



WEST VIRGINIA SECRETARY OF STATE

MAC WARNER

ADMINISTRATIVE LAW DIVISION

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Office of West Virginia  
Secretary Of State

## NOTICE OF RULE MODIFICATION OF A PROPOSED RULE

AGENCY: Agriculture

RULE TYPE: Legislative

TITLE-SERIES: 61-12A

RULE NAME: Certified Pesticide Applicator Rules

CITE AUTHORITY: §19-16A-4

The above proposed Legislative rules, following review by the Legislative Rule Making Review Committee, is hereby modified as a result of review and comment by the Legislative Rule Making Review Committee. The attached modifications are filed with the Secretary of State.

**BY CHOOSING 'YES', I ATTEST THAT THE PREVIOUS STATEMENT IS TRUE AND CORRECT.**

Yes

**Norman Bailey -- By my signature, I certify that I am the person authorized to file legislative rules, in accordance with West Virginia Code §29A-3-11 and §39A-3-2.**

61CSR12A

TITLE 61  
LEGISLATIVE RULE  
WEST VIRGINIA DEPARTMENT OF AGRICULTURE  
SERIES 12A  
CERTIFIED PESTICIDE APPLICATOR RULES

**§61-12A-1. General.**

1.1. Scope. -- This legislative rule establishes the requirements governing the certification and training, record keeping and general operation of equipment for certified pesticide applicators.

1.2. Authority. -- W. Va. Code §19-16A-4.

1.3. Filing Date. -- ~~April 5, 2006.~~

1.4. Effective Date. -- ~~July 1, 2006.~~

1.5. Sunset Date. -- This rule shall terminate and have no further force or effect on August 1, 2033.

**§61-12A-2. Definitions.**

2.1. The term “Act” means the West Virginia Pesticide Control Act (W. Va. §19-16A-1 et seq.).

2.2. The term “competent” means properly qualified to perform the functions associated with pesticide application, the degree of capability required being directly related to the nature of the activity and the associated responsibility.

2.3. The term “fumigant” means a gaseous or readily volatilizable chemical (as sulfuryl fluoride or methyl bromide) used as a disinfectant or pesticide.

2.4. The term “fumigation” means the application of a fumigant to one or more rooms in a structure, or to the entire structure, or to a localized space within a structure or outside of a structure, such as a box car, aircraft, truck, ship or any object which is sealed or covered.

2.5. The term “regulated pest” means a specific organism considered by the State or by a federal agency to be a pest requiring regulatory restrictions, ~~regulations~~ regulations, or control procedures in order to protect the host, man or the environment.

2.6. The term “regulated pesticide application business” means a pesticide business commercially applying pesticides not for hire.

2.7. The term “immediate family member” means familial relationships limited to the spouse, parents, stepparents, foster parents, father-in-law, mother-in-law, children, stepchildren, foster children, sons-in-law, daughters-in-law, grandparents, grandchildren, brothers, sisters, brothers-in-law, sisters-in-law, aunts, uncles, nieces, nephews, and first cousins. “First cousin” means the child of a parent's sibling, i.e., the child of an aunt or uncle.

**§61-12A-3. Certification of Pesticide Applicators.**

3.1. The commissioner may not certify a person as a pesticide applicator unless he or she has passed an examination approved by the commissioner or he or she qualifies through the reciprocity requirements as contained in section 10 of this rule or qualifies as a federal employee under section 11 of this rule.

3.2. The certification of individuals, ~~employees~~ employees, or representatives of governmental agencies (including but not limited to federal employees under 40 CFR Part 171) who use or supervise the use of pesticides in the performance of their official duties shall meet the requirements of this rule and be certified as certified public applicators pursuant to this rule. The certification of such individuals, employees or representatives is valid only when applying or supervising the application of pesticides in the performance of their official duties.

3.3. Determination of Competency

3.3.a. The commissioner shall determine competence in the use and handling of pesticides ~~on the basis of~~ based on experience and/or education, ~~and a written examination and as appropriate, performance testing~~ based upon the standards set forth in ~~section~~ Section 6 of this ~~rule~~ Rule.

3.3.b. The commissioner shall require each applicant for examination to show proof of one year of experience, ~~education~~ education, or training by one of the following:

3.3.b.A. Experience as a full-time registered technician engaged in those categories in which the applicant seeks to be certified. Proof of experience may include notarized affidavits from former employers or certification/licensure from other states or the federal government;

3.3.b.B. ~~Education, training~~ Education, training, or experience in a field such as, but not limited to, biology, chemistry, or forestry; or

3.3.b.C. A combination of education and experience.

3.3.c. Employees of regulated pesticide application businesses, as defined in section 2 of this rule, are exempt from the provisions of this section related to pre-exam requirements for experience, education, or training.

3.3.d. The commissioner shall give written examinations at such time and places as he or she may direct. An applicant must correctly answer 70% or more of the examination questions to be considered competent.

3.3.e. Applicants who fail to achieve a passing score on their first attempt at examination are eligible to be reexamined in the same category after 28 days from the date of the first examination. Applicants who fail on the second attempt or any subsequent attempt must wait 56 days from the date of the last examination for reexamination.

3.4. Any person applying for certification as a commercial applicator, certified public applicator or private applicator shall submit a completed application form accompanied by the appropriate fee established in West Virginia Department of Agriculture Rule, Fee Structure for the Pesticide Control Act of 1990, 61 CSR 12. The application form shall contain all the information required by the Act and any other information considered necessary by the commissioner to carry out the purpose of the Act.

3.4.a. All examinations will be proctored by an individual not seeking certification and as designated by the commissioner.

3.4.b. All candidates for initial certification (exam or training) and recertification by examination shall present a valid government-issued photo identification as proof of identity and age.

3.4.c. Candidates will be monitored throughout the examination period.

3.4.d. Candidates will be instructed in examination procedures before beginning the examination.

3.4.e. Examination materials shall be kept secure at all times relevant (before, during, and after)

the examination period to ensure that only proper candidates have access to the examination and that such access takes place in the presence of a proctor.

3.4.f. Candidates may not have verbal or non-verbal communication with anyone other than the proctor during the examination period.

3.4.g. No portion of the examination or any associated reference materials described in subdivision 3.4.h of this rule may be copied or retained by any person other than a person authorized by the commissioner to copy or retain the examination or any associated reference materials described in subdivision 3.4.h of this rule.

3.4.h. Reference materials used during an examination shall be those which are approved by the commissioner and those which are provided and subsequently collected by the proctor.

3.4.i. Reference materials provided to examinees are reviewed after the examination is complete to ensure that no portion of the reference material has been removed, altered, or destroyed.

3.4.j. The proctor reports to the commissioner any examination administration inconsistencies or irregularities, including but not limited to cheating, use of unauthorized materials, and attempts to copy or retain the examination.

3.4.k. The examination shall be conducted in accordance with any other requirements related to examination administration as set forth by the commissioner.

3.4.l. The commissioner will notify each candidate of the results of his or her examination by written notification.

3.5. Persons shall be at least 18 years old to be certified as a commercial or private applicator. Persons shall be at least 18 years old to qualify as a non-certified applicator using restricted use pesticides (hereinafter, "RUPs") under the direct supervision of a commercial or private applicator.

3.5.a. Non-certified applicators shall be at least 18 years old, except that a non-certified applicator may be at least 16 years old if the following requirements are met:

3.5.a.1. The non-certified applicator is using the RUP under the direct supervision of a private applicator who is an immediate family member.

3.5.a.2. The RUP is not a fumigant, sodium cyanide, or sodium fluoroacetate.

3.5.a.3. The non-certified applicator is not applying the RUP aerially.

3.6. Exceptions. The requirements in sections 3.1-3.4 do not apply to the following persons:

3.6.a. Persons conducting laboratory research involving RUPs.

3.6.b. Doctor(s) of Medicine and Doctor(s) of Veterinary Medicine applying RUPs to patients during the ordinary practice of those professions.

#### **§61-12A-4. Categorization of Commercial Applicators.**

4.1. Commercial pesticide applicators who are required to be certified applicators are classified in the categories and subcategories set forth in this section. Public employees required to be certified applicators in the categories and subcategories listed in this section are categorized as commercial applicators with respect to the application of ~~restricted use pesticides~~ RUPs.

## 4.2. Commercial Applicator Categories

4.2.a. Agricultural Plant Pest Control. This category includes commercial applicators using or supervising the use of ~~restricted use pesticides~~ RUPs in the production of agricultural crops, including but not limited to tobacco, peanuts, cotton, feed grains, ~~soybeans~~ soybeans, and forage; vegetables; small fruits; and tree fruits and nuts; as well as on grasslands and non-crop agricultural lands.

4.2.b. Agricultural Animal Pest Control. This category includes commercial applicators using or supervising the use of ~~restricted use pesticides~~ RUPs on animals, including but not limited to beef cattle, dairy cattle, swine, sheep, horses, goats, ~~poultry~~ poultry, and livestock, and to places on or in which animals are confined. Certification in this category alone is not sufficient to authorize the purchase, use, or supervision of use of products for predator control listed in subdivision 4.2.m of this rule.

4.2.c. Forest Pest Control. This category includes commercial applicators using or supervising the use of ~~restricted use pesticides~~ RUPs in forests, forest nurseries and forest seed producing areas.

4.2.d. Ornamental and Turf. This category includes commercial applicators using or supervising the use of ~~restricted use pesticides~~ RUPs to control pests in the maintenance and production of ornamental trees, shrubs, ~~flowers~~ flowers, and turf.

~~4.2.d.A. Ornamental and Turf Outdoors. This subcategory is for commercial applicators using or supervising the use of restricted use pesticides outdoors in the maintenance and production of ornamental trees, shrubs and flowers. When requested persons certified in this category may perform incidental treatment to indoor plants in small areas not to exceed 10 square feet.~~

~~4.2.d.B. Ornamental Pest Control Indoors. This subcategory is for commercial applicators who use or supervise the use of restricted use pesticides indoors in the maintenance and production of ornamental plants.~~

4.2.e. Seed Treatment. This category includes commercial applicators using or supervising the use of ~~restricted use pesticides~~ RUPs on seeds.

4.2.f. Aquatic Pest Control. This category includes commercial applicators using or supervising the use of any ~~restricted use pesticide~~ RUP purposefully applied to standing or running water, and water and excludes public health applicators as defined in sub-division ~~4.2.i~~ 4.2.i of this rule.

4.2.g. Right-of-Way/Industrial Weed Control. This category includes commercial applicators using or supervising the use of ~~restricted use pesticides~~ RUPs in the maintenance of public roads, electric power lines, pipelines, railway rights-of-way, fence lines, structural ~~perimeters~~ perimeters, or other similar areas.

4.2.h. Industrial, Institutional, Structural and Health Related Pest Control. Commercial applicators in this category are subcategorized as follows:

4.2.h.A. General. This subcategory includes commercial applicators using or supervising the use of ~~restricted use pesticides~~ RUPs in and around residential, commercial, ~~institutional~~ institutional, or industrial facilities, including food preparation areas such as kitchens, ~~cafeterias~~ cafeterias, or snack shops. When requested, persons certified in this subcategory may perform incidental treatment to indoor plants in small areas not to exceed 10 square feet.

4.2.h.B. Structural. This subcategory includes commercial applicators using or supervising the use of ~~restricted use pesticides~~ RUPs to control wood destroying pests in structures.

4.2.h.C. General Fumigation. This subcategory includes commercial applicators using or

supervising the use of ~~restricted use pesticides~~, RUPs, in gaseous form, within enclosed gas tight spaces such as tarps, tents, structures, vehicles or vessels, or for soil fumigation for a wide range of commodities and conditions.

4.2.h.D. Wood Preservation and Wood Product Treatment. This subcategory includes commercial applicators using or supervising the use of ~~restricted use pesticides~~ RUPs, at treating plants and ~~saw mills~~ sawmills, for preservative treatment of wood by pressure, dipping, soaking and diffusion processes to produce a commodity for sale and/or installation. This subcategory also includes the handling and topical application and injection of wood preservatives, for operations such as, groundline pole treatment, waterproofing, millwork cutoffs, or supplemental field treatment.

4.2.h.E. Urban Integrated Pest Management. This subcategory includes commercial applicators using or supervising the use of ~~restricted use pesticides~~ RUPs in integrated pest management programs in and around commercial, ~~institutional~~ institutional, or industrial facilities, including food preparation areas such as kitchens, ~~cafeterias~~ cafeterias, or snack shops.

4.2.i. Public Health. This category includes ~~commercial~~ certified public applicators using or supervising the use of ~~restricted use pesticides~~ RUPs for ~~Federal~~ federal, ~~State~~ state, or other governmental units in public health programs for the management and control of pests having medical and public health importance.

4.2.j. Regulatory. This category includes commercial applicators using or supervising the use of ~~restricted use pesticides~~ RUPs for ~~Federal~~ federal, ~~State~~ state, or other governmental units in the control of regulated pests. Certification in this category does not authorize the purchase, use, or supervision of use of products for predator control listed in subdivision 4.2.m of this rule.

4.2.k. Demonstration and Research. This category includes commercial applicators who demonstrate to the public the proper use and techniques of application of ~~restricted use pesticides~~ RUPs or supervise the demonstrations. Examples of such persons are extension specialists and county agents, commercial representatives demonstrating pesticide products, and ~~those~~ individuals demonstrating methods used in public programs. Also included in this category are commercial applicators conducting field research who use or supervise the use of ~~restricted use pesticides~~ RUPs. Examples of such persons are ~~State~~ state, ~~Federal~~ federal, and ~~other persons~~ others conducting field research utilizing ~~restricted use pesticides~~ RUPs.

4.2.l. Pesticide Storage and Distribution (Excluding application). This category includes those persons who store, ~~display~~ display, and distribute ~~restricted use pesticides~~ RUPs in the operation of a business selling or distributing pesticides. Certification in this category does not permit the application of pesticides for hire.

4.2.m. Miscellaneous Pest Control. ~~This category includes commercial applicators who may be required to be certified applicators in an area other than those specified. The commissioner shall issue certification in this category on a case by case basis. The commissioner shall restrict the activities of the applicator certification, as he or she considers appropriate, to the applicators experience and demonstration of competency.~~

4.2.m.A. ~~When any pesticide is declared to be a restricted use pesticide and a category for the use of that pesticide does not exist, the commissioner may establish an appropriate subcategory under this category.~~ Predator Control. This category applies to United States Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services certified public applicators who use sodium cyanide in a mechanical ejection device to control regulated predators or who use sodium fluoroacetate in a protective collar to control regulated predators.

4.2.n. Aerial Pest Control. This category applies to commercial applicators who use or supervise

the use of RUPs applied by fixed or rotary wing aircraft. In addition to demonstrating a knowledge of the specific standards for the applicable categories or subcategories in subdivisions 6.3.a through 6.3.k of this rule, persons desiring to apply pesticides by aircraft shall hold a valid Agricultural Applicator Certification from the Federal Aviation Administration.

4.2.o. Sewer root control. This category includes commercial applicators using or supervising the use of metam sodium to control roots in sewer lines.

**§61-12A-5. Categorization of Private Applicators.**

5.1. Agricultural Pest Control. This category includes private applicators using or supervising the use of ~~restricted use pesticides~~ RUPs in the production of agricultural commodities, including but not limited to tobacco, peanuts, cotton, feed grains, ~~soybeans~~ soybeans, and forage; vegetables; small fruits; tree fruits and nuts; as well as on grasslands and non-crop agricultural lands. This category also includes private applicators using or supervising the use of ~~restricted use pesticides~~ RUPs on animals and places on or in which animals are confined. Examples of such animals include, but are not limited to: ~~to~~ beef cattle, dairy cattle, swine, sheep, horses, goats, poultry and livestock.

5.2. General Fumigation. This category includes private applicators who use or supervise the use of a restricted pesticide to fumigate soil or anything other than soil.

**§61-12A-6. Certification Standards for Pesticide Applicators.**

6.1. General Standards for private and commercial applicators. All applicators shall demonstrate a practical knowledge of the principles and practices of pest control and safety in the use of pesticides. The commissioner shall base a determination of competency on an examination ~~containing examples of problems and situations in addressing~~ the following areas:

6.1.a. Label and labeling comprehension to include: Familiarity with pesticide labels and labeling and their functions, including the following:

6.1.a.A. the general format and terminology of labels and labeling;

6.1.a.B. ~~the understanding of directions for use, instructions~~ warnings, terms, names, symbols, and other information commonly appearing on pesticide labels and labeling;

6.1.a.C. ~~the understanding that labels and labeling are legal documents and the applicator shall follow directions they contain; and~~ it is a violation of federal law to use any registered pesticide in a manner inconsistent with its labeling;

6.1.a.D. ~~the meaning of the term Restricted Use pesticide;~~ understanding when a certified applicator must be physically present at the site of the application based on labeling requirements;

6.1.a.E. understanding labeling requirements for supervising non-certified applicators working under the direct supervision of a certified applicator;

6.1.a.F. understanding that applicators shall comply with all use restrictions and directions for use contained in pesticide labels and labeling, including being certified in the certification category appropriate to the type and site of the application;

6.1.a.G. understanding the meaning of product classification as either general or restricted use and that a product may be unclassified;

6.1.a.H. understanding and complying with product-specific notification requirements; and

6.1.a.I. recognizing and understanding the difference between mandatory and advisory labeling language.

6.1.b. Safety factors to include: Measures to avoid or minimize adverse health effects, including the following:

6.1.b.A. an understanding of the terms acute and chronic toxicity, exposure and how a hazard is determined by exposure to a pesticide and a pesticide's toxicity different natures of the risks of acute toxicity and chronic toxicity, as well as the long-term effects of pesticides;

6.1.b.B. the recognition of symptoms of acute toxicity and practical treatment of these symptoms an understanding that a pesticide's risk is a function of exposure and the pesticide's toxicity;

6.1.b.C. the precautions necessary to prevent injury to any applicators and other individuals in or near treated areas recognition of likely ways in which dermal, inhalation, and oral exposure may occur;

6.1.b.D. the need for and use of personal protective equipment common types and causes of pesticide mishaps;

6.1.b.E. a knowledge of worker protection practices, including warning requirements and reentry restrictions precautions to prevent injury to applicators and other individuals in or near treated areas; and

6.1.b.F. a knowledge of the safe practices regarding transportation, storage, mixing, handling, application and disposal of pesticides including container disposal need for, and proper use of, protective clothing and personal protective equipment;

6.1.b.G. symptoms of pesticide poisoning;

6.1.b.H. first aid and other procedures to be followed in case of a pesticide mishap; and

6.1.b.I. proper identification, storage, transport, handling, mixing procedures, and disposal methods for pesticides and used pesticide containers, including precautions to be taken to prevent children from having access to pesticides and pesticide containers.

6.1.c. Environmental risk to include. The potential environmental consequences of the use and misuse of pesticides, including the influence of the following:

6.1.c.A. the climatic factors that cause pesticide drift and runoff weather and other indoor and outdoor climatic conditions;

6.1.c.B. how terrain, soil and substrata influence surface and ground water contamination types of terrain, soil, or other substrate;

6.1.c.C. the recognition of sensitive areas and the organisms affected by pesticide applications, drift and runoff presence of fish, wildlife, and other non-target organisms; and

6.1.c.D. the precautions necessary for the protection of endangered and threatened species and drainage patterns;

6.1.c.E. methods of spill prevention and control;

~~6.1.d. Pest~~ Pests, identification and biology to include the proper identification and effective control of pests, including the following:

~~6.1.d.A. the principles of pest identification~~ importance of correctly identifying target pests and selecting the proper pesticide product(s) for effective pest control; and

~~6.1.d.B. the recognition of damage or problems caused by pests~~ verifying that the labeling does not prohibit the use of the product to control the target pest(s);

~~6.1.e. Pesticides and chemical control to include.~~ Characteristics of pesticides, including the following:

~~6.1.e.A. the types of pesticides, formulations and adjuvants;~~

~~6.1.e.B. types of formulations~~ the concepts of pesticide compatibility, synergism, persistence and resistance;

~~6.1.e.C. compatibility, interaction, persistence, and animal and plant toxicity of the formulations~~ the factors which affect a pesticide's effectiveness; and

~~6.1.e.D. hazards and residues associated with use~~ the selection of the correct formulation and method of application for a site and pest;

~~6.1.e.E. factors that influence effectiveness or lead to problems such as pesticide resistance;~~ and

~~6.1.e.F. dilution procedures.~~

~~6.1.f. Equipment,~~ to include Application equipment, including the following:

~~6.1.f.A. types of equipment and advantages and limitations of each type~~ the characteristics and main uses of typical pesticide application equipment; and

~~6.1.f.B. use, maintenance, and calibration procedures,~~ the selection of the most appropriate equipment for applicable situations; and

~~6.1.f.C. the proper care, maintenance and use of application equipment;~~

~~6.1.g. Application methods. Selecting appropriate application methods, including the following~~ Calibration and calculations to include:

~~6.1.g.A. methods used to apply various forms and formulations of pesticides~~ the dilution of concentrate formulations in accordance with label directions;

~~6.1.g.B. knowledge of which application method to use in a given situation and that use of a fumigant requires additional certification~~ the calculation of area or volume to be treated and amount of pesticide to be applied; and

~~6.1.g.C. how selection of application method and use of a pesticide may result in proper use, unnecessary or ineffective use, and misuse~~ the adjustment of the application equipment's nozzle, pressure and speed to obtain correct pesticide output; and

~~6.1.g.D. prevention of drift and pesticide loss into the environment.~~

6.1.h. Laws and regulations. Knowledge of all applicable State, Tribal, and Federal laws and regulations, including understanding the Worker Protection Standard 40 CFR part 170 and the circumstances where compliance is required ~~Applicator related laws and rules and regulations to include:~~

~~6.1.h.A. the applicable State and Federal laws and rules and regulations;~~

~~6.1.h.B. the applicator's responsibility for pesticide use consistent with its label or labeling and supervision of non-certified employees assigned to use a restricted use pesticide; and~~

~~6.1.h.C. the applicator's liability and penalties.~~

6.1.i. Responsibilities of supervisors of non-certified applicators. Knowledge of the responsibilities of certified applicators supervising non-certified applicators, including the following:

6.1.i.A. understanding and complying with requirements in Section 8 of this rule for certified commercial applicators who supervise non-certified applicators using RUPs;

6.1.i.B. the recordkeeping requirements of pesticide safety training for non-certified applicators who use RUPs under the direct supervision of a certified applicator;

6.1.i.C. providing use-specific instructions to non-certified applicators using RUPs under the direct supervision of a certified applicator; and

6.1.i.D. explaining pertinent state, tribal, and federal laws and regulations to non-certified applicators who use RUPs under the direct supervision of a certified applicator.

6.1.j. Stewardship and Professionalism. Understanding the importance of the following:

6.1.j.A. maintaining chemical security for RUPs;

6.1.j.B. how to communicate information about pesticide exposures and risks with customers and the public, workers and handlers and other persons; and

6.1.j.C. appropriate product stewardship for certified applicators.

6.2. Specific Standards of Private Applicator. Private applicators shall demonstrate by written examination the skills and knowledge specific to their category of certification. The importance of the demonstration is amplified by the use of pesticides on extensive areas, the quantities of pesticide needed and the ultimate use of many agricultural commodities as food and fuel.

6.2.a. Agricultural Pest Control. As a minimum requirement a private applicator in this category must demonstrate by written examination a practical knowledge of the pest problems and pest control practices associated with his or her agricultural operation and his or her related legal responsibility. This demonstration of knowledge shall include:

6.2.a.A. the recognition of the common pests to be controlled and damage caused by them;

6.2.a.B. the ability to read and understand the pesticide label and labeling information - including the common name of pesticides he or she applies; the pests to be controlled; the timing and methods of application; safety precautions; any preharvest or reentry restrictions; and specific disposal procedures;

6.2.a.C. the ability to apply pesticides in accordance with label instructions and warnings,

including the ability to prepare the proper concentration of pesticide to be used under particular circumstances taking into account such factors as the area to be covered, the speed at which application equipment will be driven and the quantity dispersed in a given period of operation;

6.2.a.D. the ability to recognize local environmental situations that must be considered during pesticide application to avoid contaminations;

6.2.a.E. the ability to recognize poisoning symptoms and the procedures to follow in case of a pesticide accident; and

6.2.a.F. a practical knowledge concerning relevant soil and water problems, preharvest intervals, reentry intervals, phytotoxicity, pesticide toxicity, residue potential and the potential for environmental contamination and non-target injury.

6.2.a.G. the ability to understand specific pesticide toxicity and residue potential when pesticides are applied to animal or animal product agricultural commodities.

6.2.a.H. practical knowledge of the relative hazards associated with using pesticides on animals or places in which animals are confined based on formulation, application technique, age of animal, stress, and extent of treatment.

6.2.b. General Fumigation. Applicators shall demonstrate practical knowledge of General Fumigation for commercial applicators as outlined in paragraph 6.3.h.C of this rule (“General Fumigation”).

6.3. Specific standards for commercial applicators. All commercial applicators shall demonstrate skills and knowledge specific to their desired category of certification in addition to the general requirements set forth in ~~subsection~~ ~~section~~ 6.1 of this rule. The specific standards set forth in this section are applicable to the commercial applicator categories and subcategories of certification specified in subsection 4.2 of this rule.

~~6.3.a. Agricultural Plant Pest Control. Applicators shall demonstrate a practical knowledge of crops grown and the specific pests of those crops on which they may be using restricted use pesticides. The applicator must have a practical knowledge concerning soil and water problems, pre-harvest intervals, re-entry intervals, phytotoxicity and the potential for environmental contamination, non-target injury and community problems resulting from the use of restricted use pesticides in agricultural areas. Applicators shall demonstrate practical knowledge of crops, grasslands, and non-crop agricultural lands and the specific pests of those areas on which they may be using RUPs. The importance of such competency is amplified by the extensive areas involved, the quantities of pesticides needed, and the ultimate use of many commodities as food and feed. The required knowledge includes pre-harvest intervals, restricted entry intervals, phytotoxicity, potential for environmental contamination such as soil and water problems, non-target injury, and other problems resulting from the use of RUPs in agricultural areas. The required knowledge also includes the potential for phytotoxicity due to a wide variety of plants to be protected, for drift, for persistence beyond the intended period of pest control, and for non-target exposures.~~

6.3.b. Agricultural Animal Pest Control. Applicators applying pesticides directly to animals shall demonstrate a practical knowledge of the animals in this State and their associated pests. An applicator must also have a practical knowledge concerning specific pesticide toxicity and residue potential, since host animals will frequently be used for food. Further, the applicator must know the relative hazards associated with such factors as formulation, application techniques, the age of the animal, stress and the extent of treatment.

6.3.c. Forest Pest Control. Applicators shall demonstrate a practical knowledge of the types of forests, forest nurseries and seed production in this State and the pests involved. They shall possess a

practical knowledge of the cyclic occurrence of certain pests and specific population dynamics as a basis for programming pesticide applications. An applicator must have a practical knowledge of the relative biotic agents and their vulnerability to the pesticides to be applied. The applicator shall demonstrate a practical knowledge of secondary problems such as unintended effects on wildlife. An applicator must demonstrate the proper use of specialized equipment especially as it may relate to meteorological factors and adjacent land use. The required knowledge also includes the potential for phytotoxicity due to a wide variety of plants to be protected, for drift, for persistence beyond the intended period of pest control, and for non-target exposures.

6.3.d. Ornamental and Turf Pest Control. Applicators shall demonstrate practical knowledge of pesticide problems associated with the production and maintenance of ornamental plants and turf. The required knowledge includes the potential for phytotoxicity due to a wide variety of plants to be protected, for drift, for persistence beyond the intended period of pest control, and for non-target exposures. Because of the frequent proximity of human habitations to application activities, applicators in this category shall demonstrate practical knowledge of application methods that will minimize or prevent hazards to humans, pets, and other domestic animals.

~~6.3.d.A. Ornamental and Turf – Outdoors. Applicators shall demonstrate a practical knowledge of pesticide problems associated with the production and maintenance of ornamental trees, shrubs, plantings and turf, including a cognizance of potential phytotoxicity due to a wide variety of plant material, drift and persistence of the pesticide beyond the intended period of pest control. Because of the frequent proximity of human habitations to application activities, applicators in this category shall demonstrate a practical knowledge of application methods and the possible hazards to humans, pets and other domestic animals.~~

~~6.3.d.B. Ornamental Pest Control – Indoors. Applicants shall demonstrate a knowledge of pesticide problems associated with the production and maintenance of ornamental plants indoors, phytotoxicity, problems associated with drift in the indoor environment and application methods that minimize hazards to humans and pets.~~

6.3.e. Seed Treatment. Applicators shall demonstrate a practical knowledge of the types of seeds that require chemical protection against pests and factors such as seed coloration, carriers and surface agents which influence pesticide binding and may affect germination. They shall demonstrate a practical knowledge of hazards associated with the handling, sorting and mixing, and misuse of treated seed such as the introduction of treated seed into food and feed channels, as well as the proper disposal of unused treated seeds. Applicators shall demonstrate practical knowledge including recognizing types of seeds to be treated, the effects of carriers and surface-active agents on pesticide binding and germination, the hazards associated with handling, sorting and mixing, and misuse of treated seed, the importance of proper application techniques to avoid harm to non-target organisms, and the proper disposal of unused treated seeds.

6.3.f. Aquatic Pest Control. Applicators shall demonstrate a practical knowledge of the types of secondary effects which can be caused by improper application rates, incorrect formulations formulations, and the faulty application of restricted use pesticides RUPs used in this category. They shall demonstrate a practical knowledge of various water use situations and the potential of downstream effects of pesticides on plants, fish, birds, beneficial insects insects, and other organisms which may be present in aquatic environments. These applicators shall demonstrate a practical knowledge of the principles of limited area application.

6.3.g. Right-of-Way/Industrial Weed Control. Applicators shall demonstrate a practical knowledge of a wide variety of environments, since rights-of-way can traverse many different terrains, including waterways. They shall demonstrate a practical knowledge of problems of runoff, drift and excessive foliage destruction and the ability to recognize target organisms. They shall also demonstrate a practical knowledge of the mode of action of herbicides and the need for containment of these pesticides

within the right-of-way area, and the impact of their application activities in the adjacent areas and communities. The required knowledge also includes the potential for phytotoxicity due to a wide variety of plants and pests to be controlled, and for persistence beyond the intended period of pest control.

#### 6.3.h. Industrial, Institutional, Structural and Health Related Pest Control.

6.3.h.A. General. Applicators shall demonstrate a practical knowledge of the control of pests in and around structures excluding fumigation and wood destroying pests. Applicators shall demonstrate a practical knowledge of household type pests, such as cockroaches, ants, silverfish, spiders, food and fabric insects, rats, ~~bats~~ bats, and other occasional invaders, that infest structures, stored products and food preparation areas, such as kitchens, cafeterias or snack bars. They shall demonstrate a knowledge of conditions conducive to pest infestations and the selection of appropriate control procedures for each situation. Applicators shall demonstrate a knowledge of the hazards involved with pesticide usage.

6.3.h.B. Structural. ~~Applicators shall demonstrate a practical knowledge of structural wood destroying organisms, such as beetles, termites and fungi, and the conditions conducive to infestation. They shall demonstrate a knowledge and the ability to select, calibrate and use appropriate control procedures including rodding and trenching and the topical application of pesticides. Applicators shall demonstrate a knowledge of the hazards involved with the handling and use of these pesticides and the appropriate application equipment to be used.~~ Applicators shall demonstrate a practical knowledge of wood destroying organisms, such as beetles, termites, and fungi in and around structures, including recognizing those pests and signs of their presence, their habitats, their life cycles, biology, and behavior as it may be relevant to problem identification and control. Applicators shall demonstrate practical knowledge of types of formulations appropriate for control of these pests, and methods of application that avoid contamination of food, minimize damage to and contamination of areas treated, minimize acute and chronic exposure of people and pets, and minimize environmental impacts of outdoor applications.

6.3.h.C. General Fumigation. ~~Applicators shall demonstrate a practical knowledge of conditions requiring the application of fumigants and the selection of the most appropriate fumigation methods to use. They shall demonstrate a knowledge of the equipment used in fumigation, such as application, monitoring, testing, calculating and personal protective devices. Applicators shall demonstrate the ability to release, distribute and maintain the correct fumigant concentrations for the product or structure being fumigated, under differing conditions. They shall have a knowledge of the hazards involved with the use of fumigants.~~ Applicators shall demonstrate practical knowledge of the pest problems and pest control practices associated with performing soil and non-soil fumigation applications, including the following:

6.3.h.C.1. Label and labeling comprehension. Familiarity with the pesticide labels and labeling for products used to perform soil and non-soil fumigation, including the following:

6.3.h.C.1.a. Labeling requirements specific to soil and non-soil fumigants.

6.3.h.C.1.b. Requirements for certified applicators of fumigants, fumigant handlers and permitted fumigant handler activities, and the safety information that certified applicators shall provide to non-certified applicators using fumigants under the direct supervision of certified applicators.

6.3.h.C.1.c. Entry-restricted periods for tarped and untarped field application scenarios.

6.3.h.C.1.d. Recordkeeping requirements.

6.3.h.C.1.e. Labeling provisions unique to fumigant products containing certain active ingredients.

6.3.h.C.1.f. Labeling requirements for fumigant management plans (FMP), such as

when a FMP shall be in effect, how long it shall be kept on file, where it shall be kept during the application, and who shall have access to it; the elements of a FMP and resources available to assist the applicator in preparing a FMP is accurate; and the elements, purpose and content of a post-application summary, who shall prepare it and when it shall be completed.

6.3.h.C.2. Safety. Measures to minimize adverse health effects, including the following:

6.3.h.C.2.a. Understanding how certified applicators, non-certified applicators using fumigants under direct supervision of certified applicators, field workers, handlers, and bystanders can become exposed to fumigants.

6.3.h.C.2.b. Common problems and mistakes that can result in direct exposure to fumigants.

6.3.h.C.2.c. Signs and symptoms of human exposure to fumigants.

6.3.h.C.2.d. Air concentrations of a fumigant that require that applicators or handlers wear respirators or exit the work area entirely.

6.3.h.C.2.e. Steps to take if a fumigant applicator or person using a fumigant experiences sensory irritation.

6.3.h.C.2.f. Understanding air monitoring, when it is required, and where and when to take samples.

6.3.h.C.2.g. Buffer zones, including procedures for buffer zone monitoring and who is permitted to be in a buffer zone.

6.3.h.C.2.h. First aid measures to take in the event of exposure to a soil or non-soil fumigant.

6.3.h.C.2.i. Labeling requirements for transportation, storage, spill clean up, and emergency response for soil and non-soil fumigants, including safe disposal of containers and contaminated materials (including soil), and management of empty containers.

6.3.h.C.3. Soil and non-soil fumigant chemical characteristics. Characteristics of soil and non-soil fumigants, including the following:

6.3.h.C.3.a. Chemical characteristics of soil and non-soil fumigants.

6.3.h.C.3.b. Specific human exposure concerns for soil and non-soil fumigants.

6.3.h.C.3.c. How soil and non-soil fumigants change from a liquid or solid to a gas.

6.3.h.C.3.d. How soil and non-soil fumigants disperse in the application zone.

6.3.h.C.3.e. Compatibility concerns for tanks, hoses, tubing, and other equipment.

6.3.h.C.4. Application. Selecting appropriate application methods and timing, including the following:

6.3.h.C.4.a. Application methods, including but not limited to water-run and non-water-run applications, and equipment commonly used for each soil and non-soil fumigant.

6.3.h.C.4.b. Site characteristics that influence fumigant exposure.

6.3.h.C.4.c. Understanding temperature inversions and their impact on soil fumigant application.

6.3.h.C.4.d. Weather conditions that could impact timing of soil and non-soil fumigant application, such as air stability, air temperature, humidity, and wind currents, and labeling statements limiting applications during specific weather conditions.

6.3.h.C.4.e. Conducting pre-application inspection of application equipment and site to be fumigated.

6.3.h.C.4.f. Understanding the purpose and methods of sealing site (soil and non-soil) to be fumigated, including the factors that determine which sealing method to use.

6.3.h.C.4.g. Understanding the use of tarps, including the range of tarps available, how to seal tarps, and labeling requirements for tarp removal, tarp perforation, and tarp repair.

6.3.h.C.4.h. Calculating the amount of product required for a specific treatment area.

6.3.h.C.4.i. Understanding the basic techniques for calibrating soil and non-soil fumigant application equipment.

6.3.h.C.4.j. Understanding when to conduct air monitoring, how to conduct air monitoring and when air monitoring is required.

6.3.h.C.5. Soil and pest factors. Soil and pest factors that influence fumigant activity, including the following:

6.3.h.C.5.a. Influence of soil factors on fumigant volatility and movement within the soil profile.

6.3.h.C.5.b. Influence of pest factors on fumigant volatility.

6.3.h.C.5.c. Factors that influence gaseous movement through the area being fumigated (including the soil profile) and into the air.

6.3.h.C.5.d. Soil characteristics, including how soil characteristics affect the success of a soil fumigant application, assessing soil moisture, and correcting for soil characteristics that could hinder a successful soil fumigant application.

6.3.h.C.5.e. Identifying pests causing the damage and verifying they can be controlled with soil or non-soil fumigation.

6.3.h.C.5.f. Understanding the relationship between pest density and application rate.

6.3.h.C.5.g. The importance of proper application depth, application rate and timing.

6.3.h.C.6. Personal protective equipment. Understanding what personal protective equipment is necessary and how to use it properly, including the following:

6.3.h.C.6.a. Following labeling directions for required personal protective equipment.

6.3.h.C.6.b. Selecting, inspecting, using, caring for, replacing, and disposing of

personal protective equipment.

6.3.h.C.6.c. Understanding the types of respirators required when using specific soil and non-soil fumigants and how to use them properly, including medical evaluation, fit testing, and required replacement of cartridges and canisters.

6.3.h.C.6.d. Labeling requirements and other laws applicable to medical evaluation for respirator use, fit tests, training, and recordkeeping.

6.3.h.C.7. Fumigant management plans and post-application summaries. Information about fumigant management plans can be found at <https://www.epa.gov/soil-fumigants/introduction-soil-fumigant-management-plans>.

6.3.h.C.7.a. When a fumigant management plan shall be in effect, how long it shall be kept on file, where it shall be kept during the application, and who shall have access to it.

6.3.h.C.7.b. The elements of a fumigant management plan and resources available to assist the applicator in preparing a fumigant management plan.

6.3.h.C.7.c. The person responsible for verifying that a fumigant management plan is accurate.

6.3.h.C.7.d. Fumigant Management Plan (FMP). The elements and purpose of a FMP; content of a post-application summary; who shall prepare a FMP, and when a FMP shall be completed.

6.3.h.C.8. Buffer zones and posting requirements. Understanding buffer zones and posting requirements, including the following:

6.3.h.C.8.a. Buffer zones and the buffer zone period.

6.3.h.C.8.b. Identifying who is allowed in a buffer zone during the buffer zone period and who is prohibited from being in a buffer zone during the buffer zone period.

6.3.h.C.8.c. Understanding who is allowed in a non-soil area being fumigated or after fumigation and who is prohibited from being in a non-soil area being fumigated or after fumigation.

6.3.h.C.8.d. Using the buffer zone table from the labeling to determine the size of the buffer zone.

6.3.h.C.8.e. Factors that determine the buffer zone credits for application scenarios and calculating buffer zones using credits.

6.3.h.C.8.f. Distinguishing buffer zone posting, and soil fumigant treated area posting, including the pre-application and post-application posting timeframes for each.

6.3.h.C.8.g. Distinguishing fumigant labeling-required posting and treated area posting, including the pre-application timeframes for labeling-required posting, pre-application posting timeframes for treated area posting, the post-application timeframes for fumigant labeling-required posting, and the post-application timeframes for treated area posting.

6.3.h.C.8.h. Proper choice and proper placement of warning signs.

6.3.h.D. Wood Preservation and Wood Product Treatment. Applicators shall demonstrate a

practical knowledge of the conditions for which a preservative treatment of wood is used. Applicators shall demonstrate a knowledge of the health and environmental hazards associated with wood treating procedures, and the need for informing purchasers of precautions for handling, use and disposal of treated wood products. They shall demonstrate a knowledge of all applicable treating and testing equipment. Applicators in this subcategory shall also demonstrate a knowledge of the handling and local injection of specially labeled liquid or solid wood fumigants into infested wood, such as poles, piling and railroad cross-ties. Applicators shall demonstrate a knowledge of the hazards involved with the handling and use of these pesticides and the appropriate application equipment to be used.

6.3.h.E. Urban Integrated Pest Management. Applicators shall demonstrate a practical knowledge of the principles of integrated pest management for pests in and around structures. Applicators shall demonstrate a practical knowledge of urban pests such as cockroaches, ants, silverfish, spiders, food and fabric insects, rats, bats, and other occasional invaders that infest structures, stored products, and food preparation areas such as kitchens, cafeterias or snack bars. They shall demonstrate a knowledge of site evaluation, inspection, and monitoring; the relationship between pest biology and pest management methods; the concept of threshold levels; the use of pest preventive methods; the use of mechanical and physical pest management techniques; the use of least hazardous pest control methods; and the use of recordkeeping to evaluate the effectiveness of pest management programs.

6.3.i. Public Health Pest Control. ~~Applicators shall demonstrate a practical knowledge of vector-disease transmission as it relates to and influences application programs. A wide variety of pests may be involved and it is essential that the applicator know and recognize the pests and understand the appropriate life cycles and habitats as a basis for control strategy. These applicators shall have a practical knowledge of a great variety of environments ranging from streams to those conditions found in buildings. They should also have a practical knowledge of the importance and employment of such non-chemical control methods as sanitation, waste disposal and drainage. Applicators shall also be aware of all regulatory requirements for reentry precautions and warnings. Applicators shall demonstrate practical knowledge of pests that are important vectors of disease, including recognizing the pests and signs of their presence, their habitats, their life cycles, biology, and behavior as it may be relevant to problem identification and control. The required knowledge also includes how to minimize damage to and contamination of areas treated, acute and chronic exposure of people and pets, and non-target exposures.~~

6.3.j. Regulatory Pest Control. Applicators shall demonstrate a practical knowledge of regulated pests, including the applicable laws relating to quarantine and other regulation of pests and the potential impact on the environment of ~~restricted use pesticides~~ RUPs used in suppression and eradication programs. They shall demonstrate a knowledge of the factors influencing introduction, spread and population dynamics of relevant pests. Their knowledge shall extend beyond that required by their immediate duties, since their services are frequently required in other areas of the country where emergency measures are invoked to control regulated pests and where individual judgements are made in new situations.

6.3.k. Demonstration and Research Pest Control. Persons demonstrating the safe and effective use of pesticides to other applicators and the public ~~are expected to meet~~ shall demonstrate a practical knowledge of comprehensive standards reflecting a broad spectrum of pesticide uses. Many different pest problem situations will be encountered ~~in the course of~~ during activities associated with the demonstration and an applicator must have a practical knowledge of problems, pests and population levels occurring in each demonstration situation. Further, they shall demonstrate an understanding of pesticide-organism interaction and the importance of integrating pesticide use with other control methods. Applicators doing demonstration pest control work shall possess knowledge of all ~~of the~~ standards detailed under subsection ~~6-1. 6.1~~ of this rule. In addition, they shall meet the specific standards required in sub-division ~~6-3.a. 6.3.a~~ through ~~6-3.h. 6.3.h~~ of this rule as may be applicable to their activity in this State. Persons conducting field research or method improvement work with ~~restricted use pesticides~~ RUPs shall know the general standards detailed in subsection 6.1 section 6-1. of this rule. In addition, they shall know the specific standards required in sub-division ~~6-3.a. 6.3.a~~ through ~~6-3.j. 6.3.j~~ of this rule as may be applicable to their ~~particular~~ activity in this ~~State~~ state.

## 6.3.1. Pesticide Storage and Distribution.

6.3.1.A. Persons in this category store, display and distribute ~~restricted use pesticides~~ RUPs. Applicants in this category shall demonstrate a knowledge and understanding of the safe and acceptable methods of handling, storing, ~~displaying~~ displaying, and distributing ~~restricted use pesticides~~ RUPs; the potential for environmental hazards; the containment of spills; the disposal of pesticide related hazardous waste and an understanding of State and Federal pesticide laws.

6.3.1.B. Persons operating as dealers of ~~restricted use pesticides~~ RUPs shall also demonstrate a practical knowledge of the types of pesticides he or she sells, including but not limited to: labels and label comprehension; the classification of pesticides and the necessity for use consistent with the label; safety, including safe use and safe environment; the symptoms of pesticide poisoning; the types of pesticides and pesticide formulations; and the dilution procedures and application techniques.

6.3.m. ~~Miscellaneous. This section is reserved for specific standards to be developed as needed for applicators needing to be certified for restricted use pesticides or activities that may, in the future, be declared needing certification by the U. S. Environmental Protection Agency or the Commissioner. Predator Control. Applicators shall demonstrate a practical knowledge of the use of sodium cyanide in a mechanical injection device and sodium fluoroacetate in a protective collar to control regulated predators including the following:~~

6.3.m.1. Applicators shall demonstrate practical knowledge of mammalian predator pests, including recognizing those pests and signs of their presence, their habitats, their life cycles, biology, and behavior as it may be relevant to pest identification and control.

6.3.m.2. Applicators shall demonstrate comprehension of all laws and regulations applicable to the use of sodium fluoroacetate products and mechanical ejection devices for sodium cyanide, including the restrictions on the use of sodium fluoroacetate products and sodium cyanide products ordered by the EPA Administrator.

6.3.m.3. Applicators shall also demonstrate practical knowledge and understanding of all of the specific use restrictions for sodium cyanide devices, including safe handling and proper placement of the capsules and device, proper use of the antidote kit, notification to medical personnel before use of the device, conditions of and restrictions on when and where devices can be used, requirements to consult U.S. Fish and Wildlife Service maps before use to avoid affecting endangered species, maximum density of devices, provisions for supervising and monitoring applicators, required information exchange in locations where more than one ~~agency~~ entity is authorized to place devices, and specific requirements for recordkeeping, monitoring, field posting, proper storage, and disposal of damaged or used sodium cyanide capsules.

6.3.m.4. Applicators shall also demonstrate practical knowledge and understanding of the specific use restrictions for sodium fluoroacetate in the livestock protection collar, including where and when sodium fluoroacetate products can be used, safe handling and placement of collars, and practical treatment of sodium fluoroacetate poisoning in humans and domestic animals.

6.3.m.5. Applicators shall also demonstrate practical knowledge and understanding of specific requirements for field posting, monitoring, recordkeeping, proper storage of collars, disposal of punctured or leaking collars, disposal of contaminated animal remains, vegetation, soil, and clothing, and reporting of suspected and actual poisoning, mishap, or injury to threatened or endangered species, humans, domestic animals, or non-target wild animals.

6.3.n. Aerial. In addition to demonstrating a knowledge of the specific standards for the applicable categories or subcategories in subdivisions ~~sub-sections~~ 6.3.a. through 6.3.k. of this rule,

persons desiring to apply pesticides by aircraft must hold a valid Agricultural Applicator Certification from the Federal Aviation Administration, and shall demonstrate practical knowledge of the pest problems and pest control practices associated with performing aerial application of RUPs, including the following:

6.3.n.1. Labeling. Labeling requirements and restrictions specific to aerial application of pesticides including:

6.3.n.1.a. Spray volumes.

6.3.n.1.b. Buffers and no-spray zones.

6.3.n.1.c. Weather conditions specific to wind and inversions.

6.3.n.2. Application equipment. Understand how to choose and maintain aerial application equipment, including the following:

6.3.n.2.a. The importance of inspecting application equipment to ensure it is in proper operating condition prior to beginning an application.

6.3.n.2.b. Selecting proper nozzles to ensure appropriate pesticide dispersal and to minimize drift.

6.3.n.2.c. Knowledge of the components of an aerial pesticide application system, including pesticide hoppers, tanks, pumps, and types of nozzles.

6.3.n.2.d. Interpreting a nozzle flow rate chart.

6.3.n.2.e. Determining the number of nozzles for intended pesticide output using nozzle flow rate chart, aircraft speed, and swath width.

6.3.n.2.f. How to ensure nozzles are placed to compensate for uneven dispersal due to uneven airflow from wingtip vortices, helicopter rotor turbulence, and aircraft propeller turbulence.

6.3.n.2.e. Where to place nozzles to produce the appropriate droplet size.

6.3.n.2.f. How to maintain the application system in good repair, including pressure gauge accuracy, filter cleaning according to schedule, and checking nozzles for excessive wear.

6.3.n.2.g. How to calculate required and actual flow rates.

6.3.n.2.h. How to verify flow rate using fixed timing, open timing, known distance, or a flow meter.

6.3.n.2.i. When to adjust and calibrate application equipment.

6.3.n.3. Application considerations. The applicator shall demonstrate knowledge of factors to consider before and during application, including the following:

6.3.n.3.a. Weather conditions that could impact application by affecting aircraft engine power, take-off distance, and climb rate, or by promoting spray droplet evaporation.

6.3.n.3.b. How to determine wind velocity, direction, and air density at the application site.

6.3.n.3.c. The potential impact of thermals and temperature inversions on aerial pesticide application.

6.3.n.4. Minimizing drift. The applicator shall demonstrate knowledge of methods to minimize off-target pesticide movement, including the following:

6.3.n.4.a. How to determine drift potential of a product using a smoke generator.

6.3.n.4.b. How to evaluate vertical and horizontal smoke plumes to assess wind direction, speed, and concentration.

6.3.n.4.c. Selecting techniques that minimize pesticide movement out of the area to be treated.

6.3.n.4.d. Documenting special equipment configurations or flight patterns used to reduce off-target pesticide drift.

6.3.n.5. Performing aerial application. The applicator shall demonstrate competency in performing an aerial pesticide application, including the following:

6.3.n.5.a. Selecting a flight altitude that minimizes streaking and off-target pesticide drift.

6.3.n.5.b. Choosing a flight pattern that ensures applicator and bystander safety and proper application.

6.3.n.5.c. The importance of engaging and disengaging spray precisely when entering and exiting a predetermined swath pattern.

6.3.n.5.d. Tools available to mark swaths, such as global positioning systems and flags.

6.3.n.5.f. Recordkeeping requirements for aerial pesticide applications including application conditions if applicable.

6.3.o. Sewer Root Control. Applicators in this category shall demonstrate practical knowledge of the secondary effects of metam sodium on downstream water bodies and lateral and upstream residential and nonresidential sewer connections; the importance and use of personal protective equipment; and the proper measurement, calibration and application of metam sodium. Applicators shall demonstrate practical knowledge of the pest problems and pest control practices associated with performing fumigation applications of RUPs to sites other than soil, including the following:

6.3.o.1. Label & labeling comprehension. Familiarity with the pesticide labels and labeling for products used to perform non-soil fumigation, including labeling requirements specific to non-soil fumigants.

6.3.o.2. Safety. Measures to minimize adverse health effects, including the following:

6.3.o.2.A. Understanding how certified applicators, non-certified applicators using fumigants under direct supervision of certified applicators, and bystanders can become exposed to fumigants.

6.3.o.2.B. Common problems and mistakes that can result in direct exposure to fumigants.

6.3.o.2.C. Signs and symptoms of human exposure to fumigants.

6.3.o.2.D. Air concentrations of a fumigant that require applicators to wear respirators or to exit the work area entirely.

6.3.o.2.E. Steps to take if a fumigant applicator experiences sensory irritation.

6.3.o.2.F. Understanding air monitoring, when it is required, and where and when to take samples.

6.3.o.2.G. First aid measures to take in the event of exposure to a fumigant.

6.3.o.2.H. Labeling requirements for transportation, storage, spill clean up, and emergency response for non-soil fumigants, including safe disposal of containers and contaminated materials, and management of empty containers.

6.3.o.3. Non-soil fumigant chemical characteristics. Characteristics of non-soil fumigants, including the following:

6.3.o.3.A. Chemical characteristics of non-soil fumigants.

6.3.o.3.B. Specific human exposure concerns for non-soil fumigants.

6.3.o.3.C. How fumigants change from a liquid or solid to a gas.

6.3.o.3.D. How fumigants disperse in the application zone.

6.3.o.3.E. Compatibility concerns for tanks, hoses, tubing, and other equipment.

6.3.o.4. Application. Selecting appropriate application methods and timing, including the following:

6.3.o.4.A. Application methods and equipment commonly used for non-soil fumigation.

6.3.o.4.B. Site characteristics that influence fumigant exposure.

6.3.o.4.C. Conditions that could impact timing of non-soil fumigant application, such as air stability, air temperature, humidity, and wind currents, and labeling statements limiting applications under specific conditions.

6.3.o.4.D. Conducting pre-application inspection of application equipment and the site to be fumigated.

6.3.o.4.E. Understanding the purpose and methods of sealing the area to be fumigated, including the factors that determine which sealing method to use.

6.3.o.4.F. Calculating the amount of product required for a specific treatment area.

6.3.o.4.G. Understanding the basic techniques for calibrating non-soil fumigant application equipment.

6.3.o.4.H. Understanding when and how to conduct air monitoring and when it is required.

6.3.o.5. Pest factors. Pest factors that influence fumigant activity, including the following:

6.3.o.5.A. Influence of pest factors on fumigant volatility.

6.3.o.5.B. Factors that influence gaseous movement through the area being fumigated and into the air.

6.3.o.5.C. Identifying pests causing the damage and verifying they can be controlled with fumigation.

6.3.o.5.D. Understanding the relationship between pest density and application rate.

6.3.o.5.E. The importance of proper application rate and timing.

6.3.o.F. Personal protective equipment. Understanding what personal protective equipment is necessary and how to use it properly, including the following:

6.3.o.F.1. Following labeling directions for required personal protective equipment.

6.3.o.F.2. Selecting, inspecting, using, caring for, replacing, and disposing of personal protective equipment.

6.3.o.F.3. Understanding the types of respirators required when using specific non-soil fumigants and how to use them properly, including medical evaluation, fit testing, and required replacement of cartridges and canisters.

6.3.o.F.4. Labeling requirements and other laws applicable to medical evaluation for respirator use, fit tests, training, and recordkeeping.

6.4. Registered Technicians. Non-certified employees of a pesticide business performing pesticide application ~~similar to~~ like a commercial applicator or certified public applicator must register with the commissioner.

6.4.a. Initial Training. Each pesticide business is responsible for ensuring that each employee, other than a certified applicator, successfully completes a verifiable training program approved by the commissioner. The employee shall complete the training program within 30 days of his or her employment and before the employee registers with the commissioner.

6.4.b. The commissioner may not approve any training program that does not have a method of verification of employee attendance or participation and include instruction by a certified applicator in at least the following elements:

~~6.4.b.A. State and Federal Laws and Rules and Regulations;~~

~~6.4.b.B. how to read and interpret a pesticide label;~~

~~6.4.b.C. the handling of emergencies and spills to include:~~

~~6.4.b.C.1. the signs and symptoms of common types of pesticide poisoning;~~

~~6.4.b.C.2. the practical emergency treatment for pesticide injuries;~~

~~6.4.b.C.3. how to obtain emergency medical care; and~~

~~6.4.b.C.4. decontamination procedures;~~

~~6.4.b.D. the proper methods of storing, mixing or loading, transporting, handling, applying and disposing of pesticides;~~

~~6.4.b.E. safety and health measures including the proper use of personal protective equipment including:~~

~~6.4.b.E.1. the hazards of pesticides from toxicity or exposure including acute and delayed reaction; and~~

~~6.4.b.E.2. the routes of exposure;~~

~~6.4.b.F. the potential adverse effects caused by various climatic or environmental conditions such as drift, runoff or ground water contamination;~~

~~6.4.b.G. pesticide application techniques;~~

~~6.4.b.H. pest identification and control recommendation; and~~

~~6.4.b.I. the principles of integrated pest management.~~

6.4.b.A. Potential hazards from toxicity and exposure that pesticides present to non-certified applicators and their families, including acute and chronic effects, delayed effects, and sensitization.

6.4.b.B. Routes through which pesticides can enter the body.

6.4.b.C. Signs and symptoms of common types of pesticide poisoning.

6.4.b.D. Emergency first aid for pesticide injuries or poisonings.

6.4.b.E. Routine and emergency decontamination procedures, including emergency eye flushing techniques. Non-certified applicators shall be instructed that if pesticides are spilled or sprayed on the body, to immediately wash or to rinse off in the nearest clean water. Non-certified applicators shall also be instructed to wash or shower with soap and water, shampoo hair, and change into clean clothes as soon as possible.

6.4.b.F. How and when to obtain emergency medical care.

6.4.b.G. After working with pesticides, wash hands before eating, drinking, using chewing gum or tobacco, or using the toilet.

6.4.b.H. Wash or shower with soap and water, shampoo hair and change into clean clothes as soon as possible after working with pesticides.

6.4.b.I. Potential hazards from pesticide residues on clothing.

6.4.b.J. Wash work clothes before wearing them again and wash them separately from other clothes.

6.4.b.K. Do not take pesticides or pesticide containers used at work to your home.

6.4.b.L. Potential hazards to children and pregnant women from pesticide exposure.

6.4.b.M. After working with pesticides, remove work boots or shoes before entering your home, and remove work clothes and wash or shower before physical contact with children or family

members.

6.4.b.N. How to report suspected pesticide use violations to the appropriate State or Tribal agency entity responsible for pesticide enforcement.

6.4.b.O. Format and meaning of information contained on pesticide labels and in labeling applicable to the safe use of the pesticide, including the location and meaning of the restricted use product statement, how to identify when the labeling requires the certified applicator to be physically present during the use of the pesticide, and information on personal protective equipment.

6.4.b.P. Need for, and appropriate use and removal of, personal protective equipment.

6.4.b.Q. How to recognize, prevent, and provide first aid treatment for heat-related illness.

6.4.b.R. Safety requirements for handling, transporting, storing, and disposing of pesticides, including general procedures for spill cleanup.

6.4.b.S. Environmental concerns such as drift, runoff, and wildlife hazards.

6.4.b.T. RUPs may be used only by a certified applicator or by a non-certified applicator working under the direct supervision of a certified applicator.

6.4.b.U. The certified applicator's responsibility to provide to each non-certified applicator instructions specific to the site and pesticide used. These instructions shall include labeling directions, precautions, and requirements applicable to the specific use and site, and how the characteristics of the use site (e.g., surface and ground water, endangered species, local population, and risks) and the conditions of application (e.g., equipment, method of application, formulation, and risks) might increase or decrease the risk of adverse effects. The certified applicator shall provide these instructions in a manner the non-certified applicator can understand.

6.4.b.V. The certified applicator's responsibility to ensure that each non-certified applicator always has access to the applicable product labeling during its use.

6.4.b.W. The certified applicator's responsibility to ensure that where the labeling of a pesticide product requires that personal protective equipment be worn for mixing, loading, application, or any other use activities, each non-certified applicator has clean, labeling-required personal protective equipment in proper operating condition and that the personal protective equipment is worn and use correctly for its intended purpose.

6.4.b.X. The certified applicator's responsibility to ensure that before each day of use equipment used for mixing, loading, transferring, or applying pesticides is in proper operating condition as intended by the manufacturer, and can be used without risk of reasonably foreseeable adverse effects to the non-certified applicator, other persons, or the environment.

6.4.b.Y. The certified applicator's responsibility to ensure that a means to immediately communicate with the certified applicator is available to each non-certified applicator using pesticides under his or her direct supervision.

6.4.c. Upon request by the commissioner each pesticide business shall produce the records or other means of verification that an employee has completed an approved training program.

6.4.d. Identification. The commissioner shall issue an identification card to each registered technician. The registered technician shall carry the identification card and show it upon request to any person.

6.4.e. Employment termination. Within 30 days of termination, a pesticide business shall give the commissioner written notice of the termination of the registered technician. The registered technician shall return the identification card to the commissioner.

6.5. Non-certified applicator qualifications. Before any non-certified applicator uses a RUP under the direct supervision of the certified applicator, the supervising certified applicator shall ensure that the non-certified applicator has met at least one of the following qualifications:

6.5.a. The non-certified applicator has been trained in accordance with subsection 6.4 of this rule within the last 12 months.

6.5.b. The non-certified applicator has met the training requirements for an agricultural handler under 40 CFR 170.501 of the EPA Worker Protection Standard within the last 12 months.

6.5.c. The non-certified applicator has met the requirements established by a certifying authority that met or exceed the standards in subdivision 6.5.a of this rule.

6.5.d. The non-certified applicator is currently a certified applicator but is not certified to perform the type of application being conducted or is not certified in the jurisdiction where the use will take place.

#### **§61-12A-7. Recertification.**

7.1. At no greater than a ~~three year~~ three-year interval each commercial applicator, certified public applicator or private applicator must present evidence or documentation indicating that he or she has attended workshops or training sessions approved by the commissioner. The commissioner will grant an applicator a continuing certification unit (~~ceu~~) (“CCU”) for a ~~30-minute~~ 30-minute period of training or the greater portion thereof.

7.2. Commercial/Certified Public Applicators - For recertification, each commercial applicator or certified public applicator shall accrue at least 20 continuing certification units (10 hours) of audience contact or participation on the subject matter contained in sub-sections 6.1 and 6.3 of this rule for each category or subcategory of certification.

7.3. Private Applicator - For recertification, each private applicator shall accrue at least 10 continuing certification units (5 hours) of audience contact or participation on the subject matter contained in sub-sections 6.1 and 6.2 of this rule for each category or subcategory of certification.

7.4. Registered Technicians - Each registered technician shall accrue at least 4 continuing certification units (2 hours) of audience contact or participation on the subject matter contained in sub-sections 6.1 and 6.3 of this rule for each category or subcategory of registration each year prior to renewal.

7.5. A certified applicator may accumulate the required continuing certification units for programs as required in this section by attending two or more training sessions.

#### **§61-12A-8. Supervision of ~~Non-Certified~~ Non-Certified Applicators.**

##### **8.1. General Supervision**

8.1.a. All non-certified applicators must be under the direct supervision of a certified applicator. Non-certified applicators working under the direct supervision of a certified commercial applicator or certified public applicator shall complete registered technician training as outlined in subsection 6.4 of this rule. Non-certified applicators working under the supervision of a private applicator shall complete annual training as a handler under the Worker Protection Standard (WPS) (40 CFR 170.501).

8.1.b. During the non-certified applicator's use of a restricted use product, the certified applicator shall be able to be at the use site and with the non-certified applicator, at the point of use of the restricted use product, within a reasonable period of time; ensure that the non-certified applicator has means by which to contact the certified applicator immediately, should the need arise; shall be available to be contacted by the non-certified applicator; and shall arrive at the point of use within a reasonable period of time if summoned by the non-certified applicator. The certified applicator shall take into consideration the potential for serious consequences of a delay in arriving at the use site when determining what is a reasonable period of time.

8.2. Label Specified Supervision - In some situations the labeling on the pesticide product will require other levels of supervision. These requirements may be the use of the pesticide with a certified applicator on site or use only by a certified applicator. In those situations, the product label will control the minimum supervision required. An applicator must follow these label requirements.

8.3. Use-specific supervision - conditions that shall be met for a non-certified applicator to use a RUP. The certified applicator shall ensure that the following requirements are met before allowing a non-certified applicator to use a RUP under his or her direct supervision:

8.3.a. The certified applicator shall ensure that the non-certified applicator always has access to the applicable product labeling during its use.

8.3.b. Where the labeling of a pesticide product requires that personal protective equipment be worn for mixing, loading, application, or any other use activities, the certified applicator shall ensure that any non-certified applicator has clean, labeling-required personal protective equipment in proper operating condition and that the personal protective equipment is worn and used correctly for its intended purpose.

8.3.c. The certified applicator shall provide to each non-certified applicator before use of a RUP instructions specific to the site and pesticide used. These instructions shall include labeling directions, precautions, and requirements applicable to the specific use and site, and how the characteristics of the use site (e.g., surface and ground water, endangered species, local population) and the conditions of application (e.g., equipment, method of application, formulation) might increase or decrease the risk of adverse effects. The certified applicator shall provide this information in a manner that the non-certified applicator can understand.

8.3.d. The certified applicator shall ensure that before each day of use equipment used for mixing, loading, transferring, or applying pesticides is in proper operating condition as intended by the manufacturer, and can be used without risk of reasonably foreseeable adverse effects to the non-certified applicator, other persons, or the environment.

## §61-12A-9. Record Keeping.

### 9.1. Commercial Applicator/Certified Public Applicator

9.1.a. Each commercial applicator or certified public applicator shall keep for a minimum of two years records detailing the application of all pesticides. Applicators shall maintain the following information at a minimum:

9.1.a.A. the pesticide brand name used, including the EPA registration number;

9.1.a.B. the formulation, the dilution rate and the quantity of the pesticide used. ~~In the case of a business in the classification of General Pest and Ornamental and Turf pest control, the records for the quantity used may be kept as the total quantity used per day by each applicator when less than one~~

~~gallon of use dilution spray or one pound of dust, powder or prepared rodenticide baits are used at any location. When more than these amounts are used at one location, the quantity of the pesticide for that location shall be maintained separately;~~

~~9.1.a.C. the time, date and the place of application and name and address of the person for whom the pesticide was applied; and~~

~~9.1.a.D. the pest against which the pesticide was used;~~

~~9.1.a.E. the crop, commodity, stored product, or site where applied;~~

~~9.1.a.F. the size of the area treated; and~~

~~9.1.a.G. the name and certification number of certified and non certified applicator(s).~~

9.2. Records kept by a licensed pesticide application business or a regulated pesticide business may serve as the records for the individual certified employees of those businesses.

9.3. Private Applicator - A private applicator shall keep records for a period of two years detailing the use of ~~restricted use pesticides~~ RUPs. A private applicator shall maintain the following minimum information:

9.3.a. the pesticide brand name used, including EPA registration number;

9.3.b. the formulation, the dilution rate and the quantity of the pesticide used;

9.3.c. the time, date and the place of application; and

9.3.d. the name and address of the person for whom pesticide was applied;

9.3.e. the pest against which the pesticide was used;

9.3.f. the size of the area treated;

9.3.g. the crop, commodity, stored product or site where pesticide applied;

9.3.h. name and certification number of certified and name of non-certified applicators; and

9.3.i. records required under subsection 9.4 of this rule.

#### 9.4. Non Certified Applicators.

9.4.a. Commercial applicators shall create or verify the existence of records documenting that each non-certified applicator has the qualifications required in subsection 6.5 of this rule. For each non-certified applicator, the records shall contain the information appropriate to the method of qualification as provided in paragraphs 9.4.a.A through 9.4.a.D of this rule.

9.4.a.A. if the non-certified applicator was trained in accordance with subsection 6.5 of this rule, the record shall contain the following information:

9.4.a.A.1. the non-certified applicator's printed name and signature;

9.4.a.A.2. the date the training requirement in subsection 6.5 of this rule was met;

9.4.a.A.3. the name of the person who provided the training; and

9.4.a.A.4. the title or a description of the training provided.

9.4.a.B. If the non-certified applicator was trained as an agricultural handler under 40 CFR 170.501 in accordance with subdivision 6.5.b of this rule, the record shall contain all of the information required at 40 CFR 170.501(d)(1).

9.4.a.C. If the non-certified applicator qualified by satisfying the requirements established by the certifying authority, as described in subdivision 6.5.e of this rule, the record shall contain the information required by the certifying authority.

9.4.a.D. If the non-certified applicator is a certified applicator who is not certified to perform the type of application being conducted or not certified in the jurisdiction where the use will take place, as described in subdivision 6.5.d of this rule, the record shall include the following information:

9.4.a.D.1. the non-certified applicator's name;

9.4.a.D.2. the non-certified applicator's certification number;

9.4.a.D.3. the expiration date of the non-certified applicator's certification; and

9.4.a.D.4. the certifying authority that issued the certification.

9.4.b. The commercial applicator shall create or verify the existence of the record containing the information in subdivision 9.4.a of this rule before allowing the non-certified applicator to use RUPs under his or her direct supervision.

9.4.c. The commercial applicator supervising any non-certified applicator shall have access to records documenting the information required in subdivision 9.4.a of this rule at the commercial applicator's principal place of business for two years from the date the non-certified applicator used the RUP.

#### **§61-12A-10. Reciprocity.**

10.1. Commercial Applicators - When a non-resident commercial applicator is certified under the state plan of another state and desires to operate as a commercial applicator in West Virginia, he or she shall make application to the commissioner and shall include, along with the proper fee and other details required by the Act, a true copy of his or her credentials certifying him or her as an applicator of ~~restricted use pesticides~~ RUPs in another state. The commissioner then may, if he or she approves the credentials, issue a West Virginia license to the applicator in the ~~category(ies)~~ category or categories for which he or she is certified in another state, without a written examination, provided that the state having originally certified the applicator will similarly certify holders of West Virginia certificates has similar certification requirements.

10.2. Private Applicators - When a private applicator is certified under the state plan of another state and owns, leases or manages land in West Virginia on which ~~restricted use pesticides~~ RUPs must be applied to produce agricultural crops, the commissioner will issue a West Virginia Private Applicator Certification on receipt of a properly completed application, the proper fee and a true copy of the applicant's out-of-state certification.

#### **§61-12A-11. Federal Employees.**

11.1. Certification - When an employee of any ~~agency entity~~ entity of the United States ~~Government~~ government has been qualified in any category as competent to apply ~~restricted use pesticides~~ RUPs

under the Government Agency Plan (~~GAP~~) ("GAP"), or another EPA approved plan judged by the commissioner to be at least equal to the Act and rules promulgated pursuant to the Act, the commissioner may issue a certification in the same category or categories without the need for a written examination nor for the payment of any fee.

11.2. Qualification for Certification - Federal employees qualified under an acceptable federal plan to apply ~~restricted use pesticides RUPs~~ RUPs and who intend to apply ~~restricted use pesticides RUPs~~ RUPs in West Virginia as a part of their ~~agency entity~~ work shall present their qualifying documents to the commissioner; and, if acceptable, these documents will be endorsed by the commissioner or a State document will be issued which will permit the federal employee to use ~~restricted use pesticides RUPs~~ RUPs in West Virginia.

11.3. Emergency Situations - If, in an emergency situation, federal employees are brought in to West Virginia to control or eradicate pests, and these employees have been properly qualified to use ~~restricted use pesticides RUPs~~ RUPs under the plan of another state or under an acceptable federal government ~~agency entity~~ plan, the employee is considered to be certified in West Virginia. The employee ~~and his and his or her agency entity~~ must, within 10 days of entering the state, present qualifying credentials to the commissioner. At this time, the commissioner shall issue ~~State state~~ credentials if the employee is to remain in West Virginia as an applicator of ~~restricted use pesticides RUPs~~ RUPs. The provisions of this section do not apply to nonfederal employees contracted to perform pesticide applications for the federal government. In an emergency, however, and with the concurrence of the commissioner, a properly certified federal applicator may act in a supervisory capacity of a nonfederal applicator ~~provided that if~~ if the applicator is properly certified in West Virginia or under the plan of another state. Within 10 days of entering the State, the non-federal applicator certified in another state must apply for West Virginia certification as required by this rule.

#### **§61-12A-12. Equipment.**

12.1. General - No person shall apply, ~~dispense~~ dispense, or use any pesticide in or through any equipment or application apparatus unless such equipment or application apparatus is in sound mechanical condition and capable of satisfactory operation. All pesticide application equipment shall be properly equipped to dispense the proper amount of pesticide. All pesticide mixing, storage or holding tanks, whether on application equipment or not, shall be leakproof. All spray distribution systems shall be leakproof and any pumps which such systems may have shall be capable of operating at sufficient pressure to assure a uniform and adequate rate of discharge. All pesticide application equipment shall be equipped with whatever cut-off valves and discharge orifices may be necessary to enable the operator to pass over (or by) nontarget areas without contaminating them.

12.2. Backflow Prevention - All mixing or loading sites for spray equipment shall be equipped with a mechanism to prevent the back siphoning of pesticides into water sources. Mechanisms acceptable are backflow/anti-siphon valves in the plumbing system and/or an air gap between the top of the mixing tank and the water inlet hose.