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Northeast Region

Audit Report

Animal and Plant Health Inspection Service Wildlife Services' Controls Over Hazardous Materials Inventory

Report No. 33001-05-Hy
July 2004



UNITED STATES DEPARTMENT OF AGRICULTURE

OFFICE OF INSPECTOR GENERAL

Washington D.C. 20250



DATE: July 21, 2004

REPLY TO

ATTN OF: 33001-05-Hy

SUBJECT: Animal and Plant Health Inspection Service, Wildlife Service's
Controls Over Hazardous Material Inventory

TO: W. Ron DeHaven
Administrator
Animal and Plant Health Inspection Service

ATTN: William J. Hudnall
Deputy Administrator
Marketing and Regulatory Programs Business Services

This report presents the results of our audit of Animal and Plant Health Inspection Service (APHIS), Wildlife Service's Controls Over Hazardous Material Inventory. Our report describes the issues with accountability for hazardous pesticides and drugs that we identified during our review, as well as the corrective actions taken by APHIS to improve control over Wildlife Service's hazardous materials inventory.

Your response to the official draft, dated June 24, 2004, is included as exhibit C. Additionally, your response and the Office of Inspector General's (OIG) position are incorporated into the Findings and Recommendations sections of the report. Based on your response, management decisions have been reached on all recommendations except for Recommendations Nos. 1, 2, 4, 6, 7, 11, and 13. Please follow your agency's internal procedures in forwarding documentation for final action to the Office of the Chief Financial Officer. Management decisions for the remaining recommendations can be reached once you have provided the additional information outlined in the report section OIG Position.

In accordance with Departmental Regulation 1720-1, please furnish a reply within 60 days describing the corrective actions taken or planned, and the timeframes for implementation of the remaining recommendations. Please note that the regulation requires management decision to be reached on all recommendations, within 6 months of report issuance.

//s//

ROBERT W. YOUNG
Assistant Inspector General
for Audit

Executive Summary

Animal and Plant Health Inspection Service Wildlife Services' Controls Over Hazardous Materials Inventory

Results in Brief

The objectives of the audit were to: (1) evaluate the Animal and Plant Health Inspection Service's (APHIS) accountability and controls over storage, security, disposal and recordkeeping for hazardous materials in selected States, and (2) followup on corrective actions reported by APHIS Wildlife Services (WS) (formerly named Animal Damage Control [ADC]).

The intentional misuse of concentrated pesticides to cause illness or death is considered to be a "low probability, high impact" event, according to the Office of the Deputy Under Secretary of Defense (DUSD).¹ Pesticides are toxic substances that are designed to kill living organisms. Toxicity ranges from very deadly (a taste or drop can kill a human) to practically nontoxic to people and other animals. Technical guidance issued by DUSD explains that pesticides may be applied, against their intended use, to the air people breathe, may adulterate food and water, or may contaminate surfaces or objects that people contact. Further, pesticides are a potential terrorist tool and in some cases could be delivered to an unsuspecting population through delivery systems used in normal pest management operations. Many of the substances addressed in the DUSD guidance are the same pesticides used by WS, to include cyanide, strychnine, and zinc phosphide.

Our review determined that WS is unable to fully account for its inventories of hazardous pesticides and controlled drugs, and that these inventories are not always stored in a safe and secure manner. This condition exists because WS management has not established effective management controls over its inventories to ensure that full accountability and effective safeguarding measures are in operation. Therefore, hazardous materials remain vulnerable to undetected theft and unauthorized use, and may pose a threat to human and animal safety.

In February 2001, we initiated an audit survey that disclosed serious issues with WS' accountability for hazardous materials. We issued a Management Alert in October 2001, in which we recommended that WS establish management control and accountability over the hazardous pesticides and controlled drugs used in its programs by revising State office review procedures and ensuring that all State offices maintain perpetual inventory records of pesticides and drugs, by documenting transfers of inventory to applicators, and performing a periodic physical inventory count.

¹ Armed Forces Pest Management Board, Technical Guide No. 7, Installation Pesticide Security, Defense Pest Management Information Analysis Center, Forest Glen Section, Walter Reed Army Medical Center, August 2003.

In responding to our Management Alert, WS officials did not achieve effective management control and accountability over hazardous materials. The WS response required all State directors to conduct an immediate physical inventory of the pesticides and drugs at all locations under their control, and to account for the acquisition, use, transfer, sale, and disposal of these hazardous materials. The State directors were instructed to maintain perpetual inventory records using a standardized form and to revise WS State office program review procedures, to include a periodic review of accountability and control over all hazardous materials. Although the measures taken by WS in response to the management alert represented progress in improving management control over hazardous materials, more work is needed. These measures were insufficient because WS officials did not follow up with onsite reviews and spot checks to ensure if these measures were appropriately implemented, and whether further corrective actions were required.

Our followup review of WS operations in New Mexico and Texas, disclosed that because adequate management control over hazardous pesticides and controlled drugs had not been instituted, these materials were neither properly accounted for, nor stored in a secure manner. Weaknesses persisted in the accountability for hazardous substances that present difficulties and complexities in counting, measurement, and disposal. Undetected inventory errors and omissions reduced the reliability of the newly instituted perpetual inventory process and limited its effectiveness as a tool to support administrative control. The Office of Inspector General (OIG) auditors observed hazardous materials stored in personal sheds and toolboxes that lacked an adequate quality of construction and effective access controls. Further, the inspections of stored hazardous material were not always completed, and did not cover applicators' personal vehicles and storage facilities on private property, in part, because the APHIS Safety and Health Manual does not provide adequate guidance in this area.

WS received a Homeland Security supplemental appropriation in fiscal years (FY) 2002 and 2003, and expended \$1,652,351 to upgrade the security and storage of hazardous materials. APHIS officials report that all WS State and district offices and warehouses now have locking pesticide storage sheds and/or containers. All WS field employees who use pesticides have lockable boxes for transporting pesticides in their vehicles and lockable safes/vaults to safely store hazardous materials at their homes. WS also initiated an inventory system, Control Materials Inventory Tracking System (CMITS), to track hazardous pesticides and drugs in all of their State programs. The system was implemented in December 2002.

CMITS tracks pesticide inventory at the lowest level, the applicator, and consolidates inventory at the district and State levels. The system, which tracks by product name, Environmental Protection Agency's registration number, and unit of measure such as ounces or pounds, starts with a beginning inventory and records by date all additions to inventory such as transfers, and subtractions from inventory such as use, sales, and disposal, to yield an ending inventory. CMITS is used in conjunction with a paper based inventory system, where data is accumulated until CMITS is updated monthly. Reviews are to be performed on a quarterly basis and the system is updated at the District or State level.

Recommendations In Brief

We recommended that APHIS management establish an organized and coordinated system of management control over the WS inventories of hazardous pesticides and controlled drugs. The system must ensure that all inventories of these materials in all States included within the WS program are properly accounted for and are stored in a safe and secure manner. The system should also incorporate feedback mechanisms so that top-level managers have good information about how the system is working.

We also recommended that WS require each State office to: (1) standardize M-44 cyanide capsule terminology for inventory use, (2) develop and implement written procedures for the management and control of inventories of hazardous pesticides and drugs to ensure that the inventory is accurate, (3) require district supervisors to conduct (at least annually) a physical inventory and reconciliation with applicators and require State office personnel to periodically conduct a physical inventory and reconciliation for the district supervisors, and (4) require that inspectors be independent of the storage areas they are inspecting.

WS should also: (1) develop specific guidelines for adequate storage and security of hazardous materials on private property or vehicles, including the use of gun safes and/or well constructed storage sheds, (2) require access to the sheds and toolboxes where hazardous pesticides and drugs are stored be limited to authorized personnel, (3) ensure applicators obtain safe and secure storage for use on their vehicles and private property, (4) revise the Safety and Health Manual to clarify the term "hazardous workplace," add requirements for the inspection of pesticide storage at private residences or on personal vehicles, and require all hazardous materials inspections to be completed and documented in a timely manner. APHIS should also develop guidelines for the use and frequency of field inspections using form ADC 82 "Field Inspection Report," and revise the form to address the requirements for adequate storage and security of hazardous pesticides and drugs.

**Agency
Response**

APHIS management agreed that prior to 2003 the WS program did not have an accurate inventory system for hazardous materials and lacked adequate storage facilities at many of the sites in the four states where the OIG review occurred. As a result, WS officials were unable to accurately account for the program's use of hazardous materials and controlled drugs in those states. However, APHIS management did not agree with OIG's conclusions that WS is unable to fully account for its inventories of hazardous pesticides and controlled drugs, in part, because this statement does not accurately reflect the current status of WS' ability to track, store, and account for its use of hazardous materials and controlled drugs and does not fully recognize the improvements WS has effected to minimize the risk for loss, theft, or misuse of hazardous materials and controlled drugs.

The majority of the improvements to the storage facilities, the revision of program directives, and the implementation of a national hazardous materials tracking system were implemented in 2003 and 2004. OIG officials did not conduct a site visit after August 2002, and as a result, did not substantiate the accuracy of CMITS, which was implemented nationally in December 2002, or the improvements to the hazardous materials storage facilities that were implemented after their site visits. The WS program spent \$ 1.6 million in FY 2002 and 2003 to upgrade their security and storage facilities for hazardous materials in addition to implementing CMITS.

The agency response states that APHIS has implemented an inventory accountability system that has greatly reduced the risk for undetected theft, loss, or misuse; and that the agency has reasonable assurance that WS inventories of hazardous materials are accounted for and protected.

APHIS management generally agreed with the report's recommendations. We have incorporated excerpts from APHIS' response in the Findings and Recommendations sections of this report, along with the OIG's position. APHIS' response is included in its entirety as Exhibit C.

**OIG
Position**

While we agree that APHIS WS has improved accountability for hazardous materials inventories, as set forth in our report, we believe additional actions must be taken before APHIS WS has reasonable assurance that the agency can fully account for its inventory of hazardous pesticides and controlled drugs. Based on APHIS' response, we were able to reach management decision on 6 of the report's 13 recommendations. The Findings and Recommendations section of this report provides the details of the actions to be taken and the additional information needed to reach management decision on Recommendations No. 1, 2, 4, 6, 7, 11, and 13.

Table of Contents

Executive Summary	i
Background and Objectives	1
Findings and Recommendations	6
Finding 1 Weaknesses in Accountability Over Inventories of Hazardous Pesticides and Controlled Drugs	6
Recommendation No. 1	15
Recommendation No. 2	16
Recommendation No. 3	17
Recommendation No. 4	18
Recommendation No. 5	19
Recommendation No. 6	19
Recommendation No. 7	20
Recommendation No. 8	20
Finding 2 Weaknesses in the Storage and Security of Hazardous Materials	22
Recommendation No. 9	28
Recommendation No. 10	29
Recommendation No. 11	29
Recommendation No. 12	30
Finding 3 Safety and Field Inspections to Address Security of Storage of Hazardous Materials Inventories	30
Recommendation No. 13	32
Scope and Methodology	34
Exhibit A - Uses and Potential Hazards of Selected Pesticides and Drugs	36
Exhibit B – Final Results of Physical Inventory Reconciliation	38
Exhibit C – Agency Response	39

Abbreviations

ADC	Animal Damage Control
APHIS	Animal and Plant Health Inspection Service
ARPMB	Armed Forces Pest Management Board
CMITS	Control Materials Inventory Tracking System
DEA	Drug Enforcement Administration
DUSD	Office of the Deputy Under Secretary of Defense
EPA	Environmental Protection Agency
FDA	Food and Drug Administration
FY	Fiscal year
I&E	Immobilizing and Euthanizing
INAD	Investigational New Animal Drug
HQ	Headquarters
OCFO	Office of the Chief Financial Office
OIG	Office of Inspector General
OSHA	Occupational Safety and Health Administration
OSS	Operational Support Staff
PSD	Pocatello Supply Depot
SHEB	Safety, Health, and Employee Wellness Branch
WS	Wildlife Services
USDA	United States Department of Agriculture
ZP	Zinc phosphide

Background and Objectives

Background

The mission of the Animal and Plant Health Inspection Service (APHIS) is to protect America's animal and plant resources by safeguarding them from exotic invasive pests and diseases, monitoring and managing agricultural pests and diseases existing in the United States, resolving and managing trade issues related to animal and plant health, and ensuring the humane care and treatment of animals. Wildlife Services (WS) is an APHIS program that is dedicated to reducing conflicts between wildlife and agriculture, property, and natural resources that may cause economic damage and possibly threaten public health and safety.

Section one of the Animal Damage Control Act of March 2, 1931, 7 U.S.C. 426, was amended in the fiscal year 2001 Agriculture Appropriation Bill as follows:

The Secretary of Agriculture may conduct a program of wildlife services with respect to injurious animal species and take any action the Secretary considers necessary in conducting the program. The Secretary shall administer the program in a manner consistent with all of the wildlife services authorities in effect on the day before the date of the enactment of the Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2001.

The Secretary of Agriculture is authorized to make such expenditures for equipment, supplies, and materials, including the employment of persons and means in the District of Columbia and elsewhere, and to employ such means as may be necessary to execute the functions imposed upon him by 426 of this title.

On and after December 22, 1987, the Secretary of Agriculture is authorized, except for urban rodent control, to conduct activities and to enter into agreements with States, local jurisdictions, individuals, and public and private agencies, organizations, and institutions in the control of nuisance mammals and birds and those mammal and bird species that are reservoirs for zoonotic diseases, and to deposit any money collected under such agreement into the appropriation accounts that incur the costs to be available immediately and to remain available until expended for Animal Damage Control activities.

Since 1985, when WS transferred to the United States Department of Agriculture (USDA), the program has continued to provide Federal leadership and expertise to resolve wildlife conflicts that threaten the nation's agricultural and natural resources, in addition to human health and safety and property resources. At the headquarters' level, WS Operational Support Staff provides management and policy guidance for the National program. The

Western and Eastern Regional offices manage the WS State programs. WS has 39 State offices, located throughout the United States, responsible for managing wildlife damage.

Management and direction for WS State programs is provided through State Program Directors, who have supervisory responsibility for district supervisors within each State. District supervisors provide supervision to wildlife biologists and technicians, who are licensed by the respective States as applicators. State Program Directors are Federal employees, as are most district supervisors, and some applicators.

WS State programs operate by entering into cooperative agreements with State and local governments, universities, and wildlife management associations. Although all district supervisors and applicators are under the supervision of the Federal program, those district supervisors and applicators who are not Federal employees are paid through State associations and other sources. State Program Directors, district supervisors, and applicators must comply with WS, Environmental Protection Agency, Food and Drug Administration (FDA), Drug Enforcement Administration (DEA), and applicable State rules and regulations regarding wildlife control activities and pesticide use. Applicators provide technical and direct assistance to help protect agriculture, property, and natural resources in nearly every State. In order to apply restricted use pesticides, the applicators are required under the Federal Insecticide, Fungicide, and Rodenticide Act, Public Law 92-516, effective October 21, 1972, to be licensed, by the States in which they operate. Most States require the applicant to successfully complete a written examination and participate in a continuing education program. (Exhibit A provides information on the uses and potential hazards of selected pesticides and drugs.)

Pesticides are categorized according to the level of toxicity. Class I pesticides bear the words DANGER, POISON, and a skull and crossbones. They are considered to be highly toxic, with an approximate lethal oral dose ranging from a few drops to a teaspoon. Some Class I pesticides, such as certain rodenticides, may be legally purchased without the purchaser meeting certification requirements. However, these compounds are so toxic that very minute amounts can kill a human or animals. The consequences of misuse, either accidental or intentional, can be severe. Other Class I pesticides are restricted use pesticides, which must be purchased and used by licensed certified applicators. Examples of restricted use pesticides used by WS include cyanide, strychnine, zinc phosphide and Fumitoxin (aluminum phosphide).

WS personnel must receive approval from the State Director for all purchases of pesticides and drugs. These materials are primarily obtained from the Pocatello Supply Depot (PSD), located in Pocatello, Idaho. The PSD, a quasi-governmental pesticide manufacturing facility, provides many of the

customized pesticides used in WS State programs, while more commonly used pesticides and drugs may be purchased from private companies and individual State Departments of Agriculture. WS developed an agency-wide program that included policies to be applied by authorized personnel to obtain and professionally administer immobilizing and euthanizing (I&E) drugs. The WS program is designed to provide standards and protocols for licensing, training, and certification to purchase or possess controlled substances. DEA requirements and those of the Controlled Substances Act, enacted on October 27, 1970, must be met. To administer I&E drugs, FDA requirements including those of the Federal Food, Drug, and Cosmetic Act, as revised March 6, 1999, must be followed.

The attacks of September 11, 2001, focused government attention on the need to improve all aspects of security, to include controls over hazardous materials. Official Federal guidance about how to account for various hazardous materials is scanty; USDA agencies are generally not bound to follow standards established by outside organizations, to include the Armed Forces Pest Management Board (ARPMB). However, information developed by other government organizations can provide insight into the need for security awareness and guidance about appropriate ways to handle pesticides and other hazardous substances.

The ARPMB Technical Guidance No. 7, Installation Pesticide Security, issued August 2003, explains the necessity of securing government-owned stocks of pesticides. According to the Guide, "Pest management security should be based on potential threats – not on past experiences." The document sets forth five major areas of threats associated with pesticides, to include:

- **Death and destruction:** There are numerous highly toxic chemical pesticides that could be used as low-tech chemical warfare agents by terrorists.
- **Demoralization:** The sudden onset of poisonings would disrupt the normal lives of personnel working, training, or residing in a community.
- **Destruction of infrastructure:** Pesticides applied to water supplies or wells are perhaps of greatest concern. Concentrated pesticides released into sensitive buildings would harm occupants and disrupt operations.
- **Disruption:** Major traumatic events may create economic chaos.
- **Distrust:** Incidents of pesticide poisoning may lead to panic and suspicion by the general public. While a certain amount of skepticism and caution is healthy, fear related to everyday events will have an adverse impact on people's lives.

The Office of the Deputy Under Secretary of Defense (DUSD) Technical Guide includes specific requirements about aspects of hazardous materials storage. The perimeters of facilities that store pesticides are to be secure. “Because of the hazardous nature of various pesticides ... stored and mixed in pest management facilities, it is essential that such materials be secured and available only to qualified individuals. Security fencing and security gates and other measures are essential.” Specific requirements include a climb-resistant chain link fence of at least 7 feet (2.13 m) high and made of a fence fabric that is twisted and barbed at the top and bottom; exterior lighting; and interior security mesh on windows.

Locks on doors of hazardous material containers used for pesticide storage are to be case-hardened and of sufficient size to preclude easy tampering or destruction, according to the DUSD Technical Guide. For facilities where Class I poisons are kept in large quantities, access should be restricted. This can be done by issuing magnetic cards permanently logged into a security system or by providing coded cipher locks in facility doors. Class I poisons are to be segregated from other less toxic pesticides in separate locked cabinets or rooms.

When pesticides are to be transported from secured storage locations to job sites, DUSD technical guidance states that the chemicals must be stored in locked containers affixed to the vehicle. This is to be accomplished through the use of utility compartments built into the vehicle or secured to the bed by aftermarket installation.

Accountability for hazardous materials is integral to DUSD technical guidance. Requirements include “Inventories of pesticide and application equipment should be made at least quarterly,” and “Accurate records must be kept of all pesticide applications, regardless of site.”

In February 2001, the Office of Inspector General (OIG) initiated a survey of WS controls over its hazardous materials inventory. The survey team visited eight inventory locations in two States, Arizona and Nebraska, and the PSD. The audit survey team determined that although inventory controls at the PSD functioned well, controls over the inventories held by the Arizona and Nebraska State programs were inadequate. Perpetual inventories were not maintained, transfers of hazardous materials were not documented, and the two States did not perform periodic physical inventories. The survey identified management control weaknesses in the accountability for hazardous pesticides and controlled drugs requiring immediate attention.

OIG Management Alert, No. 33001-04-Hy, issued on October 23, 2001, addressed management control deficiencies found at the WS Arizona and Nebraska State offices and at eight separate inventory locations. The

Management Alert recommended that WS establish management control and accountability over the hazardous pesticides and controlled drugs used in its programs by: (1) Requiring the Nebraska State Office to determine whether any of the unaccounted for hazardous materials are missing or stolen and report the results to OIG, (2) Requiring all other State offices who use pesticides and drugs and do not maintain inventory records to determine whether there is any unaccounted for inventory. If there are, steps need to be taken to determine if any is missing or stolen and report the results to OIG, (3) Revising State Office review procedures to include a review of the accountability and control of hazardous materials, and (4) Immediately, establishing and implementing controls to ensure that all State offices are maintaining perpetual inventory records of pesticides and drugs, documenting transfers of inventory to applicators, and performing a periodic inventory count.

WS responded on November 1, 2001, by requiring all State directors, including Nebraska, Arizona, Texas, and New Mexico, to conduct an immediate physical inventory of the pesticides and drugs at all locations under their control, and to account for the acquisition, use, transfer, sale, and disposal of these hazardous materials. The State directors were instructed to maintain perpetual inventory records using a standardized form and to revise WS State office program review procedures to include a periodic review of accountability and control over all hazardous materials. Although the measures taken by WS in response to the management alert represented progress in improving management control over hazardous materials, more work is needed. Our subsequent review determined that these measures were insufficient because WS officials did not follow up with onsite reviews and spot checks to determine if these measures were appropriately implemented, and if further corrective actions were required.

Objectives

The objectives of our audit were to: (1) evaluate APHIS WS accountability and control over storage, security, disposal, and recordkeeping of hazardous materials in the selected States, and (2) followup on corrective actions taken by APHIS WS in response to our Management Alert.

Findings and Recommendations

WS does not have reasonable assurance that its inventories of hazardous pesticides and controlled drugs are fully accounted for and protected from intentional or inadvertent misuse. Subsequent to our October 23, 2001, Management Alert on this issue, APHIS headquarters' (HQ) officials directed WS State Directors to maintain perpetual inventories and to take action to fully account for the receipt, use, storage, and disposition of these materials. Our followup review showed that compliance with this direction was incomplete and problems persisted. We found errors in inventories for Arizona and Nebraska, and the four district offices we reviewed, as well as serious weaknesses in the storage and security of hazardous materials. Safety and field inspections performed by APHIS were inadequate to ensure effective corrective actions.

The severity of the problem cannot be accurately quantified in terms of "pounds of poison lost" or "doses of controlled drugs stolen" because WS did not have: (1) an accurate inventory of the amount of hazardous materials believed to be on hand; (2) reliable records of pesticide usage and disposal; or (3) independent validation of physical inventories of amounts that were supposed to be in stock. Thus, there was no way to determine conclusively how much inventory was unaccounted for, how much was missing, and how much, if any, was stolen. Even if the WS State Directors had effectively established a reliable balance as of November 2001, as directed by the National Office, it would have been difficult or impossible to quantify the amounts lost or stolen subsequent to that time, as some applicators did not record use and disposal of certain products and fiscal yearend inventory reports contained uncorrected math errors or were based on unreconciled inventory counts. However, we have no evidence to suggest that unreconciled amounts were lost, stolen or misused.

As described in the following three findings, WS officials must follow up on direction to the field by implementing effective management controls, to include independent review and validation, prompt feedback when problem areas are identified, and timely, reliable corrective action. Unless this is done, WS inventory of hazardous pesticides and controlled drugs will continue to be at risk for undetected theft, loss or misuse.

Finding 1

Weaknesses in Accountability Over Inventories of Hazardous Pesticides and Controlled Drugs

Weaknesses in management control over inventories of hazardous materials persist despite efforts by WS to implement corrective actions in response to an OIG Management Alert. These inventory management control weaknesses were initially detected during our February 2001 survey, and

were the subject of an October 23, 2001, OIG Management Alert. Our subsequent review, (conducted during April through August 2002) confirmed the existence of several inventory management control weaknesses including inaccurate or absent records of transfers of material into and out of inventory, inaccurate weighing and recording of granular and powdered material quantities, lack of consistently maintained records using a common terminology, and failure to properly segregate inventories belonging to different applicators. These deficiencies noted in 2002, have prevented WS from obtaining a complete and accurate accounting of its inventories of hazardous pesticides and controlled drugs for use in reducing wildlife damage. Therefore, WS does not have reasonable assurance that its inventories of hazardous pesticides and controlled drugs are fully accounted for.

During February and March 2004, WS completed an independent spot check of the applicator inventories that OIG originally completed in 2002. At the time of OIG's inventory, although the Control Materials Inventory Tracking System (CMITS) was being developed, WS primarily used a paper-based inventory in three of four districts reviewed. At the time of WS spot checks, CMITS was fully implemented down to the applicator level. WS spot checks compared actual inventory with recorded, and found 6 of 59 applicators with a discrepancy. However, according to WS officials, in all cases, the supervisor (independent party) identified the source of the problem identified in the spot checks, documented the problem, and corrected the inventory.

Our February 2001 survey of management controls over hazardous pesticide and controlled drug inventories at eight locations of the Arizona and Nebraska WS programs determined that the controls were inadequate. The survey disclosed that: (1) perpetual inventories were not maintained, (2) transfers of hazardous materials to other inventory locations were not documented, (3) physical inventories were not periodically performed, and (4) inventory records were not reviewed. WS also reported that an additional 19 States did not maintain inventory records for hazardous pesticides and drugs. The weaknesses disclosed in the accountability and control over these hazardous materials presented an increased, and unnecessary risk to human, domestic, and wild animal health, as weak controls may permit these materials to be more easily misappropriated by unauthorized individuals who may divert them to improper and harmful uses. These weaknesses required immediate attention, and therefore, we issued a Management Alert memorandum to APHIS' Acting Administrator on October 23, 2001, with recommendations for corrective action.

Our Management Alert contained four recommendations as follows:

1. Require the Nebraska State Office to determine whether any of the unaccounted for hazardous materials are missing or stolen and report the results to OIG.
2. Require all other State offices who use pesticides and drugs and do not maintain inventory records to determine whether there is any unaccounted for inventory. If there are, steps need to be taken to determine if any is missing or stolen and report the results to OIG.
3. Revise State Office review procedures to include a review of the accountability and control of hazardous materials.
4. Immediately, establish and implement controls to ensure that all State offices are maintaining perpetual inventory records of pesticides and drugs, documenting transfers of inventory to applicators, and performing a periodic inventory count.

On November 1, 2001, WS responded to the Management Alert. In order to address Recommendation Nos. 1 and 2 above, WS State Directors were instructed to perform immediate physical inventories, revise State office program review procedures, and maintain perpetual inventory records of hazardous materials to fully account for the receipt, use, storage, and disposition of these materials. WS provided copies of the State inventory forms used to conduct the physical inventory as an attachment to their response. They reported that all pesticide use had been accounted for from October 1, 1999 to the present (November 1, 2001), and that no loss or theft of pesticides or other hazardous materials was documented or reported during that time period. However, neither the Nebraska WS personnel, nor those from any of the other States, were able to substantiate the total amount of pesticides available in their inventory prior to October 1, 1999, because they were not able to locate the pesticide invoice records. Therefore, their response provides only minimal assurance regarding lost or stolen pesticides, as all that they can truly report is that they have no records to indicate that materials were lost or stolen.

Because WS did not maintain a perpetual inventory, they did not have an accurate accounting of the inventory of pesticides that should have been in inventory at the beginning of the fiscal year (FY), and correspondingly, how much should have been present when they conducted their physical inventories. Therefore, there was no effective way to determine how much inventory was unaccounted for, how much was missing, and how much, if any, was stolen. One of the State Directors we interviewed explained that the State inventory records provided in November 2001, in response to our Management Alert, were inaccurate. According to the State Director, due to the short turnaround period (2 days) allotted by APHIS HQ after our Management Alert, the State office was unable to conduct actual physical

inventory balances for the State. The information submitted in November 2001 was estimated, based on information on hand on each individual applicator from the district offices.

WS efforts to correct the inventory problems identified in our Management Alert were not fully successful; significant amounts of hazardous substances in Nebraska (identified as unaccounted for during our June 2001 survey review) remain unaccounted for. For example, the State Office could not locate almost 39,000 of 48,000 Fumitoxin fumigant tablets purchased or 2,400 of 3,000 M-44 Cyanide capsules purchased (See Exhibit B). Both cyanide and Fumitoxin are Class I pesticides. Since the beginning balances were not confirmed, and due to the absence of contemporaneous usage data, we were unable to determine whether the shortages represented missing inventory or incomplete recordkeeping.

OIG's Management Alert Recommendation No. 3 required WS to revise State office review procedures to include a review of the accountability and control of hazardous materials. In their response, WS provided a copy of revised State program review procedures including a review of accountability and control over hazardous materials. However, our subsequent review of WS operations in New Mexico and Texas showed that inventory management control weaknesses persist, particularly with regard to accounting for inventories of hazardous materials, such as M-44 cyanide capsules and pesticides in granular or powdered form, which require precise weighing prior to distribution or disposal. WS officials implemented a perpetual inventory system, and updated the State Office review procedures; they did not conduct onsite followup reviews of effectiveness, and did not followup with specific corrective actions when needed.

Management Control Processes Did Not Detect Errors in Perpetual Inventory Records

Although WS issued policies to create perpetual inventory systems in response to OIG's October 23, 2001 Management Alert, the systems implemented as of August 2002, were insufficient to account for more than basic inventory functions because they did not reliably record and report on inventory movement involving hazardous materials subject to complex measurement and distribution transactions. Management Alert Recommendation No. 4, above, required that WS immediately implement management controls to ensure that all State offices maintain perpetual inventory records of hazardous pesticides and drugs, document transfers of inventory to applicators, and perform periodic physical inventories. Although, WS officials performed some routine inspections and safety reviews, they did not buttress their policies and direction with organized and coordinated site visits and inspections. Reviews and inspections that were performed did not include steps to ensure that personnel responsible for

maintaining the perpetual inventory system fully understood and consistently implemented its requirements, and that needed corrections were identified and swiftly addressed. This inattention to followup resulted in an inadequate implementation of the perpetual inventory system.

The following sources require that an accurate accounting be maintained for inventories of hazardous materials. Office of Management and Budget Circular No. A-123, "Management Accountability and Control," states that management controls must provide reasonable assurance that assets are safeguarded against waste, loss, unauthorized use, and misappropriation. Environmental Protection Agency (EPA)² requires applicators of restricted use pesticides to maintain records to support pesticide use for a 2-year period. These records should include product name, amount, date and location of use. The Texas and New Mexico Departments of Agriculture also have similar use requirements. The Animal Damage Control (ADC) Directive 2.401, "Pesticide Use," dated October 14, 1993, places responsibility on the State Directors for establishing proper accounting, monitoring, and recordkeeping procedures for all pesticides used in their program. ADC Directive 2.415, "M-44 Use and Restrictions," dated April 8, 1994, states that M-44 capsules must be used in accordance with EPA restrictions.

While APHIS WS is not bound to follow the DUSD guidance, Technical Guide 7 issued by the Armed Forces Pest Management Board can serve as a benchmark for best practices in accounting for hazardous pesticides. This document identified pesticides as a potential terrorist tool and mandates quarterly inventories of pesticides and accurate records of all pesticide applications, regardless of site. Copies of inventories are forwarded to the Pest Management Coordinator, as well as to emergency first responders, fire departments, medical emergency rooms, and security offices.

Management Control Review Processes Employed by WS

At the time of the audit, there was no overall coordinated review process in place within WS to ensure that all inventory locations received consistent periodic inspections, to ensure that perpetual inventory management controls were functioning as intended, and that errors and misapplications of WS guidance and direction were detected and timely corrected. As a part of its management control process, WS employs three inspection and review mechanisms. They operate somewhat independently of one another, as some reviews are performed by WS' management personnel, while others may be performed by non-Federal employees with only summary data provided up the chain of command to WS management. The result is that current reviews and inspections do not provide reasonable assurance as to the accuracy of

² 40 C.F.R., Part 171.11, dated July 1, 2001.

reported perpetual inventory information.

Field Inspections are conducted by applicators or district supervisors, who are not always Federal employees. Wildlife control activities are reviewed through the use of a field inspection process. Procedures applied vary by State, as there are no directives requiring the use of specific WS procedures. Some field inspections, such as the one used in New Mexico, require the inspector to complete an assessment of whether pesticide control and application equipment, such as M-44 capsule devices, is reasonably secured against theft and loss. At the time of the review, there were no uniform requirements to assess the accuracy of the perpetual inventory records at individual storage locations, nor any directives concerning the use and frequency of Field Inspections.

WS performs State Office Program Reviews, which are infrequent programmatic reviews of State WS activities. WS stated in its response to the Management Alert that the agency had revised the State program review procedures to include a review of the accountability and control of hazardous materials. Because the reviews are broad in scope and conducted infrequently, this change did not provide assurance that management controls over hazardous materials inventories were being consistently applied.

Safety and Health Inspections are performed exclusively by WS personnel, and are concerned with the safety of the storage of the hazardous pesticides and controlled drugs at WS inventory storage sites only on Federally owned or leased property. Because the Safety Inspection reports are submitted in summary form and the inspections were not always independently conducted, assurance that all storage facilities were identified, and all required inspections were completed was reduced.

The APHIS Safety and Health Manual requires WS regional directors to submit annual summary reports on the number of hazardous material workplaces, the number of inspections conducted, and the reasons why inspections were not completed. One regional director (West) was late in submitting the FY 2002 summary reports, and erroneously reported that all hazardous materials locations had been inspected. However, no Hazardous Chemical Storage inspection had been performed for either the College Station or Conroe Texas storage sites in FY 2002. Individual inspection reports prepared by district supervisors are compiled into a summary report for each State; only the summary is submitted to the Regional Office. The use of summaries increases the chance that missing individual reports from field storage locations may be overlooked.

On February 10, 2004, WS revised Directive 2.401, Pesticide Use. The revised directive includes a standard for the safe storage of pesticides, appropriate waste disposal methods, and a defined pesticide inventory system.

This directive defines central storage/distribution facilities as pesticide storage generally located at State, district, or field offices, and/or affiliated warehouse buildings. The directive defines residential storage as pesticide storage at a residence, using approved locked pesticide storage cabinet or box. Central storage/distribution facilities are subject to inspections through the APHIS 256-5, APHIS Safety Inspection Checklist, which requires a minimum of two inspections per year.

For residential and vehicle storage sites, WS developed a Self-Inspection Checklist, for inspection of pesticide storage. Directive 2.401 requires the Self-Inspection to be completed twice a year, and the inspection reports to be forwarded to the State Director/Field Station leader for retention. The Self-Inspection Checklist requires review of pesticide storage, and addresses the use of approved storage cabinets/boxes, use of locks, environmental considerations, labeling, restriction of access, and other safety considerations.

The Directive requires State Directors to verify the accuracy of the self-inspection checklists and the APHIS 256-5 checklists and take appropriate action to correct deficiencies. Although the revised Directive addressed storage of both WS owned/leased facilities (central storage/distribution) and storage at residential and vehicle sites, the Directive does not address independence in the inspection process. However, conducting at least one independent inspection per year is necessary to properly ensure that pesticides are securely stored.

Examples of Errors and Omissions in Inventory Records

At each of the four WS District offices and two State offices we visited during our followup review in 2002 in New Mexico and Texas, we found errors in the inventory records. These mistakes call into question the effectiveness of the perpetual inventory system as implemented under WS' direction in response to our October 2001 Management Alert.

Errors in States' Inventories:

1. Twenty six of 54 applicators included in our survey made mistakes in recording and reconciling inventory amounts. For example, a known mistake made 8 years ago is still reflected in inventory records, with the result that the district warehouse is shown to be 11.4 ounces short of zinc phosphide concentrate. There was no evidence that WS officials had conducted any reviews or assessments to determine how effectively applicators were implementing the new inventory system.
2. In one district warehouse, the beginning inventory count was incorrect,

and an independent verification had not been performed for two products, Telazol and Fumitoxin. The Telazol balance was understated by 10 milliliters, a significant amount given then the entire New Mexico inventory of the product was only 20 milliliters. The Fumitoxin balance was overstated by 208 tablets, which is approximately 35 percent of the reported beginning inventory. Also, inventory reconciliations had not been performed for the Class I pesticides Fumitoxin and phosphide pellets. Some errors were obvious, such as 50 pounds. of zinc phosphide pellets on hand, while records showed no entry for this product.

3. The WS Texas State fiscal yearend perpetual inventory report was unreliable. Our review of the inventory for DRC-1339 showed that a math error had resulted in an overstated ending balance of 50 grams, or about 2.5 percent of total reported FY 2002 usage for the State. This error was not caught at either the State or national level, calling into question the adequacy of the fiscal yearend inventory report, and management controls over the review of the report.

The lack of independence of the personnel performing the inspections may have inhibited the objectivity of the inspection process. For 10 of 14 safety and health inspections in FY 2001 and FY 2002, the individual performing the inspections also had responsibility for the operation of the storage facility. This lack of independence can result in unreported inventory errors. Office of Management and Budget Circular A-123, states that key duties and responsibilities in reviewing transactions should be separated among individuals.

Inaccuracies in Recording and Reporting on Hazardous Materials Subject to Complex Handling Procedures

Our 2002 review in New Mexico and Texas disclosed that applicators had not accurately accounted for their inventories of M-44 cyanide capsules. M-44 capsules present challenges in accounting for inventory because of the many conditions and transactions involved in their handling. M-44 capsules are typically placed on ranches in specialized ejector devices. An individual ranch may contain numerous M-44s, placed in remote areas. Until the capsule discharges, it is considered to be in available inventory. (If the applicator's weekly inspection shows that the device has been discharged, the M-44 capsule is considered "used," and therefore no longer a part of the available inventory stock.) In some cases, an applicator may remove the capsule holder from the ejector device with the M-44 capsule still attached. In this condition, the capsule is still considered to be in available inventory. M-44 capsules that are not discharged may be in storage, deployed on a ranch, or retrieved from a ranch and ready for redeployment. These M-44 capsules are still considered to be in inventory. M-44 capsules are considered lost if damaged due to rain, flood, or disruption caused by non-target species.

The wide physical dispersion of the inventory presents another challenge to accounting for M-44 capsules. For example, one New Mexico applicator had M-44 capsules stored in a truck and in 50 ejector devices spread over a 5,000 square mile area (one county), for a total of 51 individual inventory locations.

Additional problems encountered by APHIS WS in maintaining control over its M-44 inventory include:

1. An inconsistency in M-44 terminology, as it applies to inventory. On February 18, 2004, WS revised directive 2.415, M-44 use and restrictions to clarify M-44 inventory procedures.
2. The failure to properly record use and disposal of M-44 capsules. In Texas, 6 of 32 judgmentally selected applicators with M-44 capsule inventories did not record capsule use and disposal, as required by the EPA.³ For example, an applicator failed to record the disposal of 68 M-44 cyanide capsules in April 2002. This reported inventory was 136 capsules, but only 68 were on hand when we made our physical inventory. Thus, this applicator's inventory was overstated by 100 percent.
3. Failure to ensure that applicators maintain complete and legible records.
4. Failure to properly segregate individual applicators' inventories in the recordkeeping process.
5. Failure to accurately identify and record beginning inventory balances. Usable beginning inventory amounts were not determined and errors were made in recording balances. In some cases, the immediate physical inventories mandated by WS were not conducted or were not performed accurately. Those responsible for hazardous materials, in New Mexico and Texas, frequently told us that reported balances were estimates or calculations, rather than the result of physical counts.
6. Lack of independent verification of beginning inventory amounts. Texas District Supervisors did not independently verify individual applicators' beginning M-44 capsule inventory amounts. Instead, the applicators conducted their own physical inventory counts and reported those results as the FY 2001 beginning balances, and

³ 40 C.F.R., Part 171.11, July 1, 1995.

7. Empty M-44 capsules not consistently tracked to ensure that they were properly discarded. After a capsule is discharged, the empty capsule must be retrieved and discarded in accordance with EPA instructions.

Powdered and Granular Materials:

Measurement errors resulted in a lack of accountability over inventories of powder and granular forms of hazardous pesticides. For example, measurement errors during weighing and transfer contributed to the reporting of incorrect beginning balances in the Las Cruces (New Mexico) and Canyon (Texas) districts. A variety of such errors reduced the accountability for grains treated with pesticides and for other substances stored in powder and granular form. These products require careful measurement to provide an accurate accounting. The sale or transfer of pesticides such as DRC 1339, zinc phosphide pellets, or oats in grain or powder form (refer to Exhibit A for description of the uses of these materials) produces a risk that small amounts of the product may be lost. Many of the treated grains are stored in large bags, and applicators pour smaller amounts into containers for use or sale. The cumbersome bags weigh up to 50 pounds, and small amounts are occasionally spilled.

Some locations do not have access to scales for weighing these materials. Equipping applicators who handle significant volumes of these materials with scales may provide a practical solution to some of the inventory measurement problems. Additionally, the district offices can verify the weight of DRC 1339 and other treated grain products when they are returned, and followup when significant exceptions to amounts reported as used or sold are detected. In such cases, the District Supervisor should determine the cause of the discrepancy and take corrective action to prevent future problems.

Recommendation No. 1

Establish a documented comprehensive management control process, to include reviews and inspections under the authority of WS national management personnel to ensure that all inventory locations where hazardous pesticides and controlled drugs are stored receive an annual inspection for accountability of the inventory conducted by personnel independent of the operation of the storage facility.

Agency Response.

A hand-written manual inventory control system was developed in October 2001 and used to report hazardous materials and controlled drugs to the OIG in the same month. CMITS, a nationwide, automated inventory control database, was developed and implemented in December 2002 and employed nationally. In addition, several State Program Evaluations have

been completed, which include a review of CMITS and the storage and security of hazardous pesticides and controlled drugs. In February 2004, using CMITS, WS conducted a physical inventory of hazardous materials and controlled drugs in the four states reviewed by OIG. The inventory covered the time period of October 1, 2003, through January 31, 2004, with only minor discrepancies identified and actions taken to correct them. In addition, WS developed, and will implement by July 1, 2004, a new directive, "Accountability and Oversight of hazardous Materials," Directive 2.465, which provides a process to review inventories by various levels of management, including State, Regional, and Headquarters personnel.

OIG Position.

We generally agree with the APHIS response for this recommendation. Directive 2.465 requires annual inspections of hazardous materials stored by users, to be conducted by personnel independent of the operation of the storage facility. However, Directive 2.465 requires the State Office to conduct, at a minimum, a random spot check of only one district annually. Further, Directive 2.465 requires that the regional office conduct a spot check of only two states annually. (There are two regional offices that roughly divide the country.) For this recommendation, Directive 2.465 is adequate to address hazardous materials stored by users. However, the Directive is not adequate to address those locations that typically store the majority of hazardous materials – the district and state offices. To achieve management decision for this recommendation, APHIS should require annual inspections for accountability of the inventory, to include all district offices and state offices that store hazardous materials, at least annually.

Recommendation No. 2

Establish a management control process to ensure that all exceptions noted as a result of a review or inspection of an inventory location where hazardous materials are stored are promptly corrected, and that responsible individuals are made aware of the problems and provided with instruction on the corrective measures required.

Agency Response.

Following State Program Evaluations, and when the evaluation team's final report is completed, recommendations are provided to the accountable State Director regarding any needed changes. Also, concerns or needs from the State programs are documented. The USDA Physical Security Specialists have and will continue to conduct security assessments, which include self security assessments, as well as on-site facility reviews of vulnerabilities and threats, security of hazardous materials, countermeasures currently employed with the facility, and recommendations for improvements to facility security.

In addition, WS developed, and will implement by July 1, 2004, a new directive, "Accountability and Oversight of Hazardous Materials," Directive 2.465, which provides a process to review inventories by various levels of management, including guidelines on roles and responsibilities for correcting identified problems.

OIG Position.

The APHIS response does not describe the management controls to be established to ensure that all exceptions noted as a result of a review or inspection of an inventory location where hazardous materials are stored are promptly corrected. Regarding State Program Evaluations, the response only notes that recommendations are provided to the accountable State Director, but does not describe how the agency will ensure that recommendations are implemented. Similarly, the response does not describe how the agency will ensure implementation of recommendations for improvements to facility security made as part of security assessments. Finally, the recently issued APHIS Directive 2.465 does not directly address correction of noted exceptions; other than the phrase "options to rectify the situation will be provided to avoid future discrepancies." To reach management decision, APHIS should provide details of the management control process to be put into place to ensure that all exceptions noted as a result of a review or inspection of an inventory location are promptly corrected, and that responsible individuals are made aware of the problems and provided with instruction on the corrective measures required. Additionally, the agency should provide the date by which these controls will be put into place.

Recommendation No. 3

Establish a management control process to ensure that all hazardous materials inventory inspection results are tracked and that a coordinated analysis is performed to identify trends that may signal emerging problems.

Agency Response.

WS has developed, and will implement by July 1, 2004, a new directive, "Accountability and Oversight of Hazardous Materials," Directive 2.465, which provides a process to review inventories by various levels of management, including guidelines on roles and responsibilities on tracking, review, and analysis by the regions and WS Operational Support Staff (OSS). This process includes coordination between the Field specialist, District supervisor, State director, Regional office, and Headquarters regarding this process.

OIG Position.

We agree with the APHIS management decision for this recommendation. To reach final action, APHIS should provide the Office of the Chief Financial Office (OCFO) with documentation that hazardous material inventory inspection results are being tracked and that inventories are being forwarded for further analysis, in accordance with the recently issued Directive 2.465.

Recommendation No. 4

Establish a management control process to ensure that all hazardous materials inventory inspections are timely completed and results are accurately and fully reported.

Agency Response.

WS has developed, and will implement by July 1, 2004, a new directive, "Accountability and Oversight of Hazardous Materials," Directive 2.465, which provides a process to review inventories by various levels of management, including guidelines on roles and responsibilities on tracking, review, and analysis by the regions and WS/OSS. This process includes coordination between the Field specialist, District supervisor, State director, Regional office, and Headquarters regarding this process. The Directive establishes CMITS as the national hazardous materials and controlled drugs inventory accountability reporting system. CMITS requires timely reporting of hazardous materials inventories to be submitted to the regions and to headquarters on an annual basis. The WS state programs compile and accurately report information to the Regional offices and Headquarters for additional analysis and concurrence. Independent inspections are conducted by the State collateral duty safety and health office, district supervisor from another district, or other management authority with the State. This can be on a spot check basis, as well as on an annual basis.

OIG Position.

We agree that the recently issued APHIS WS Directive 2.465 "Accountability and Oversight of Hazardous Materials" describes a process that will likely improve the agency's ability to ensure the accuracy and integrity of inventories of hazardous materials. However, the Directive does not establish a management control process to ensure timely completion of inventory inspections. To reach management decision, APHIS needs to provide the details of how the agency will ensure that all hazardous material inventory inspections are timely completed and the date by which the process will be implemented.

Recommendation No. 5

Institute management controls to ensure that applicators consistently segregate and track their individual pesticide/drug activity when they work together; properly record the use and disposal of all hazardous pesticides and drugs; maintain and retain current, complete, and accurate inventory records; and properly record drug names, EPA numbers, and quantities sold.

Agency Response.

WS developed, and will implement by July, 2004, Accountability and Oversight of Hazardous Materials Directive 2.465, and updated Pesticide Use Directive 2.401, to provide WS employees guidance for ensuring proper accounting for tracking hazardous material activities. As part of Directive 2.465, annual and spot inventory inspections will enforce this activity, and any deficiencies will be corrected. Analysis of CMITS physical inventories will be conducted to ensure accuracy and accountability of the reports.

OIG Position.

We accept APHIS' management decision. For final action, APHIS needs to provide OCFO with documentation that the procedures described in APHIS Directives, 2.465 and 2.401 have been implemented.

Recommendation No. 6

Take action to ensure that all applicators possess adequate equipment to safely handle and dispense hazardous materials and drugs.

Agency Response.

WS submitted a request on June 1, 2004, seeking agency surplus Homeland Security funding to procure personal protective equipment and additional storage/lock boxes to secure all hazardous materials, as well as equipment for dispensing pesticides accurately and uniformly.

OIG Position.

To reach management decision for this recommendation, APHIS should provide us with details of how the agency will ensure that all applicators have the equipment needed to safely handle and dispense hazardous materials and the dates by which the agency expects to complete procurement and issuance of the personal protective equipment and additional storage/lock boxes.

Recommendation No. 7

Revise ADC Directive 2.401 in accordance with Recommendation No. 1, above to: (1) include written procedures for inventory for all pesticides and drugs, (2) require a periodic physical inventory and reconciliation with applicators, (3) require that State office personnel conduct an annual physical inventory and reconciliation for all district supervisors, and (4) require that all pesticides and drugs are clearly labeled and that pesticides meant for disposal are separated from usable inventory.

Agency Response.

WS Directive 2.401 was revised and implemented on February 17, 2004. It addressed this issue and included additional, appropriate guidance. In addition, WS Directive 2.465 was developed and will be implemented by July 1, 2004, to address this issue.

OIG Position.

We do not accept APHIS' management decision. Directive 2.401 provides record-keeping requirements for pesticides, but does not include written procedures for inventories of drugs. Additionally, APHIS Directive 2.465 calls for only one physical inventory and one spot check of one randomly chosen district annually. WS completed independent spot checks of inventories in February and March 2004 and found discrepancies in 6 of 59 sites reviewed. Based on this continued error rate of more than ten percent and because the Directive does not address independence in the inspection process, APHIS should require State office personnel to conduct an annual physical inventory and reconciliation for all district supervisors. At a minimum, this process should be continued until the results of the inventories and reconciliations consistently demonstrate strong accountability for hazardous materials. To reach management decision, APHIS should provide written procedures for inventory of all drugs and details of plans for independent and more frequent physical inventories and reconciliations for district supervisors.

Recommendation No. 8

Revise ADC Directive 2.415 to standardize M-44 terminology for use in recording inventory.

Agency Response.

WS Directive 2.415 was updated and implemented on February 18, 2004, to respond to M-44 terminology for use in recording inventory.

OIG Position.

We agree with the APHIS management decision for this recommendation. To achieve final action, the agency should provide OCFO with a copy of the updated directive.

Finding 2

Weaknesses in the Storage and Security of Hazardous Materials

At the time of our audit, WS had not met the objective of providing secure storage in all cases of its hazardous pesticides and controlled drugs. These materials were sometimes stored in a manner that increased the risk of theft or unauthorized access, possibly causing harm to humans and domestic animals through accidental or intentional release into the environment. WS had not developed a methodology to effectively identify hazardous conditions and ensure prompt correction, resulting in the continued use of inadequate storage facilities. Specifically, we found that WS guidance for the conduct of Safety Inspections did not address security of storage of hazardous materials in government owned or leased facilities or on private property. Further, we found that the inspections were not completed timely or independently.

This condition was especially prevalent for the WS hazardous pesticide and controlled drug inventories stored on private property by its applicators. Our review disclosed that 10 of 47 private storage facilities in New Mexico and Texas consisted of poorly constructed sheds and boxes. Three applicators informed us that unauthorized personnel had access to their storage facilities.⁴ We concluded that many of the hazardous material storage locations we reviewed in Arizona, Nebraska, New Mexico, and Texas⁵ were vulnerable to theft, unauthorized use, and accidental release into the environment, thus increasing the threat to human and animal safety.

Each State has its own storage requirements. The Nebraska Core Manual⁶ prohibits pesticides from being carried in the passenger section of a car, van, or truck and requires that children, other passengers, and pets never be placed at risk of being exposed to pesticides during transportation. The New Mexico State Pesticide Maintenance and Storage Requirements,⁷ state that pesticides should be stored in a manner that reasonably ensures that human foods, pet foods, drugs, animal feeds, commercial fertilizers, seeds, or clothing will not be contaminated. The Texas Department of Agriculture Rule 7.34,⁸ states that no person may store any pesticide or pesticide container in a manner that may cause or result in injury to humans.

The need to exercise care in the storage of Fumitoxin (aluminum phosphide) is well known. An article titled “Don’t Do It” in a Cooperative Extension

⁴ Many of the storage facilities utilized by the applicators are personal tool sheds, commingling storage of hazardous materials with household implements likely to be used by all family members. This leads us to believe this may be a widespread vulnerability.

⁵ The conditions described in Arizona and Nebraska were initially identified during the audit survey, Audit No. 33001-5-Hy. Our subsequent audit work in New Mexico and Texas confirmed the need for nationwide corrective actions.

⁶ Nebraska Core Manual, Applying Pesticides Correctly, undated.

⁷ Rules Promulgated Under the New Mexico Pesticide Control Act, dated 10/21/97.

⁸ Texas Department of Agriculture Pesticide Rules and Regulation dated January 1988.

Service publication described an EPA investigation of the alleged misuse of aluminum phosphide that possibly caused the death of two people in their home. The article warns “a terrorist may obtain aluminum phosphide ... and place it in a public building,” and it recommends that “Applicators must closely control access to aluminum phosphide, and they must make sure that no product ever ‘walks’ because an employee takes it home or gives it to a friend.”

To assess the adequacy of storage and the security of hazardous material facilities, OIG auditors visited 59 storage sites, including the Arizona and Texas State offices, four district offices, and 53 applicator storage sites. In each case, the storage sheds and truck toolboxes met the minimum Federal regulations requiring locks. However, in ten instances, the storage locations were ultimately unsecured. Hazardous materials were stored inside personal residences, in plastic picnic-type containers in the beds of pickup trucks, in poorly constructed sheds, and in the passenger compartments of vehicles.

Storage of sodium cyanide capsules and Fumitoxin (both Class I pesticides) violated specific USDA and EPA regulations. ADC Directive 2.401,⁹ states that pesticides must be stored in a locked or secured box, building, or vehicle when not in use. EPA¹⁰ prohibits M-44 sodium cyanide use in areas frequented by humans or domestic animals. According to EPA regulations, M-44 capsules must be stored under lock and key in a dry place. EPA requires Fumitoxin to be stored in a dry, well-ventilated area away from heat and under lock and key.

At the Arizona State office, a Federal site, Fumitoxin (aluminum phosphide) was stored in a rusted metal lockbox outside the warehouse under a pile of debris and wire metal panels. The metal box was exposed to heat and was not ventilated. Fumitoxin is a restricted use pesticide that produces a highly toxic phosphine gas when exposed to water.¹¹ Although the required “DANGEROUS” and “POISON” signs were placed directly on top of the lockbox, the signs would not be visible until the debris and wire panels are removed. Thus, firefighters and other emergency responders would have no notice or knowledge of the highly toxic, potentially explosive chemicals stored under the pile of debris. Because the Arizona State office warehouse is located in a business complex, the hazard threatened the safety of workers in the surrounding firms, as well as WS employees (See picture Nos.1 and 2).



No. 1 Fumitoxin was stored under this pile of flammable

⁹ ADC Directive 2.401, Pesticide Use, dated 10/14/93.

¹⁰ ADC Directive 2.45, M-4 Use and Restrictions, dated 4/8/94.

¹¹ Phosphine gas killed many soldiers at Ypres, Belgium in 1915 during World War I.

debris outside the Arizona State Office. Fumitoxin releases highly toxic gas when exposed to water, and its hidden presence would place firemen and bystanders in grave danger in the event of a fire.



No. 2 Closeup photo of the Arizona State Office Fumitoxin in storage with its “poison gas” warning sign buried under debris.

The last State Program Review in Arizona was conducted in June 1996, at its current location. At that time, a Safety Inspection was also completed and both the Program Review and the Safety Inspection concluded that pesticides were stored properly in a separate locked storage room in the warehouse. There was no indication whether Fumitoxin was being stored at that time; however, the State Program Review stated that the local fire marshal was notified of the contents of the storage room. Prior to our field visit, in February 2002, the State Director moved the Fumitoxin outside due to safety considerations. As of April 2003, the Fumitoxin storage location remained unchanged. At that time, the Arizona State Director stated that funds requested from WS HQ to improve the storage of Fumitoxin were not provided.

On January 2004, Arizona completed the installation of the new storage facility (See picture Nos. 3 and 4). According to WS officials, the new storage facilities will correct the hazard associated with the storage of Fumitoxin.



No. 3 New storage facility for Arizona State office.



No. 4 New containers for storage of pesticides in the new storage facility at Arizona State office.

We identified several storage sheds in three rural New Mexico counties that met the minimal technical requirements of having a lock, but were so poorly constructed that the hazardous materials stored inside could easily be stolen. One shed had a door made of thin wood with external hinges that could be easily removed (See picture No. 5).



No. 5 Poorly constructed wooden storage shed with exposed easily removable hinges on the door, potentially allowing easy access to a variety of dangerous poisons stored inside.

Within the shed were a variety of poisons, including the Class I pesticides M-44 capsules (containing sodium cyanide),

strychnine, Fumitoxin, and zinc phosphide. A second shed was made of thin metal, and contained M-44 capsules and Fumitoxin (See picture No. 6).



No. 6 A shed containing Fumitoxin and M-44 cyanide capsules, made of thin metal with an ill-fitting door.

A shed containing sodium cyanide and livestock protection collars had loose siding and a hole the size of a fist piercing its side. WS officials stated that although these were not the best storage arrangements, there was no technical violation of WS or Federal storage requirements.

Agency officials advised us that New Mexico completed the installation of substantially constructed storage sheds in August 2003 (See picture No. 7).



No. 7 Newly constructed storage containers for New Mexico.

We also found instances where hazardous materials were stored in the homes of applicators, potentially endangering the residents and any visitors. (See picture No. 8).



No. 8 Hazardous materials stored inside an applicator's personal residence.

WS developed a plan to upgrade the security and storage of hazardous materials, as a part of the \$1.6 million dollar APHIS fiscal year 2002 Homeland Security Supplemental Spending Plan. WS requested and received funding to install alarm systems, locking equipment safes for vehicle use, locking refrigeration units, and other locked storage for firearms and explosives (See picture No. 9).



No. 9 Example of proper storage for hazardous materials inside a locking metal safe.

Additional hazardous materials were kept in large plastic storage containers on the beds of pickup trucks, and thus were susceptible to theft (See picture No. 10).



No. 10 Hazardous materials in unsecured storage inside plastic boxes in the bed of a pickup truck.

In Nebraska, we observed Fumitoxin stored inside the cab of a pickup truck, a violation of a State storage requirement,¹² where fumes could build up, jeopardizing the health of anyone who might come into contact with the truck.

Agency officials advised that WS installed truck boxes during April 2003 to address conditions noted above (see picture No. 11).



No. 11 Example of proper storage for hazardous materials stored on the bed of a pickup truck.

As of January 2004, we were advised that storage deficiencies in the four States were corrected.

Recommendation No. 9

Develop a comprehensive plan for the storage of hazardous materials, including storage on private property.

Agency Response.

WS Directive 2.401 was revised and implemented on February 17, 2004, to address storage of hazardous materials, including storage on private property.

OIG Position.

We agree with the management decision for this recommendation. To achieve final action, APHIS should provide OCFO with documentation of the implementation of the revised storage procedures set forth in Directive 2.401.

¹² Nebraska Core Manual , Applying Pesticides Correctly, Chapter 11, undated.

Recommendation No. 10

Conduct an inspection to determine, within all States storing hazardous pesticides and controlled drugs, which storage locations need improvement.

Agency Response.

In FYs 2003 and 2004, APHIS Physical Security Specialists, conducted over 100 security assessments of WS work sites and identified needed improvements. As those needs were identified, funds were made available to implement those improvements. In addition, WS will conduct inspections of all storage locations during State Program Evaluations, annual inspections, and spot checks in FY 2004 to determine if any storage locations need improvement during the year. WS completed a telephone survey of all States to further identify needed improvements to storage locations and sites. On June 1, WS submitted a request for surplus Homeland Security funds to effect additional needed improvements to storage locations of hazardous materials and controlled drugs. As funding becomes available, procurement of identified equipment needs and identified improvements will be addressed.

OIG Position.

We agree with the management decision for this recommendation. To achieve final action, APHIS should provide OCFO with documentation to show that all storage locations have been inspected.

Recommendation No. 11

Improve all substandard storage locations to ensure safe and secure storage of hazardous pesticides and controlled drugs.

Agency Response.

Once storage needs are identified and funding becomes available, as part of the process described in the Agency Response section of Recommendation No. 10, the needs of these identified locations will be addressed.

OIG Position.

To reach management decision for this recommendation, APHIS should provide us with details of how substandard storage locations will be improved and the dates by which this will be accomplished.

Recommendation No. 12

Revise ADC Directive 2.401 to require the use of WS approved storage equipment in State and district offices, in private vehicles, and in private residences. Require access to restricted hazardous pesticides and drugs to be limited to WS authorized personnel.

Agency Response.

WS Directive 2.401 was revised and implemented on February 17, 2004. This recommendation has been completed.

OIG Position.

We agree with the management decision for this recommendation. To achieve final action, APHIS should provide OCFO with documentation that access to restricted hazardous pesticides and drugs has been limited to WS authorized personnel.

Finding 3

Safety and Field Inspections to Address Security of Storage of Hazardous Materials Inventories

The WS system of safety and field inspections does not provide reasonable assurance that hazards associated with materials used in WS programs would be identified and corrected in a timely manner. Several problems were noted with the inspection process. Inspection questionnaires did not address security and storage, and inspections were not used to assess high-risk issues, such as hazardous materials stored on private property. Further, inspections were often not completed timely or by personnel independent to the site under review. Shortcomings in the agency's safety and field inspection review process persisted, because the agency did not develop a comprehensive plan to assess the reliability of hazardous material inventories, the adequacy of hazardous material storage, or the degree of compliance with established procedures for management control over inventory. As a result, the risk that poisons and drugs could be diverted without detection is greatly increased.

Safety and Health Inspections, conducted in accordance with the APHIS Safety and Health Manual, dated February 27, 1998, did not assess whether hazardous material inventories were safeguarded against unauthorized access, and did not address the storage of such material on applicators' private property or in private vehicles. To conduct Safety Inspections, APHIS personnel are required to use the APHIS Form 256-5 Checklist, "APHIS Safety Inspection Checklist, Hazardous Chemical Storage and Waste

Disposal.” The checklist helps identify unsafe and unhealthy conditions in the surrounding environment. In low-risk workplaces, inspections are conducted at least annually, while more frequent inspections are required in high-risk workplaces, defined by APHIS Form 256-5 as laboratories, pesticide and explosive storage areas, maintenance shops, and other areas involving hazardous chemicals and waste. Based on this requirement, WS hazardous pesticide and controlled drug storage locations must be considered to be at high-risk, and should receive a minimum of two Safety Inspections each year.

There are no APHIS directives requiring the application of a consistent process or set of standards in the conduct of Field Inspections. During our review in New Mexico and Texas, district supervisors stated that they often addressed storage and security during their field inspections. However, we noted that only one of four district supervisors provided additional comments concerning security and storage of hazardous materials on the Field Inspection reports.

The APHIS Safety and Health Manual does not provide inspection criteria for the storage of hazardous materials on private property. The WS Deputy Administrator, along with the Arizona, Nebraska, New Mexico, and Texas State Directors and District Supervisors interpreted the manual to define high hazard workplaces to include State and district offices, or property leased by the Federal government, but not private property and vehicles used by WS licensed applicators storing Federally-owned hazardous materials. Thus, inspections have not been performed for these areas.

There are no directives for the uniform conduct of Field Inspections, but in New Mexico and Texas, Field Inspections were used for reviews of applications (ranches or farms) on which hazardous pesticides and control equipment have been placed. WS district supervisors state that they review the security of hazardous materials during the performance of each Field Inspection, and that these inspections would be the appropriate place to document the review of storage on private property.

WS had no system of management control in place to ensure timely identification of overdue and incomplete inspections. As a result, two of nine storage facilities in the College Station and Canyon Districts of Texas did not receive Safety Inspections during the period of our review, as is required by the APHIS Safety and Health Manual. Restricted pesticides stored in the two facilities included:

- Sodium cyanide M-44 capsules
- Zinc phosphide (ZP) concentrate
- ZP rodent bait, and

--Beuthanasia and Ketaset/Xylazine

Seven of the nine storage facilities had Safety Inspections that were performed by individuals who could not prepare an independent assessment as they were also responsible for the maintenance and operation of the facilities. Four of the seven facilities received incomplete inspections, as the district supervisor did not complete Part A, "Hazardous Chemical Storage," of the APHIS 256-5 Checklist.

Failure to ensure timely identification of overdue and incomplete inspections had been reported in a prior audit, but corrective actions taken by WS have proven to be insufficient. Audit Report No. 33002-01-Hy, "Animal Damage Control Over Hazardous Materials," dated June 1996, contained a recommendation that WS conduct safety inspections at least annually at each ADC facility, and ensure that the reports were timely submitted to WS HQ for appropriate action. WS agreed with our recommendation, and stated that steps were taken to ensure that inspections were done annually and that reports were submitted to WS HQ. Although management decision was previously reached, our observations, as part of this review, demonstrate that the condition persists.

Recommendation No. 13

Revise WS Directive 2.401, Pesticide Use, to: (1) supplement the review of central storage/distribution facilities through the APHIS 256-5 process, to include an assessment of whether pesticides are stored in a locked and secure manner, and access is appropriately limited, and (2) require at least one annual inspection to be completed by a party independent of the storage facility, for central storage/distribution and residential storage sites.

Agency Response.

Section 2.3 in Chapter 2 of the APHIS Safety and Health Manual addresses the frequency of safety and health inspections for all APHIS work sites, including those where pesticides are not stored. Since these policy guidelines are structured for all APHIS programs, not just WS, they represent the minimal agency safety and health requirements for a wide diversity of low and high hazard work sites covering a broad spectrum of program areas. The individual APHIS programs supplement APHIS policy with their own policy directives to more specifically address their unique program needs.

WS met with the APHIS Safety, Health, and Employee Wellness Branch (SHEB), and discussed OIG Recommendation No. 13 on May 17, 2004. SHEB and WS agree that:

- SHEB will consider redefining hazardous chemicals including pesticides and I&E drugs covered by the APHIS Safety Inspection Checklist (Hazardous Chemical Storage, Explosives Storage, and Waste Disposal), APHIS Form 256-5. SHEB is currently working with WS to revise APHIS Form 256-5 to include an assessment of whether pesticides and controlled drugs are stored in locked containers to limit access and increase security.
- The definition of a hazardous workplace in the APHIS Safety and Health Manual is adequate and appropriate. The Occupational Safety and Health Administration (OSHA) definition of a hazardous workplace was adopted by APHIS and is used in the Manual. As written, Section 2.3 clearly stipulates that pesticide storage areas are classified as high-hazard workplaces requiring a minimum of two inspections annually.
- Inspection criteria of hazardous pesticide and drug storage at private residences and in personal vehicles are not applicable APHIS-wide and should be addressed in a WS policy directive. WS has revised Directive 2.401, which includes inspection requirements for all pesticide/drug storage sites.

APHIS follows OSHA standards and guidelines in conducting its safety and health program inspections. WS will provide periodic independent spot inspections conducted by State program, Regional, and Headquarters representatives not associated with the individual hazardous materials and controlled drugs storage locations, per WS Directive 2.401.

OIG Position.

We agree with APHIS' proposed action for this recommendation. To reach management decision APHIS should provide the date by which the agency will revise APHIS Form 256-5, as noted above.

Scope and Methodology

The audit was conducted in accordance with Generally Accepted Government Auditing Standards. The audit covered June 2000 through February 2003 activity regarding the storage and accountability of hazardous materials. We considered additional information provided by WS officials concerning activities occurring through March 2004, as warranted.

Fieldwork was performed at the WS National Office in Riverdale, Maryland; the WS State offices in Phoenix, Arizona; Lincoln, Nebraska; Albuquerque, New Mexico; San Antonio, Texas; and the WS District offices in Nelson, Nebraska; Albuquerque and Las Cruces, New Mexico; College Station and Amarillo, Texas; and PSD in Idaho.

This report combines the results of Audit No. 33001-04-Hy, "Survey of APHIS Wildlife Service Controls Over Hazardous Materials Inventory" and Audit No. 33001-05-Hy, "APHIS WS Controls Over Hazardous Materials Inventory."

In February 2001, OIG initiated a survey of WS controls over hazardous materials inventory to determine whether there were any management control issues requiring additional OIG audit attention. During the survey phase of this audit, the OIG team visited eight inventory locations in two States, Arizona and Nebraska, and the PSD in Idaho, where pesticides are manufactured and bulk supplies are stored. The team looked at the records used to account for the materials inventories. The survey produced significant findings and recommendations that were included in a Management Alert Memorandum, issued on October 23, 2001. The Management Alert recommended that WS establish management control and accountability over the hazardous pesticides and controlled drugs used in its wildlife management programs.

In order to evaluate how well the State programs implemented the management alert recommendations, we conducted a followup review (Audit No. 33001-05-Hy) by selecting two States with significant hazardous pesticide or drug use. The States of New Mexico and Texas represented 38 percent and 5 percent of the WS fiscal year 2000 pesticide and drug usage. As a part of the followup audit work, the OIG team visited two of three district offices, and 18 applicators in New Mexico. The applicator sites visited included Bernalillo, McKinley, Sandoval, Rio Arriba, Taos, Harding, San Miguel, Quay, Guadalupe, Tarrant, Dona Ana, and Socorro Counties. In Texas, we visited two of nine District warehouses, and 36 applicators. We conducted applicator site visits in Comal, Jefferson, Liberty, Leon, Hays, Williamson, Victoria, Chambers, Guadalupe, Matagorda, Brazoria, Angelina, Lee, Harris, Colorado, Montgomery, Travis, Brazos, Nolan, Motley, Mitchell,

Borden, Kent, Hale, Gray, and Scurry Counties. Audit fieldwork in New Mexico and Texas was conducted from April 2002 to August 2002.

We conducted our audit by gaining an understanding of the inventory systems in place at the New Mexico and Texas State offices. Based on hazardous materials use activity, we judgmentally selected four WS District offices in New Mexico and Texas for review. Within each of those districts, we reviewed perpetual inventories, invoices, usage records, sales records, transfers and disposal records, and the storage and security of hazardous materials for 54 applicators. APHIS employees, who provided insight into established practices, accompanied us on many of our reviews.

Through our observations of inventory, we determined whether lethal drugs and restricted hazardous pesticides were accounted for. Through observations of storage facilities and interviews with State, district, and applicator personnel, we determined whether 52 storage facilities were adequately secured. In New Mexico we observed 19 storage facilities, and in Texas we observed 33 storage facilities. We completed 59 inventory reconciliations, to include 39 in Texas and 20 in New Mexico. In New Mexico and Texas we also judgmentally selected M-44 cyanide capsules placed in the field based on a Management Information System report and performed inventory reconciliation analyses in order to assess the accuracy of the reported inventory data.

We conducted interviews at State Departments of Agriculture and reviewed records to determine if WS applicators were licensed and whether pesticide sales were made to valid pesticide license-holders. As a part of our review of storage facilities, we reviewed State storage requirements for restricted use pesticides.

Exhibit A - Uses and Potential Hazards of Selected Pesticides and Drugs

Page 1 of 2

Pesticides are toxic and can cause injury, if not properly used. The toxicity of the active ingredient(s) and the degree of exposure determines how hazardous a pesticide is to humans or animals. Most pesticides can cause severe illness or death. Eating or drinking the product causes many accidental pesticide deaths. Death or injury can also occur through inhalation or exposure to the skin. Details on specific uses of these materials and their potential hazards follow.

PESTICIDES

Avitrol

A lethal method of control for birds. EPA restrictions apply. If misapplied, it can cause allergic reactions in humans and if spilled, it can cause contamination in lakes, streams, and sewers.

M-44

A lethal method of control for coyotes, red and gray foxes, and feral dogs that prey on livestock, poultry, and endangered species. EPA restrictions apply. Contains sodium cyanide and is poisonous. If misapplied, it can be dangerous to domestic animals, wildlife, and can contaminate water supplies.

.5% Strychnine

A lethal method of control for rodent populations, particularly gophers, as it is for use with burrow builders. EPA restrictions apply. Contains strychnine and other ingredients that are poisonous. If it is applied, it can be dangerous to domestic animals and wildlife, and it can contaminate water supplies.

DRC-1339

A lethal method of control for predators of newborn livestock or eggs, specifically ravens and crows. EPA restrictions apply. Contains chloro-p-toluidine hydrochloride and is poisonous. If misapplied, it can be hazardous to domestic animals and is toxic to birds and fish.

Fumitoxin Fumigant

A lethal method of control for insects and rodents. It can be used to control wax moth in stored beehives, Africanized bees, and diseased bees. EPA restrictions apply. Contains aluminum phosphide and is poisonous. If misapplied, it can kill wildlife.

Zinc Phosphide Concentrate

A lethal method of control for mice, rats, and other rodents. EPA restrictions apply. Contains zinc phosphide and is poisonous. If misapplied, can be hazardous to domestic animals and wildlife, and can contaminate water supplies.

Zinc Phosphide Oats

A lethal method of control for prairie dogs and ground squirrels in selected States. EPA restrictions apply. Contains zinc phosphide. If misapplied, it can be hazardous to domestic animals and wildlife and can contaminate water supplies.

Zinc Phosphide Pellets

A lethal method of control for rodents. EPA restrictions apply. Contains zinc phosphide. If misapplied, it can be hazardous to domestic animals and wildlife, and can contaminate water supplies.

DRUGS**Beuthanasia**

A lethal method of control for skunks. Skunks are immobilized then euthanized. DEA and FDA restrictions apply. Contains sodium pentobarbital and can be used to euthanize all species and sizes of animals.

Telezol

An injectable anesthetic drug used on dogs and cats. DEA restrictions apply. Contains tiletamine hydrochloride, zolazepam hydrochloride, and mannitol. The toxicity of this drug has not been fully investigated.

Alpha-Chloralose

This Investigational New Animal Drug (INAD) is a non-lethal method of immobilization of nuisance birds for relocation. It is a specific-use drug regulated by FDA. This INAD may be fatal if inhaled, swallowed, or absorbed through the skin.

Exhibit B – Final Results of Physical Inventory Reconciliation

NEBRASKA	
Pesticide/Drug	Amount Unaccounted For
M-44 Cyanide	2,419 capsules
.5 percent Strychnine	60 pounds
DRC – 1339	908 grams
Zinc Phosphate Rodent Bait	23 pounds
Large Gas Cartridges	29 cartridges
Fumitoxin Fumigant	38,850 tablets
Beuthanaisia	50 milliliters

Exhibit C – Agency Response

Page 1 of 7
Attachment



United States
Department of
Agriculture

Marketing and
Regulatory
Programs

Animal and
Plant Health
Inspection
Service

Washington, DC
20250

JUN 24 2004

SUBJECT: Audit Report No. 33001-05-Hy

TO: Robert W. Young
Assistant Inspector General for Audit
Office of Inspector General

Enclosed is a copy of the Agency response to the Animal and Plant Health Inspection Service, Wildlife Services' Control Over Hazardous Materials Inventory. Our response is based on the comments at the exit conference and the documentation provided to the Office of Inspector General by the program. Our responses to the individual recommendations include target dates for completion, as well as information on those recommendations that have already been implemented.

If you have any questions, please contact Bill Clay, Deputy Administrator, Wildlife Services, at (202) 720-2054.

A handwritten signature in black ink, appearing to read "W. Ron DeHaven".

W. Ron DeHaven
Administrator

Enclosure



Safeguarding American Agriculture
APHIS is an agency of USDA's Marketing and Regulatory Programs
An Equal Opportunity Provider and Employer

Agency Response to OIG Draft Audit Report (No. 33001-05-Hy)
Animal and Plant Health Inspection Service Wildlife Services' (WS) Controls Over
Hazardous Materials Inventory

Executive Summary

In reference to the Office of the Inspector General's (OIG) official draft report (No. 33001-05-Hy), dated May 5, 2004, the Animal and Plant Health Inspection Service (APHIS) provides the following response:

We agree that prior to 2003 the WS program did not have an accurate inventory system for hazardous materials and lacked adequate storage facilities at many of the sites in the four states where the OIG review occurred. As a result, WS officials were unable to accurately account for the program's use of hazardous materials and controlled drugs in those states. However, we do not agree with OIG's conclusion in this report cited in the third paragraph of the executive summary on page i which states, *"Our review determined that WS is unable to fully account for its inventories of hazardous pesticides and controlled drugs, and these inventories are not always stored in a safe and secure manner. This condition exists because WS management has not established effective management controls over its inventories to ensure that full accountability and effective safeguarding measures are in operation. Therefore, hazardous materials remain vulnerable to undetected theft and unauthorized use, and may pose a threat to human and animal safety."* We believe that this statement does not accurately reflect the current status of WS' ability to track, store, and account for its use of hazardous materials and controlled drugs and does not fully recognize the improvements WS has effected to minimize the risk for loss, theft, or misuse of hazardous materials and controlled drugs.

The majority of the improvements to the storage facilities, the revision of program directives, and the implementation of a national hazardous materials tracking system were implemented in 2003 and 2004. OIG officials did not conduct a site visit after August 2002, and as a result, did not substantiate the accuracy of the Control Materials Inventory Tracking System (CMITS) which was implemented nationally in December 2002, or the improvements to the hazardous materials storage facilities that were implemented after their site visits. The last two paragraphs in the executive summary on pages ii and iii highlight the fact that the WS program spent \$1.6 million in fiscal years (FY) 2002 and 2003 to upgrade their security and storage facilities for hazardous materials in addition to implementing a national hazardous materials inventory tracking system, but the reader is left with the impression that significant deficiencies still exist and that the program is unable to fully account for its use of hazardous materials and controlled drugs. Additionally, the reader is left with the mistaken impression that the deficiencies cited by OIG in 2001 and 2002 exist throughout the entire program; when, in reality, the OIG review was limited in scope to the four states where the largest quantities of hazardous materials and controlled drugs were being used at the time of the audit. Despite all of this, OIG concluded in the "Findings and Recommendations" section of the report that they found no evidence to suggest that unreconciled amounts of hazardous materials or controlled drugs were lost, stolen, or misused. While inventory

accountability systems are only as good as the information that goes into them, we believe that the inventory accountability system that we have implemented has greatly reduced the risk for undetected theft, loss, or misuse; and, that we now have reasonable assurance that WS inventories of hazardous materials and controlled drugs are accurately accounted for and protected.

We believe that with the implementation of this tracking system, the CMITS, along with the WS Directives that have been revised to ensure appropriate oversight and accountability, in addition to implementing the OIG recommendations cited in this report, WS currently has an effective inventory system in place, proper storage facilities, and is fully able to account and track its use of hazardous materials and controlled drugs.

We have structured our responses to coincide with the specific findings and recommendations.

Finding 1. Weaknesses in Accountability over Inventories of Hazardous Pesticides and Controlled Drugs

Recommendation 1: Establish a documented comprehensive management control process to include reviews and inspections under the authority of WS national management personnel to ensure that all inventory locations where hazardous pesticides and controlled drugs are stored receive an annual inspection for the accountability of the inventory conducted by personnel independent of the operation of the storage facility.

Agency Response: A hand-written manual inventory control system was developed in October 2001 and used to report hazardous materials and controlled drugs to the OIG the same month. CMITS, a nationwide, automated inventory control database, was developed and implemented in December 2002 and employed nationally. In addition, several State Program Evaluations have been completed which include a review of CMITS and the storage and security of hazardous pesticides and controlled drugs. In February 2004, using CMITS, WS conducted a physical inventory of hazardous materials and controlled drugs in the four states reviewed by OIG. The inventory covered the time period of October 1, 2003, through January 31, 2004, with only minor discrepancies identified and actions taken to correct them. In addition, WS developed, and will implement by July 1, 2004, a new directive, "Accountability and Oversight of Hazardous Materials," Directive 2.465, which provides a process to review inventories by various levels of management, including, state, regional, and headquarters personnel.

Recommendation 2: Establish a management control process to ensure that all exceptions noted as a result of a review or inspection of an inventory location where hazardous materials are stored are promptly corrected, and that responsible individuals are made aware of the problems and provided with instruction on the corrective measures required.

Agency Response: Following State Program Evaluations, and when the evaluation team's final report is completed, recommendations are provided to the accountable State Director regarding any needed changes. Also, concerns or needs from the state programs are documented. The USDA Physical Security Specialists have and will continue to conduct security assessments which include self security assessments, as well as on-site facility reviews of vulnerabilities and threats, security of hazardous materials, countermeasures currently employed with the facility, and recommendations for improvements to facility security. In addition, WS developed, and will implement by July 1, 2004, a new directive, "Accountability and Oversight of Hazardous Materials," Directive 2.465, which provides a process to review inventories by various levels of management, including guidelines on roles and responsibilities for correcting identified problems.

Recommendation 3: Establish a management control process to ensure that all hazardous materials inventory inspection results are tracked, and that a coordinated analysis is performed to identify trends that may signal emerging problems.

Agency Response: WS has developed, and will implement by July 1, 2004, a new directive, "Accountability and Oversight of Hazardous Materials," Directive 2.465, which provides a process to review inventories by various levels of management, including guidelines on roles and responsibilities on tracking, review, and analysis by the regions and WS/OSS. This process includes coordination between the field specialist, district supervisor, state director, regional office, and headquarters regarding this process.

Recommendation 4: Establish a management control process to ensure that all hazardous materials inventory inspections are timely completed and results are accurately and fully reported.

Agency Response: WS has developed, and will implement by July 1, 2004, a new directive, "Accountability and Oversight of Hazardous Materials," Directive 2.465, which provides a process to review inventories by various levels of management, including guidelines on roles and responsibilities on tracking, review, and analysis by the regions and WS/OSS. This process includes coordination between the field specialist, district supervisor, state director, regional office, and headquarters regarding this process. The directive establishes CMITS as the national hazardous materials and controlled drugs inventory accountability reporting system. CMITS requires timely reporting of hazardous materials inventories to be submitted to the regions and to headquarters on an annual basis. The WS state programs compile and accurately report information to the regional offices and headquarters for additional analysis and concurrence. Independent inspections are conducted by the state collateral duty safety and health officer, district supervisor from another district, or other management authority within the state. This can be on a spot check basis, as well as on an annual basis.

Recommendation 5: Institute management controls to ensure that applicators consistently segregate and track the individual's pesticide/drug activity when they work together; properly record the use and disposal of all hazardous pesticides and drugs; maintain and retain current, complete, and accurate inventory records; and properly record drug names, EPA numbers, and quantities sold.

Agency Response: WS developed, and will implement by July 1, 2004, Accountability and Oversight of Hazardous Materials Directive 2.465, and updated Pesticide Use Directive 2.401, to provide WS employees guidance for ensuring proper accounting for tracking hazardous material activities. As part of Directive 2.465, annual and spot inventory inspections will enforce this activity, and any deficiencies will be corrected. Analysis of CMITS physical inventories will be conducted to ensure accuracy and accountability of the reports.

Recommendation 6: Take action to ensure that all applicators possess adequate equipment to safely handle and dispense hazardous materials and drugs.

Agency Response: WS submitted a request on June 1, 2004, seeking agency surplus Homeland Security funding to procure personal protective equipment and additional storage/lock boxes to secure all hazardous materials, as well as equipment for dispensing pesticides accurately and uniformly.

Recommendation 7: Revise ADC Directive 2.401 in accordance with Recommendation 1 above to: (1) include written procedures for inventory for all pesticides and drugs, (2) require a periodic physical inventory and reconciliation with applicators, (3) require that state office personnel conduct an annual physical inventory and reconciliation for all district supervisors, and (4) require that all pesticides and drugs are clearly labeled and that pesticides meant for disposal are separated from usable inventory.

Agency Response: WS Directive 2.401 was revised and implemented on February 17, 2004. It addressed this issue and included additional, appropriate guidance. In addition, WS Directive 2.465 was developed and will be implemented by July 1, 2004, to address this issue.

Recommendation 8: Revise ADC Directive 2.415 to standardize M-44 terminology for use in recording inventory.

Agency Response: WS Directive 2.415 was updated and implemented on February 18, 2004, to respond to M-44 terminology for use in recording inventory.

Finding 2. Weaknesses in the Storage and Security of Hazardous Materials

Recommendation 9: Develop a comprehensive plan for the storage of hazardous materials, including storage on private property.

Agency Response: WS Directive 2.401 was revised and implemented on February 17, 2004, to address storage of hazardous materials, including storage on private property.

Recommendation 10: Conduct an inspection to determine, within all States storing hazardous pesticides and controlled drugs, which storage locations need improvement.

Agency Response: In FY 2003 and FY 2004, APHIS Physical Security Specialists, conducted over 100 security assessments of WS work sites and identified needed improvements. As those needs were identified, funds were made available to implement those improvements. In addition, WS will conduct inspections of all storage locations during state program evaluations, annual inspections, and spot checks in FY 2004 to determine if any storage locations need improvement during the year. WS completed a telephone survey of all states to further identify needed improvements to storage locations and sites. On June 1, WS submitted a request for surplus Homeland Security funds to effect additional needed improvements to storage locations of hazardous materials and controlled drugs. As funding becomes available, procurement of identified equipment needs and identified improvements will be addressed.

Recommendation 11: Improve all substandard storage locations to meet minimum Federal standards for safely and securely storing hazardous pesticides and controlled drugs.

Agency response: See response to No. 10. Once storage needs are identified and funding becomes available, the needs of these identified locations will be addressed.

Recommendation 12: Revise ADC Directive 2.401 to require the use of WS approved storage equipment in state and district offices, in private vehicles, and in private residences. Require access to restricted hazardous pesticides and drugs to be limited to WS authorized personnel.

Agency Response: WS Directive 2.401 was revised and implemented on February 17, 2004. This recommendation has been completed.

Finding 3. Safety and Field Inspections to Address Security of Storage of Hazardous Materials Inventories

Recommendation 13: Revise the APHIS Safety and Health Manual, Chapter 2, Section 2.3, and develop a directive for field Inspections to: (1) include an assessment of whether pesticides and drugs are stored in a locked and secure manner, assigned storage equipment is utilized and access is limited, (2) clarify the definition of a hazardous workplace, (3) ensure that the guidance specifies how and when hazardous pesticides and drug storage at private residences and in personal vehicles are to be

inspected, and (4) require that personnel performing inspections through the APHIS 256 inspection process be independent of the storage locations being inspected.

Agency Response: “Section 2.3 in Chapter 2 of the APHIS Safety and Health Manual addresses the frequency of safety and health inspections for all APHIS work sites, including those where pesticides are not stored. Since these policy guidelines are structured for all APHIS programs, not just WS, they represent the minimal agency safety and health requirements for a wide diversity of low and high hazard work sites covering a broad spectrum of program areas. The individual APHIS programs supplement APHIS policy with their own policy directives to more specifically address their unique program needs.

WS met with the APHIS Safety, Health, and Employee Wellness Branch (SHEB), and discussed OIG Recommendation #13 on May 17, 2004. SHEB and WS agree that:

- SHEB will consider redefining hazardous chemicals including pesticides and immobilization and euthanasia (I&E) drugs covered by the APHIS Safety Inspection Checklist (Hazardous Chemical Storage, Explosives Storage, and Waste Disposal), APHIS Form 256-5. SHEB is currently working with WS to revise APHIS Form 256-5 to include an assessment of whether pesticides and controlled drugs are stored in locked containers to limit access and increase security.
- The definition of a hazardous workplace in the APHIS Safety and Health Manual is adequate and appropriate. The Occupational Safety and Health Administration (OSHA) definition of a hazardous workplace was adopted by APHIS and is used in the Manual. As written, Section 2.3 clearly stipulates that pesticide storage areas are classified as high-hazard workplaces requiring a minimum of two inspections annually.
- Inspection criteria of hazardous pesticide and drug storage at private residences and in personal vehicles are not applicable APHIS-wide and should be addressed in a WS policy directive. WS has revised Directive 2.401 which includes inspection requirements for all pesticide/drug storage sites.

APHIS follows OSHA standards and guidelines in conducting its safety and health program inspections. WS will provide periodic independent spot inspections conducted by state program, regional, and headquarters representatives not associated with the individual hazardous materials and controlled drugs storage locations, per WS Directive 2.401.