendar year 2004, 77 of the 90,174 MSW trucks that came through Port Huron were selected for landfill inspections. At the port of Detroit, 100 of 9,250 MSW trucks were selected for inspection. However, all inspections at Detroit occurred during July through December; no inspections were performed during January to June. CBP personnel told us they did not perform any landfill examinations during the latter period because officers were assigned to higher risk priorities.

Screening of Trucks Carrying MSW

Table 2 shows the number of landfill examinations performed by month during 2004 for the Port Huron and Detroit POE.

Table 2

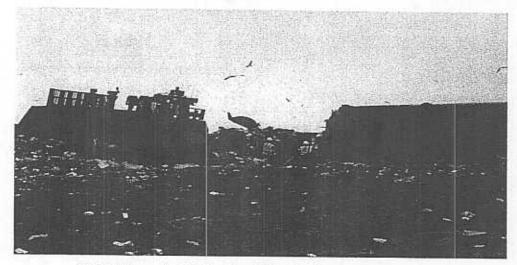


Poor weather conditions, difficulty getting into landfills, distances to the landfills, the length of time required to escort MSW trucks to a landfill and conduct an inspection, limit the number of landfill exams conducted by CBP. The Michigan landfills are located from 25 to 90 miles from the POE. Three officers and a supervisor conduct landfill examinations either on overtime or on regular hours, with their normal work assignments performed on an overtime basis. CBP officers typically select no more than five trucks to accompany to the landfill, observe the unloading, and examine the contents. The officers then return to the POE. The process from selection to release of the trucks after the examination, can take from 3 to 6 hours.

Physical examinations at landfills are difficult to perform because of unhealthy and dangerous environmental conditions. The presence of blood, medical waste, syringes, and the commingling of household chemical products, can cause skin irritation, respiratory problems, and diseases, such as hepatitis. Officers are also exposed to bird droppings from the multitude of birds that fly above the landfills.

Screening of Trucks Carrying MSW

Picture 2



CBP Officers at a Michigan landfill unloading a MSW truck

In addition, the MSW is generally so tightly compacted when a truck is loaded, that it is hard to identify specific items, as they are unloaded at the landfill. There have been fires inside these trucks caused by spontaneous combustion in the tightly compacted MSW.

Further, the landfill surfaces are unstable and slippery during rain, snow, and ice. Officers can be injured climbing through the waste or by other commercial trucks unloading garbage in the same area. Poor weather conditions can also limit the number of landfill exams because of the conditions of the roads and the distances to the landfills.

CBP officials consider inspection activities to be a local decision based on a port officials' assessment of risk, available resources, and workload. CBP officials at the ports of Detroit and Port Huron told us they use local intelligence, officer judgment, random sampling, and targeting scores from CBP's Automated Targeting System (ATS) to select trucks carrying MSW for further examination. CBP officials said they have not conducted a comprehensive assessment of risks facing the northern border.

Screening of Trucks Carrying MSW

Centralized Examination Station

Centralized Examination Stations (CES) are facilities located near POE that provide the buildings and equipment needed to unload trucks, examine their cargo, and reload. There are no CES near the Detroit or Port Huron POE. Physical examinations are limited to a peek in the back of truck (if the door is opened too much, it cannot be closed again) or a view of the top of an open-top truck covered by a rollback tarp.

CBP solicited bids for a contractor to provide a preexisting facility or to construct and operate a CES for MSW near the Detroit and Port Huron POE. CBP planned to have contractors operate the facility, including unloading and re-loading the MSW trucks and inspecting the contents. The cost of the examinations, under CBP's plan, would be charged to the importer/exporter or importer's/exporter's agent. CBP officers would be present at the CES to oversee the operation.

CBP received one proposal in response to its request. The proposal was for a CES facility 80 miles from the POE. CBP determined that this was too far from the POE. CBP officials believe a CES would allow CBP to conduct more inspections in a safer environment and reduce the cost of inspections. However, according to CBP officials, there appears to be no interest from the private sector in establishing a CES facility closer to the ports, and as a result, CBP is no longer pursuing the CES.

Operating Procedures

CBP relies on local POE officials to decide when to select and inspect MSW trucks. CBP's procedures for special operation days, for example, do not specify how frequently special operation days should occur or how many trucks should undergo inspection during these operations. Lacking nationwide procedures, local port officials drafted local procedures for screening MSW. This resulted in inconsistent inspections by the CBP officers at the various POE. For example, Port Huron's "Screen Waste" procedures instruct the officers to release the trucks selected for inspections if a bottleneck develops at the bridge, while Detroit's "Dump" procedures do not mention release because of bottlenecks.

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In addition, Detroit and Port Huron do not conduct VACIS exams in the same way. Detroit images the entire truck after the driver exits. Port Huron starts to image behind the driver; the driver remains in the cab to drive the truck through the imaging process. Consequently, if there were contraband in the cab, the imaging process would not detect it.

Recommendations

We recommend that the Commissioner of CBP conduct a risk analysis and develop procedures and minimum requirements for selecting and inspecting trucks carrying MSW. The procedures should require inspections throughout the year and physical inspections should not be limited to special operations days.

Management Comments and OIG Analysis

We obtained written comments on a draft of this report from CBP. We have included a copy of the comments in their entirety as Appendix C. CBP agreed with the recommendations. Below is a summary of CBP's response to the recommendations and our assessment of the response.

CBP concurred with the recommendation and proposed a three part action plan:

The Office of Field Operations (OFO) will request that the Office of Strategic Trade perform a risk analysis of trucks carrying municipal solid waste into the United States.

OFO will review the risk analysis and develop procedures and requirements for selecting and inspecting trucks carrying Canadian municipal solid waste.

OFO will implement the new selection criteria and inspection procedures.

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CBP's proposed corrective action, when fully implemented, will satisfy the recommendation. We requested a copy of the risk analysis and a copy of the selection criteria and inspection procedures.

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Objective, Scope, and Methodology

The objective of this audit was to determine the effectiveness of the technologies and methodologies used by CBP to screen MSW. Specifically, we determined whether there were vulnerabilities in the technologies and methodologies that CBP used to screen trucks and drivers hauling MSW from Canada, and whether CBP personnel had established consistent, comprehensive, and clear methodologies for screening MSW. The audit scope covered the period January 2003 through March 2005.

We interviewed CBP Headquarters and port personnel responsible for the program. We reviewed regulations, directives, and other guidance related to the screening and examination of MSW. We reviewed MSW entries and analyzed data files received from port personnel.

We conducted our audit work at CBP Headquarters and at the ports of Detroit and Port Huron, Michigan, where we observed the processing and screening of MSW. We selected the ports of Detroit and Port Huron because they have the largest volume of MSW entries nationwide. We also visited two Michigan landfills and observed how MSW is examined. We visited three MSW transfer stations in the greater Toronto area where MSW is unloaded from collection vehicles and briefly held while it is reloaded onto larger long-distance transport vehicles for shipment to landfills or other treatment or disposal facilities. We also gathered and analyzed information regarding techniques for screening MSW from other northern and southern border ports.

We conducted our audit between June 2004 and March 2005 under the authority of the Inspector General Act of 1978, as amended, and according to generally accepted government auditing standards.

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Screening of Trucks Carrying MSW

Congress of the United States Washington, DC 20510

October 20, 2003

The Honorable Clark Kent Ervin Acting Inspector General U.S. Department of Homeland Security Washington, D.C. 20528

Dear Inspector General Brvin:

We are writing to request that your office begin an investigation into the effectiveness of the Bureau of Customs and Border Protection screening of trucks carrying municipal solid waste (MSW). Since January 2003, the City of Toronto has been shipping all of its MSW to Michigan for disposal. Currently, approximately 125-150 trash trucks from Toronto and 30 trash trucks from other Canadian municipalities travel across the U.S.—Canadian border into Michigan for disposal each day. The core question we seek an answer to is whether or not the methodologies and technologies used by the Bureau to screen municipal solid waste are as effective as the methodologies and technologies used by the Bureau to screen other items of commerce entering into the United States by commercial motor vehicle transport.

As you may know, Inward Cargo Manifests for these trash shipments simply read "Municipal Solid Waste." Over the course of the past year, there have been numerous cases where trucks were in fact carrying more than was listed on the manifest. In October, 2002, a trash truck was leaking blood from its trailer as it crossed the Ambassador bridge from Canada into the United States. As the truck was inloaded at a Waste Management Recovery station in Detroit, it became clear that medical waste was a large percentage of the waste in the trailer. In April of this year, police in Sumpter Township, Michigan, found 50 pounds of marijuana in a trash truck. In that instance, Customs agents told Carleton Farms landfill operators to be on the lookout for contraband such as illegal drugs.

In early August of this year, a trailer carrying MSW was pulled over for being overweight. The policemen on duty, after obtaining consent from the driver and passeagers, found a blue duffel bag containing \$539,200. On September 24, 2003 Customs agents apprehended a trash truck driver for attempting to enter the United States with one ton of marijuana. The approximately 2,000 pounds of illegal drugs packed in 59 plastic bags and hockey equipment duffel bags was one of the biggest drug busts in recent Michigan history. Law enforcement officials value the drug's street value at approximately \$9 million. A few days later, on September 30, the Macomb County prosecutor's office secured a warrant against a Canadian waste hauling company for violating Michigan law by dumping medical waste in Michigan landfills.

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The Honorable Clark Kent Ervin October 20, 2003 Page Two

The aforementioned cases are examples of the system working. However, we are concerned that for each truck found with contraband, many more may be getting through the

This is an issue of the utmost importance to the citizens of Michigan, and indeed the safety of our Nation. Therefore, we ask that you begin this investigation as soon as possible. If you have any questions, please do not hesitate to contact us, or have your staff contact Kaye Meier in Senator Levin's office at (202) 224-9110.

Sincerely,

John D. Dingell Member of Congress

U.S. House of Representatives

Debbie Stabenow Member of Congress

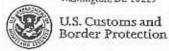
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U.S. Senate

Screening of Trucks Carrying MSW

U.S. Department of Homeland Security Washington, DC 20229



December 20, 2005

MEMORANDUM FOR RICHARD L. SKINNER

INSPECTOR GENERAL

DEPARTMENT OF HOMELAND SECURITY

FROM:

Acting Director M. C. Aluller

Office of Policy and Planning

SUBJECT:

Response to the Office of Inspector General's Draft Report on the Screening of Trucks Carrying Canadian Municipal

Solid Waste

Thank you for providing us with a copy of your draft report entitled "Audit of Screening of Trucks Carrying Canadian Municipal Solid Waste" and the opportunity to discuss the issues in this report. The U.S. Customs and Border Protection (CBP) appreciated the opportunity to work with the auditors in constructing a balanced and accurate document. CBP agrees with the overall substance and findings of the report.

The Office of Inspector General (OIG) recommends that CBP conduct a risk analysis and develop procedures and minimum requirements for selecting and inspecting trucks carrying MSW. The procedures should require inspections throughout the year and physical inspections should not be limited to special operations days,

CBP concurs with the recommendations and proposes a three part action plan:

- Risk analysis performed by the Office of Strategic Trade The Office of Field Operations (OFO) will request that the Office of Strategic Trade perform a risk analysis of trucks carrying municipal solid waste into the United States. The analysis will be focused on providing statistically valid examination rates for each type of examination performed. This analysis will be requested within 120 days. The tentative delivery date is May 1, 2006.
- Development of procedures by OFO OFO will review the risk analysis and develop procedures and requirements for selecting and inspecting trucks carrying Canadian municipal solid waste. The tentative delivery date for this is June 1, 2006.

Screening of Trucks Carrying MSW

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 Implementation of procedures by the OFO – OFO will implement the new selection criteria and inspection procedures. Full implementation should be completed by August 1, 2006.

CBP has determined that the information in the audit does warrant protection and we are designating the document as "For Official Use Only (FOUO)." Classification of the report as FOUO is clearly justified because of the sensitive nature of the information contained therein. The entire report should be FOUO because it discusses targeting and exam methodology. Please consider CBP's concerns prior to releasing information that has been determined to be sensitive.

If you have any questions regarding this response, please contact me or have a member of your staff contact Ms. Lynn Richardson at (202) 344-2953.

Screening of Trucks Carrying MSW

Major Contributors To This Report

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