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SUMMARY OF THE
FEDERAL AND STATE
PESTICIDE LAWS AND REGULATIONS
FOR
LICENSED PEST CONTROL OPERATORS



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Summary of Federal and State Pesticide Laws and Regulations

General Licensing - All Categories

Gene Burgess, Professor

A pesticide is any substance or mixture of substances or chemicals intended for defoliating or desiccating plants or for preventing, destroying, repelling or mitigating any insects, rodents, fungi, bacteria, weeds or other forms of plant or animal life declared to be a pest. This includes, but is not limited to, insecticides, fungicides, bactericide, herbicides, desiccants, defoliant, plant regulators and nematocides.

U.S. Environmental Protection Agency (EPA).

EPA is responsible for the registration of pesticides, reviewing labels for accuracy and safety, development of pesticide applicator training materials and enforcement of federal pesticide laws and regulations. Through its Office of Pesticide Programs (OPP), EPA uses FIFRA to manage its mandate.

The EPA regulates pesticides to protect humans and the environment. Enforcement of FIFRA is the responsibility of the EPA which may, through cooperative agreements, delegate the authority for enforcing the act to states and Native American tribes. EPA has developed regulations for pesticide registration and use.

Each state and tribe has laws governing pesticides and their uses and these laws must be at least as strict as the federal laws. State certification plans are approved and evaluated by EPA. Because pesticide applicators are directly regulated and certified by their state agencies, these applicators must have a thorough knowledge of the state and federal pesticide laws.

Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)

In 1947, Congress passed the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) which required federal registration of pesticides shipped in interstate commerce. Under the 1947 FIFRA, registered pesticides could be used by almost anyone for any purpose, and in any way, because that law did not address itself to pesticide use.

Federal Environmental Pesticide Control Act (Amended FIFRA)

In 1972, Congress amended the FIFRA to add key regulatory mechanisms. This legislation is known as the Federal Environmental Pesticide Control Act, FEPCA. Among other things, these regulations (1) prohibit use of any registered pesticide in a manner inconsistent with label instructions; (2) require that pesticides be classified for general or restricted-use; (3) provide that pesticides in the restricted category may be used only by or under the direct supervision of certified applicators, or under such other regulatory restrictions as the EPA administrator may require; (4) establish general categories of certified applicator: private applicator and commercial applicator; (5) provide penalties (fines and jail terms) for violations of FIFRA; and (6) provide states the authority to regulate the sale or use of any federally registered pesticides in that state. The amended FIFRA was fully implemented in October 1977. A discussion of Tennessee certification will be covered under the state law.

By regulation, the EPA set minimum standards of competency for certification of pesticide applicators. This regulation, 40CFR171 "Certification of Pesticide Applicators," allows states and Indian tribes with EPA-approved plans to administer certification programs within their boundaries. Certification is proof that an applicator knows better the correct and safe way to apply restricted-use pesticides.

Classification of Pesticides. Manufacturers must register every pesticide with the EPA. All pesticides must be classified by EPA either as general- or restricted -use. These are defined under the state law.

Label Directions. An applicator may not use any pesticide in a manner not permitted by the product's label. A pesticide may be applied only on plants, animals or sites specified in the directions for use. You may not use higher dosages, higher concentrations or more frequent applications. You must follow directions for use, safety, mixing, diluting, storage and disposal.

Penalties. Civil Penalties – In general, any commercial applicator who violates any provision of FIFRA may be assessed a penalty of not more than \$5,000 for each offense (\$1,000 for private applicators). Before the agency imposes a fine, you have the right to ask for a hearing.

Criminal Penalties – In general, any applicator who knowingly violates any provision of FIFRA shall be fined not more than \$25,000 or one year in prison (\$1,000 and/or 30 days in prison for private applicators).

Tennessee Application of Pesticide Act (TAPA, Pest Control Operators) / Pest Control Operator Regulations or Rules (TAPA Regs.) / Regulations Governing Use of Restricted Pesticides.

The following pages will cover portions of the laws and regulations found in the “Laws and Regulations Governing Pest Control Operators and Applicators of Restricted Use Pesticides.” This book may be obtained from the Tennessee Department of Agriculture (TDA), Ag Inputs and Pesticide Section of the Regulatory Services Division, who will henceforth be referred to as TDA or the State Department.

TDA is responsible for the protection of the health, safety and welfare of pest control employees and the general public from hazards and consequences of pest control activities. TDA insures that all pesticides are used in accordance with the registered labels and labeling. The Department regulates all pesticide use within Tennessee, issues certification for uses of restricted-use pesticides, and enforces regulations dealing with pesticide safety, handling, application and disposal. TDA certification and enforcement functions are coordinated primarily through the Ag Inputs and Pesticides Section of the Regulatory Services Division.

In Tennessee, TDA establishes qualifications and administers examinations for individuals to become commercial applicators and licensed applicators (licensed pest control operators). This certification process enables these people to apply restricted-use pesticides and become involved in commercial pest control operations (charge a fee).

The department also certifies people as commercial applicators who do pest control work in residential, industrial or institutional buildings (and other areas) as part of their regular employment. Such people include building superintendents, caretakers and maintenance workers who are employed by apartments, schools, government agencies, manufacturing plants, private businesses, hospitals or similar facilities.

Tennessee's governor appoints a seven-member pest control board to advise the Commissioner of Agriculture as to the passing of rules and regulations. The board determines the various licensing categories, prescribes the required qualifications for applicants and approves the necessary examinations or testing procedures.

Under the Commissioner of Agriculture, the Regulatory Services Division administers examinations and issues licenses to individuals performing any type of structural pest control for hire, including pesticide application. The division also regulates and monitors the pest control activities of businesses and individuals.

No city, town, county or other political subdivision may adopt or continue in effect any ordinance, rule, regulation or statute regarding pesticide sale or use except as provided in Article 62-21-118(b) of the Tennessee Application of Pesticide Act and Article 43-8-115 of the Tennessee Insecticide Fungicide and Rodenticide Act.

Certification. In Tennessee, certification means the commissioner of agriculture has the authority to authorize someone to use, supervise the use of, buy or sell restricted-use pesticides. It also means the commissioner can authorize someone to issue a wood-destroying insect infestation inspection report.

EPA and Tennessee classifies registered pesticides as either general-use (unclassified) or restricted-use. A general-use pesticide are those that will not ordinarily cause unreasonable adverse effects on the user or the environment when used in accordance with label instructions. These pesticides are available to the general public.

Restricted-use pesticides are defined as those that may cause adverse effects on the environment and/or the applicator, unless subject to additional regulatory restrictions. They are generally available only to certified applicators.

Applicators of restricted-use pesticides must be certified as private applicators or commercial applicators. A private applicator is a farmer, rancher, orchardist, nursery, producer, greenhouse operator, etc., who uses or supervises the use of restricted pesticides to produce an agricultural commodity on property owned or rented by the applicator or his/her employer or (if applied without compensation other than trading of personal services between producers of agricultural commodities) on the property of another person.

Commercial applicators are those who use or supervise the use of restricted pesticides on any property other than as provided by the definition of "private applicator." Commercial pesticide applicators are certified to work in certain categories.

Written examinations are used to determine the competence of commercial applicators. Part of the test includes general standards which all commercial applicators must know. These standards include a practical knowledge of the principles and practices of pest control and the safe use of pesticides. The rest of the test is related to the particular category.

In chartered companies, registered solicitors, including sales representatives, licensees and registered technicians who work under the supervision of a licensed pest control operator, must possess a commercial certification in each category of service. A pest control technician applying pesticides under the supervision of a licensed pest control operator has 90 days from the date of his/her employment to become certified as a commercial applicator. If a technician is not certified during the 90-day period, he/she can only continue to apply pesticides in the presence of a licensed operator.

Commercial applicator certification may be issued in the following categories: C1 - Agriculture, C2 - Forest Pest Control, C3 - Ornamental and Turf, C4 - Seed Treatment, C5 - Aquatic Pest Control, C6 - Right-Of Way, C7 - Industrial, Institutional, Structural & Health Related Pest Control, C8 - Public Health Control, C10 - Demonstration, Research and Regulatory Pest Control, C11 - Wood Preservatives, C12 - Pesticide Dealer, C13 - Anti-Fouling Marine Paint, C14 - Microbial Pest Control and C16 - Sewer Line Treatment.

Aerial applicators applying pesticides to field crops would be certified in C1 - Agriculture.

Training and Exam Opportunities for Commercial Applicator Certification.

Training sessions are held periodically by The University of Tennessee Extension Service for those seeking to become certified commercial applicators. They are offered the first Wednesday of each month at U.T. Knoxville and by ITV to Johnson City (ETSU), Chattanooga (U.T.), Nashville (U.T. Extension District Office) and Jackson (U.T., West Tennessee Center ((Experiment Station)). The registration fee for training is \$25 for the "Core" and \$10 for each Commercial Applicator category that may be offered.

Study Materials for Commercial Certification Exams. Study materials have been developed by the faculty at The University of Tennessee and are available for purchase to study for an exam. An order form, Form 818, and study materials are available from or the PSEP website, <http://eppserver.ag.utk.edu/psep/psep.htm>, the e-commerce web

site <http://ecommerce.cas.utk.edu/agstore> and the UT Pesticide Safety Education Program office:

PSEP
Dept. of Entomology & Plant Pathology
University of Tennessee
2431 Joe Johnson Drive
Room 205 Ellington Plant Sciences
Knoxville, TN 37996-4560
Phone: 865-974-7138
E-Mail: gburgess1@utk.edu

A test covering general standards and category(ies) is given by the Tennessee Department of Agriculture. The exam fee for a commercial category is \$15, and must be prepaid two weeks in advance of the exam date. Send your check or money order to:

Certification and Licensing Supervisor
Tennessee Department of Agriculture
Box 40627, Melrose Station
Nashville, TN 37204.
Phone: 615-837-5148
E-Mail: grmoon@mail.state.tn.us

Recertification of Commercial Applicators. It is the responsibility of the commercial applicator to maintain his/her Tennessee certification by accumulating recertification points. Recertification points are assigned to each respective category. One point is assigned per hour to certification related topics. A commercial applicator's certification period only lasts for three years. Everyone's certification expires on the same date.

Recertification may be obtained by acquiring a specified number of points during the current certification period. Points may be awarded for attending conferences, programs, seminars, etc., that present information in the following areas in the individual's certification category:

- Pests
- Pest control
- WPS
- Pesticides
- Pesticide safety
- IPM
- Environmental issues (water quality, endangered species, etc.)

Safety, environmental issues, IPM, laws and regulations apply to all categories for assignment of points. Points are not assigned to individual videos but to programs.

The pesticide coordinator or his/her designee in the Department of Entomology and Plant Pathology (EPP) at The University of Tennessee assigns points primarily for educational institutional programs and the Certification and Licensing Supervisor, TDA, assigns points primarily for industry programs.

The following are additional guidelines with regard to the point system:

- In-house points will be limited to 50% of your total point requirement.
- Points may not be carried over to another certification three year period.
- You may earn no more than 75% of your point total by attending anyone external meeting.
- All points cannot be accrued in one year.
- All training must be submitted to the office no later than 45 days prior to the date of the training session.

- Those approving certification training reserve the right not to grant points for training submitted late.
- An announcement of the training date, time, place and points assigned per category will be placed on The University of Tennessee, Extension Service, Department of Entomology and Plant Pathology and Tennessee Department of Agriculture's web sites located at <http://eppserver.ag.utk.edu/psep/psep.htm> and <http://www.tennessee.gov/agriculture/regulate> respectively.
- The sponsors must agree to permit representatives from the Department of Agriculture and/or UT Department of Entomology and Plant Pathology to attend training sessions without registration fees or costs.
- After attending a training session the Tennessee Department of Agriculture or The University of Tennessee, Extension Service, upon consultation between these two agencies, training and point assignment may be re-evaluated. Point assignment may be withdrawn or revised as deemed necessary.

Programs submitted for recertification points should include the following information:

- Meeting title.
- Sponsor.
- Meeting date(s).
- Location(s).
- Chairperson's name, address & phone.
- In-house or external training.
- Category applying for points.
- List of topics.
- speakers (with their titles).
- length of each topic to be presented.

A form from UT, Department of Entomology and Plant Pathology, E&PP Info #82, Tennessee Pesticide Recertification Application for Points, is available for this purpose and may be found on the PSEP website.

All certifications will expire on October 21, 2005 if the required number of points are not accrued. If the required points are not accrued the third year, one will need to take a recertification exam.

The number of points one must accumulate by October 21, 2005 are as follows:

Point Requirements

Categories	Certified prior to Oct. 21, 2002 & before Oct. 21, 2003	Certified on or after Oct 21, 2003 & before Oct 21, 2004	Certified on or after Oct. 21 2004 & before April 21, 2005	Certified on or after Apr. 21, 2005
C1	18 pts	12 pts	6 pts	0
C2	12 pts	8 pts	4 pts	0
C3	18 pts	12 pts	6 pts	0
C4	12 pts	8 pts	4 pts	0
C5	12 pts	8 pts	4 pts	0
C6	18 pts	12 pts	6 pts	0

C7	30 pts	20 pts	10 pts	0
C8	18 pts	12 pts	6 pts	0
C10	18 pts	12 pts	6 pts	0
C11	9 pts	6 pts	3 pts	0
C12	30 pts	20 pts	10 pts	0
C13	9 pts	6 pts	3 pts	0
C14	9 pts	6 pts	3 pts	0
C16	9 pts	6 pts	3 pts	0

It is your responsibility to contact the Certification and Licensing Supervisor with TDA in Nashville if you have a name or address change. If correspondence goes back to their office because of an incorrect address, applicators will not receive anymore mailings until the address information is corrected.

Additional information on the point requirement for each category may be found in SP363-D, "Tennessee Commercial Applicator Recertification Point System."

Annual Meetings. A list of annual meetings where recertification points may be earned is found in UT's E&PP Info. 375, which may be obtained from the Pesticide Coordinator's office at U.T. The EPP phone number and address is given above.

Current Workshops / Seminars. The upcoming meetings (current workshops/seminars) may also be obtained from the Pesticide Coordinator's office or may be found on the EPP web site by way of the Internet at <http://eppserver.ag.utk.edu/psep/psep.htm>.

Commercial Pest Control Operator. In Tennessee a "commercial pest control operator" is a person or business entity who:

- (A) Engages in the custom application of pesticides.
- (B) Performs an inspection of real property for the purpose of issuing a wood-destroying insect infestation inspection report, and
- (C) Has demonstrated to the Pest Control Licensing and Advisory Board his or her qualifications to design and direct pest control and inspection operations.

Charter. A charter is an instrument issued by the Department of Agriculture, authorizing a person, firm or cooperation to engage in the business (custom application) of commercial pest control operations. "Custom application" is defined as the application of a pesticide for fee, and also includes the solicitation of such services. It does not matter if the pesticide is restricted-use or general-use. If you offer to apply a pesticide for a fee you must be associated with a chartered company. Each person, firm or corporation who wishes to engage in business as a commercial pest control operator must secure a charter from TDA in the category or categories in which the person or firm intends to do business. A charter is required for each office and branch office. Once a charter number is assigned, it remains with that company until they no longer have a charter, and then that number is reassigned.

A commercial pest control operator is required for the main or supervisory office. Once chartered, an individual may solicit or advertise his/her business. All printed advertisements must include the charter number. Yellow pages, ads, etc., must show the charter number. Promotion items, such as pens and ball caps do not need the charter number.

Each person applying for or holding a charter is required to have:

- (A) A commercial pest control operator for the main or supervisory office.
- (B) A licensed commercial pest control operator for each category of service offered at each office or branch office. This individual may be licensed in one or more categories. Branch offices must be supervised by licensed operators.
- (C) A corporate surety bond of \$10,000.
- (D) Minimum liability insurance for the annual period of insurance:
 - \$250,000 for a single occurrence of liability
 - \$500,000 for aggregate liability
- (E) Errors and omissions insurance (in addition to the above liability insurance when working with the wood-destroying organisms category) for the annual period of insurance:
 - \$100,000 for a single occurrence
 - \$300,000 aggregate errors and omissions liability

All persons chartered are required to:

- (A) List with TDA the name, residence and address and secure a solicitor's registration of each salesperson or agent who is authorized to solicit business or any one authorized to enter into a pest control contract. A licensee or registered technician is also considered to be a registered solicitor.
- (B) Each person chartered is required to obtain from TDA a solicitor's registration for all sale representatives or agents.
- (C) Registration is issued to solicitors, when the following has been shown to TDA:
 - (1) The prospective solicitor is an employee of the chartered firm.
 - (2) The prospective solicitor has written authority to solicit business for the firm and bind the firm to contracts for pest control service.
 - (3) When proper fees have been paid to TDA.
- (D) Solicitors may possess only one registration card (from one chartered company) and employed by only one chartered person at a time.
- (E) Solicitors must be certified as commercial applicators.
- (F) List with the department the names, residences and addresses of all employees (exclusive of clerical employees) who are engaged in the handling, transportation or application of pesticides.
- (G) Notify the department of any changes in employment of these employees.

TDA requires that vehicles of chartered companies used in pest control work must be permanently marked (both side of vehicle) with the name of the company and the charter number. The size of the lettering must be at least 2 inches tall.

A company that is not using pesticides in their services, nor offering for sale any pesticide applications, they do not need a charter. For example:

- 1) A lawn care company that only cuts grass and applies non-impregnated fertilizers.
- 2) A company that provides animal control only by trapping.

Licenses. TDA issues licenses to individuals in qualified businesses to engage in commercial pest control in Tennessee. There is a \$150 fee for each licensing exam. All licenses must be renewed by December 31 every two years. A licensed pest control operator will supervise the certified technicians, registered solicitors, salespersons and other licensees. A licensee should maintain an active practice. If an operator is not engaged in activities of license for one year or longer, his or her license will have to be renewed by re-examination.

Licenses are issued in the following categories: Wood-Destroying Organisms (WDO), General Pest & Rodent Control (GRC), Weed Right-Of-Way (WEC), Aquatic Weed (AQW), Fumigation - Agricultural/Structural (FUS/FUM), Bird Control (BDC), Agricultural - Ground Equipment (AGE), Horticulture -Lawn & Turf (HLT), Horticulture - Interior (HLI), Public Health Mosquito Control (PHMC) and Special Category (SPC) & Pest Control Consultant (PCC).

The AGE (Agriculture - Ground Equipment) licensing category includes control of agricultural pests by means other than fumigation.

The AQW (Aquatic Weed Control) licensing category includes the control of aquatic plants by the application of herbicides.

The BDC (Bird Control) licensing category covers the control of pest birds such as house sparrows, starlings, blackbirds, crows, pigeons, woodpeckers, Canada geese, great blue herons and others, by the use of pesticides.

The FUM (Fumigation Structural) licensing category includes the control of pest by application of a material that is a gas. This category includes the use of pesticides that when handled or applied are in a solid or liquid form and the effect is produced by the gas formed after the toxicant has been placed. This category includes the control of pests in buildings, ships, boxcars, trailers and additional sites other than agricultural land.

The FUS (Fumigation Agriculture) licensing category includes control of agricultural pests found in the soil by application of a material that is a gas. This category includes the use of pesticides that when handled or applied are in a solid or liquid form and the effect is produced by the gas formed after the toxicant has been placed.

The GRC (General Pest & Rodent Control) licensing category covers the control of general pest and rodents (vertebrate and invertebrate pests) in and around the home and other buildings. These include pests such as cockroaches, ants, flies, fleas, fabric pests, flour beetles, Indian meal moths and domestic rodents not specifically covered by other categories of the license described.

The HRI (Horticultural - Interior) includes control of pests and diseases of plants grown indoors.

The HLT (Horticulture - Lawn & Turf) licensing category specifically deals with the control of pests and diseases of shrubs, trees, lawn and turf in residential, institutional and non-agricultural locations. These pests do not normally invade residential, institutional and non-agricultural locations. Examples are bagworms, white grubs, moles, voles, scale insects, disease of turf (such as brown patch), ornamentals, trees and such.

The PCC (Pest Control Consultant) licensing category is for individuals graduating from an accredited college or university with a bachelor's degree in the field of pest control in which consultation is offered. A license in this category does not qualify the holder to perform pest control operations. One hundred and fifty dollars (\$150) is submitted with the application and then \$400 (two years) is paid, if approved for licensing.

The SEC (Special Category) licensing category covers the control of pests in special situations by methods not included in other categories or by individuals not licensed in other categories. These licenses may or may not require an exam, but \$150 must be sent in with the application. They are limited to specific pesticide uses and situations as determined by the board.

The WDO (Wood-Destroying Organisms) licensing category covers the control of termites, various wood borers, carpenter bees, carpenter ants and decay without regard to the type or use of structure involved. Control of silver fish, meal worms, roaches, etc., that may damage wood only infrequently, is not included in this category.

The WEC (Weed Right-of-Way) includes control of plants, whether woody or herbaceous, by the application of chemicals generally classed as herbicides to industrial sites and rights-of-way, such as, but not limited to, highways, transmission lines, drainage ditches, etc. These chemicals may be desiccants, defoliant, growth regulators, soil-sterilizing agents etc.

For the PHMC (Public Health Mosquito Control) licensing category one should study the manual on mosquitoes.

Commercial Aerial Applicator License – Any person applying a pesticide by aircraft in Tennessee must be licensed as a Commercial Aerial Applicator.

Before taking a licensing exam, which is given in Nashville, applicants must show one or more of the following qualifications:

- (A) A bachelor's degree or its equivalent with major or minor in a discipline reasonably related to the category of pest in which the applicant is seeking a license; or
- (B) At least two years of work experience in the category of license for which the application is made, except the category of AGE and HLT.
- (C) Holding a license in the same category from another state.
- (D) Sufficient experience, as determined by the board, in the category of AGE and HLT. Applicants of these two categories appear before the pest control board the day before the exams.

Whether or not engaged in the business of applying pesticides, a person may not apply a pesticide within any of the following buildings, except under the direct supervision of a person licensed to apply pesticides (chartered and non-chartered firm or business):

- (A) any building used for the preparation or serving of food;
- (B) any building used for the temporary or permanent lodging of others;
- (C) any building used primarily for educational purposes, for 11 or more people, except those buildings used primarily for religious instruction or for providing education to not more than 10 persons; or
- (D) any commercial food-processing facility.

These stated rules do not apply to the application of pesticides by an individual in his/her dwelling, nor to the application of pesticides by the owner of a multi-unit dwelling in which the owner resides and which contains not more than three additional units used for the temporary or permanent lodging of others.

Licensed pest control operators should be in charge of the licensee's pest control activities. It is suggested that they primarily supervise the pest control activities at a business location, such as:

1. Selection of proper, correct chemicals for the particular pest control work.
2. Safe and proper use of these pesticides.
3. Correct concentration and formulation of pesticides used.
4. Training of pest control technicians in the proper and acceptable methods of pest control.

Training should include laws and rules pertaining to pest control; precautions to safeguard life, health and property; pests (their habits, recognition of damage and identification to common name); accepted industry practices in pest control; how to read labels; and integrated pest management.

5. Control measures and procedures used.

To become a licensed pest control operator, each person must first pass the commercial certification exam. It is recommended that this exam be taken prior to the licensing category exam(s).

Individuals who wish to become licensed may obtain an application from the UT Pesticide Coordinator's office (215 Plant Science Building, The University of Tennessee; phone: 865/974-7138, fax: 865/974-8868) or the Certification and Training Supervisor (Ag Inputs & Pesticide Section, Porter Bldg.) or write to their respective offices, whose addresses were previously given.

The application should be completed and sent to the Certification and Training Supervisor with TDA.

Licensing exams are given in January, April, July and October. Therefore, applications for exams will need to be in the Regulatory Services Division office postmarked by midnight on the tenth of the month preceding the month of the present exam (December 10, March 10, June 10 and September 10). Applications must be received with correct fees plus a college transcript or certificate of experience. The applicant will be notified by the Certification and Licensing Coordinator with the statement of "application approved." The exam fee is \$150 per category for initial or re-examination.

If approved, the applicant may take the licensing exam the next month of the same quarter, when the exam is offered. The licensing exam is usually offered on Tuesday and Wednesday of the first week in the quarter. Generally, the HLT, HRI, FUS, FUM AGE and PHC exams are offered on Tuesday; and the WDO, GRC, WEC, AQW and BDC are offered on Wednesday. Applicants for PPC and SPC appear before the board.

Applicants may study specimens in the Regulatory Services Division lab on the week preceding and Monday just before the exams. Training may be offered for some licensing categories prior to the licensing exams. As of the date of this publication revision, training is offered in HLT and PHC on Monday and GRC and WDO on Tuesday before the exams. Call the University of Tennessee, Pesticide Coordinator's office at 865-974-7138 for more information or look on the PSEP website for a pre-registration form. The pre-registration fee is \$50 or \$75 on site.

Study Materials for Licensing Exams. Study materials for the licensing exams are available for purchase. An order form, Form 818, and study materials are available at the U.T. PSEP web site,

<http://eppserver.ag.utk.edu/psep/psep.htm> and the e-commerce website at <http://ecommerce.cas.utk.edu/agstore>.

The registration fee may be paid and study materials may also be purchased at the following address:

PSEP
University of Tennessee
Dept. of Entomology & Plant Pathology
2431 Joe Johnson Drive
Rm 205 Ellington Plant Sciences
Knoxville, TN 37996-4560
Phone: 865-974-7138
E-Mail: gburgess1@utk.edu

The licensing exams are given only at the Ellington Agricultural Center Auditorium in Nashville. You should bring a magnifying glass with light to the exam.

Once an individual has passed the licensing category exam(s), he or she should then obtain a surety bond from a bonding company and liability insurance. Proof of bonding and insurance, together with an application and fee, is presented to TDA for a charter.

Requirements for Licensees in Wood Destroying Organisms (WDO).

Wood Destroying Organisms (Excluding Termites). The department requires written contracts (warranty optional) in duplicate on every control job for wood-destroying organisms other than termites.

Termites. A written contract with a warranty must be issued on every job for control of termites. In each case one copy is left with the property owner and a copy retained by the operator. These contracts must be numbered to assure that both parties hold identical documents. All contracts and warranties are transferable to remain with the treated property of the remainder of the current year's contract term. Contracts with a warranty issued on any structure for control of termites must meet state and label specifications.

When a contract with a warranty is issued on any structure for the control of termites that does not meet state specifications, those areas not meeting label specifications must be treated and brought up to state specifications. All pesticides should be applied in accordance with label directions. However, 40 CFT (2)(e) does not apply when mixing or applying termiticides.

A graph should be drawn and attached to each contract. This graph should show the condition of the property as it relates to the termite infestation and damage at the time of the initial contract.

Pretreating buildings under construction has become a standard procedure, both for slab-on-ground and basement construction. The toxicant must be applied to the soil with such thoroughness and uniformity that it provides a barrier to all routes of termite entry. All pretreatments shall be completed according to label directions within one year of the date of the initial treatment or to coincide with the completion of the backfill.

Each property under contract by a termite control operator must be examined by the operator at least once per year. A report of all inspections indicating the absence or presence of termites and/or other wood-destroying organisms must be filed with the property owner and a copy kept in the operator's file.

These reports may be inspected by TDA at any time. TDA may examine records and properties treated. Whenever unsatisfactory or substandard treatments are found, the operator and/or charter holder will be notified and given a reasonable time to correct the problem. If the operator refuses to make the corrections, his/her license and/or charter or both may be suspended, unless he or she can show to the satisfaction of TDA why such actions should not be taken. While the license is suspended, the operator or charter holder may continue re-treating all properties on which he or she has current contracts, but cannot solicit any new business. He or she must notify TDA of the dates of any re-examinations and re-treatments. When the properties have been re-examined and re-treated, TDA will make a re-inspection. If TDA finds all properties in satisfactory condition, then the suspension may be removed. Otherwise, the license and/or charter or both may be permanently revoked. A license or charter may be suspended or revoked for gross neglect of contracts, falsifying the presence of an insect pest or general failure to give satisfactory service.

All contracts for termite control must carry a one-year warranty for re-treatment of termites only. The issuance of a damage guarantee is optional.

Certain situations warrant less than complete treatments. These include:

- (A) Physical reasons or conditions prevent a full treatment, such as a well beneath the building, an air duct pipe embedded in slab, a plenum air space, a crawl space too low, or

- (B) When the label prohibits, and
- (C) The owner of the treated property is fully informed.

Less than complete treatments may be given under certain circumstances described in the law. No warranty or guarantee need be given for less than complete treatment of non-commercial buildings. However, the contract covering such work must have the stipulation that no guarantee is given. The words "No guarantee" must be stamped on printed letters one-half inch high on both sides of the invoice and guarantee/agreement form referring to this treatment.

Formosan Termites. All infestations of *Coptotermes formosanus* Shiaki or other members of the genus *Coptotermes*, known as Formosan termites, should be reported to the Tennessee Department of Agriculture.

Wood-Destroying Beetles. Wood-destroying beetles may be treated when it is determined that an active infestation exists. Treatment will be permitted for the control or prevention of reinfestation of these beetles. Examples are Anobiidae (furniture beetle, cigarette beetle, drugstore beetle, deathwatch beetle, etc.), Lyctidae (powderpost beetles), Bostrichidae (branch and twig borers), Cerambycidae (long-horned beetles; old house borer and flat oak borer only) and Curculionidae (snout beetles). Preventive treatment in the absence of an infestation is prohibited. Treatment for the control or prevention of other beetles, such as bark beetles, that do not cause structural damage to seasoned wood is prohibited.

Wood-Destroying Insect Infestation Inspection Report. This is a report written by a chartered commercial pest control operator employing a person licensed in the category of wood-destroying organisms. The report indicates the presence or absence of visible wood-destroying insects and/or visible damage caused by these insects. The report is issued after an on-site inspection of the property.

A wood-destroying insect infestation inspection report issued in conjunction with the sale or transfer of any real property may only be issued by a chartered pest control operator licensed, or employing personnel licensed, in the WDO category. Only those persons licensed in the WDO category or certified in Category 7, Industrial, Institutional, Structural and Health-Related Pest Control, or working under the direct supervision of someone licensed in the WDO category are authorized to conduct inspections for wood destroying insect infestation reports.

The inspection reports are to be submitted on forms prescribed by the National Pest Management Association and the Federal Department of Housing and Urban Development. In addition to other information, the report should include the following:

- (A) Address of the property
- (B) A graph or diagram showing the layout of the property
- (C) Areas of damage or active infestation (if any)
- (D) The name of the licensed or certified employee conducting the inspection
- (E) The pest control operator name, address and charter number
- (F) The date of the inspection
- (G) Any recommendations for the corrective action

A wood-destroying insect infestation inspection report is a 90 day warranty of the accuracy of any representations in the inspection report. If there is a breach of the warranty, a person may recover compensatory damages, including all repair costs related to the warranty. If a person knowingly issues a false report or does not make the inspection, he/she is liable for triple the amount of damages.

Requirements for Licensees in Fumigation. When a poisonous gas is being used in fumigation, a certified applicator licensed in the respective fumigation category should be present and actively in charge of the work. A gas mask in good condition should be available for use. The fumigation site should be posted with conspicuous signs at all points of entry. At buildings or structures of public entrance, a guard should be maintained, and he or she should have access to a protective gas mask. All doors should be locked and posted and patrolled by the guard. A certified

licensed applicator should be responsible for clearing the structure of fumigants and follow all label directions prior to re-entry.

Denial, Suspension or Revocation of Charter, License or Certificate. If a charter holder, licensee or certificate holder has violated any provision of the law or used any economic poison in violation of the law, a hearing may be held by TDA. The purpose of the hearing is to determine if the license, charter or certification should be denied, suspended, revoked or modified, and/or civil penalties of up to \$1000 imposed for each violation. A warning notice may be issued.

A charter is automatically suspended if the licensed pest control operator, whose name appears on the charter, ceases to be in charge of the charter holder's pest control operations. A grace period of 120 days may be granted so the charter holder may find another qualified operator to be examined by TDA.

A custom applicator without a valid charter is considered a Class A misdemeanor. According to the TN Code Annotated, TCA 40-35-110 & 111, the penalty for a Class A misdemeanor is imprisonment not greater than 11 months and 29 days or a fine not to exceed \$2,500 or both, unless the statute states otherwise.

Fees. There are certain fees involved when becoming certified, licensed and or chartered. They are as follows:

(A)	Charter	\$400 (Fee for two years; \$50/quarter & prorated quarterly)
(B)	License	\$40 (" " " " ; \$5/ " " " ")
(C)	Solicitor / Technician / Non-clerical	\$40 (" " " " ; \$5/ " " " ")
(D)	Consultants license	\$500 (" " " ")
(E)	Licensing exams	\$150 (Paid prior to the exam.)
(F)	Re-examination fee for license	\$150 (Paid prior to the exam.)

Licensees are considered by law to be solicitors and do not pay again for solicitor registration. The late fee, for renewal applications received more than 30 days late, is \$10 per calendar day for both the charter and each licensee, with the maximum late fee not to exceed the actual renewal fee for the charter and/or licensee(s). Late fees are calculated from the postmark date.

Charter and License Renewals. TDA has established a system of license and charter renewals at alternative intervals. Starting in 2001, those whose last name began with A thru K had to renew their charter and license in January 2001; and those from L thru Z renewed theirs in January 2002. Then everyone will go to a two-year cycle for renewal.

A 30-day grace period is allowed to renew licenses or charters. Following the grace period, a \$10 per day penalty is levied for each late day.

Record Keeping. All commercial applicators and commercial pest control operators must keep records of both restricted and general use pesticides for two years. These must be made available on demand to the commissioner of agriculture, or his/her designee.

These records must show (for each application):

- (A) The pesticide used
- (B) The target pest
- (C) The crop, plant, house, business or building the pesticide is applied on or to, and the location
- (D) The dosage rate
- (E) The percentage of mixed-use dilution
- (F) The landowner, agent or other person employing such applicator
- (G) The date of service
- (H) The amount of pesticide used.

The University of Tennessee Extension Service has a commercial applicator form, Form 805, that has all the requirements for recordkeeping and non-required recommended items. This may be obtained from the Pesticide Coordinator's office. A printable recordkeeping form, as well as pesticide recordkeeping software, may be downloaded at <http://eppserver.ag.utk.edu/psep/psep.htm>.

Tennessee Insecticide, Fungicide and Rodenticide Act (TIFRA).

Sale or Transportation of Pesticides. It is unlawful for any person to distribute, sell or transport in intrastate or interstate commerce any pesticide:

- (A) If it is not registered according to Tennessee law.
- (B) If any claims or directions for use differ from the registration.
- (C) If the composition differs from the composition of the registration.
- (D) If not in the manufacturer's unbroken, properly labeled container.
- (E) If any highly toxic pesticide does not have the skull and crossbones, with the signal word "poison" in red on a contrasting background.
- (F) If an antidote for the pesticide is not listed on the label.
- (G) If any pesticide is adulterated or misbranded.

A violation of this section of the law is a Class C misdemeanor.

Label. It is unlawful to:

- (A) Detach, alter, deface or destroy, in whole or in part, any label or labeling.
- (B) For any manufacturer, distributor, dealer, carrier or other person to refuse information on the nature or kind of a pesticide. Or, to refuse TDA representatives to have access to and to copy any records of business transactions that are essential in carrying out the law (TIFRA).
- (C) For any person to give a false guaranty as provided in the law (TIFRA).
- (D) For any person to dispose of, discard or store any pesticide or pesticide containers in a manner that would cause injury to people, vegetation, crops, livestock, wildlife, beneficial insects or to pollute any water supply or waterways.

Registration of Pesticides. Every pesticide that is distributed or sold within the state must be registered with TDA and registration fees paid. All pesticide products must be registered annually, and their registration expires on June 30 each year. The fee for registration is \$100 for each grade or brand of pesticide to be registered. A 30-day grace period is allowed for renewals of registration, but upon any renewal following the grace period, an additional \$50 late fee is charged.

The commissioner of agriculture may refuse to register or may revoke or suspend any or all registrations where the registrant is found to have violated any provision of the law (TIFRA).

Federal EPA Registration. The vast majority of pesticides are registered under "FIFRA Section 3" status, a federal label. These products have been reviewed and approved for label use by the EPA, and the registrant then registers in Tennessee and other states. Products that share the same EPA registration number and vary only by product size, scent or color may be registered as one. The EPA registration number will be only numerals, separated by dashes, such as "47873-1-32."

Many applications for registration are for "distributor products." These are products produced by one company and marketed (distributed) by another. For example, The ABC Chemical Co. introduces a product called "No Mo Bugs," EPA registration number 999-888. It is such a marketing hit that another company, DEF Chemical, wants to sell it too. They purchase product from ABC, market it as "DEF Wunderkill," and the EPA gives it the registration number 999-888-76543. -76543 is the company number EPA gave to DEF. These products are otherwise identical, but of course must be registered separately.

Discontinuation registration is required for one year by TIFRA, unless the registrant states in writing that no product remains in the channels of trade. Discontinuation means any product found at the retail level may remain for sale, provided no product is shipped by the registrant after the discontinuation year has expired.

Special Local Needs Registration. A "24-C," also known as a "Special Local Need" (SLN) registration, is handled a little differently. It is an application from a registrant to allow the use of a pesticide on an object for which it is not presently federally labeled. In the case of food, a tolerance must have been established. 24-C applicants must submit a completed federal Special Local Need form (EPA form 8570-25), a copy of the proposed label, the application fee of \$250, and any support material they deem necessary. In general, applications are reviewed and a decision made within 6 weeks. In general, approvals are for 5 years. We will issue a registration number that will incorporate "TN" and the last two digits of the issuance year, for example "TN960003," with the "3" meaning it is the third issued this calendar year. The EPA has final authority over 24-C registrations and may reject a State's approval.

Emergency Exemptions from Registration. The registration term "Section 18" is really more of an exemption to the registration process. With rare exception a Section 18, a.k.a. an emergency or crisis exemption, is pursued to allow the use of a pesticide on a food crop for which there is not an established tolerance, but there is an established tolerance for at least one other food crop. For example, the product is wanted for use on tomatoes, but at present there is an established tolerance only for squash. In a very few cases it is utilized for a pesticide that does not have an established tolerance for use on any food crop. Usually an outside party, often the Extension Service, is pushing for the proposed use. The Department actually requests approval of the exemption from the EPA. These uses are generally of an "emergency" nature, and requests are prioritized based on the situation. There are no application fees. The absolute minimum time required to prepare a request is a week, but more typically a month or more is needed, especially since we must collect and edit a wide variety of scientific data in order to properly prepare the package. These have no registration numbers.

Experimental Use Permit, EUP. An EUP is, as its name implies, a permit from the EPA to test a pesticide under controlled conditions. The EPA grants the permit, and then the state department monitoring staff inspects use sites at random. The state neither review or approve an EUP. But, the state accepts the EPA's decision, and issues no notice of acceptance. The registration number will include the letters "EUP."

An application for registration (Section 3 status products only) should include a copy of each new product's label, a copy of each changed label, and a copy of ALL labels if it is the renewal application in an even numbered year.

Fees: State registration for Section 3 status products	\$100
Late renewal fee, per product, for applications postmarked 8/1 or later	50
24-C (SLN) application fee	250
Section 18 requests & EUPs	no fee

Powers of the Commissioner. The commissioner is authorized to:

- (A) Enter any car, warehouse, store, building, boat vessel or other place where pesticides are held for distribution or sale for the purpose of inspection or sampling for analysis or examination from any lot, package or parcel containing a pesticide.
- (B) Classify pesticides for general-use or restricted-use.
- (C) Periodically review the records of sales of restricted-use pesticides by licensed dealers.

Stop Sale, Use, Removal, Seizure or Condemnation. The commissioner may issue and enforce a written "stop sale, use or removal" order to the owner or custodian of any lot of pesticide. And, this may be held at a designated place, when it is found that the pesticide is being offered for sale in violation of any provision of the law. It may be held until the law has been complied with and the pesticide is released by the commissioner.

Any lot of pesticides not in compliance with the provision of TIFRA is subject to seizure. If the court finds the pesticide to be in violation of parts 1 and 2 of TIFRA and orders the condemnation of the pesticide, it will be disposed of in any manner consistent with the laws of Tennessee. The claimant may apply to the court for release of the pesticide or permission to process or relabel the product to bring it into compliance.

Pesticide Dealers. This category is for persons who are engaged in wholesale or retail sales of restricted-use pesticides. Each person must have a valid pesticide dealers license. And, a separate license is required for each location where business is conducted. Each applicant for an original dealer's license must take and pass a written certification exam in Category 12, given by TDA. And, each dealer is required to have at least one person commercially certified in Category 12 at each location selling restricted-use pesticides. The standard of competency for C12 is:

- To demonstrate a broad knowledge of pesticides, their usefulness and hazards.
- To demonstrate practical knowledge to advise applicators and the public on the safe and effective use of pesticides.
- To demonstrate their knowledge of the laws and regulations governing the use and sale of restricted-use pesticides.
- To demonstrate an understanding of pesticide-organism interactions and the importance of integrating pesticide use with other control methods, in an Integrated Pest Management system.

Each pesticide dealer is responsible for the action of their employees in the solicitation or sale of pesticides, and in all claims and recommendations for use or application of pesticides.

Dealers must complete an application and send it, together with \$50, to TDA. Dealers must submit with each application for an original or renewal license a list of all persons employed by the applicant who sell or solicit the sale of restricted-use pesticides. All licenses expire on June 30 each year. If the application for renewal of a license is not filed on or before July 1 of any year, a penalty of \$25 is assessed and added to the \$50 renewal fee. There is no grace period for being late.

Licensed pesticide dealers must maintain records of all purchases of restricted-use pesticides. The records must include the name of the purchaser, the purchaser's certification number (Social Security Number or Applicator Number assigned by TDA), the name and the amount of the pesticide purchased.

The "purchaser" is the person who physically took possession of the pesticide, not an absent party who may later pay the bill. Forms are available from the State Department to record sales or companies may use their computers to maintain record of sales. However, these records must have the information required by the State Department.

Unless otherwise collected by an inspector, which is rare, dealers should mail to TDA their prior year's sales records when applying for renewal. Computer printouts are fine as long as the required information is on them. When receiving sales lists, they are immediately checked to ensure the business name and address is printed. This is especially important for computer printouts as there is often no such information printed on them. The company is contacted if sales records are not included with renewals.

Civil Penalties. Fines for civil penalties for violations of the Tennessee Insecticide, Fungicide and Rodenticide Act are found in Section 0800-6-16-.08 of the Regulations Governing Use of Restricted Use Pesticides (the last three pages of the book).

Worker Protection Standards.

The Worker Protection Standard (WPS) is a regulation issued by the EPA. It covers pesticides that are used in the production of agricultural plants on farms, forests, nurseries and greenhouses. The WPS requires an individual to take steps to reduce the risk of pesticide-related illness and injury if they (1) use pesticides or (2) employ workers or pesticide handlers who are exposed to pesticides.

If one is an agricultural pesticide user and/ or an employer of agricultural workers or pesticide handlers, the WPS requires them to provide their employees, and in some cases, to their self and others:

- (A) Information about exposure to pesticides.
- (B) Protections against exposures to pesticides.
- (C) Ways to mitigate exposures to pesticides.

To ensure that employees will be informed about exposure to pesticides, the WPS requires:

- (A) Pesticide safety training – for workers and handlers.
- (B) Pesticide safety poster – to be displayed for workers and handlers.
- (C) Access to labeling information – for pesticide handlers and early-entry workers.
- (D) Access to specific information – a centrally located application list of pesticide treatments on the establishment.

To ensure that employees will be protected from exposures to pesticides, the WPS requires employers to:

- (A) Prohibit handlers from applying a pesticide in a way that will expose workers or other persons.
- (B) Exclude workers from areas being treated with pesticides.
- (C) Exclude workers from areas that remain under a restricted-entry interval (REI), with narrow exceptions.
- (D) Protect early-entry workers who are doing permitted tasks in treated areas during an REI – requirements include special instructions and duties related to correct use of personal protective equipment (PPE)
- (E) Notify workers about treated areas so they can avoid inadvertent exposures
- (F) Protect handlers during handling tasks – requirements include monitoring while handling highly toxic pesticides and duties related to correct use of PPE.

To mitigate pesticide exposures that employees receive, the WPS requires:

- (A) Decontamination sites – providing handlers and workers an ample supply of water, soap and towels for routine washing and emergency decontamination.
- (B) Emergency assistance – making transportation available to a medical care facility if an agricultural worker or handler may have been poisoned or injured by a pesticide and providing information about the pesticide (s) to which the person may have been exposed.

Employer Information Exchange:

- (A) Employers of commercial pesticide handlers must make sure that their customer – the operator of the farm, forest, nursery or greenhouse – knows certain information about the pesticide before it is applied on the establishment. Operators of agricultural establishment must have this information to protect their employees (workers and pesticide handlers). The information must include the following:
 - The specific location and description of the area(s) on the agricultural establishment that are to be treated with a pesticide.
 - The time and date the pesticide is scheduled to be applied.
 - The product name, EPA registration number, and active ingredient(s).
 - The restricted-entry interval for the pesticide.
 - Whether the pesticide labeling requires both treated-area posting and oral notification
 - Any other specific requirements on the pesticide labeling concerning protection of workers and other persons during or after application.

(B) The operators of an agricultural establishment must provide certain information to the commercial pesticide handler employer. Operators of commercial pesticide handling establishments must have this information to protect their employees. Operators of commercial pesticide handling establishments must have this information to protect their employees. This information includes the following:

- Specific location and description of any areas on the agricultural establishment:
 - That may be treated with a pesticide or be under a restricted-entry interval while the commercial handler will be there (on the establishment). AND
 - That the commercial handlers may be in (or walk within 1/4 mile of).
- Restrictions on entering those areas.

See the “How to Comply Manual” for more details.

Endangered Species Act.

A Federal law designed to protect plant and animal species, that are in danger of extinction. The EPA, in cooperation with other federal, state and county agencies, has established limitations on the use of certain pesticides in specific areas known to harbor endangered species. Prior to making any pesticide application, the user must determine that endangered species are not located on or immediately adjacent to the site to be treated. If in doubt, the user should contact the regional U.S. Fish and Wildlife Service Office, or the state fish and game office.

Federal Hazardous Materials Transportation Law.

The Department of Transportation (DOT) is authorized under the Federal Hazardous Materials Transportation Law (formerly the Hazardous Materials Transportation Act) to regulate the shipment of hazardous materials in commerce, whether shipments are made by motor vehicle, rail car, aircraft or vessel. The Research and Special Programs Administration (RSPA) is responsible for making known, administering, enforcing and interpreting hazardous materials regulations. The Office of Hazardous Materials Safety (OHMS) within RSPA is in charge of writing regulations, granting exemptions, providing interpretations and enforcement. The hazardous materials transportation regulations issued by RSPA are found in Code of Federal Register (49 CFR 100-185) and apply only to hazardous materials – materials which, when offered for transportation, can pose an unreasonable risk to health, safety and property.

Before a material may be shipped domestically, it must be classified to determine whether it meets one or more of the DOT hazard class definitions. Pesticides are frequently subject to DOT regulations; since the active ingredients or other components in the formulation may cause the products to meet one or more of the DOT hazard class definitions. If the pesticide is determined to be hazardous, it must be properly packaged, described and certified on shipping papers. Non-bulk packages must be marked with a DOT proper shipping name and UN/NA identification number (from 49 CFR Section 172.101) and other package markings, as required, and labeled with DOT 4" x 4" hazard labels, if specified.

In general, portable tanks, tank trucks and tank cars that contain hazardous materials must display placards on both sides and both ends, and they must remain placarded when they contain a residue of hazardous material. Portable tanks with a rated capacity of less than 1000 gallons may be labeled on two sides, two ends, or placarded on two opposite sides. Transport vehicles, portable tanks and freight containers that contain materials subject to the “Poison-Inhalation Hazard” shipping paper requirement must be placarded “POISON”, “POISON-INHALATION HAZARD” OR “POISON GAS,” as appropriate on each side and end in addition to any other placards required because of additional hazards. Technical names (recognized chemical name) must also appear in parentheses as part of the non-bulk package markings. Trade names cannot be used as technical names unless they appear in the hazardous materials table. Mixtures or solutions of hazardous materials require the technical names of at least two components contributing to the hazards to be identified on both shipping papers and non-bulk package markings.

Individuals who perform functions involving the transportation of hazardous materials must receive training concerning regulatory requirements applicable to those functions. Persons who in the course of employment directly affect hazardous materials transportation safety must be trained.

The regulatory requirement is designed to increase hazmat employee awareness of safety considerations involved in loading, unloading, handling, storing, shipping paper preparation, marking, labeling, placarding and transportation of hazardous materials, and to improve emergency preparedness for responding to transportation incidents and accidents.

A material of trade is a hazardous material carried on a motor vehicle: 1. To protect the health and safety of the driver or passengers; 2. To support the vehicle operation or maintenance; 3. By a private motor carrier in direct support of a principal business that is other than transportation. A material of trade is a hazardous material transported used in the business when transporting.

Materials of trade must be packaged in the manufacturer's original DOT authorized packaging, or a packaging of equal or greater integrity.

Occupational Safety and Health Act

The Occupational Safety and Health Act was established to assure working people safe and healthful working conditions. It imposes upon employers the obligation to provide employees with workplaces that are free from recognized health and safety hazards, and to maintain compliance with specific OSHA standards. EPA has authority under FIFRA relating to the safety of farm workers in fields treated with pesticides, and OSHA has authority over manufacturing, formulating and distribution operations involving worker safety in the pesticide industry.

Hazard Communication Standard The OSHA Hazard Communication Standard (29 CFR Section 1910.1200) ensures that the hazards of all chemicals produced or imported are evaluated and that information concerning their hazards is transmitted to employers and employees. This so-called "Right-to-Know" law requires employers with employees exposed to hazardous chemicals to provide information to their employees on the hazards by means of hazard communication programs including labels, Material Safety Data Sheets (MSDSs), training and access to written records.

Under the Hazard Communication Standard, all containers of hazardous chemicals in, or leaving, the workplace (unless the container is used for temporary transfer purposes) must be labeled, tagged or marked with appropriate hazard warnings and with an identity permitting it to be cross-referenced to the MSDS. All employers must assure that employees are adequately trained relative to the hazardous chemicals, in detection and protection methods, and in the labeling and MSDS system used in their workplace.

HCS does not apply to labeling of pesticides covered under FIFRA. Inert ingredients and intermediates that are not pesticides under FIFRA are covered.

Resource Conservation and Recovery Act (RCRA)

The Resource Conservation and Recovery Act (RCRA) of 1976 (as amended) regulates the generation, treatment, storage, transportation and disposal of solid wastes. Solid wastes are defined as hazardous under RCRA when they are included in one of several lists. Two of these are:

P-List – Acutely hazardous commercial chemical products (40 CFR 261.33(e)).

U-List – Toxic and other commercial chemical products (40 CFR 261.33(f)).

Both P-List and the U-List contain several commercial pesticides.

The following are examples of pesticide wastes that can be regulated under RCRA:

- Discarded, unused pesticides, either as technicals or formulations, that are listed or that meet one or more of the characteristics of hazardous waste.
- Discarded residue or rinsate from drums, tanks or containers depending on the RCRA classification of the pesticide/rinsate.
- Non-empty pesticide containers that held a listed pesticide or held a pesticide exhibiting a hazardous waste characteristic. In the case of pesticides that are acutely hazardous (P-List), containers or inner liners from containers are also acutely hazardous wastes when disposed unless they have been triple rinsed with an appropriate solvent.
- Pesticide residue consisting of contaminated soil, water or other debris resulting from the cleanup of a spilled pesticide.

To know how such regulated pesticide wastes must be managed, a generator must first determine into which of the three classes it falls. The classes are as follows:

1. Conditionally Exempt Small Quantity Generator – Generators of no more than 100 kilograms (kg) of hazardous waste or 1 kg of acutely hazardous waste (P-listed commercial chemical products) per month (including no more than 100 kg of clean-up debris from cleaning up a spill of an acutely hazardous waste).
2. Small Quantity Generator – Generators of 100 to 1000 kg of hazardous waste per month that do not generate more than 1 kg of acutely hazardous waste (or 100 kg of spill clean-up debris) during the same month, and which never accumulate more than 6000 kg on-site.
3. Large Quantity Generator – Generators of 1000 kg or more of hazardous waste or more than 1 kg of acutely hazardous waste per month.

Small Quantity and Large Quantity Generators must notify EPA that they are a generator, and must obtain an EPA Identification Number. Hazardous wastes cannot be stored without an RCRA permit. However, EPA regulations allow storage in containers or tanks without a permit for specified times under certain conditions (See 40 CFR 262.34).

When wastes are stored in containers, the containers must be labeled with the words, “HAZARDOUS WASTE,” and must be marked with the date on which wastes began to accumulate in that container. The containers must be kept closed, must be in good condition and must be inspected weekly for signs of corrosion, leaks, bulges, etc.

Small Quantity Generators must either transport waste off-site, or treat them on-site, within 180 days. Large Quantity Generators must either transport wastes off-site, or treat them on-site within 90 days.

Transportation Requirements. Hazardous waste which is to be shipped must be packaged according to US DOT regulations, and each container (drum, portable tank, tank truck or tank car) used for shipping a hazardous waste must be labeled, marked, and placarded in accordance with these same rules. In addition to any required DOT markings, each container of 110 gallons or less must bear the following legend:

HAZARDOUS WASTE – Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

Generator’s Name and Address

Manifest Document Number

The discarding of pesticides, residues and rinsates is usually regulated under RCRA. However, disposal requirements for empty containers are mandated by EPA under FIFRA. These requirements are found in the container disposal instructions on the product label.

Comprehensive Environmental Response Compensation and Liability Act (CERCLA).

CERCLA gives EPA authority to enforce or to carry out cleanups of releases or threatened releases of “Hazardous Substances,” pollutants and contaminants resulting from chemical spills or from hazardous waste sites, when there is an imminent and substantial danger to public health, welfare or the environment.

If during any 24-hour period, a designated “hazardous substance” is released into the environment (land, water or air) at or above a specific reportable quantity (RQ) for that material, CERCLA requires an immediate call to the National Response Center (800-424-8802). Section 102(b) of CERCLA establishes RQs of 1 pound for hazardous substance releases, except for those hazardous substances that have been assigned higher RQs as per Section 311 of the Clean Water Act.

Release means any spilling, leaking, emitting, discharging, injecting, escaping, leaching, dumping or disposing into the environment. Reportable quantities may be found in section 302.4 of the Act.

EPA’s regulations covering the designation of hazardous substances and their associated reportable quantities, as well as notification requirements under CERCLA, are found in 40 CFR 302. The list of hazardous substances, specified at 40 CFR 302.4, encompasses pesticides and other compounds.

Section 103 of CERCLA specifically exempts the following activities from release notification:

1. The application of pesticides registered under FIFRA when these pesticides are applied in accordance with the registered label instructions.
2. The storage and handling of a registered pesticide product by an agricultural producer.

Releases of pesticides that occur during handling and storage, and releases that result during transportation, are covered under provisions of CERCLA. The transportation provisions of the act direct the U.S. Department of Transportation (DOT) to list and regulate hazardous substances. In compliance, DOT has listed the hazardous substances in the Appendix to the Hazardous Materials Table (49 CFR 172.101), and requires special markings and shipping paper entries to alert the carrier that he or she is transporting them.

Commercial Aerial Application of Pesticides (Rules and Regulations Governing Commercial Aerial Application of Pesticides and TIFRA, PART 3)

The term “Commercial Aerial Applicator” means any person who engages in the application of pesticides by aircraft. The “Tennessee Aerial Applicators Law” requires licensing of all applicators custom applying pesticides by aircraft. Pesticides may be applied by aircraft under certain conditions. Some of the licensing requirements are as follows:

- Any Commercial Aerial Applicator engaged in applying a pesticide for hire must be examined and licensed by TDA. This exam is offered by TDA in Knoxville, Nashville, Jackson and Memphis.
- To take the aerial licensing exam, one must be certified as a Commercial Applicator in Category 1. The certification exam be taken prior to the licensing exam.
- The applicator must apply with TDA to take the licensing exam.
- The licensee-pilot must hold a valid federal aviation administration agronaut license.
- The applicant must have liability insurance in the amount of one hundred thousand dollars (\$100,000), and proof of insurance must accompany each application.
- Fees for aerial applicators:
 - \$15 for the licensing exam
 - \$150 for a licensing numbered decal for each aircraft
 - \$200 for each pilot license

- The Commissioner of Agriculture (TDA) may deny licensing after a proper hearing of a contested case, for violation of any statute, rule or regulation concerning the use, purchase or sale of pesticides or for any violation of the commercial aerial application of the “Pesticides Act.”
- Once a license is obtained, it must be prominently displayed on each aircraft and each pilot must carry the license any time he/she is working as a pilot engaged in custom application of pesticides.
- All pesticide chemicals applied by an aerial applicator must be applied in a manner consistent with the labeling restrictions. Proof that such restrictions have been met must be submitted upon request by TDA.
- A log record of pesticide applications must be maintained for a period of 18 months. This must be made available to the Commissioner or TDA upon request. The following items must be maintained in the log:
 - Pesticide used
 - To what crop or plant applied
 - The dosage rate
 - The approximate acreage involved
 - The location of the area where the pesticide is applied
 - The landowner, producer, or other person employing the aerial applicator’s services
- If there is reason to believe that an aerial applicator is guilty of violating the rules and regulations a hearing will be conducted to determine if the license should be suspended or revoked. A ten-day notice will be given and the hearing conducted at the Ellington Agricultural Center in Nashville.
- The commissioner or TDA has the power to subpoena any persons or records incident to the hearing, and a charge of contempt (willful contempt of court) may be filed for those who refuse to comply.
- Following the hearing, the commissioner (TDA) may
 - Permanently revoke the license
 - Temporarily revoke the license; or
 - Suspend the license for a definite period of time.
- If an aerial applicator operates without a license or does not apply a pesticide consistent with the label or label restrictions, it is considered to be a Class C misdemeanor.
- The commissioner may petition for injunctive relief from further violation of any provisions of the law.
- If there is an epidemic or plague of such proportions to endanger public health and safety, or to threaten loss or severe damage to a crop, the Commissioner of Agriculture may declare a state of emergency. Under these conditions the state may allow additional commercial aerial applicators to operate within the state under a temporary permit. A fee of one \$100 must accompany each application for a temporary permit.
- An aerial applicator may be renew their license annually without reexamination. However, a \$150 must be paid annually for the licensing number decal to be placed on the aircraft and \$200 for each pilot license.

Individuals who wish to become licensed may obtain an application from the Pesticide Coordinator’s office (218 Plant Science Building, The University of Tennessee; phone: 865/974-7138, fax: 865/974-8868) or the Certification and Training Supervisor (Ag Inputs & Pesticide Section, Porter Bldg.) or write to their respective offices.

The application should be completed and sent to the Certification and Training Supervisor with TDA in Nashville.

For more detailed information on the Tennessee laws and regulations related to pesticides see the following publication:

“Laws and Regulations Governing Pest Control Operators and Applicators of Restricted Use Pesticides”

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