



Economic Impact Analysis Virginia Department of Planning and Budget

2 VAC 20-51 – Regulations Governing Pesticide Applicator Certification

Department of Agriculture and Consumer Services

October 1, 2004

The Department of Planning and Budget (DPB) has analyzed the economic impact of this proposed regulation in accordance with Section 2.2-4007.G of the Administrative Process Act and Executive Order Number 21 (02). Section 2.2-4007.G requires that such economic impact analyses include, but need not be limited to, the projected number of businesses or other entities to whom the regulation would apply, the identity of any localities and types of businesses or other entities particularly affected, the projected number of persons and employment positions to be affected, the projected costs to affected businesses or entities to implement or comply with the regulation, and the impact on the use and value of private property. The analysis presented below represents DPB's best estimate of these economic impacts.

Summary of the Proposed Regulation

Section §3.1-249.30 of the Code of Virginia authorizes the Virginia Pesticide Control Board to promulgate regulations deemed necessary to carry out the provisions of the Virginia Pesticide Control Act.

The proposed regulation (1) eliminates the provision allowing certified commercial applicators to administer and grade registered technician examinations, (2) establishes additional training requirements for registered technicians seeking to work in pesticide application categories or subcategories that are different from the category in which they received their original training, (3) requires that registered technicians and commercial applicators not-for-hire maintain records of all general use and restricted use pesticide applications, (4) specifies that direct on-site supervision entails constant visual contact, (5) requires individuals hired or transferred in to a position involving the commercial use of pesticides to take the registered

technician examination within 90 days of taking up the position, and (6) includes an additional miscellaneous certification category for commercial applicators.

The proposed regulation also includes changes that make the regulation consistent with the Virginia Pesticide Control Act. These changes include requiring commercial pesticide applicators not-for-hire using pesticides in areas open to the public at day-care facilities to be certified, requiring marine antifoulant paints certification only when a commercial applicator uses a marine antifoulant paint that contains restricted use pesticides, and specifying that certain violations of the Virginia Pesticide Control Act may, and not shall, constitute grounds for revocation of certification.

The remaining changes are intended to improve the understanding and implementation of the regulation. Existing language is modified, clarifying language is added, and redundant language is deleted.

Estimated Economic Impact

(1) The proposed regulation eliminates the provision allowing certified commercial applicators to administer and grade registered technician examinations. Under the existing regulation, certified commercial applicators can be authorized by the Virginia Department of Agriculture and Consumer Services (VDACS) to proctor registered technician examinations. Proctors are allowed to administer and grade the examination. They are then required to notify VDACS of the grade received by the applicant. The proposed regulation eliminates this provision and requires all applicants for registered technician certification to instead take the examination through the Department of Motor Vehicles (DMV). According to VDACS, there are 265 certified applicators currently authorized to proctor registered technician examinations.

The proctorship provision was introduced in response to industry complaints about the length of time it took to get certified. Prior to this provision, applicants for registered technician certification were required to take the test at a limited number of locations across the state. In addition, the tests were only offered during certain days of the month. The average length of time to get certified was 22 days. In conjunction with introducing the proctorship system, VDACS implemented a number of administrative changes to the certification system. Since then the average waiting period has been reduced to 12 days. Much of the reduction, according to VDACS, was achieved not through the introduction of the proctorship system but through

procedural improvements to the certification system. In the last four to five years, VDACS has begun administering the examination through DMV. The examination can be taken at any DMV center across the state and at any time during regular office hours. According to the agency, the DMV system has reduced the average waiting period to three days. In calendar year 2003, 1,611 applicants for registered technician certification chose to take the examination under the proctorship system and 750 chose to take it under the DMV system.

The proposed change is likely to impose economic costs and provide economic benefits. By eliminating the proctorship provision, applicants for registered technician certification will now be required to travel to a DMV center in order to take the examination. This is likely to impose some additional costs compared to having commercial applicators proctor the examination for their employees. Applicants and/or their employers will now be required to spend additional time and other resources in getting to and from a DMV center. VDACS estimates that the proposed change will take applicants, on average, an additional hour in travel and processing time to take the examination. A rough estimation indicates that the costs, on average, are likely to be under \$25 per applicant.¹ Assuming 1,600 individuals per year who would have taken the examination under proctorship will now be required to do so at DMV, the proposed change is likely to impose additional costs of not more than \$40,000. Given that 265 commercial applicators are currently authorized to act as proctors, it would cost them less than \$150 per year to have their employees take the examination at DMV rather than at work. Some of the additional costs to get certified are likely to be mitigated by the shorter waiting period. The average time to get certified under the DMV system is three days, significantly less time than if the examination were taken under proctorship. Thus, while some of the costs associated with certification are likely to increase, others are likely to decrease.

The proposed regulation is also likely to impose additional costs on the state. VDACS estimates that the additional cost to the state of allowing the examination to be taken solely through DMV is approximately \$3,200 per year. However, the agency expects these additional

¹ At an average hourly wage of \$10, the opportunity cost of the additional travel and processing time is \$10. Assuming that one-half of the estimated additional travel and processing time is spent in travel and assuming an average speed of 40mph, applicants would have to travel an additional 20 miles, on average, to get to an examination center. At \$2 per gallon of gas, fuel costs are likely to be under \$2. Adding any parking fees that may be paid and any wear and tear to the vehicle that might occur provides a rough estimate of the additional costs of taking the examination at a DMV center.

cost to be offset by the cost savings of not having to process test forms submitted by proctors and of not having to administer the proctorship program.

The proposed regulation could also reduce the risk to public health and the environment from pesticide applications and provide some additional economic benefits. According to VDACS, there have been cases of abuse of the proctorship system. For example, in calendar year 2003, the pass rate for the same registered technician examination was 61% under the DMV system and 95% under the proctorship system. The DMV system is likely to be subject to less error and abuse than the proctorship system. Even allowing for differences in ability, the significantly higher pass rate indicates a problem with the proctorship system. Thus, to the extent that the eliminating the proctorship provision is likely to reduce the number of unqualified individuals applying pesticides and reduce the risk to public health and the environment from pesticide applications, the proposed change is likely to produce economic benefits for the state. VDACS was not able to discuss specific instances of individuals who had passed the examination under the proctorship system and subsequently applied pesticides in a manner that was not protective of public health or the environment.

The net economic impact of the proposed change will depend on whether the costs associated with the proposed change are greater than or less than its benefits. It is not possible to make a precise estimate of all the costs and benefits at this time. However, the additional cost to applicants for registered technician certification or their employers is not likely to be very large. Moreover, the additional cost to the state of eliminating the proctorship program is not likely to be significant. Thus, to the extent that the proposed change reduces the risk to public health and the environmental from pesticide applications without significantly increasing costs, it is likely to produce a positive net economic impact

(2) The proposed regulation establishes additional training requirements for registered technicians seeking to work in pesticide application categories or subcategories different from the category in which they received their original training. There are currently no training requirements for registered technicians who shift to categories of pesticide application in which they have no prior training. The proposed change requires that the training be provided by commercial applicators and that the commercial applicator be certified in the category or subcategory in which the training is to be provided. The training is to be such that it imparts a

basic understanding of the pesticide, the application equipment and application techniques to be used, the personal protective equipment and clothing to be utilized, the pests to be controlled, and any environmental concerns relating to the application of the pesticide. The commercial applicator providing the training is required to submit a form to VDACS within ten days of the training indicating that the requirement has been met.

The proposed change is likely to impose additional costs. Commercial applicators and registered technicians are likely to spend additional time in providing and receiving the required training. This time could have been spent on other work-related activities. Businesses with in-house expertise to provide the required training will incur costs associated with diverting resources to providing training. Businesses without the required in-house expertise will incur costs of purchasing the services of a commercial applicator certified in categories appropriate for providing the required training. In addition, businesses will incur the cost associated with registered technicians spending time in training that they could have spent on other work-related activities. VDACS estimates that the additional training and reporting requirement is likely to cost \$150 per registered technician. Moreover, the agency estimates that no more than 600 registered technicians a year apply pesticides in categories different from their original training. Thus, the additional cost of the proposed change is estimated to be \$90,000 per year.

However, there is a great deal of uncertainty associated with these cost estimates. The proposed regulation does not specify the minimum amount of time to be spent in training. Moreover, it does not include any specific content requirements (other than the broad topics to be covered) and does not indicate how much time is to be spent on each topic. Thus, the cost of the additional training could vary from business to business depending on how extensive the training is. Training not meeting the spirit and intent of the regulation is likely to cost less than the \$150 per registered technician estimated by VDACS.

The state is also likely to incur some additional costs because of the proposed change. VDACS estimates that it is likely to cost the state \$115 per year to scan and index the maximum 600 additional training forms likely to be received by the agency.

The proposed regulation could also produce some economic benefits. According to VDACS, each pesticide application category has unique aspects to it. The intent of the proposed change is to ensure that applicators are aware of the unique attributes of each application

category and apply the pesticide accordingly. VDACS is not aware of any specific instances when registered technicians applying pesticides in categories different from their original training created a public health or environmental problems. The extent of the reduction in risk to public health and the environment depends on both the need for the additional training and the extent of additional training actually provided.

The net economic impact of the proposed change will depend on whether the costs associated with the additional training requirement are outweighed by its benefits. The additional costs to the state are quite small. However, uncertainties exist as to the magnitude of the additional costs to registered technicians and their employers. Depending on the extent of the training provided, the costs can range anywhere up to \$150 per registered technician. Moreover, the magnitude of benefits accruing from the new training requirement is not known. Due to these uncertainties, it is not possible to accurately estimate the net economic impact of the proposed change. However, neither the costs nor the benefits associated with the proposed change are likely to be very large.

(3) The proposed regulation requires that registered technicians and commercial applicators not-for-hire² maintain records of all general use and restricted use pesticide applications. Under existing regulations, only commercial applicators not-for-hire are required to maintain records and only records of restricted use pesticide applications. The record-keeping requirement is extended to include registered technicians not-for-hire and to include general use pesticides. VDACS estimates that there are 5,200 applicators in the commercial applicator and registered technician not-for-hire class (including government employees).

There are costs and benefits associated with the proposed change. Registered technicians will now be required to maintain records of all general use and restricted use pesticide applications for two years. In addition, commercial applicators not-for-hire will now be required to maintain records of all general use pesticide applications for two years. However, the number of not-for-hire pesticide applications in a given year, broken out by restricted and general use, is not known. In addition, the number of restricted and general use applications by commercial applicators and by registered technicians is not known. However, the costs associated with the

² Commercial applicators and registered technicians who use or supervise the use of pesticides only on property owned or leased by them or their employer. Government employees who use or supervise the use of pesticides also fall into this category.

additional recordkeeping requirement are not likely to be very large. Many businesses are likely have been maintaining the required records as part of their regular business practice. Affected applicators contacted by VDACS indicated that they already keep records of all applications due to liability and inventory control problems. VDACS estimates that no more than 5% of not-for-hire applicators are likely to be affected by the proposed change.

The proposed change is also likely to produce some economic benefits. According to VDACS, the additional recordkeeping requirement will assist the agency in investigating complaints of misuse of pesticides and make it easier to determine whether the pesticides were applied in accordance with regulations. Businesses are currently required to only make available for inspection records of restricted use pesticide application by commercial applicators not-for-hire. The proposed change will require them to make records of all not-for-hire pesticide applications available for inspection. There have been instances when the inappropriate application of even general use pesticides has created a public health hazard. For example, two individuals died in 1986 following fumigation with a general use pesticide. Thus, to the extent that proposed change allows for better enforcement of existing regulations, it is likely to produce some economic benefits.

The net economic impact will depend on the magnitude of the costs and benefits associated with the proposed change. Due to a lack of data, it is not possible to estimate the costs and benefits of the additional recordkeeping requirement. However, as a majority of businesses are likely to maintain records of their pesticide applications anyway, the additional cost is not likely to be very large. To the extent that the proposed change provides for better enforcement without significantly increasing costs, it is likely to have a net positive economic impact.

(4) The proposed regulation defines direct on-site supervision as entailing constant visual contact. The existing definition of direct on-site supervision only requires that a certified applicator be physically present on the property where the pesticides are being applied. According to VDACS, the proposed change clarifies the intent of the regulation. The agency believes that commercial applicators should constantly be observing individuals applying pesticides as part of their on-the-job training and individuals allowed to apply pesticides without certification, the two contexts in which the phrase is used.

The proposed change could impose some additional economic costs. It is likely to make some businesses monitor trainees and uncertified individuals applying pesticides more closely than they currently do, imposing additional costs on them. Requiring certified commercial applicators to be in constant visual contact with individuals under their direct on-site supervision as opposed to being on the property with these individuals as they apply pesticides could lead to some businesses cutting back on their use of trainees and uncertified applicators or increasing the number of certified commercial applicators employed by them. In either case, the business is likely to incur additional economic costs. According to VDACS there are 2,180 licensed pesticide businesses in Virginia. However, the number of these businesses that will now have to monitor trainees and uncertified individual more closely than they have been is not known. Moreover, the cost to these businesses of the additional monitoring is not known.

The proposed regulation could also provide some economic benefits. VDACS believes that trainees and uncertified individuals should be visually monitored while applying pesticides. Closer monitoring could reduce the instances of inappropriate pesticide application and provide better on-the-job training. However, there is no data definitively linking inadequate monitoring with inappropriate pesticide mixing, loading, and application or deficient on-the-job training. To the extent that the proposed change improves on-the-job training and reduces the risk to public health and the environment from inappropriate pesticide application, it is likely to produce economic benefits.

The net economic impact of the proposed change will depend on the magnitude of the costs and benefits. A precise estimate of the net economic impact of the proposed change is not possible at this time. The number of businesses likely to be affected by the proposed change and the magnitude of the effect on them is not known. Moreover, as there is no data definitively linking inadequate monitoring to deficient on-the-job training or harmful application of pesticides, it is not possible to accurately estimate the reduction in risk as a result of more stringent monitoring.

(5) The proposed regulation requires individuals hired or transferred in to a position that involves the commercial use of pesticides to take the registered technician examination within 90 days. Existing requirements state that individuals are to take the examination within 90 days of submitting the application and paying the fee. According to VDACS, the proposed change is

intended to ensure that registered technicians get certified within a reasonable amount of time. Existing language allows individuals undertaking on-the-job training required for certification to operate indefinitely as a trainee, without ever getting certified. The 90-day limit comes into effect only once the individual has submitted the application and paid the fees. By instituting a 90-day limit from the time an individual takes up a position involving the commercial use of pesticides, the proposed change is likely to prevent individuals from operating as “perpetual trainees” and ensure that they get certified within a reasonable amount of time.

The proposed change is not likely to impose significant additional costs. The time provided for individuals to complete their training requirements (20 hours of on-the-job training and 20 hours of state-approved training) and appear for the examination seems adequate. However, to the extent that the proposed change reduces the instances of individuals operating indefinitely as trainees and improves the enforcement of existing regulations, it is likely to produce some economic benefits.

(6) The proposed regulation establishes an additional miscellaneous certification category for commercial applicators. The change is intended to allow certification of applicators for the use of pesticides recently classified as restricted use by the U.S. Environmental Protection Agency (EPA), but not covered by current certification regulations.

The proposed change is not likely to have a significant economic impact. According to VDACS, the agency currently certifies applicators in the use of new restricted use pesticides under one of the existing application categories. The training and examination taken by these individuals are those recommended by EPA at the time of the classification. However, while the regulation is being amended to include the additional category, certification is granted in one of the existing categories. The proposed change will allow the agency to include pesticides recently classified as restricted use in the miscellaneous certification category. To the extent that the proposed change will help certification categories to more accurately reflect the type of pesticide application, it is likely to produce some small economic benefits.

Businesses and Entities Affected

The proposed regulation affects businesses and individuals involved in pesticide applications. Applicants for certification as registered technicians will no longer be allowed to take the certification examination under the proctorship system, but will instead be required to

take it the through DMV. Moreover, registered technicians will be required to undergo additional training when applying pesticides in a category different from the one in which they received their original training. Finally, individuals working in a position that involves the commercial use of pesticides will be required to take the registered technician examination within 90 days of being hired or transferred in to the position. Commercial applicators and registered technicians not-for-hire (including government employees who use or supervise the use of pesticides) will now be required to meet additional record keeping requirements. Businesses licensed to apply pesticides in the state will be required to monitor trainees and uncertified individuals applying pesticides more closely than currently required.

According to VDACS, there are approximately 2,180 licensed pesticide businesses. As of September 2004, there are 5,607 registered technicians and 4,248 commercial applicators currently operating in Virginia. Of all commercial applicators, 768 are classified as commercial applicators not-for-hire. The number of registered technicians not-for-hire is not known. In addition, there are 1,735 government employees using or supervising the use of pesticides.

Localities Particularly Affected

The proposed regulation applies to all localities in the Commonwealth.

Projected Impact on Employment

The proposed regulation is not likely to have a significant impact on employment. Some of the proposed changes are likely to increase the cost of operation for businesses and individuals engaged in pesticide application. However, the magnitude of the cost increase is not likely to be large enough to produce a significant impact on employment.

Some businesses may have to reduce their employment of trainees and uncertified individuals or increase their employment of certified commercial applicators due to the more stringent monitoring requirement. However, the number of such entities and the magnitude of the impact on them are not known. Moreover, depending on the structure of the industry and the sensitivity of demand for their services to price, these businesses will be able to pass on some or all of the additional cost to consumers in the form of higher prices.

Effects on the Use and Value of Private Property

The proposed regulation is likely to affect businesses involved in pesticide applications. Some of the proposed changes are likely to increase the cost of operation of these businesses, thus lowering their asset value. However, the magnitude of the increase in costs is not likely to be very large.

Some businesses may have to incur additional costs in supervising trainees and uncertified individuals. However, the number of such entities and the magnitude of the additional cost to them in meeting the requirement are not known. Moreover, the extent of the impact on these businesses will depend on the extent to which they are able to pass on some or all of the additional cost to consumers in the form of higher prices.