South Dakota Department of Agriculture
Pesticide Applicator Newsletter

Spring 2008 Issue 37

Worker Protection Standard (WPS): Compliance and Enforcement

Worker Protection Standard (WPS) is a federal regulation designed to protect employees on farms, forest, nurseries, and greenhouses from occupational exposures to agriculture pesticide products.

An employer must ensure that handlers and workers are protected from exposures to pesticides. Handlers must not apply pesticides in a way that will expose workers or other persons. Employers must exclude workers from areas being treated with pesticides, and they must exclude handlers and workers from areas that remain under a Restricted Entry Interval (REI).

To mitigate exposure to pesticide, employers must provide workers with an ample supply of water, soap, and towels for routine washing and for emergency decontamination. They must also provide transportation to a medical care facility if a worker has been poisoned or injured by a pesticide.

Employers must provide safety training for all workers. This training must be documented and repeated every five years. A trainer must be currently qualified to present handler training or currently be trained as a handler who works under the supervision of a certified pesticide applicator, or currently be trained as a WPS handler, or have completed a pesticide train-the-trainer program approved by a state, federal, or tribal agency having jurisdiction.

Finally, employers must provide notice to workers about applications. This can be done by oral communication (except greenhouse which must be posted), or by posting areas that have received application. However, some pesticide labels require both. It is imperative to always read and follow pesticide labels.

Re-inspections of an establishment/employer who was previously in violation of the WPS must be completed, covering all applicable WPS categories. Employee interviews (or written justification why the interview was not performed) are in order and are reportable as a complete federal WPS inspection. Re-inspection may be counted as Tier I if conducted within thirty days of the REI, and they are Tier II if conducted after 30 days of the REI. (Continued on Page 3--WPS)

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Pesticide Complaints for 2007

The Department of Agriculture investigates pesticide complaints reported to the Department. This year there were a total of 129 pesticide complaints filed through 10/1/06 to 9/30/07. The summary of cases that were investigated is as follows:

Drift –**80**
Spills – **4**
Pesticide Odor – **1**
Site contamination – **3**
Misapplication – **15**
No applicator license – **8**
Run Off – **2**
No applicator records – **1**
Human Exposure – **1**
Fertilizer/Pesticide dumping – **2**
RUP Sales or Purchase (uncertified) – **4**
Containment Violations – **2**
Container Dumping – **1**
Plane Crash – **2**
No Dealer license – **1**

2007 Pesticide Records Inspection Summary.

This year there were **62** routine commercial applicator record audits conducted. This resulted in **22** warning letters issued for incomplete records. There were **62** routine Restricted -Use -Pesticide audits completed. These audits resulted in **20** warning letters issued for incomplete records and **6** monetary settlements for sales or purchases by uncertified persons.

The Agriculture Health Study and Pesticide Exposure

An important research project called the **Agricultural Health Study** is now underway. Over 89,000 individuals are participating in the project. This includes private and commercial pesticide applicators as well as the spouses and children of these applicators. Their cooperation is much appreciated and is essential to the success of the study. The goals are to investigate the effects of environmental, occupational, dietary, and genetic factors on the health of the agricultural population. This study will provide information that agricultural workers can use in making decisions about their health and the health of their families.

The Agricultural Health Study is a federally funded long term study focusing primarily on cancer rates among farmers. However, a large portion of the participants from Iowa are professional agriculture pesticide applicators, and many of the results are applicable to landscape applicators. Many studies of the effects of the agricultural chemicals and other practices rely primarily on the long term memory of the participant or surviving family members to determine exposures. As a result, these backward looking studies have some inherent problems in the data they collect, causing some concerns about the conclusions that are drawn from that data.

The Agricultural Health Study relies on memory for the practices of participants prior to 1993, but since then has been tracking agricultural practices and health effects as they occur. Included in some of the studies has been the collection of genetic, urine and blood samples, as well as on site observations of the agricultural activities of the participants. The study is expected to continue through 2013. All of the participants are interviewed every 5 years. The study has determined that: 1). 14 percent of pesticide applicators have had an acute exposure to pesticides in their lifetime. 2). Pesticide exposure reduces 66 percent to 75 percent for applicators who wear chemical resistant gloves. 3). 33 percent to 51 percent reduction in pesticide exposure occurs when using a broadcast boom sprayer, compared with using a hand sprayer.

Finally, the study indicated that a major source of exposure indoors in contaminated clothing. The survey indicated that: 1). 78 percent take off work boots prior to entering their home; 21 percent did not. 2). Agriculture or commercial pesticides were stored in the home by13 percent of the applicators, 87% did not. For more information go to http://aghealth.nci.nih.gov.

Fumigation Management Plan (FMP)

A Fumigation Management Plan (FMP) is an organized, written description of the required steps to help ensure a safe, legal and effective fumigation. It will also assist you and others in complying with pesticide product label requirements. The requirement was established after the EPA and registrants of pesticide fumigant products signed a Memorandum of Agreement in November 2000. Labels were amended in the spring of 2004. ***All USDA record keeping requirements must be met when fumigants are applied by private and commercial applicators***.

Why do I need a FMP?
New label requirements are **all** fumigations be performed in accordance with a written FMP.

Who writes a FMP?
The FMP is written by the fumigator in conjunction with the owner/operator of the site to be fumigated. In South Dakota this applies to commercial and private applicators.

What information should a FMP include?
Refer to the FMP section of product labels for specific instructions on items required for the creation of the plan.

Does a FMP have to be written?
Yes, the FMP is required to be kept for three years after the fumigation.

Is there a blank form that can be filled out?
No. Every fumigation job is different and will require specific details. However, you can keep one Fumigation Management Plan on file for each type of fumigation done at your facility, for example spot fumigation of empty grain bins, fumigation of grain during loading, railcar fumigations, etc.
For one-time fumigations or those done only occasionally, you will need to create a separate FMP plan for each.

A fumigation Management Plan template can be obtained at
www.pestcon.com/techlibrary/fum_mgmt_plan.

(Continued, Page 5, **FMP)**

WPS-continued from Page 1

EPA considers re-inspections to be an important component of a state's compliance monitoring program. These re-inspections will verify that a previous violator has corrected the necessary deficiencies and is now in full compliance with the WPS. EPA recommends that all states re-inspect a proportion of previous WPS violators.

EPA recognizes that state pesticide inspection programs may choose to perform a combination of compliance assistance and monitoring activities at agricultural establishments. EPA also recognizes that states are able to conduct WPS inspections and take enforcement actions both within and outside of the REI plus thirty day windows of time. However, all efforts should be made to conduct WPS inspections during the growing season when pesticide applications are occurring and when WPS requirements are in effect.

In conclusion, re-inspections are considered an important component of enforcement targeting by states to verify that previous WPS violations have been corrected and that the establishment remains in full compliance with the WPS.

For more information on compliance requirements, contact the Department of Agriculture at 605-773-4432.

Unintentional Pesticide Poisonings.

Every 13 seconds, a U.S. poison control center receives a call about an unintentional poisoning. EPA is reminding families how to take precaution and properly use and store household pesticides to avoid poisonings. The American Association of Poison Control Centers data show that more than 50% of the 2 million poisoning incidents each year involve children younger than 6 years old.

In addition, poison centers reported more than 70,000 calls made to poison centers with concerns about potential exposure to common household pesticides. EPA has proposed measures to reduce risks to children associated with rat poison. EPA is proposing that all rat poison bait products be marketed in tamper resistant bait stations with solid bait blocks. As opposed to small pellets that children can ingest.

Department of Homeland Security Requirements for Fertilizer Facilities

On November 20, 2007, the Department of Homeland Security (DHS) released Appendix A to 6 CFR Part 27 entitled "Appendix to Chemical Facility Anti-Terrorism Standards; Final Rule." These standards are intended to help DHS identify facilities that possess significant amounts of a chemical of interest (COI) which may make the facility a target of terrorists for theft, sabotage, or chemical release. Several of the COI's are fertilizer products, and as a result any facilities possessing the amount of such fertilizers listed below are to submit a "Top-Screen" assessment to DHS:

Fertilizer	Handling Threshold
Anhydrous Ammonia[1]	10,000 lbs or more
Aqua Ammonia[2]	20,000 lbs or more
Ammonium Nitrate[3,5]	2,000 lbs or more
Potassium Nitrate[4,5]	400 lbs or more
Sodium Nitrate[4,5]	400 lbs or more

[1] For mixed products, count only those that are 1% anhydrous ammonia or higher.
[2] For mixed products, count only those that are 20% aqua ammonia or higher.
[3] For mixed products, count only those that are 33% ammonium nitrate or higher.
[4] Count all sources of the chemical (regardless of concentration) at the facility.
[5] Count only the amount of chemical held in transportation packaging (such as bulk bags).

For example, if your facility possesses 2,500 pounds of unmixed ammonium nitrate in bulk bags, a "Top-Screen" assessment for your facility should be submitted to DHS. However, an assessment does not need to be submitted if less than 2,000 pounds of the ammonium nitrate are held in transportation packaging, or your straight and mixed products comprised of at least 33% ammonium nitrate together amount to less than 2,000 pounds. For more information on determining if your facility should submit a "Top-Screen" assessment to DHS and how to do so, visit the DHS website at www.dhs.gov/chemicalsecurity .

Prairie Dog Survey and Rodent Control

An extensive survey of prairie dogs in South Dakota shows an increase in acreage of prairie dog colonies. Using a variety of methods, the 2006 survey by the S.D. Game, Fish and Parks Department found 625,410 acres of prairie dog colonies in western South Dakota compared to 404,673 acres found in the same area in 2003.

In Western South Dakota, the increase in prairie dog colony acres on tribal lands from 2003 was 49 percent and the increase in prairie dog colony acres on non-tribal lands was 60 percent. The area of surveyed counties contains 87 percent of the prairie dog colony acres located in western South Dakota. Of those acres, 69 percent are found on federal and tribal lands. "The estimates are based on the interpretation of aerial photographs as well as observing a sample of colonies on the ground," said Silka Kempema, GFP terrestrial wildlife biologist. "Conducting a survey like this every three years is part of South Dakota's commitment to manage and protect prairie dogs."

In 1998, the black tailed prairie dog was petitioned to be listed as a threatened species under the Endangered Species Act. In 2000, the U.S. Fish and Wildlife Service designated the prairie dog as a candidate for the list, but subsequently took it off the list after a concerted effort to improve management by various governmental agencies that make up the Prairie Dog Conservation Team. South Dakota is a member of that team.

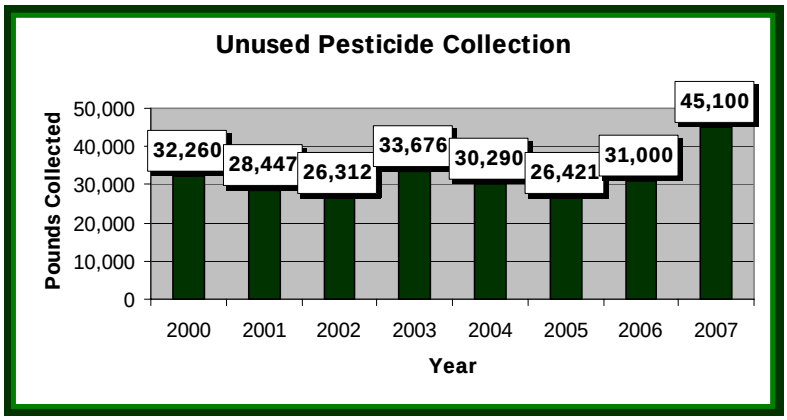
*Continued on page 6—**Prairie Dogs***

Unusable Pesticide No Longer Collected

The collection of Unusable Pesticide in South Dakota has been terminated. Funding for the program has been depleted. The Department will continue to take unusable pesticide registrations to help determine if there is a need for the program, but as of the printing of the newsletter there will be no collections of unusable pesticides in 2008. The container recycling program has one more year of funding. For more information please contact the South Dakota Department of Agriculture at 605-773-4432.

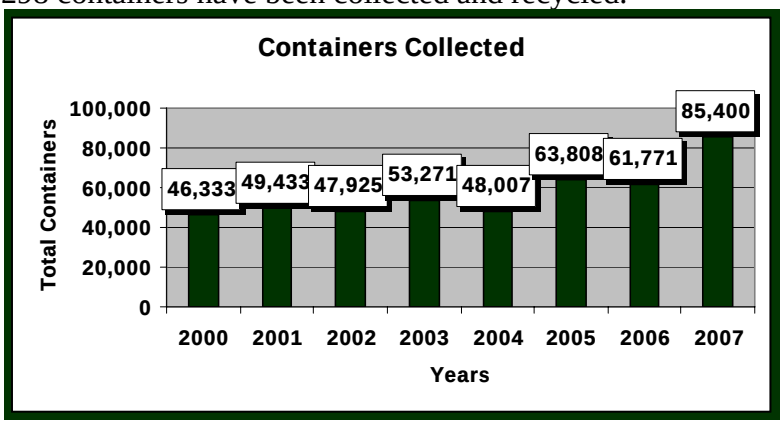
2007 Unusable Pesticide and Container Collections

The Unusable Pesticide collections this year totaled 45,100 pounds. Since 1992, over 484,909 pounds. of unusable pesticides in South Dakota have been properly disposed of through the program.



2007 Pesticide Container Collections

The Pesticide Container collections were held in July and August at 32 sites across the state. 85,400 containers were collected. All containers were taken to two permanent collection sites in Pierre or Vermillion to be granulated for recycling. In 2006, 61,771 containers were collected at 32 sites. Since the program began in 1992, approximately 750,298 containers have been collected and recycled.



FMP (Continued from page 3)

I do not use Phostoxin, I use Fumitoxin. Does the FMP still apply to me? Yes. The FMP plan is a requirement for every fumigant.

If I make applications to prairie dog burrows do I need a FMP plan?
Yes. If you do any fumigant applications regardless of situation, it requires an FMP before application.

What products qualify for an FMP plan? Weevil-Cide Pellets/Tablets, United Phosphorous Inc Fumitoxin Pellet/Tablets, Pestcon Systems, Inc, Kill All 60 pellets/tablets, ROC enterprises, PhosFume Pellets/Tablets, Douglas Products, Degesch Phostoxin Pellets/Tablets, Degesch America, Gastoxin Fumigation Pellets/Tablets, Bernardo Chem are all registered fumigants in South Dakota. Check each states registered products if working in multiple states.

If you have any questions regarding the compliance requirements, please contact the SDDA at 605-773-4432.

SDDA Evaluates Pesticides of Interest for Water Quality Concerns

The goal of the Pesticide Water Quality Program is to ensure that pesticides do not adversely affect the nation's water resources. The EPA's goal is to protect the environment by carrying out our statues and taking regulatory actions to ensure pesticides continue to be safe and available when used in accordance with the label.

The EPA asked all state pesticide regulatory agencies to evaluate "pesticides of interest" for water quality concerns. An initial national list of 57 active ingredients or groups of active ingredients was selected based on input submitted by the states. South Dakota included an additional two active ingredients as pesticides of interest. These pesticides have the potential to reach concentrations in water that might trigger enforceable human drinking water or aquatic life standards, or some other measure of human or environmental health. The South Dakota Department of Agriculture (SDDA) has evaluated 10 of these pesticides (2, 4-D, alachlor, acetochlor, atrazine, dicamba, isoxaflutole, MCPA, metolachlor, picloram, and nicosulfuron).

All pesticide applicators, especially those treating agricultural, right of way, and turf/residential sites, should be mindful of the potential for certain pesticides to leach into ground water or runoff into surface water. The following may help reduce the chance of ground water or surface water contamination:

- Be familiar with the chemical properties that affect leaching and runoff, such as solubility and persistence, and ability to adhere to the soil.
- Become familiar with, and follow, the requirements for water quality protection of the pesticide products you are using.

The SDDA will continue a cooperative effort with Department of Environmental, Natural Resources (DENR) to document ground water and surface water pesticide contamination. For more information contact the Department of Agriculture at 605-773-4432.

(***Prairie Dogs)***

South Dakota's Prairie Dog Management plan was finalized in 2005. Part of the plan establishes a minimum of acreage for prairie dog colonies of 199,472 acres with 166,958 of those acres on non-tribal land.

The South Dakota Department of Agriculture's Bait Mixing Facility, located at the Pierre Municipal Airport, and was transferred to the Department through a cooperative agreement with the U.S. Department of Interior in 1971. Under the terms of agreement and those contained in a Memorandum of Understanding dated July, 1969, the Bureau of Sport Fisheries & Wildlife, U.S. Department of Interior, "extended to the State of South Dakota the facilities for preparing and distributing to cooperators at approximate cost, baits and toxicants and other materials used in control programs." In 1971 and 1972, supplements to the Cooperative Agreement and Memorandum of Understanding completed the transfer.

The South Dakota Department of Agriculture currently makes available zinc phosphide bait, manufactured at the bait mixing station, and gas cartridges obtained from the U.S. Department of Agriculture's Pocatello Supply Depot. The 2% zinc phosphide bait is sold in 25 and 50 pound bags and labeled only for prairie dog control. This toxicant is classified as a restricted use pesticide by the U.S. Environment Protection Agency. The gas cartridges, packaged 100 per case, are used primarily for treating small infestations and cleanup operations following bait treatment of larger infestations of prairie dogs.

Currently there are three active ingredients labeled for use on prairie dogs in South Dakota; they are zinc phosphide, aluminum phosphide and gas cartridges. Zinc phosphide is registered for sale in South Dakota by three manufacturers, South Dakota Department of Agriculture, Bell Laboratories and Hacco Inc. The Department sold 339,000 pounds of bait in 2005, 170,725 pounds in 2006, 310,950 pounds in 2007,and so far in 2008 fiscal year 233,300 pounds.(*Source: SD Black Tailed Prairie Dog Colony acreage and distribution, 2006, Silka Kempema, SD Game, Fish and Parks and SD Dept of Agriculture, Division of Agricultural Services)*

Leak Detection Required for Storage of Bulk Liquid Fertilizer

Every year, the South Dakota Department of Agriculture conducts routine inspections at bulk retailer fertilizer and pesticide facilities throughout South Dakota. One common violation is storage of liquid fertilizer tanks without a leak detection system.

Bulk liquid fertilizer secondary containment must have a leak detection system located under the containment area. The system is used to determine if the secondary containment is functioning properly and to protect fertilizer from leaking into ground and surface water.

The leak detection system consists of a sufficient number of slotted gravity collection pipes connected to monitoring pipes outside of the containment. The collection pipes must be used to detect possible leaks of the secondary containment system. The collection pipe can have no greater than a six foot span on either side and no greater than a twelve foot span between two pipes. Other methods of leak detection may be utilized if granted prior approval.

Leak detection must be checked and records maintained once a month. Upon detection of any liquid within the monitoring system, the operator of the bulk commercial fertilizer storage facility must immediately:

(1) Notify the Department of Agriculture773-4432) or Emergency Management (773-3231).
(2) Obtain a sample of liquid and submit the sample to a reputable laboratory for analysis to determine the levels of fertilizer or pesticide;
(3) Take necessary action to determine the cause of the liquid entering the leak detection system and correct it; and
(4) Provide the Department of Agriculture with a copy of the sample analysis results as soon as they are available.

Monthly monitoring records are required and must include: (1) Name of the person conduction the monitoring, (2) Day, month, and year monitoring was conducted; and (3) Time of day the monitoring was conducted. These records must be maintained for the life of the facility at the office of the person responsible for the bulk commercial fertilizer storage facility. For more information , go to www.state.sd.us/doa/das/.

Seed Treatment Requirements

Retailers and farmers that have decided to treat seed at their facilities need to get an Operational Area Containment (OAC) registration completed prior to installing the seed treater if certain qualifications are met. The containment area must be capable of holding 250 gallons. Operational area containment is any area where pesticides are transferred, loaded, unloaded, mixed, repackaged, or refilled. Operational area containment is a method of preventing pesticides spilled during handling from adversely impacting human health and the environment. Containment systems, impervious pads with curbs or walls, are designed to prevent the escape of spilled products or rinsate into the environment.

Commercial Applicators -As a reminder, seed treatment products require that a commercial applicator is certified in Category 5, Seed Treatment. Initial certification for these categories may be attained by taking an open book exam at your local extension office. Recertification can be obtained at recertification classes offered by the department. Category 5 is offered every year.

Record keeping requirements apply to the treating of seed. The records must be kept for a period of two years.

The record must include the following:

- Name and address of the person for whom the pesticide was applied (customer)(farmer)
- Locations the seed will be planted.
- The pest to be treated.
- The amount (bushels) treated.
- The year, month, day and time pesticide was applied.
- The applicator who applied the pesticide.
- Trade or brand name of the pesticide applied.
- Company name appearing on the product label.
- Amount of pesticide applied and concentration in pounds or gallons per unit or percentages of active ingredient per unit of pesticide applied.
- Specific crop, designated site or commodity to which pesticide application was made.

For more information contact the Department of Agriculture at 605-773-4432.

DEPARTMENT OF AGRICULTURE
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Pierre, South Dakota 57501-3182

Bulk Rate
U.S. Postage
PAID
Permit #1209
Sioux Falls, SD

ENFORCEMENT CASE UPDATE

West – The Department conducted a follow up investigation into sales of strychnine pocket gopher bait. The Department found that the bait was being recommended and sold for the control of prairie dogs. The retailer was found to be making off label recommendations of the bait and settled with the Department for $500.

Central - The Department conducted an investigation of a reported liquid fertilizer spill. The spill was cleaned up, however, the retailer failed to report the spill to Emergency Management or the Department of Agriculture within the required 3 hour time frame. The retailer was issued a warning by the Department.

Northeast – The Department conducted a follow up investigation at an agronomy retail facility that was storing liquid fertilizer in unapproved containment. After several notifications to remove the tanks, the Department returned and found that the tanks were still in use. The retailer emptied and removed the tanks and also settled with the Department for $4,500.

Southeast – The Department conducted a follow up inspection on a pesticide dealer and found that the dealer made 11 sales of restricted use pesticides to 3 uncertified persons. The dealer settled with the Department for $3025 and the 3 purchasers of the RUP's settled with the Department for $350, $280 and $140.