

01 DEPARTMENT OF AGRICULTURE, FOOD AND RURAL RESOURCES

026 BOARD OF PESTICIDES CONTROL

Chapter 22: STANDARDS FOR OUTDOOR APPLICATION OF PESTICIDES BY
POWERED EQUIPMENT IN ORDER TO MINIMIZE OFF-TARGET
DEPOSITION

SUMMARY: These regulations establish procedures and standards for the outdoor application of pesticides by powered equipment in order to minimize spray drift and other unconsented exposure to pesticides. The primary purpose of these regulations is to implement the legislative mandate of the Board, as expressed by 7 M.R.S.A. § 606(2)(G), to design rules which “minimize pesticide drift to the maximum extent practicable under currently available technology.”

SECTION 1. EXEMPTIONS.

The regulations established by this chapter shall not apply to pesticide applications in any of the following categories:

- A. Applications of pesticides confined entirely to the interior of a building;
- B. Applications of pesticides by non-powered equipment;
- C. Applications of pesticides exclusively in granular or pelletized form;
- D. Applications of pesticides injected underground or otherwise injected directly into the target medium. Such applications must involve no spraying of pesticides whatsoever.

SECTION 2. STANDARDS OF CONDUCT FOR PESTICIDE APPLICATIONS.

All pesticide applications subject to these regulations shall be undertaken in compliance with the following standards of conduct:

~~A. General Requirements.~~

- ~~I. Prior to and during pesticide spray activities, applicators shall determine and monitor the condition of the equipment to be used, weather conditions, the boundaries of the area to be treated, surrounding properties, including any sensitive areas in the vicinity, and other pertinent factors. These monitoring efforts must be sufficient to assure that spray activities are conducted in accordance with these regulations, pesticide label requirements and otherwise in a manner which complies with law.[Considerations]~~
- ~~H. In any event, spray activities shall immediately cease if there is significant risk that these regulations or label requirements are not being or cannot be satisfied.~~

AB. Equipment.

- I. Pesticide spray equipment shall be used in accordance with its manufacturer's recommendations and instructions, and shall be in sound mechanical condition, free of leaks and other defects or malfunctions which might cause pesticides to be deposited off-target.
- II. Pesticide spray equipment shall be properly calibrated. Calibration shall occur with sufficient frequency, depending on extent and type of use of equipment and pesticides employed, so that equipment remains within 5% of reasonably close to calibration manufacturer's specifications when in use. Applicators shall maintain work sheets to show types of nozzles, pressure, boom height and speed of equipment at time of calibration and a brief description of the calibration method.
- III. Pesticide application equipment shall have properly functioning shut-off valves or other mechanisms which enable the operator to prevent direct discharge and minimize drift to non-target areas. Spray equipment designed to draw water must also have a properly functioning antisiphoning device.

BC. Weather Conditions.

- I. Spray applications shall not be undertaken when weather conditions favor pesticide drift onto Sensitive Areas or otherwise prevent proper deposition of pesticides on target.
- II. ~~Spray applicators shall be familiar with all weather conditions and related factors which affect settling of pesticides on to or off target. Such factors include temperature, inversion, wind speed and direction, potential for drift and volatilization, equipment functioning and pertinent label instructions.~~[Considerations]
- III. Pesticide application must cease immediately when visual observation reveals or should reveal that spray is not being deposited on target.
- IV. Without limitation of the other requirements herein, under no circumstances shall pesticide application occur when wind speed in the area is in excess of 15 miles per hour.

CD. Site Map and Identification of Sensitive Areas.

- I. Prior to spraying a pesticide, the applicator must become familiar with the area to be sprayed and must identify and record the type and location of any Sensitive Area located within 500 feet of the target area. Applicators shall prepare ~~be prepared to demonstrate by production of a site map;~~

~~sketch, field notes, log or other documentation depicting the target area and adjacent Sensitive Areas to demonstrate that this requirement has been met. Site maps shall be updated annually. These records~~ The site map of sensitive areas shall be retained by or on behalf of the applicator for a period of two years following the date of applications and shall be made available to representatives of the Board upon request. This requirement shall not apply to turf, ornamental tree and plant or structural pest control applications.

II. ~~Prior to spraying by aerial application, the field or other area to be sprayed shall be clearly identified by means of ground markings or other physical identification characteristics clearly visible from the air. [Note: This section moved to section 3]~~

~~DE.~~ Presence of Humans, Animals.

Pesticide applications shall be undertaken in a manner which minimizes exposure to humans, livestock and domestic animals.

The applicator shall cease spray activities at once upon finding evidence showing the likely presence of unprotected persons in the target area or in such proximity as to result in unconsented exposure to pesticides.

~~EF.~~ Other Requirements.

These regulations are intended to be minimum standards. Weather and topographical conditions, proximity to areas of particular sensitivity and other factors may require the applicator to take special precautions, beyond those set forth in these regulations, in order to avoid adverse impacts on off-target areas and to protect public health and the environment. Moreover, these regulations are not designed or intended, nor should they be construed, to affect rights of private citizens in civil actions arising out of the negligent use or other misapplication of pesticides.

These regulations also do not affect pesticide label instructions, which may be more restrictive in certain cases. Under federal and state law, wherever particular label instructions impose standards which are more restrictive than these regulations, such label instructions must be followed. Similarly, these regulations do not affect more restrictive regulations or guidelines applicable to particular types of pesticide applications.

SECTION 3. STANDARDS FOR AERIAL APPLICATION OF PESTICIDES

A. Positive Identification of the Target Site [Note: This section moved from section 2D and updated with the “Positive Identification” language]

The person contracting for an aerial pesticide application shall ensure that the application site (i.e., target area) is positively identified prior to application, using a unique and verifiable method, including;

- I. Unique site markings visible to the applicator; or
- II. An onboard, geo-referenced electronic mapping and navigation system (e.g., GPS); or
- III. Other method(s) approved by the Board.

B. Site Plans Required

Prior to spraying by aerial application within 1,000 feet of a Sensitive Area Likely to Be Occupied, the person contracting for the application shall provide to the applicator a site plan that includes:

- I. a scaled site map that:
 - (i) delineates the boundaries of the target area and the property lines;
 - (ii) depicts significant landmarks and flight hazards;
 - (iii) depicts the type and location of any Sensitive Area Likely to Be Occupied within 1,000 feet of the target area; and
 - (iv) depicts other Sensitive Areas within 500 feet of the target area.
- II. If applicable, a school bus schedule should accompany the site map.
- III. The site plan and site map with identified sensitive areas shall be retained by the applicator for a period of two years following the date of applications and shall be made available to representatives of the Board upon request.

C. Site-Specific Application Checklist

Prior to conducting an aerial pesticide application within 1,000 feet of a Sensitive Area Likely to Be Occupied, the applicator shall complete a Board-approved pre-application checklist for each distinct field or target site. The checklist shall be maintained by the applicator for a period of two years and shall be available for inspection by representatives of the Board at reasonable times, upon request. The checklist shall include, at a minimum, the following elements:

- I. The date, time, description of the target site and name of the applicator;
- II. Whether the notification requirements contained in CMR 01-026 have been carried out;
- III. Whether the target site has been positively identified;
- IV. The location of where weather conditions are measured and a description of the equipment used to measure the wind speed and direction;
- V. Whether conditions are acceptable to treat the proposed target site, considering the location of any Sensitive Area Likely to Be Occupied and current weather conditions;
- VI. The location, relative to wind direction, for of all Sensitive Areas Likely to Be Occupied within 1,000 feet of the target site;
- VII. The measures the applicator will employ to protect all Sensitive Area Likely to Be Occupied within 1,000 feet of the target site from off-target deposition;
- VIII. Whether there are any humans present in the target area or in the vicinity of the target area.

D. Buffer Zones for any Sensitive Area Likely to Be Occupied

An applicator may not conduct an aerial application of pesticides within 200 feet, or two-and-one-half swath widths, whichever is greater, of a Sensitive Area Likely to Be Occupied, unless consent has been granted by the landowner, lessee and occupant (when applicable), consistent with the provisions of Section 4(C) of this rule.

E. Wind Speeds for Aerial Applications

Unless otherwise specified by the product label, an applicator may not conduct an aerial application of pesticides within 1,000 feet of a Sensitive Area Likely to Be Occupied unless the wind speed is between 2 and 10 miles per hour.

SECTION 43. GENERAL STANDARDS FOR OFF-TARGET PESTICIDE DISCHARGE AND RESIDUE.

A. Prohibition of Unconsented, Off-target Direct Discharge of Pesticides.

Pesticide applications shall be undertaken in a manner which does not result in off-target direct discharge of pesticides, unless prior authorization and consent is obtained from the owner or lessee of the land onto which such discharge may occur.

B. Standards for Unconsented, Off-Target Drift

I. General Standard. Pesticide applications shall be undertaken in a manner which minimizes pesticide drift to the maximum extent practicable, having due regard for prevailing weather conditions, toxicity and propensity to drift of the pesticide, presence of sensitive areas in the vicinity, type of application equipment and other pertinent factors.

II. ~~Prima Facie Evidence of Violation. Without limiting the generality of subsection I above, the presence of pesticide drift residues in excess of any of the following levels shall constitute prima facie evidence that the applicator did not take reasonable precautions to minimize pesticide drift to the maximum extent practicable.~~ Standard of Harm for Off-target Drift of Pesticides. An applicator may not apply a pesticide in a manner that results in off-target drift and causes harm resulting in:

- (i) ~~Detectable Pesticide residues in any off-target sensitive area in the vicinity of an application site, which exceed 20% of the residues found, or which with proper application technique would have occurred, within the target area. For purposes of this standard, residue levels, within both a target area and an off target sensitive area, may be determined by evaluation of one or more ground, foliage or other samples, or by extrapolation or other appropriate techniques.~~
- (ii) ~~Pesticide residues on any off-target sensitive area in the vicinity of an application site which result in damage to crops, vegetation or other species within the sensitive area~~ crop that violate EPA residue tolerances for that crop, as established under 40 CFR, Part 180.
- (iii) ~~Pesticide residues on any off-target~~ certified organic farm or garden in the vicinity of an application site which causes the organic products thereof to fail to meet the ~~tolerance~~ standard for organic agricultural commodities, ~~because residue testing detects prohibited substances that are greater than five percent of the Environmental Protection Agency's tolerance for the residue detected as established under the National Organic Program Rule, 7 CFR, Part 205.~~ This standard shall apply only where, prior to the time the pesticide application occurs, the owner or operator of the organic farm or garden notifies the owner or lessee of the land to

be sprayed, with such notice identifying the farm or garden as organic.

(iv) Documented illness in human(s). For the purposes of this section, the Board shall determine what constitutes adequate documentation.

(v) Damage or injury to any non-target species.

~~(iv)~~(vi) The residue and harm standards in this subsection 4(B)(II) for off-target drift do not apply where the owner or lessee and occupant (when applicable) of the off-target area receiving pesticide drift have given authorization and consent as prescribed under Subsection C of this section.

(vii) The Board shall consider the particular circumstances of violations arising from Subsection 4(B)(II) in determining an appropriate response, including, but not limited to:

- The standard of care exercised by the applicator;
- The degree of harm or potential harm that resulted from or could have resulted from off-target drift from the application;
- The risk (toxicity and exposure) from the pesticide applied.

~~III. Standards for Particular Pesticides. The Board may by rule provide more restrictive residue standards than those prescribed herein for particular pesticides, where pesticide toxicity, propensity to drift or other circumstances warrant.~~

C. Consent; How Given.

I. Authorization and consent by the owner or lessee and occupant (when applicable) of land receiving a pesticide discharge or drift may be given in any manner, provided that the consent is reasonably informed and is given prior to the onset of the spray activity in question. The burden of proof shall be upon the applicator to demonstrate that requisite authorization and consent has been given. For this reason, applicators are encouraged to obtain such consent in writing and to maintain records thereof.

II. Except with the prior written approval of the Board, no authorization or consent may be given with regard to off-target direct discharge or off-

target drift of pesticides upon any bodies of water or critical areas as defined in Chapter 10, "Definitions; Sensitive Area."

SECTION 4. ~~DRIFT MANAGEMENT PLAN.~~

A. ~~Purpose.~~

~~Landowners, lessees and/or spray applicators may develop a drift management plan to cover applications undertaken by or on behalf of them. The purpose of such a plan shall be to minimize the occurrence and adverse effects of pesticide drift. Where a drift management plan is in effect and complied with, management flexibility may be enhanced.~~

B. ~~Contents~~

~~A drift management plan must contain measures designed to meaningfully reduce and minimize the incidence and adverse effects of off-target drift of pesticides, with a particular view to protecting sensitive areas. Such measures shall consider and include at least some of the following elements:~~

- ~~I. The establishment of no-spray buffer zones between spray blocks and sensitive areas to minimize drift;~~
- ~~II. Spraying only when maximum wind speed and/or direction are as prescribed by the plan, with that prescription being less than the maximum allowable wind speed established under section 2C-IV;~~
- ~~III. The use of coarse spray droplets created by a combination of special nozzles, pressures and particulating agents;~~
- ~~IV. The use of specialized equipment designed to minimize spray drift;~~
- ~~V. The use of wind shields or breaks to deflect or contain spray drift away from sensitive areas;~~
- ~~VI. The use of closest possible points of spray release to the target in order to minimize drift;~~
- ~~VII. The use of lowest effective rates of application of pesticides;~~
- ~~VIII. The use of integrated pest management techniques, including planting of pest-resistant varieties, removal of pest host plants, long-range planning to rotate crops and monitor fields, and other measures designed to minimize the use of pesticides over the planting season and/or over several planting seasons;~~
- ~~IX. Posting of the area to be sprayed or other forms of effective public notification, provided that this measure must be accompanied by other measures designed to reduce drift;~~
- ~~X. Other specific measures stated in the plan which are effective in minimizing the incidence and adverse effects of pesticide drift.~~

C. Procedure.

Any person wishing to operate under a drift management plan must prepare the plan in writing, stating with specificity the measures which will be used, and how they will be used, in reducing the incidence of drift and protection of sensitive areas. The plan shall also include a map, aerial photograph or sketch of the area(s) to be sprayed, the crops to be treated, the pesticide(s) and equipment which may be used, the target pest(s), and the monitoring techniques and thresholds which will be used in making a decision to spray a given area. The plan shall be dated and signed by the person(s) responsible for carrying out its provisions, who shall also provide an address and telephone number by which (s)he can be reached.

D. Filing; Review by Board.

The drift management plan need not be filed with the Board but must be retained by the person having responsibility for pesticide application. Notification to the Board of the existence of the plan shall be submitted on forms to be prepared by the Board. The Board may from time to time review any plan for adequacy in providing for minimum drift and protection of sensitive areas. If the Board requests a copy of the complete plan, it shall be promptly submitted. If the Board at any time determines that a plan is not adequate, or is not sufficiently detailed to allow for an evaluation of its adequacy, it shall notify the person responsible for the plan and provide an opportunity for that person to amend the plan in order to make it adequate. The Board may notify that person of amendments or conditions which would make the plan acceptable. Any plan determined by the Board to be inadequate shall be declared invalid by the Board.

E. Period of Effectiveness.

A drift management plan shall be effective for a period of two years, after which it must be updated by the person responsible for its preparation. The Board shall be notified in writing of the updated plan.

F. Legal Effect of Plan.

Operating under a drift management plan does not allow an applicator to avoid compliance with the requirements of Section 2 and 3A of these regulations. Departure from the standards of Sections 2 and 3A requires a variance permit under Section 5.

G. Enforcement.

In the event of an incident involving alleged pesticide drift or other misapplication where a drift management plan was in effect, the Board shall examine the adequacy of the plan and may declare the same inadequate or recommend further amendments or conditions. The Board shall take into consideration the existence of and good faith compliance with a plan in determining whether further enforcement action by the Board is necessary.

SECTION 5. VARIANCES FROM STANDARDS

A. Variance Permit Application.

An applicator may vary from any of the standards imposed under this chapter by obtaining a permit to do so from the Board. Permit applications shall be made on such forms as the Board provides and shall include at least the following information:

- I. The name, address, and telephone number of the applicant;
- II. The area(s) where pesticides will be applied;
- III. The type(s) of pesticides to be applied;
- IV. The purpose for which the pesticide application(s) will be made;
- V. The approximate date(s) of anticipated spray activities;
- VI. The type(s) of spray equipment to be employed;
- VII. The particular standards from which the applicant seeks a variance;
- VIII. The particular reasons why the applicant seeks a variance from such standards, including a detailed description of the techniques to be employed to assure a reasonably equivalent degree of protection and of the monitoring efforts to be made to assure such protection;
- IX. The names and addresses of all owners or lessees of land within 500 feet of the proposed spray activity, and evidence that such persons have been notified of the application. The Board may waive this requirement where compliance would be unduly burdensome and the applicant attempts to notify affected persons in the community by another means which the Board finds reasonable.

B. Board Review; Legal Effect of Permit, Delegation of Authority to Staff.

- I. Within 60 days after a complete application is submitted, the Board shall issue a permit if it finds that the applicant will achieve a substantially equivalent degree of protection as adherence to the requirements of this chapter would provide and will conduct his activities in a manner which protects human health and the environment. Such permit shall authorize a variance only from those particular standards for which variance is expressly requested in the application and is expressly granted in the permit. The Board may place conditions on any such permit, and the applicant shall comply with such conditions. Except as conditioned in the permit, the applicant shall undertake spray activities in accordance with all of the procedures described in his application and all other applicable legal standards. Permits issued by the Board under this section shall not be transferable or assignable except with further written approval of the Board and shall be valid only for the period specified in the permit.
- II. The Board may delegate authority to review applications and issue permits to the staff as it feels appropriate. All conditions and limitations as described in Section 5(B)I shall remain in effect for permits issued by the staff. If the staff does not grant the variance permit, the applicator may

petition the Board for exemption following the requirements set forth in 22 MRSA §1471-T, "Exemptions."

SECTION 6. AGRICULTURAL EMERGENCIES

In the event that severe pest or weather conditions threaten to cause significant economic losses, as determined by the Commissioner of the Maine Department of Agriculture, the Commissioner may declare a Temporary Agricultural Emergency and waive specified requirements of Section 4 of this Chapter, subject to the following conditions:

- A. The severe pest and/or weather conditions must necessitate immediate wide scale aerial application of pesticides to avert significant economic losses.
- B. The immediate need for aerial pesticide application does not provide sufficient time for the land manager to complete the requirements of Section 4 of this Chapter.
- C. Prior to any aerial spraying, the Commissioner shall issue a press release notifying residents of affected regions about the agricultural emergency, the likelihood of aerial spraying in the affected regions and the approximate dates for which the emergency may continue.
- D. The Commissioner shall specify the requirements in Section 4 that will be waived.
- E. Land managers and aerial applicators shall make good faith efforts to comply with the intent of Section 4 and minimize drift to Sensitive Areas.

STATUTORY AUTHORITY: 7 M.R.S.A. § 606(2)(G):
22 M.R.S.A. § 1471-M(2)(D)

EFFECTIVE DATE:
January 1, 1988

AMENDED:
October 2, 1996

EFFECTIVE DATE (ELECTRONIC CONVERSION):
March 1, 1997

AMENDED:
September 22, 1998 - also converted to MS Word
January 4, 2005 – filing 2004-603 affecting Section 3.B.II.(iii)