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PURPOSE OF PESTICIDE HANDLING AND DISCHARGE RESPONSE PROCEDURES AND PLANS

In the event of a discharge incident or mechanical failure involving pesticides, a written pesticide handling and discharge response plan will help you, and others working within your operation, expedite timely and effective actions necessary to protect humans, animals, and the environment. A written plan will also provide pertinent information to individuals unfamiliar with your operation; thus, allowing them to assist in an emergency situation. In addition, it can serve as a reference for methods and procedures to be used when handling pesticides in your operation and a guide for inspection and maintenance of related devices and equipment.

Pesticide Operational Area is an area where:
- contents of pesticide containers are transferred (loaded, unloaded, mixed, repackaged)
- pesticides are cleaned, washed or rinsed from containers or application, handling, storage, or transportation equipment or more than 30 days in a year.

Effective February 1, 1995, all certified applicators are required by ARSD 12:56:17:03, under the authority of SDCL 38-21-15, to conduct operational area activities through utilization of a pesticide handling and discharge response plan. Properly completed, this booklet will provide general methods and procedures which will help you prevent pesticide discharges, as well as, minimize adverse effects; thus, meet the requirements specified in ARSD 12:56:17 for private pesticide applicators. The plan needs to be specific to your operation; therefore, there is not a "correct answer" for preventative measures or actions to control or remove discharges from the environment.

A current, written plan must be available:
1) for inspection by the department,
2) for use at the operational area,
3) at the applicator's nearest local office/residence, or
4) at the location from which the operational area is administered.

If you have questions or concerns regarding your plan, or pesticide handling and use in general, please contact the department at 1-800-228-5254.

METHODS AND PROCEDURES FOR PESTICIDE TRANSFERRING, LOADING, UNLOADING AND MIXING, AND APPLICATION EQUIPMENT

The main types of pesticide containers that are utilized in my operation:

___ liquid, 1 gal	___ mini-bulk, 60-300 gal	___ dry, 16 oz or less
___ liquid, 2½ gal	___ bulk, more than 300 gal	___ dry, more than 16 oz
___ liquid, 5 gal	___ drum/barrel	___ dry, bulk

Other: _____

Location and surface utilized for pesticide mixing/loading operations.

___farmsite	___mixing/loading pad	___concrete
___field	___gravel	___asphalt
___road	___soil	

Other: _____

Method used to transfer pesticides from container to application equipment tank.

_____
_____
_____
_____
_____

Devices, and their location, utilized to prevent backflow of sprayer tank contents into the water supply. _____
_____
_____
_____
_____
_____

Devices and procedures employed to prevent overflow of sprayer tank. _____
_____
_____
_____
_____
_____

Special procedures and equipment used when handling pesticides and loading/unloading application equipment to avoid pesticide discharges at the pesticide operational and storage areas. (For example: store pesticides in areas where discharges cannot penetrate the surface, employ a closed-system mixer/loader, utilize direct injection of pesticides) _____

METHODS AND PROCEDURES FOR PERIODIC INSPECTION OF DEVICES USED TO TRANSFER OR HOLD PESTICIDES AND FOR REPAIRING EQUIPMENT FOUND TO BE DEFECTIVE

List the time interval at which a maintenance check on chemical transfer devices and containers/tanks is performed to ensure accuracy and detect possible problems, who is responsible for conducting it, and the general procedure used for the check. _____
_____
_____
_____
_____
_____
_____
_____

If applicable, the schedule which secondary containment structure, mixing/loading pad, tank fittings, etc. are examined for cracks, leaks, etc.; and who is responsible for conducting the check._____
_____
_____

General strategy used to repair equipment found to be defective. (For example, if diluted spray mixture needed to be emptied from a sprayer tank or if cracks were found in a concrete pad/ secondary containment structure.) _____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

METHODS AND PROCEDURES FOR RINSING, WASHING, AND CLEANING OF PESTICIDE CONTAINERS AND APPLICATION, STORAGE, OR TRANSPORTATION EQUIPMENT

Methods used to handle, use, and store rinsate; and, pesticide use activities implemented to reduce the amount of rinsate generated. _____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Rinsate refers to pesticide-containing water (or other liquid) resulting from excess spray dilution or rinsing a pesticide container, pesticide equipment, pesticide storage area, or other pesticide-containing articles.

METHODS AND PROCEDURES TO BE USED IN THE TRANSFER, HANDLING, STORAGE, AND DISPOSAL OF MATERIALS RECOVERED FROM WITHIN THE OPERATIONAL AREA CONTAINMENT

If your operational area does not meet these requirements, you DO NOT need to complete this section (pages 6 and 7).

Operational Area Containment, as defined by ARSD 12:56:17:01, is required after February 1, 1995, of **any person** when their operational area meets any one or more of the following conditions:

1) The operational area is the applicator's principal operational area; and
   a) more than a total of 1500 pounds of pesticide active ingredients are transferred, loaded, unloaded, mixed, repackaged, or refilled during a calendar year; or
   b) either concentrate or diluted pesticides are cleaned, washed, or rinsed from containers or from application, handling, storage, or transportation equipment for over 30 days accumulated during a calendar year.

2) The operational area is within;
   a) 150' of a lake, stream, streambed, or wetland;
   b) 150' of a well;
   c) 200' of populated buildings, whether commercial or residential premises, excluding the owner or operator's own residential or commercial buildings;
   d) 500' of a well used as a public water supply.

Two or more operational areas under common ownership and control within one-half mile of each other are calculated collectively to determine if the thresholds listed in subdivisions 1a or 1b above have been reached. Also, subsections 1a and 1b do not apply to those operational areas located within or immediately adjacent to each pesticide application site.

Materials, and their storage location, which are available to aid in stopping a discharge or cleaning up material within your operational area containment.

___wooden stakes/mallet_____ ___assorted bolts/screws_____
___absorbent material_____ ___hand tools_____
___ plastic/duct tape_____ ___caulking material_____
Other: _____
_____

Technique used to recover discharges, such as contamination from leaking connections or rainwater, within the operational area. _____
_____
_____
_____
_____
_____

Method of disposal for recovered material and manner in which it will be stored to prevent further contamination until proper disposal is possible. Include location and size of tanks with adequate capacity to hold recovered liquid from major spills.
_____
_____
_____
_____
_____
_____
_____
_____
_____

Items which may need to be removed from the containment or storage area to prevent contamination in the event of a discharge; and, area where they can be temporarily located. _____
_____
_____
_____
_____
_____

Protective clothing which is available for individuals involved with cleanup and where it is located:

___rubber gloves_____ ___respirator_____
___rubber boots_____ ___chemical suit_____
___safety goggles_____ ___face shield_____
___water/soap_____

Other: _____
_____

METHODS, PROCEDURES, MATERIALS AND EQUIPMENT TO BE USED TO CONTAIN, RECOVER, STORE, TRANSPORT AND DISPOSE OF DISCHARGES OUTSIDE OF OPERATIONAL AREA CONTAINMENT

Steps to secure the exposure area to prevent individuals from entering it. _____
_____
_____
_____
_____
_____
_____
_____
_____

Procedures employed and supplies on hand, including their storage location, used to halt and contain discharges.

___wooden stakes/mallet_____ ___assorted bolts/screws_____
___absorbent material_____ ___hand tools_____
___plastic/duct tape_____ ___caulking material_____
___shovels_____ ___hoses_____
Other: _____
_____

Procedure: _____
_____
_____
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Plan for recovering pesticide material, remediation of the affected area (if soil contamination results), and storage of contaminated material for prevention of further contamination until proper disposal is possible. Include name and telephone number of contractor to be secured in the event that a back hoe or other heavy excavation equipment is necessary to complete soil removal. _____

Sample collection method to follow if a release takes place. Samples will need to be taken from the area where the discharge occurred and from where recovery was completed to ensure remediation is adequate. _____

OTHER ITEMS TO CONSIDER…

Locations where the Pesticide Handling and Discharge Response Procedure and Plan can be found. Consider prominent areas where pesticides are stored, mixed/loaded, etc. Also consider contacting the Local Emergency Planning Committee (LEPC) to ensure your plan is compatible with their Local Emergency Response Plan, and in compliance with SARA and CERCLA* regulations. _____
_____
_____
_____
_____
_____

Policy for maintaining and schedule for updating the plan. _____
_____
_____
_____

In case of fire or other emergency situation, list pesticides stored and used in your operation. Obtain current product Material Safety Data Sheets (MSDS) and clean product labels which provide pertinent information that may be needed in the event of a discharge or emergency situation. Attach them to your plan or specify where they are located. _____
_____
_____
_____
_____
_____

Location of first aid information and equipment (first aid kit, eye washer, oxygen) which may be needed in the event of emergency situations. _____
_____
_____
_____

Possible Pesticide Poisoning Symptoms
-Headache -Dizziness -Weakness -Incoordination
-Muscle twitching -Tremors -Nausea -Blurred vision
-Diarrhea -Abdominal Cramps -Profuse Sweating

* SARA=Superfund Ammendments & Reauthorization Act of 1986
CERCLA=Comprehensive Emergency Response, Compensation & Liability Act of 1980

PESTICIDE HANDLING AND DISCHARGE RESPONSE PROCEDURE AND PLAN TRAINING

Training of family members and hired help, when appropriate, should be conducted, at least, annually. Employees involved in pesticide use/handling must receive training no later than 3 days after beginning pesticide use/handling duties.

Name	Date of Training	Initials of individuals who received & gave training
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EMERGENCY RESPONSE LIST AND TELEPHONE NUMBERS

911 or _____	FIRE DEPARTMENT
911 or _____	POLICE DEPARTMENT
911 or _____	SHERIFF DEPARTMENT
911 or _____	AMBULANCE
_____	STATE PATROL
_____	DOCTORS
_____	HOSPITAL
_____	EMERGENCY CONTRACTOR

When a specific incident results in a pesticide/fertilizer release of any amount, or if you suspect a discharge occurred, notify one of the three listed agencies (Emergency Management, Agriculture, or Environment & Natural Resources) immediately upon gaining control of the spill. The agencies will provide assistance and guidance regarding proper procedures, based upon the amount and type of substance involved.

Important Telephone Numbers

PESTICIDE SPILL NOTIFICATION

-SD Div of Emergency Management 24 hours	773-3231
-SD Dept of Agriculture 8:00 am to 5:00 pm	773-4432
-SD Dept of Envir & Nat Resources 8:00 am to 5:00 pm	773-3153

POISON CONTROL CENTERS

-McKennan, Sioux Falls	1-800-952-0123
-St Lukes Midland, Aberdeen	1-800-592-1889
-Rapid City Regional, Rapid City	1-800-232-3562

The following provide 24 hour pesticide information:

National Pesticide Telecommunications Network	**1-800-858-7378**
Chemtrec	**1-800-424-9300**

Appendix

SAFETY FIRST:
CONTROL
CALL
CONTAIN
CLEANUP

✓**CONTROL:**
- Determine if it is appropriate to stop the source of the spill, or to limit the flow.
- Wear appropriate personal protective equipment to protect yourself.
- Utilize necessary equipment, including supplies listed on pages 6 and 8, to attain control of the spill.
- Do not allow anyone to walk or drive over spilled material.
- Incidents occurring near wellhead protection areas, water, or other sensitive areas may require special actions to prevent contamination of water sources, wetlands, etc.

✓**CALL:**
- Report the release to the appropriate agencies listed on page 12.

✓**CONTAIN:**
- If the material starts to spread, contain by diking with sand/soil/absorbent clay.
- Do not allow material to enter storm sewers, waterways, wellheads, etc.

✓**CLEANUP:**
- The agriculture and/or environment & natural resources department will provide assistance with cleanup and disposal procedures according to the substance involved, quantity, and other relevant factors.
- Store recovered material in a drum or on plastic, covered with plastic, to prevent further contamination of the environment until proper disposal is possible.
- Whenever possible, spilled material should be used as originally intended.
- When reuse according to the product label is not possible either because of excessive contamination or cross-contamination with an incompatible material, the material must be disposed of in accordance with South Dakota Department of Agriculture (SDDA) requirements. Depending upon the chemical involved, disposal options may include a local landfill permitted to accept the material, a hazardous waste landfill, or land application.
- Do not dispose/use spilled or contaminated material until the SDDA grants approval.

Clothing worn by Pesticide applicators should be washed in hot water, separately from family clothing and line dried. Rinse the machine using detergent and complete cycle.

Note: Components listed are general South Dakota Department of Agriculture recommended procedures only. Additional procedures may be required to control, contain, and cleanup releases.