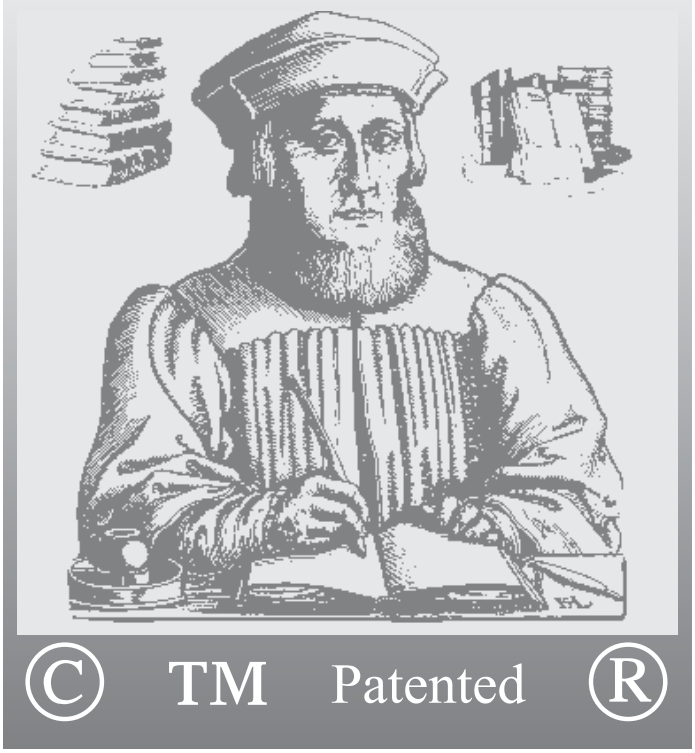
# INTELLECTUAL PROPERTY

## A HANDBOOK FOR EMPLOYEES OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION

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# FOREWORD

This handbook is a guide to intellectual property issues that VDOT employees may encounter during the scope of their employment.

Because intellectual property is a dynamic field of law, this handbook is neither a comprehensive guide nor an accurate predictor of legal developments. This handbook is merely an effort by the Virginia Transportation Research Council to provide VDOT employees guidance in addressing the intellectual property issues they may face during the scope of their employment. *This handbook is not a substitute for professional legal advice. If you need more detail concerning your individual rights and duties, you should consult an attorney*.

This handbook will be reviewed annually and revised periodically as warranted by changes in the law and governmental policy. This updated handbook is intended to replace the August 2005 edition. The organization of the handbook was modified to focus on intellectual property issues related to VDOT.

# TABLE OF CONTENTS

# Chapter 1
# INTRODUCTION

VDOT has an interest in protecting potentially marketable or commercially valuable inventions and creations developed by its employees.

**What is intellectual property?**

*Intellectual property is a category of intangible rights of ownership protecting commercially valuable products of the human intellect.* It consists primarily of trademark, copyright, and patent rights. Both Virginia state law and federal law govern intellectual property rights with regard to VDOT and its employees.

**Why is VDOT concerned about intellectual property?**

*Two trends make intellectual property of increasing concern to VDOT.*

*First, research is an increasingly important element of VDOT's work.* With the approaching end of the large-scale highway construction era and the growing emphasis on the more efficient use of highways, innovative solutions to transportation issues are valuable to VDOT. An important part of VDOT's commitment to innovation is the growing importance of intelligent transportation systems (ITS). Because of its technology-intensive nature, a key factor in the implementation of ITS is the right to use technology controlled by intellectual property law. Inventions developed by VDOT employees that further VDOT's work might also be commercially valuable. A commercially valuable work is one that can be profitably marketed to private individuals or organizations and/or other public entities. As a result, the Commonwealth has a financial interest in the work as well.

*Second, there is a growing emphasis on public-private ventures in research and development and in the creation of new transportation infrastructure.* Disputes over intellectual property rights in cooperative ventures can be avoided by ensuring that the contract governing the venture is structured to protect the Commonwealth's interest in any resulting intellectual property rights. Intellectual property created in whole or in part by employees of the Commonwealth cannot be contracted away without the authorization of the Commonwealth's Secretary of Administration.

**What should a VDOT employee do if he or she has intellectual property questions that are not addressed in this handbook?**

The employee should take the following steps:

- *If the intellectual property issue relates to a cooperative agreement or contract between VDOT and a third party,* contact VDOT's Intellectual Property Coordinator, who will consult with the Office of the Attorney General if necessary.

- *If a VDOT employee invents or creates something on state time that is reasonably believed to be commercially valuable,* consult VDOT's Intellectual Property Coordinator:

  Keith M. Martin
  1401 E. Broad Street
  Annex Building, Room 1104
  Richmond, VA 23219
  (804) 786-1830
  KeithM.Martin@vdot.virginia.gov

- *If a VDOT employee wants to know whether specific information is exempted from disclosure under Virginia's Freedom of Information Act,* check with the designated Agency Contact:

  Keith M. Martin
  1401 E. Broad Street
  Annex Building, Room 1104
  Richmond, VA 23219
  (804) 786-1830
  KeithM.Martin@vdot.virginia.gov

# Chapter 2
# TYPES OF INTELLECTUAL PROPERTY PROTECTION AND CHOOSING THE RIGHT ONE

Different types of intellectual property protection are available, depending on the type of property in need of protection and the desired scope of protection.

There are several types of intellectual property protection. The types VDOT employees should be familiar with are patents, copyrights, and trade secrets. The type needed depends on the type of property and the desired scope of protection.

## Types of Protection

## Patents

### What are patent rights?

*Federal law defines patent rights as "the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States."*[1] However, a patent does not grant a right to make or sell the patented invention. Patented inventions must comply with other standards and regulations before they can be marketed.

A patent is made up of three parts: (1) drawings of the invention (usually but not always); (2) a specification, which explains the patented invention; and (3) claims, which define what the patent covers. The claims of a patent are the most important part because they establish the scope of the patent rights that have been granted by the federal government.

### What are the requirements an invention must comply with to be patentable?

*To be patentable, an invention must fit into one of the categories described by the federal Patent Act or other related acts as a "useful process, machine, manufacture, or*

[1] 35 U.S.C. § 154(a)(1) (2005).

*composition of matter."*[2] For example, laws of nature, natural phenomena, abstract ideas, and printed material are not considered to be patentable subject matter. In addition, a patentable invention must be *novel, useful, nonobvious***,** and not under a *statutory bar* from being patented.[3]

- ***What is a "novel" invention?*** An invention is novel if it has not been used or known in the United States, has not been described in a patent application filed in the United States that later results in a patent, and has not been patented or described in a printed publication anywhere in the world. If the Commonwealth decides to patent the invention, a formal search in the U.S. Patent and Trademark Office's (PTO) "search room" will be conducted to ensure that the invention meets the novelty requirement.

- ***What is a "useful" invention?*** To be useful, an invention must work the way in which it claims it will work and it must bestow a specific, finite (though not necessarily large), and practical benefit on the user.

- ***What is a "nonobvious" invention?*** To be nonobvious, an invention cannot be comparatively easy to invent by someone familiar with the relevant field of technology, often referred to as a "person having ordinary skill in the art" (frequently referred to by the acronym PHOSITA).

- ***What constitutes a statutory bar?*** An invention is statutorily barred if more than 12 months prior to the patent application it was publicly used or sold in the United States, it was patented in another country before the U.S. patent application was filed, or it was described in a publication anywhere in the world.[4]

### Can patented inventions be kept secret?

*No. A patent is considered an agreement between the inventor and the government*. In exchange for a complete disclosure of the invention, the government gives the inventor the right to exclude all others from exploiting the invention for the life of the patent. The disclosed information is then made public to encourage innovation.

## Copyrights

### What is a copyright and what does it protect?

*A copyright is a right that permits the copyright owner to exclude others from reproducing, adapting, distributing, performing, or displaying the original work of*

[2] 35 U.S.C. § 101 (2005).
[3] *See* 35 U.S.C. § 102-103 (2005).
[4] *See* 35 U.S.C. § 102 (2005).

*authorship that is fixed in any tangible medium of expression.* The right to exclude others from copying copyrighted material is limited by the "fair use" exception to copyright infringement.[5] This exception allows protected material to be copied for purposes such as educational activities, literary and social criticism, and First Amendment activities, such as news reporting.

It is important to note that copyright protection does not extend to an underlying invention that might be described in the copyrighted matter. For example, a film documentary about a particular type of bridge could be copyrighted, but the copyright would not prevent someone from building the type of bridge featured in the documentary (the bridge design would have to be protected by a patent).

**What can be copyrighted?**

*To be copyrightable, a creation must be expressed in a tangible medium and in an original form.* A tangible medium is any form that can be copied, such as a manuscript or musical score. The originality requirement does not imply novelty; it implies only that the creator did not copy the work from someone else.

Examples of creations eligible for copyright protection are:

- literary works
- musical works
- dramatic works
- pantomimes and choreographic works
- pictorial, graphic, and sculptural works
- audiovisual works and motion pictures
- architectural works
- sound recordings.[6]

**How is a copyright obtained?**

*Copyright protection is essentially self-executing.* A creation is automatically protected by federal copyright when it is fixed by the author in a tangible medium (a form that can be copied). Federal law does not require a copyright owner to obtain approval, perform a search, provide any type of notice,[7] or register the copyright with an agency.

*Although federal law does not require notice, Executive Memorandum 4-95 does require employees of the Commonwealth to display visibly a copyright notice on the*

[5] 17 U.S.C. § 107 (2005).

[6] 17 U.S.C. § 102 (2005).

[7] *See* 17 U.S.C. § 401 (2005). Note that § 401 uses the word "may" in subsection (a) and "if" in subsection (d).

*work.* The reason for this is that federal law grants certain evidentiary advantages to the copyright owner who provides notice, and this can significantly affect the amount of damages a copyright owner can receive in the event of infringement.[8] Notice is composed of three elements:

1. the symbol ©, the word *Copyright,* or the abbreviation *Copr.*
2. the year of the first publication of the work
3. the name of the copyright owner.[9]

*Finally, although registration of a copyright is optional, in order to enforce a copyright, it must be registered with the U.S. Copyright Office.*[10] This step will be taken if the agency determines the subject matter is of significant value after the employee files a creation disclosure form.

## Trade Secrets

### What is a trade secret?

*A trade secret is information that is economically valuable because it is not generally known.* In order for information to be protected as a trade secret, its owner must take reasonable efforts to maintain its secrecy.[11]

### What should VDOT employees know about trade secrets?

*Trade secrets may be contained in proposals potential contractors submit to VDOT.* It is important that VDOT know what information, if any, contained in a proposal constitutes a trade secret and take the appropriate steps to protect any trade secrets from unauthorized disclosure. Potential contractors should be asked to identify trade secrets contained in submitted bids in advance of submission.

### What steps should be taken to protect trade secrets?

*Although detailed requirements for protecting trade secrets are outside the scope of this handbook, there are basic steps of which VDOT employees should be aware. Reasonable efforts should be made to maintain secrecy.* Although absolute secrecy is not required, disclosure should be limited.[12] Do not share the trade secret with anyone unless it is necessary and permitted by the potential contractor. It should never be disclosed to the public. Keep track of and limit access to physical copies.

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[8] *See* 17 U.S.C. §§ 401(d), 405(b) (2005).
[9] 17 U.S.C. §§ 401-402 (2005).
[10] 17 U.S.C. § 411(a) (2005).
[11] Va. Code Ann. § 59.1-336 (Michie 2004).
[12] *Microstrategy v. Li*, 204 S.E.2d 580 (Va. 2004).

## Choosing the Appropriate Type

**Which type of intellectual property protection is best suited to a particular invention or creation?**

*Many inventions, such as computer software, may be eligible for either patent protection or copyright protection. In some instances, inventions may be eligible for both types of protection. Deciding which type of protection is most suitable depends on the scope of protection necessary to protect the invention.* There are pros and cons to each type of protection, and the "best" type of protection depends on the kind most suitable for the Commonwealth's purposes.

When a VDOT employee discloses intellectual property information, VDOT's Intellectual Property Coordinator will form a recommendation on what type of protection is appropriate. Ultimately, however, the decision to seek protection or not seek protection rests with the Secretary of Administration. The following considerations will inform the Intellectual Property Coordinator's recommendation regarding the most suitable type of protection:

- ***The benefit of patent protection lies in the extent of its coverage.*** Patent protection affords broader protection. Unlike copyright protection, a patent protects the inventive theory behind an invention. Copyright protection, on the other hand, protects only the particular manner of expressing an idea, not any inventive theories underlying the copyrighted work. Thus, copyright protection does not cover facts, ideas, systems, or methods of operation. In addition, because copying can be difficult to prove, copyright protection does little to discourage "reverse engineering" of software, a process by which an infringer cracks the software source code in order to copy it.

- ***The benefit of copyright protection lies in its cost and administrative ease.*** Although copyright protection is less comprehensive than patent protection, it may still be an attractive option because of its reduced cost and the ease with which it may be obtained. To be patentable, an invention must meet the three-pronged test of utility, novelty, and nonobviousness. Because of these requirements, the patent application process can be costly. Copyright protection, however, does not require these factors; in fact, a copyrightable work is considered "copyrighted" at the time of its creation, before any application is filed. The application procedure for copyright registration is much simpler than for patent registration, and the application fee is only $30. Similarly, the time it takes to process an application for copyright registration is generally much shorter than it is for a patent application. For example, depending on the complexity of the software, it can take up to two years to process a patent application for computer software.

# Chapter 3
# VIRGINIA'S INTELLECTUAL PROPERTY POLICIES

This chapter discusses the Commonwealth's policies on intellectual property developed by VDOT employees within the scope of their employment.

**Who owns intellectual property rights to inventions or creations developed within the scope of a VDOT employee's employment?**

*It is the law of the Commonwealth that when an employee of the Commonwealth develops something during working hours that could qualify for a patent or copyright, within the scope of his or her employment, or when using state-owned or state-controlled facilities, it is the property of the Commonwealth.*[13]

**What is the Commonwealth's policy regarding the protection of intellectual property invented or created by VDOT employees within the scope of their employment?**

*According to former Governor George Allen's Executive Memorandum 4-95, it is the Commonwealth's policy to "[e]ncourage the development of innovative and creative approaches to carrying out the work of the Commonwealth."*[14] As part of this policy, the Commonwealth has developed a system of disclosure and review to identify those inventions or creations developed by state employees that the Commonwealth may have an interest in protecting. Although this memorandum governs the Commonwealth's policy, it can be changed by the current administration or future administrations.

Executive Memorandum 4-95 requires state employees to disclose "all pertinent information" relating to inventions and creations developed during the scope of their employment that "may reasonably be expected to have some degree of commercial value."[15] VDOT employees are to disclose this information through VDOT's Intellectual Property Coordinator, who will coordinate a review of the invention or creation to

[13] Va. Code Ann. § 2.2-2822 (Michie 2004).
[14] Executive Memorandum 4-95, *see* Appendix A.
[15] *See id.*

determine whether it is in the Commonwealth's interest to pursue intellectual property protection and then make a recommendation to the Secretary of Administration.

**Does a VDOT employee receive any royalties if the Commonwealth profits from the commercialization of the employee's invention or creation?**

*Yes. Executive Memorandum 4-95 states that it is the Commonwealth's policy that when an executive agency, such as VDOT, receives money from the commercialization of an invention or a creation, it must:*

1. Return the money to the General Fund, with guidance from the Secretaries of Administration and Finance, according to the Virginia Appropriation Act (which changes every two years).

2. Pay to inventors or creators a total sum of 20% of net royalties (how the money is distributed between co-inventors or co-creators is determined by the Secretary of Administration).[16]

**What if the Commonwealth decides not to patent or copyright a VDOT employee's invention or creation?**

*If the Secretary of Administration decides the Commonwealth is not interested in marketing an invention or creation, the Secretary may grant the inventor or a third party a license to use the invention.* The Commonwealth may also partially or completely give up rights, title, and interests in the creation or invention by giving them to the inventor or a third party.[17] *However, the Commonwealth is not required to surrender its intellectual property rights.*

If a VDOT inventor or creator desires rights to his or her work, the inventor must file a request with the Intellectual Property Coordinator. In order to expedite the process of such a request, this question is included on the creation and invention disclosure forms and should be answered appropriately by the creator or inventor. VDOT's Intellectual Property Coordinator will coordinate the review of the request and forward all appropriate information to the Secretary of Administration for a final decision. If the Commonwealth agrees to surrender its rights to the inventor, the inventor may independently pursue intellectual property protection; *however, the Commonwealth will not fund the process nor provide any legal advice to the employee*. In addition, even in cases in which the Commonwealth surrenders its intellectual property rights to the inventor or creator, it typically *retains* the right to produce and utilize the invention/creation royalty-free for its own purposes.

[16] *Id.*
[17] *Id.*

# Chapter 4
# PROTECTING INVENTIONS DURING DEVELOPMENT

Because the patentability of an invention depends in large part on the invention process, VDOT inventors should take precautions to protect inventions during development.

**Why is it important for VDOT employees to protect potentially patentable inventions while they are being developed?**

*The patentability of an invention depends in large part on the invention process.* If proper records of the invention process are not kept or if the invention is disclosed to the public during its development, the invention may be barred from being patented. Thus, if a VDOT employee believes that an invention he or she is developing may be patentable, the employee should take precautions to protect the invention during development.

**What steps should a VDOT inventor take to protect potentially patentable inventions during development?**

An inventor must be careful to take appropriate steps to protect an invention during development by (1) keeping a detailed record of the invention process; (2) avoiding public disclosure of the invention; and (3) clarifying all intellectual property rights before entering into a joint research venture with a third party.

***1. Keep a detailed record of the invention process*.** If an inventor is involved in research or design work that has even a small potential of resulting in a patent, he or she should routinely record each day's progress, including conceptual development, experimental methods and results, the design and development steps taken, and actual construction.[18] The record should be kept in a bound book so that the addition or removal of any pages will be readily evident.[19] For the same reason, the records should be kept in ink and no erasures or "cross outs" made that would obliterate the record.[20]

[18] Frank H. Foster & Robert L. Shook, Patents, Copyrights & Trademarks 44 (2d ed. 1993).
[19] *Id.*
[20] *Id.*

Since it is important to establish continued diligence in pursuing the invention, each day's work should be recorded, whether the outcome was favorable or not.[21] The report prepared for each day's work should be signed on that date by two witnesses, typically colleagues, who would be able to testify that they understood the work that was reported, they understood the invention and how it performed, and what was recorded actually occurred on the day indicated.[22]

The importance of providing a detailed record cannot be overemphasized since this information can be used to answer a number of application or patent challenges such as the date the invention was in fact conceived[23] and the date of reduction to practice.[24] An inventor should keep this record even after the invention is disclosed to VDOT's Intellectual Property Coordinator to prove that the invention was not abandoned after it was reduced to practice.[25]

***2. Avoid public disclosure of the invention until the invention is ready to be patented.*** Several activities that expose an invention to the public can permanently destroy the patentability of the invention:

- *First, an invention is no longer patentable if the inventor abandons the intention to patent the invention.*[26] Abandonment can be found if the inventor publishes a description of the invention, if the inventor has freely allowed others to use the invention, or if the inventor disclosed the invention once it was discovered that someone else had already invented it.[27]

- *Second, patentability can be lost if, after first filing for a patent in a foreign country, the inventor does not file for a patent in the United States within one year.*[28]

- *Third, the patentability of an invention can be destroyed if an invention is described in a printed publication either in the United States or in a foreign country; is in public use in the United States; or is offered for sale in the United States more than one year prior to the date of the application of the patent in the United States.*[29] Researchers who are inclined to publish their work should be aware that even slight public exposure of the

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[21] *Id.*
[22] *Id.* at 44.
[23] *Gould,* 363 F.2d 908.
[24] *DSL Dynamic,* 928 F.2d 1122.
[25] Robert Patrick Merges, Patent Law and Policy: Cases and Materials 424 (2d ed. 1997) (citing *Hughes Aircraft Co. v. General Instrument Corp.,* 374 F. Supp. 1166 (D. Del. 1974)).
[26] *See* 35 U.S.C. § 102(c) (2005).
[27] *See* Howard M. Eisenberg, *Patent Law You Can Use*, Yale Office of Cooperative Research (1999).
[28] *See* 35 U.S.C. § 102(d) (2005).
[29] 35 U.S.C. § 102(b) (2005).

invention can destroy its patentability. The term "publication" has been construed broadly by the courts to include everything from a published article to the distribution of written notes from a public oral presentation of the invention.[30] The scope of the disclosure does not have to be broad; for example, one copy of a doctoral dissertation filed in a university library has barred the patentability of an invention.[31] If an invention has been published, used in public, or offered for sale, the inventor has one year from the date of that activity to file for a patent on the invention. If the one-year deadline expires before the filing, the invention is statutorily barred from being patented.[32]

***3. Clarify all intellectual property rights before entering into a joint research venture with a third party.*** Disputes over intellectual property rights in joint ventures can be avoided by planning ahead. When a cooperative agreement is structured, the Commonwealth must be ensured a fair return on any profits that result from the agreement. If the cooperative agreement specifies that the Commonwealth surrender its ownership in any intellectual property rights that arise from the partnership, the Commonwealth must gain something in return. It is the Commonwealth's policy that intellectual property created in whole or in part by employees of the Commonwealth cannot be contracted away without the authorization of the Commonwealth's Secretary of Administration.[33]

## When *must* a VDOT inventor disclose information regarding an invention to the public?

*Although VDOT inventors should take precautions to protect inventions from public disclosure, VDOT employees may be* ***required*** *to disclose certain information concerning an invention to the public if a request for the information meets the requirements of the Virginia Freedom of Information Act (VFOIA).* The VFOIA is a statute that ensures the people of the Commonwealth ready access to records in the custody of public officials. It requires that, except as otherwise specifically provided by law, all public records be open to inspection and copying by any citizens of the Commonwealth, representatives of newspapers and magazines with circulation in the Commonwealth, and representatives of radio and television stations broadcasting in or into the Commonwealth.

Under the act, "public records" include

> all writings and recordings, which consist of letters, words, or numbers, or their equivalent, set down by handwriting, typewriting, printing, Photostatting, photography,

[30] *See* Eisenberg supra note 13; *Massachusetts Institute of Technology v. AB Fortia*, 774 F.2d 1104, 1108-1109 (Fed. Cir. 1985).
[31] *See In re Hall*, 781 F.2d 897, 900 (Fed. Cir. 1986).
[32] *See* 35 U.S.C. § 102(b) (2005).
[33] Executive Memorandum 4-95, *see* Appendix A.

> magnetic impulse, optical or magneto-optical form, mechanical or electronic recording, or other form of data compilation, however stored and regardless of physical form or characteristics, prepared or owned by, or in the possession of, a public body or its officers, employees, or agents in the transaction of public business.

The VFOIA does provide for exceptions to the disclosure requirement.[34] In addition, other statutes may protect information from public disclosure.[35] To determine whether particular information is protected from the VFOIA's disclosure requirements, consult the designated Agency Contact for your division, residency, or district office.[36]

The requester may be charged a fee for the cost of finding and duplicating public records; however, the fee should not exceed actual costs. The requester is allowed to access public documents in the same format as they are used by the government. Thus, records kept in electronic format may be accessed that way. However, the government is under no obligation to create "new records" by summarizing information or providing the information in a form different than the original.

Under the act, a state agency has five days to respond to a request for public records. VDOT, like all other government agencies, must respect and comply with requests for information under the VFOIA. A first-time violation of the VFOIA results in fines ranging from $250 to $1,000; subsequent violations result in fines ranging from $1,000 to $2,500.[37]

[34] *See* Va. Code Ann. §§ 2.2-3705.1 through 2.2-3705.8 (Michie 2004).

[35] Such statutes may include the statute creating the Department of Motor Vehicles, Va. Code Ann. §§ 46.2-200 to -216.2 (Michie 2004); the Virginia Public Procurement Act, Va. Code Ann. §§ 2.2-4300 to -4302 (Michie 2004); and the Public-Private Transportation Act of 1995, Va. Code Ann. §§ 56-556 to -574 (Michie 2004).

[36] VDOT Department Policy Memorandum Manual, DPM No. 1-5 (1991).

[37] Va. Code Ann. § 2.2-3714 (Michie 2004).

# Chapter 5
# THE INTELLECTUAL PROPERTY DISCLOSURE PROCESS FOR VDOT EMPLOYEES

This chapter discusses the process VDOT employees should follow in disclosing information about intellectual property developed in the scope of their employment that could potentially have commercial value.

**When should a VDOT employee disclose information about intellectual property developed in the scope of his or her employment?**

*Executive Memorandum 4-95 requires state employees to disclose "all pertinent information" relating to inventions and creations that "may reasonably be expected to have some degree of commercial value," which were developed during working hours, within the scope of their employment, or when using state-owned or state-controlled facilities."* [38]

Since Executive Memorandum 4-95 does not provide any specific guidance on what "some degree of commercial value" is and the time by which protection must be filed depends on the type of protection being sought, a VDOT employee should contact VDOT's Intellectual Property Coordinator early in the development process if the invention or creation has *any* commercial value or may be of any interest to the Commonwealth.

**When must a copyright application be filed to protect a creation?**

*Because a copyright is automatically created when a creation is fixed by the creator in tangible form (a form that can be copied), time constraints are less pressing for copyright protection than for patent protection.* However, disclosure is still important because a copyright is not enforceable unless it has been registered with the U.S. Copyright Office. Thus, the employee should contact VDOT's Intellectual Property Coordinator for assistance with filing an application for registration whenever the employee has created something *with any potential value*.

[38] Executive Memorandum 4-95, *see* Appendix A.

**When must a patent application be filed to protect an invention?**

*A patent application can be filed once the inventor has a complete mental picture of the operating form of the invention.* An inventor need not have actually created a working model of an invention to file for patent protection. In addition, there is no limit on the time an inventor may keep an invention a secret before applying for a patent, as long as the inventor continues to work diligently on the invention. However, because certain activities, such as publication or public use of the invention, can bar the patentability of an invention, a VDOT inventor should contact VDOT's Intellectual Property Coordinator early in the development of the invention to determine if disclosure is appropriate.

**Whom should a VDOT employee contact to disclose intellectual property information?**

*VDOT's Intellectual Property Coordinator has the responsibility to guide employees through the disclosure process.* To reach VDOT's Intellectual Property Coordinator, contact:

Keith M. Martin
1401 E. Broad Street
Annex Building, Room 1104
Richmond, VA 23219
(804) 786-1830
KeithM.Martin@vdot.virginia.gov

**What intellectual property information must a VDOT employee disclose during the disclosure process?**

*After VDOT's Intellectual Property Coordinator determines that disclosure should be made, the VDOT employee will fill out either an Invention Disclosure Form (see Appendix B), which is used to file for patent protection, or a Creation Disclosure Form (see Appendix C), which is used to file for copyright protection.* The forms require detailed information concerning the development of the invention or creation; any public use or publication of the invention or creation; and the potential marketability of the invention or creation. The disclosure forms must be reviewed and approved by the employee's immediate supervisor. Once the disclosure form has been completed, it should be sent to VDOT's Intellectual Property Coordinator, along with any additional information requested concerning the invention or creation.

**What happens after a VDOT employee has disclosed intellectual property information through the Intellectual Property Coordinator?**

*The Intellectual Property Coordinator will coordinate a review of the disclosed information to determine if it is in the Commonwealth's interest to seek copyright or patent protection.* If the Intellectual Property Coordinator thinks it is necessary, he may first coordinate a division review board to assess the merits of the invention or creation. In addition, if the inventor or creator would like the Commonwealth to surrender rights to the intellectual property in the event that the Commonwealth decides not to seek protection on an invention or creation, then the employee should answer the appropriate question accordingly on the creation or invention disclosure form. However, the employee should keep in mind that the Commonwealth is not required to surrender its rights. The disclosure forms and the board's recommendations will then be sent to VDOT's Agency Head, who will make a final recommendation to the Commonwealth's Secretary of Administration.[39] The Secretary of Administration makes the final decision in determining whether the Commonwealth will seek copyright or patent protection.

Once the Secretary of Administration makes a decision, the Intellectual Property Coordinator will promptly notify the employee of the decision. As discussed in Chapter 3, it is the Commonwealth's policy that if VDOT profits from the marketing of an employee's invention or creation, the employee is entitled to royalties.

[39]Memorandum from Larry D. Jones, Management Services Administrator (VDOT), to Wayne Ferguson, VTRC Research Manager (VDOT), 1 (Apr. 11, 1996).

# Chapter 6
# CONCLUSION

The Commonwealth has an interest in securing intellectual property rights to inventions and creations developed by its employees within the scope of their employment. VDOT employees can help the Commonwealth secure these rights by following the disclosure process.

VDOT has always been concerned with rights in property. Traditionally, its concerns have been focused on real property, particularly such things as easements and the powers of eminent domain (government takings). The Commonwealth is also concerned with protecting intellectual property rights, a kind of property that is more abstract than real property, but that is property nonetheless. VDOT employees can help the Commonwealth secure rights to intellectual property that is potentially valuable by understanding the nature of intellectual property and the Commonwealth's policies on intellectual property and by following the disclosure process for intellectual property developed in the scope of their employment.

# Appendix A
# EXECUTIVE MEMORANDUM 4-95

## INTELLECTUAL PROPERTY POLICIES

### PURPOSE

The purpose of this Executive Memorandum is to establish policies for state ownership and marketing of intellectual property invented or created by state employees or by third parties in cooperation with state employees. Consistent with the provisions of Section 2.1-20.1:1 of the *Code of Virginia,*[40] these policies are designed to encourage creativity and innovation by state employees and to protect certain property created or invented by employees during working hours, within the scope of their employment, or when using state-owned or state-controlled facilities. This memorandum addresses the responsibility and methods for:

- Obtaining patents and copyrights for the state or materials created by state employees which are patentable or copyrightable pursuant to Section 2.1-20.1:1 of the *Code of Virginia;*
- Marketing certain patented and copyrighted property;
- Returning to the appropriate agency and to employee inventors and creators, marketing revenue after deducting administrative and marketing costs; and
- Making possible the transfer of interests from the state to the inventor, creator, or third parties of intellectual properties which the state chooses not to market.

### DEFINITION OF INTELLECTUAL PROPERTY

"Intellectual property" includes all patentable subject matter (referred to as "inventions") and subject matter that is copyrightable (referred to as "creations") and their resulting patents and copyrights. Employees shall use the appropriate disclosure form to report to the Secretary of Administration all such "inventions" and "creations" which may reasonably be expected to have some degree of commercial value.

Patentable subject matter embraces all inventions subject to the United States Patent System, such as new processes, materials, compounds, chemicals, biochemicals, equipment, botanical plants, and designs. The Patent System includes U.S. Patents, U.S. Design Patents, U.S. Plant Patents, and protection afforded by the Plant Variety Protection Act.

Copyrightable subject matter includes all creations subject to the United States Copyright Act of 1976, including but not limited to printed material, computer software, logos, drawings, blueprints, and compilations, such as electronic databases.

[40] This part of the *Code* has been renamed. It is now Section 2.2-2822.

## APPLICABILITY

The memorandum applies to all Executive Branch agencies and all their classified and unclassified full-time, part-time, and hourly employees. Excluded are employees of state-support institutions of higher education who shall be subject to the patent and copyright policies of the institution employing them.

## EFFECTIVE DATE

July 1, 1995.

## GENERAL POLICY

It is the policy of the Commonwealth to secure the proprietary interest of the state in the management of intellectual properties and to encourage to the extent practicable, development of such properties for the public good. Implementation policies and procedures will be issued by the Secretary of Administration and will be designed to:

- Encourage the development of innovative and creative approaches to carrying out the work of the Commonwealth;
- Provide for disclosure, accountability, reporting, contracting for third party collaborations, and oversight procedures regarding intellectual properties developed by state employees;
- Allocate a percentage of net revenue to the inventor or creator, or among investors or creators, after offsetting marketing and administrative costs;
- Achieve the potential scientific, technical, economic, and social advantages arising from an invention or creation; and
- Grant, when appropriate, to the inventor, creator, or a third party, a license to use intellectual property which the state chooses not to market or, in the alternative, to release partially or completely state rights, title, and interest in the creation or invention by transferring interest in favor of such creator, inventor, or third party.

## SPECIFIC REQUIREMENTS

### A. Applying for Patents and Copyrights

With prior approval of the Secretary of Administration, the appropriate agency may apply, or arrange for application for the patent and/or copyright registration, for materials developed by that agency that are believed to have commercial or marketable value.

## B. Ownership Conditions

All patentable or copyrightable, or potentially patentable or copyrightable, materials developed by a state employee or by a third party in cooperation with a state employee, under conditions enunciated below shall be the property of the Commonwealth. This ownership vests automatically when the materials were developed by a state employee under the following conditions:

(1) During the state employee's working hours;

(2) Within the scope of employment or a contractual agreement; or

(3) When using state-owned or state-controlled facilities.

Ownership gives the Commonwealth the sole discretion to submit an application for the copyright registration or patent. The Secretary of Administration may empanel an Intellectual Property Review Committee, consult with appropriate parties, or arrange for the Innovative Technology Authority or the Center for Innovative Technology or other public or private entity, to evaluate, administer, and market intellectual properties.

For purposes of this policy, the following definitions shall apply:

(1) "Ownership" means the entire worldwide rights, title, and interest to inventions and creations.

(2) "Developed" means any time during the period from conception to actual reduction to practice of an invention or to the time of creation.

Without prior written release approved by the Secretary of Administration, neither an employee nor any third party may commercialize intellectual property belonging to the state. If the Secretary determines the invention or creation does not meet the definitions set forth in this section, or that the material is not marketable or shall not be marketed, the agency, with prior written approval of the Secretary, may grant to the employee or any third party a license to use the invention or creation. In the alternative, the agency, with prior written approval of the Secretary, may partially or completely release state rights, title, and interest in the creation or invention by transferring interests in favor of such creator, inventor, or third party.

## C. Disclosure Requirements

Every state employee is required to disclose all pertinent information relating to any creation, invention, innovation, discovery, computer program, process, technique, or the like which possesses, at a minimum, the ownership standards enunciated in Section B above and which may reasonably be expected to have some degree of commercial value. Disclosure shall be made promptly to the employee's agency, and the agency shall disclose it to the Secretary of Administration on a form developed and

administered by the Secretary. Disclosure is required whether the property was developed by the agency, developed by an employee, acquired under contract from an external source when developed in cooperation with a state employee, or was the subject of joint development.

Pursuit by the employee, or someone else on behalf of the employee, of a copyright registration or patent owned by the state as described in Section D below, in any name other than the state's, may be viewed as evidence that a disclosure form should have been filed by the employee.

(1) The creator or inventor's disclosure to the agency head shall provide a description of the invention or creation and its applied applications, a complete list of inventors and/or creators, and the potential for marketing and commercialization, if known.

(2) The agency head, using this information, shall comment in writing on the intrinsic merit of the property, and any recommended course of action by the Commonwealth, if known.

(3) The inventor or creator shall sign the disclosure of information, pledging to furnish all further assurances as may reasonably be required regarding the state's right, title, and interest, including fulfilling all obligations for further disclosure, assignment, registering the copyright, or exploiting any invention or creation to which the Commonwealth affirms this ownership.

(4) Because failure to make prompt disclosure can lead to forfeiture or impairment of the Commonwealth's rights:

(a) Patent applications must be filed within one year of the first public use, commercial effort, or publication, including the publication of abstracts, newsletter articles, or other public presentation.

(b) Copyright notices must be placed in an appropriate location on any creation being distributed or published.[41] An application for a certificate of registration should be filed promptly when the agency determines the subject matter is of significant value; and

(c) A copyright notice must include (i) either the symbol "©", the word "Copyright," or the abbreviation "Copr."; (ii) the year of first publication; and (iii) the name of the copyright owner (where applicable, the Commonwealth of Virginia). This information should be followed by the words, "All rights reserved."

[41]Although this Memorandum requires state employees to use Copyright notice, federal law no longer requires notice. However, notice does serve important evidentiary functions and can significantly impact the amount of damages a copyright owner can receive. *See* 17 U.S.C. §§ 401, 405(b) (2005).

## D. Administration of Intellectual Properties

The Secretary of Administration has the authority to act on behalf of the Governor to:

(1) Secure proprietary interests conferred by the General Assembly in Section 2.1-20.1:1 of the *Code of Virginia;*

(2) Approve transfers of ownership by agencies to (a) The Innovative Technology Authority of Center for Innovative Technology, (b) third parties, or (c) the inventors and creators;

(3) Assign commercialization responsibility;

(4) Approve grants of licenses of state-owned intellectual properties;

(5) Approve the release of rights in intellectual property as allowed by law; and

(6) Cooperate with institutions of higher education in the implementation of this policy in the event an employee of an Executive Branch agency is co-inventor/co-creator with an employee of an institution of higher education.

The Secretary of Administration will develop a standard disclosure form to include a written statement, to be signed by the employee and Secretary that specified the employee's obligation for any further disclosure, assignment, and cooperation in patenting, registering copyright, or exploiting the intellectual property.

## E. Disposition of Income

Executive Branch agencies that receive revenues from the commercialization of an invention or creation must:

(1) With guidance from the Secretaries of Administration and Finance, return revenues received in accordance with the general provisions of the state Appropriate Act in effect at the time the revenues are received; and

(2) Pay to inventors or creators a total sum of twenty percent (20%) of net royalties. Distribution ratios among co-inventors or co-creators shall be determined by the Secretary of Administration. Net royalties shall be defined as any revenues derived by the agency less legal, marketing and administration costs. Nothing herein shall be construed as creating any obligation on the part of the inventor or creator to pursue any commercialization opportunity or to use any degree of skill or effort in such pursuit.

## F. Oversight Requirements

The Secretary of Administration shall report to the Governor on the status of the policy and requirements of this Executive Memorandum on a biennial basis or, if appropriate, more frequently.

The Secretary may require periodic reports from any entity carrying out activities pursuant to this Executive Memorandum, and may require agencies to develop procedures to implement this policy and to submit them for approval.

Portions of the policy and requirements set forth in this Executive Memorandum may be promulgated as part of Personnel Policy pursuant to the Regulations of the Department of Personnel and Training, if appropriate.

This Executive Memorandum rescinds Executive Memorandum 2-86 issued by Governor Gerald Baliles on July 15, 1986, and shall remain in full force and effect unless rescinded or amended by further executive action.

George Allen
Governor

# Appendix B
# INVENTION DISCLOSURE FORM

Agency Code No. _____
Title _____
Date _____
Time of Filing _____

OFFICE OF THE SECRETARY OF ADMINISTRATION
INVENTION DISCLOSURE

---

Instructions

This form is for reporting all inventions in accordance with the Intellectual Properties Policy. Any classified, exempt, full-time, part-time, or hourly employee of an executive branch agency who has invented any potentially commercially valuable intellectual properties, such as processes, devices, techniques, or methods, during the working hours, within the scope of employment, or when using state-owned or state-controlled facilities is required to disclose that fact. When the form is completed, please send it to your agency head who will forward the form to the Secretary of Administration for review.

Expeditious processing of the invention is very important. It is essential that the inventor(s) complete this report promptly in order to meet critical patent deadlines* and to facilitate an evaluation by parties interested in financing or furthering its development, patent coverage, or use by industry.

If unable at this time to answer one or more of the questions, so indicate on the form, but do not delay submitting your report for that reason.

*Any prior publication and sometimes public use or placing "on sale" before the application is filed may prevent the Commonwealth of Virginia from obtaining a patent in most foreign countries and, if more than one year, in the United States.

---

TO: Secretary of Administration
Post Office Box 1475
Richmond, VA 23212

FROM: Name (s) _____
_____
(Please print or type)

(Agency or Institution) Agency Address:
_____
_____
_____
Phone: _____

Comments and recommendations by agency's Intellectual Property Representative:

1. Title of the invention:

_____

2. Brief description of the invention:

_____
_____
_____
_____

(Use additional sheets to elaborate; attach descriptive material including reports, sketches, drawings, photographs, and blueprints that help illustrate the description. If a model, prototype, or film has been made, please indicate where it may be seen or obtained.)

3. How does the invention differ from present technology? What problems does it solve, or what advantages does it possess?

_____
_____
_____

4. If not indicated above, what are possible uses for the invention? In addition to immediate applications, are there other uses that might be realized in the future?

_____
_____
_____

5. Does the invention possess disadvantages or limitations? How can they be overcome?

_____
_____
_____
_____
_____

6. If further research and development are necessary or desirable before this product can be marketed, please discuss, indicating the estimated cost and length of time, if possible.

_____
_____
_____

7. Please list publications pertaining to the invention. Include theses, reports, preprints, reprints, manuscripts for publication (submitted or not), news releases, feature articles, and items for internal publications. Please include publication dates and provide copies whenever possible.

8. If laboratory records and data are available, please provide reference numbers and physical location, but do **not** enclose the records or data.

9. Please list any related patents or other publications of which you are aware.

10. Please indicate the date and place the invention was conceived (identify persons and records to support date and place).

11. If the invention has been disclosed in public (meeting, conference, etc.) or published, or such public disclosure or publication is planned in the next 12 months, please indicate the date, place, and circumstances.

12. If the work that led to the invention was sponsored, please provide the following information:

    a. Name of Sponsor
    _____

    b. Grant or Contract Identification (if any) _____

    c. Title of Project _____

    d. Principal Investigator _____

13. Please indicate any known commercial or market interest in the invention at this time. Please provide company names and names and titles of persons interested. (Under **no** circumstances are employees to seek marketers without the specific authorization of the Secretary of Administration.)

    _____
    _____
    _____

14. Please suggest any other firms that might be interested in the invention.

    _____
    _____
    _____

15. In the opinion of both the inventor(s) and his or her immediate supervisor, was the invention conceived, actually reduced to practice, constructively reduced to practice, or developed during a time when the inventor was an employee of the Commonwealth of Virginia other than an employee of an institution of higher education? (In the event that there are multiple inventors, the supervisor of the employee with the largest percentage of interest in the invention should respond where indicated below, and if there is equal interest shared among two or more inventors, the supervisor having the most seniority should respond where indicated below.)

    _____Yes/_____No (Employee)
    _____Yes/_____No (Employee's Immediate Supervisor)

16. If the answer to Question 15 was "Yes" (for either respondent), please answer the following:

    a. Did the invention result from a specifically assigned project?
    _____Yes/_____No (Employee)
    _____Yes/_____No (Employee's Immediate Supervisor)

b. Was the invention conceived, reduced to practice, or developed (1) during working hours, or (2) within the scope of the inventor's employment, or (3) when using state-owned or state-controlled facilities?
_____Yes/_____No (Employee)
_____Yes/_____No (Employee's Immediate Supervisor)

17. In the event that the Commonwealth decides not to seek protection on this invention, would the employee want the Commonwealth to surrender any of its intellectual property rights to the invention?

a. ____Yes/_____No

b. If yes, please describe the intellectual property rights that the employee desires? (e.g., full rights, partial rights, or a license)

_____
_____
_____

18. By signing below, the inventor(s) certifies that the answers herein are accurate to the best of his or her knowledge and that he or she will give all further assurances and any further information required by the Secretary of Administration. If there is more than one inventor, please indicate the percentage of interest they recommend for allocation among themselves of any income accruing to them on the invention.

| | Inventor(s) | % Interest |
|---|---|---|
| a. | Name_____<br>Title_____<br>Date_____<br>Address_____<br>_____<br>Phone_____<br>Signature_____ | _____ |
| b. | Name_____<br>Title_____<br>Date_____<br>Address_____<br>_____<br>Phone_____<br>Signature_____ | _____ |

(If there are additional inventors, they should be shown on an attached sheet.)

19. Witnesses*

This invention was disclosed to and understood by me:

Signature _____ Date _____

Signature _____ Date _____

*Witnesses should be persons who are able to understand the technical aspects of the invention.

Reviewed and Approved:

_____ (Employee's Immediate Supervisor)

_____ (Agency Head)

# Appendix C
# CREATION
# DISCLOSURE FORM

Agency Code No. _____
Title _____
Date _____
Time of Filing _____

OFFICE OF THE SECRETARY OF ADMINISTRATION
CREATION DISCLOSURE

Instructions

This form is for reporting all creations in accordance with the Intellectual Properties Policy. Any classified, exempt, full-time, part-time, or hourly employee of an executive branch agency who has created any potentially commercially valuable intellectual properties, such as publications, software, or databases, during working hours, within the scope of employment, or when using state-owned or state-controlled facilities is required to disclose that fact. When the form is completed, please send it to your agency head who will forward the form to the Secretary of Administration for review.

The application for registration of copyright should be promptly filed after publication in the case of works with commercial value.

Copies: Application must be accompanied by three copies of the computer printout or of the best edition if other than a computer program.

Copyright Notice: For published works, a copyright notice should be placed on all publicly distributed copies from which the work can be visually perceived. Use of the copyright notice is the responsibility of the copyright owner and does not require advance permission from the Copyright Office. The required form for the notice for copies generally consists of three elements: (1) the symbol "©" or the word "Copyright" or the abbreviation "Copr.;" (2) the year of the first publication; and (3) the name of the owner of the copyright. For example: "© 1998 Commonwealth of Virginia." The notice is to be affixed to the copies in such manner and location as to give reasonable notice of the claim of copyright."

TO: Secretary of Administration
Post Office Box 1475
Richmond, VA 23212

FROM: Name(s) _____
_____
(Please print or type)

(Agency or Institution) Agency Address:
_____
_____
_____

Phone: _____

Comments and recommendations by agency's Intellectual Property Representative:

1. Title of the creation:
   _____

2. Give any previous or alternative title by which this creation has been or might be known:
   _____

3. If the work that led to the creation was sponsored, please provide the following information:

   a. Name of Sponsor
      _____

   b. Grant or Contract Identification (if any)_____

   c. Title of project _____

   d. Principal Investigator _____

4. Please describe the creation briefly.
   _____
   _____
   _____
   _____

5. Is this creation derived from or does it incorporate preexisting works, i.e., is it a derivation or compilation? _____Yes _____No. If your answer is "yes," please give details.
   _____
   _____
   _____
   _____
   _____
   _____

6. What are the known target markets for sales of this creation? (Under **no** circumstances are employees to seek potential marketers without the specific authorization of the Secretary of Administration.)
   _____
   _____
   _____
   _____

6a. Would it be an effective use of your agency's time and resources to conduct additional research, either in-house or by a private sector entity, to determine the range of possible uses for this creation?

_____
_____
_____

7. Please list publications pertaining to the creation. Include theses, reports, preprints, reprints, manuscripts for publication (submitted or not), news releases, feature articles, and items for internal publications. Please include publication dates and provide copies whenever possible.

_____
_____
_____
_____
_____

8. There are _____/are not_____ (please check appropriate responses) contractual restrictions precluding an assignment of the creation to the Commonwealth of Virginia.

9. Year in which creation of this work was completed. _____

10. Date of first publication of the creation (if published).

_____ _____ _____
Month Day Year

11. In the opinion of both the creator/author and his/her immediate supervisor, was the work made during a time when the creator/author was an employee of the Commonwealth of Virginia, other than an employee of an institution of higher learning? (In the event that there are multiple creators/authors, the supervisor of the employee with the largest percentage of interest in the creation should respond where indicated below, and if there is equal interest among two or more creators/authors, the supervisor having the most seniority should respond where indicated below.)

_____Yes _____No (Employee)
_____Yes _____No (Employee's Immediate Supervisor)

12. If the answer to Question 11 is "Yes" (for either respondent), please answer the following:

Was the work developed under any of the following conditions?

a. During work hours?
_____Yes _____No (Employee)
_____Yes _____No (Employee's Immediate Supervisor)

b. Within the scope of the creator/author's employment?
_____Yes _____No (Employee)
_____Yes _____No (Employee's Immediate Supervisor)

c. When using state-owned or state-controlled facilities?
_____Yes _____No (Employee)
_____Yes _____No (Employee's Immediate Supervisor)

13. In the event that the Commonwealth decides not to seek protection on this creation, would the employee want the Commonwealth to surrender any of its intellectual property rights to the creation?

a. ____Yes/_____No

b. If yes, please describe the intellectual property rights that the employee desires? (e.g., full rights, partial rights, or a license)
_____
_____
_____

14. By signing below, the creator(s)/author(s) certify that the answers herein are accurate to the best of their knowledge. If more than one creator/author, please indicate the percentage of interest recommended by them for allocation among themselves of any income accruing to them on the work.

| | Creator(s) | % Interest |
|---|---|---|
| a. | Name _____<br>Title _____<br>Date _____<br>Address _____<br>_____<br>Phone _____<br>Signature _____ | _____ |
| b. | Name _____<br>Title _____<br>Date _____<br>Address _____<br>_____<br>Phone _____<br>Signature _____ | _____ |
| c. | Name _____<br>Title _____<br>Date _____ | _____ |

Address _____
_____
Phone _____
Signature _____

(If there are additional creators/authors, they should be shown on an attached sheet.)

Reviewed and approved by:

_____ (Employee's Immediate Supervisor)

_____ (Agency Head)