SPECIAL REPORT OF THE
JOINT LEGISLATIVE
AUDIT AND REVIEW COMMISSION ON

Patent and Copyright Issues in Virginia State Government

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

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PREFACE

The Joint Legislative Audit and Review Commission (JLARC) has statutory responsibility to make special studies of the operations and functions of State agencies as requested by the General Assembly. At the request of Speaker of the House A. L. Philpott, the Commission authorized a special study of patent and copyright policies of State universities and agencies.

An initial report on The Virginia Tech Library System was completed in November 1984. A major conclusion of that study was that the Commonwealth needed to exercise greater oversight of intellectual properties developed with general funds on State time and transferred to non-State entities.

This study takes a broader look at intellectual property issues related to State agencies and institutions of higher education. We conclude that: (a) All colleges and universities should be required to adopt patent and copyright policies consistent with guidelines written by the State Council of Higher Education; (b) The Center for Innovative Technology could assist State agencies and universities in evaluating, promoting, and managing intellectual properties; and (c) A clear-cut policy outlining the Commonwealth's position with regard to a State employee developing an invention while on the job could help avert future conflicts over ownership of inventions.

Recommendations to strengthen intellectual property management in State government are made in the conclusion of this special study. Several of these recommendations were passed by the 1985 session of the General Assembly and have been signed into law by the Governor. House Bill 1493 is intended to establish a policy for State employees developing patentable and copyrightable materials at work. It also proposes to authorize the Center for Innovative Technology to assist State agencies in evaluating and marketing intellectual properties. House Joint Resolution 310 requests the Governor to develop a meritorious service awards program for State employees. House Bill 1494, which passed both houses of the General Assembly in slightly different form, was not agreed to in conference committee. That bill proposed that the State Council of Higher Education play a key role in coordinating the development of patent and copyright policies of colleges and universities. Copies of all legislation are included in the appendix to this study.

On behalf of the Commission staff, I wish to acknowledge the help provided by the staffs of The University of Virginia, Virginia Commonwealth University, Virginia Polytechnic Institute and State University, the State Council of Higher Education, and the Department of Information Technology.

Ray D. Pethtel
Director

March 18, 1985

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PATENT AND COPYRIGHT ISSUES IN VIRGINIA STATE GOVERNMENT

At the request of Speaker A. L. Philpott, the Commission authorized a study of patent and copyright policies of State universities and agencies. The Speaker was concerned that appropriate policies might not be in place to secure the proprietary interest of the State and the taxpayers in the creation and management of intellectual properties. Since taxpayer funding supports a substantial amount of creative work at the universities as well as in State agencies, a major concern is for the public to derive reasonable benefit from those intellectual properties.

The first part of this study effort was completed in November 1984, when a special report was released on the Virginia Tech Library System. This report recognized a need on the part of the Commonwealth to exercise greater oversight of intellectual properties developed with general funds on State time and transferred to non-State entities.

The central questions addressed in the second phase of the study are: (1) What is the scope of intellectual property development at the State's colleges and universities? (2) To what extent have State universities and colleges formulated patent and copyright policies, and are they compatible? (3) Are there any State policies for guiding the creation and commercial marketing of intellectual properties by State employees? and (4) Should there be a legislative policy on patents and copyrights?

The JLARC staff sent letters to all colleges and universities in Virginia including the Virginia Community College System requesting copies of their patent and copyright policies and a listing of any intellectual properties owned by the university or an affiliated foundation. The JLARC staff interviewed research personnel at the University of Virginia, Virginia Tech, and Virginia Commonwealth University. Interviews were also held with staff of the State Council of Higher Education, State Corporation Commission, Department of Information Technology, and Department of Highways and Transportation. Patent and copyright policies for a number of state universities outside of Virginia were reviewed and critiqued.

Major findings and conclusions of the study are:

1. The primary mission of publicly supported universities is not the production of patentable ideas or inventions. Taken as a whole, however, the State's universities seem to be doing well in creating intellectual properties which earn revenues for their benefit. As of July

1984, universities or their affiliated foundations have administered over 150 patents or copyrights which have generated $2.6 million in total revenues.

2. With the increasing emphasis being placed on research, the enactment of new federal copyright laws, and the advent of the Center for Innovative Technology (CIT), colleges and universities need to formulate intellectual property policies. We found that most universities do not have such policies and, of those that do, the policies vary significantly in terms of substance and format.

3. The General Assembly may wish to enact a law which strengthens legislative oversight of intellectual property development at universities. This could be accomplished by establishing a provision that all patent and copyright policies conform to general principles, by providing the State Council of Higher Education of Virginia a role in monitoring the creation and administration of intellectual properties at the State's universities, or some combination of the two.

4. There seems to be a growing need for the State to formulate policies which regulate the creation of intellectual properties by State agency employees, especially in the area of computer software development. The General Assembly also may wish to forge a marketing linkage between State agencies and the newly created CIT.

5. Some ideas and inventions which have saved the State money have been discovered by classified employees. To date, there is no program for rewarding these individuals for their cost-cutting proposals, although one has been authorized for many years. The General Assembly may wish to encourage the Governor to develop and implement a program of meritorious service awards consistent with §2.1-114.5 of the *Code of Virginia*.

INTELLECTUAL PROPERTY DEVELOPMENT AND POLICY NEEDS AT COLLEGES AND UNIVERSITIES

Intellectual properties are creations of the human mind which may be owned. They include (a) inventions that are patentable, (b) written and other works that are copyrightable, and (c) artistic creations. Primary sources of intellectual property activity in Virginia State government are the publicly supported colleges and universities. Millions of dollars in federal and State funds are used to support basic and applied research at the State's major universities. In fact, the CIT was created in 1984 to expedite the transfer of scientific research from the State's universities to private industry.

It should be noted that few patents generate large profits. A rule of thumb for university patent administrators is that one discovery in ten is patented, one patent in ten is licensed, and one license in ten will yield more than $25,000 annually. With this in mind, the State's universities as a whole seem to be performing well in developing intellectual properties which earn revenues.

Intellectual Properties of Universities

Two universities--the University of Virginia and Virginia Tech--have produced a significant number of intellectual properties (Table 1). The ten highest revenue producing properties are shown in Table 2.

The University of Virginia Alumni Patents Foundation, Inc. owns 133 intellectual properties which have produced total net profit of $1,360,102 before royalty distributions. Only 23 of the 133 intellectual properties are profitable. The most profitable intellectual property (Automated Radioimmunoassay) owned by the university's foundation has produced $830,691 of net profit before royalty distributions. This invention is a system for analyzing minute amounts of chemical substance in the blood.

The Virginia Tech Foundation, Inc. owns 19 intellectual properties which have produced a total net profit of $618,091 before royalty distributions. Only 6 of the 19 intellectual properties are profitable. The most profitable intellectual property (Virginia Tech Library System) has produced $308,934 of net profit before royalty distributions.

The Old Dominion University Research Foundation owns two patents and the rights to five copyrighted books. Although these properties have produced some revenue, expenses to date exceed income. All of these intellectual properties were developed by ODU faculty members. The Foundation's ownership of these properties is based on the financial assistance provided to ODU faculty members.

The Virginia Institute of Marine Science of the College of William and Mary receives royalties from two copyrighted publications. VIMS has received $1,200 in royalties from a book authored by one of its research staff. This staff member does not share in royalties because the Attorney General's Office concluded that he authored the book on State time. VIMS has received $2,455.90 in royalties from a book authored by another member of its research staff.

TABLE 1

UNIVERSITY INTELLECTUAL PROPERTIES

	Number of Intellectual Properties	Total Revenue	Total Expenses	Total Net Profit	Net Profit to University or Affiliated Foundation	Net Profit Distributed in Royalties
University of Virginia	133	$1,600,247	$240,145	$1,360,102	$1,180,063	$180,035
Virginia Tech	19	1,037,807	419,716	618,090	262,973	343,472
Old Dominion	7	19,137	39,144	(20,007)	(20,007)	0
William and Mary (Including the Virginia Institute of Marine Science)	2	NR	NR	3,655	3,655[1]	0
James Madison University	2	0	0	0	0	0
Virginia Commonwealth	1	0	20	(20)	(20)	0
George Mason	None					
Virginia State	None					

[1]Royalties are under the control of the Board of Visitors and are not directed to an affiliated foundation.

Source: JLARC survey of colleges and universities, August 1984.

Table 2

TEN HIGHEST REVENUE PRODUCING
INTELLECTUAL PROPERTIES

Intellectual Property	University	Gross Revenue
Automated Radioimmunoassay	University of Virginia	$844,097
Virginia Tech Library System	Virginia Tech	718,738
Mass Spectrometer	University of Virginia	248,951
Swab Collection System	Virginia Tech	187,179
Fluid Flow Control Device	Virginia Tech	109,701
Method of Cleansing Contaminated Wounds	University of Virginia	100,690
Method and Apparatus for Oxygen Determination	University of Virginia	45,000
Non-Contact Respiratory and Heart Beat Monitor	University of Virginia	43,300
Acrylic Cement	University of Virginia	39,300
Metastable Energy Transfer for Atomic Luminescence	University of Virginia	39,000

Source: University of Virginia Alumni Patents Foundation and Virginia Tech Foundation, July 1984.

Again, this employee does not share in royalties. VIMS is uncertain why and how it was decided that this staff member should not share in any royalties.

James Madison University owns a patent on a television camera invented in 1968 by one of its faculty members. JMU's foundation also owns a patent on a Lumen-Hour Integration Meter developed in the late 1960's by one of JMU's faculty members. Neither of these patents produces any revenues.

Virginia Commonwealth University is the assignee of one patent. The patent has not produced revenue. It should be noted that VCU's patent administration program is limited

compared to the University of Virginia and Virginia Tech. Because these latter two institutions have several individuals assigned to patent administration, they are better able to identify and promote the development of patentable inventions. This is not the only reason for the disparity in the number of intellectual properties developed between VCU and Virginia's two largest universities, but it appears to be an important factor.

Need for an Intellectual Property Policy at Universities

The chief reason that a university or State agency needs an intellectual property policy is so that it can share the financial rewards of a creation with the inventor, recover its costs associated with developing the invention or work, and receive profits as an incentive for further expenditures towards developing intellectual properties. A sound policy should encourage faculty to create intellectual properties and provide for adequate and equitable compensation.

Universities in the Commonwealth have the staff and facilities necessary to conduct research that could result in the development of intellectual properties. All such research is conducted on behalf of the taxpayers. When a university recaptures its cost of research, the public is assured of receiving the full benefits of its investment. Furthering the production of new technology is in the public interest.

Federal law grants an inventor or author certain monopoly rights as a reward for developing or writing something new which benefits society. This monopoly system is designed to encourage the development of intellectual properties by allowing the inventor or author to recover his costs of inventing or writing and to receive a profit that is determined by the value of the invention or work in the free market place. If there were no monopoly rights associated with intellectual properties, an inventor or author would have no reason to incur the costs assocated with the intellectual property.

Without limited monopoly protection, other people might exploit an invention or writing before the inventor or author could recover his costs. Rather than developing an intellectual property himself, an individual would find it easier to wait for another person to invent or write something and then market that invention or writing for his own gain. To avoid this dilemma, Congress, pursuant to the U.S. Constitution, has granted inventors the right to make, use, or sell their inventions to the absolute exclusion of all others for a period of 17 years, and has granted to authors the right to control the reproduction and distribution of their writing for the period of their life times plus 50 years.

The electronic revolution in communications and information management and new federal copyright and patent laws have mandated that universities keep their intellectual property rights policies up-to-date. In Virginia, only a few colleges and universities have policies that deal with patents and copyrights (Table 3).

EXISTING PATENT POLICIES AT COLLEGES AND UNIVERSITIES

Four universities have patent policies: The University of Virginia, Virginia Tech, ODU, and VCU. The patent policies of these institutions differ significantly. Some of these differences are discussed below.

Differences Among the Patent Policies

A review of the four patent policies revealed many variations, but the most striking relate to development costs, royalty distribution, and ownership.

Development Costs. The JLARC special report on the Virginia Tech Library System concluded that Virginia Tech should have reimbursed the general fund for the developmental expenses associated with the software system. This conclusion was based on the fact that the system was developed with general funds and as a part of the assigned duties of the employee.

A review of the patent policies revealed that only VCU has an explicit provision to recover development costs. VCU does not pay royalties to the faculty member until the costs of developing the invention are recovered. This provision applies when VCU manages the patent. The policies of Virginia Tech, ODU, and the University of Virginia do not specifically address this issue.

Royalty Distribution. Possibly the most significant difference among the policies is the calculation of the inventor's royalty share. Table 4 shows that royalties earned by an inventor could be as low as $92,500 at VCU and as high as $159,000 at Virginia Tech for the same project. By choosing to work for VCU rather than Virginia Tech, the faculty member in the above example could lose approximately $66,000 in royalties.

Ownership. Differences also exist in the way universities treat ownership of inventions. The University of Virginia, for example, claims ownership of an invention when it is developed through research which is related in any way

TABLE 3

STATUS OF INTELLECTUAL PROPERTY AND CIO-SPONSPOREO RESEARCH AT MAJOR STATE INSTITUTIONS

	Intellectual Properties	Patents	Copyrights	CIT-Sponsored Research	Adopted Policies	
					Patent	Copyright
University of Virginia	133	129	4	Yes	Yes	No
Virginia Tech	19	11	8	Yes	Yes	Yes
Old Dominion	7	2	5	Yes	Yes	Yes
William and Mary (Including the Virginia Institute of Marine Science)	2	0	2	No	No	No
James Madison University	2	2	0	No	No	No
Virginia Commonwealth	1	1	0	Yes	Yes	No
George Mason	None	None	None	Yes	No	No
Virginia State	None	None	None	No	No	No

Source: JLARC survey of colleges and universities, August 1984.

Table 4

Comparing Royalties Earned By Inventors At Different Universities

University	Inventor's Royalty Share	Royalties earned by inventor where invention produces $719,000 of gross royalties and $454,000 of expenses including $53,000 of development costs
University of Virginia	15% of gross royalties	$107,850
Virginia Tech	50% of net royalties after deducting the direct costs of obtaining, defending, and managing the patent	$159,000
Old Dominion	50% of first $10,000 of net royalties and 35% of net royalties in excess of $10,000	$112,800
Virginia Commonwealth	35% of net royalties after deducting development costs and unrecovered expenses; but if patent is transferred to a patent management organization, then 15% of gross revenues derived by that organization	$92,750 if patent is managed by VCU $107,850 if patent is managed by an independent management organization

Source: University Patent Policies, 1984.

to the duties and responsibilities for which the researcher has been compensated by the university or for which facilities of the university are used. ODU claims ownership of an invention when it is directly related to the inventor's compensated duties or when university facilities play a major or indispensable role in the invention's development.

In contrast, Virginia Tech claims ownership of an invention when it is developed (a) during working hours, (b) with a contribution of university facilities, or (c) in relation to or in consequence of the inventor's official duties. VCU, on the other hand, claims ownership of an invention when the invention is developed (a) using university facilities, (b) using funds administered by the university, or (c) in the course of the regular duties of a salaried employee. Although the general intent of these policy provisions is the same, their interpretation might be different.

If a faculty member developed an invention related to his duties but without use of university funds or facilities, the universities might reach different results as to the ownership of that invention. The University of Virginia would

claim ownership if the invention was directly or indirectly related to the inventor's duties. ODU and Virginia Tech would claim ownership only if the invention was directly related to the inventor's duties. VCU would claim ownership only if the invention resulted from the inventor's regular duties.

If an inventor developed an invention using university facilities but without use of university funds and not as an assigned duty, ODU would claim ownership of an invention only if the facilities played a major or indispensible role. Virginia Tech, VCU, and the University of Virginia would claim ownership regardless of whether use of university facilities played a major or indispensible role in the development of the invention.

Each of the policies reviewed addresses the question of ownership in a different way. Some of the language is hard to understand and open to interpretation. A more uniform approach to determining ownership of patents at the State universities might be desirable.

Factors to Be Considered in a Model University Patent Policy

Because of the absence of a patent policy at many colleges and universities and the differences between university patent policies, a model patent policy appears to be needed. Such a model policy or guidelines could be drafted by the State Council of Higher Education for Virginia (SCHEV) and could take into account the following 12 factors, among others. These factors were gleaned from a review of over 25 patent policies prepared by both public and private institutions located in and outside the State of Virginia. Each factor is discussed in greater detail in the Appendix.

1. Who Should Be Covered Under the Policy? This provision should consider faculty members, staff members, individuals using university facilities who have not directly paid for such use, predoctoral and postdoctoral fellows, and students.

2. Ownership Rights. This aspect of the policy ought to discuss under what circumstances the university will take ownership of all rights in the patent.

3. Royalty Calculation and Distribution. An important provision of any patent policy is what percentage of royalties shall be shared with the inventor(s).

4. Administrative Review. This factor addresses who (such as a patent committee) will determine whether the university has any proprietary interests in a invention developed within the university community.

5. Ability to Publish. The model policy should describe the options available to a researcher to publish information concerning the invention.

6. Disclosure Of a Patent. The policy should include a provision requiring prompt disclosure of a newly developed invention by a university employee.

7. Inventor's Use Of University's Methods of Promotion. Another consideration is whether an inventor should be allowed to use the university's methods of promoting and marketing an invention when the invention was not developed under circumstances giving the university ownership rights.

8. Researchers Who Leave the University. The policy should address how the university and Commonwealth will be protected in cases where a researcher substantially develops an invention but he leaves the university before transforming that invention to practice.

9. Faculty Exemptions. The drafters may wish to establish some procedure for exempting certain faculty members from the policy, such as preeminent scholars.

10. Assignees and Beneficiaries. Consideration should be given as to whether the inventor's assignees, successors, and beneficiaries under a will should be bound by the policy.

11. Supplemental Regulations. The policy might include a provision allowing universities to adopt regulations in addition to the model policy so long as those regulations do not conflict with the model guidelines.

12. Relationships With Private Industry and the CIT. The model guidelines could require colleges and universities to spell out their patent relationships with private industry and the Center for Innovative Technology.

NEED FOR COPYRIGHT POLICIES AT COLLEGES AND UNIVERSITIES

Sound policies or procedures are needed to cope with the complex issues in the copyright of computer products such as data bases and software. Without an appropriate copyright policy, universities may find themselves unable to claim ownership of software even though the software is developed using university facilities and resources. Because of the proliferation of computer software development, all major universities in Virginia need a comprehensive copyright policy. At the current time, only Virginia Tech has a comprehensive policy.

Copyright Policies at Universities

Virginia Tech and ODU have written copyright policies. Virginia Tech's 1984 copyright policy is well drafted and comprehensive. Computer software is specifically identified as being covered by the copyright policy. Virginia Tech claims ownership of materials subject to copyright when the materials result from an assigned duty, when the University provides funds for the production of the materials, or when substantial use of University facilities and resources is made in the production of the materials. The employee receives 50% of net royalties. Included are provisions to cover cases where the university delays in obtaining a copyright and where the copyrighted work becomes obsolete.

ODU's 1975 copyright policy is not comprehensive. The policy is a general restatement of the work-made-for-hire doctrine of federal copyright law. This doctrine holds that when an employee develops a copyrightable work within the scope of his employment, the employer is considered the author for purposes of copyright. When an employee is directed within the scope of his employment or is employed to produce a specific work, ODU has the right to copyright the resulting work. The policy contains no provision for royalty sharing. If a faculty or staff member contracts with the university or the ODU Research Foundation to produce a copyrightable work, then that contract will govern copyright ownership.

Criteria for a Model Copyright Policy

The criteria for a model copyright policy are essentially the same as those for the model patent policy. The fifth factor of the model patent policy dealing with limitations of the inventor's right to publish works concerning his invention, however, should not be included in the model copyright policy.

The model copyright policy should reflect the work-made-for-hire doctrine of federal copyright law. This doctrine states that where an employee develops a work within the scope of his employment or develops certain works specially ordered or commissioned, the employer is considered the author of the work and owns all rights in the copyright. Although some courts are holding to the contrary, it is arguable that because major universities grant tenure and salary increases based in large part on quality and volume of the faculty member's publications, any books written by a faculty member are within the scope of his employment. Consequently, the university may be deemed the owner of scholarly works produced by its faculty. Since the practice at universities has been to allow professors to retain all rights to scholarly research publications developed on their own initiative, a model copyright policy may wish to acknowledge this practice.

The drafters may wish to distinguish between scholarly publications developed by a faculty member on his own initiative and those developed as an assigned duty. In the latter case, the drafters may wish to have the university claim ownership of the material subject to copyright and may or may not provide for the faculty member to share in royalties derived from that work.

INTELLECTUAL PROPERTY DEVELOPMENT AT OTHER STATE AGENCIES

The bulk of intellectual property work is done at Virginia's publicly supported colleges and universities. We know of no State agencies that have produced patentable inventions. However, some State agencies have begun to grapple with copyright questions, particularly in the area of software development. While our research was limited to only a few agencies, evidence seems to point to a need for an intellectual property policy covering State employees.

Need for Agencies to Place Copyright Notice on Computer Software

Several agencies have produced materials that are or could be copyrighted: (a) Department of Highways and Transportation, (b) State Corporation Commission, and (c) Department of Information Technology. The JLARC staff proposes that the Center for Innovative Technology be asked to assist State agencies in evaluating and marketing unique software.

Department of Highways and Transportation. The Department of Highways and Transportation has copyrighted the official State highway map since 1927 and the city and county

map atlases since the mid-1970's. The department began copyrighting the city and county maps after a private business sought to reproduce the maps for commercial purposes.

State Corporation Commission. The State Corporation Commission (SCC) owns and sells computer software known as the "Case Management System." Outside vendors developed the system for the SCC in 1977 at a cost of $420,000. The system has been sold at a price of $15,000 to the California Department of Justice, the California Public Utility Commission, the U.S. Department of Treasury, and the Internal Revenue Service. The SCC established its market price by dividing the $420,000 cost of development by the number of potential purchasers. Revenues from sales of the system are returned to the SCC accounts from which the costs of development were taken.

The SCC has protected the Commonwealth's interest in the software by requiring in its contract with the vendor who developed the system that all data and materials relating to the software are to be held in confidence by the vendor and turned over to the SCC upon completion of the work. In addition, the SCC prohibits purchasers of the software from reselling or otherwise transferring the software. Copyright protection of the computer program has not been sought by the SCC. Legal counsel for the Commission suggests that one of the reasons the SCC chose not to obtain copyright protection was because the SCC was not in the business of selling software. The SCC's policy is to sell its software only when requested to do so by another public agency.

Department of Information Technology. In the past eight years, the systems development unit of the Department of Information Technology (DIT) has developed four computer systems with the potential for producing revenue: (a) two software systems are used in planning systems development projects, (b) an unclaimed property system is being used by the Department of the Treasury, and (c) a generalized applicant tracking system is being used by the Department of Commerce. The development costs of these programs range from $35,000 to $130,000. Actions were taken with respect to the first two systems in order to sell them. Such actions included placing a copyright notice on the systems' documentation. The management of the department later decided not to sell the software because they believed that a public agency should not be in the business of selling software. A copyright notice has not been placed on the other two computer systems.

While the systems development division was deciding whether to begin marketing the first two software packages, an employee of the Virginia Supreme Court sought to obtain the software from systems development under the Virginia Freedom of Information Act. The systems development division eventually decided to give a copy of the software to the Virginia Supreme

Court for the cost of making the copy. There is nothing wrong with one State agency sharing computer software with another. If all computer software developed by an agency, however, were routinely open to inspection and copying by any citizen of Virginia, then a few members of the public might be able to profit from the taxpayer-supported work of State agencies. The Virginia Freedom of Information Act presently excludes from its provisions computer programs acquired from vendors, but does not exclude software developed by or on behalf of a State agency. The General Assembly may wish to amend the Virginia Freedom of Information Act to exclude from its inspection provisions computer systems developed "in-house" by State agencies or developed at the request of State agencies.

DIT is a member of a group known as the National Association for State Information Systems (NASIS). This group consists of representatives from all 50 states, who are entitled to obtain software developed by agencies in other states for a small fee. Membership in this association increases the selection of software available to an agency and reduces the cost of the software.

Although DIT transfers software through NASIS without copyright notice, the software is copyrighted and protected as a matter of law. Under the automatic copyright provisions of federal law, when software is written it automatically receives copyright protection. This protection is lost and the software goes into the public domain unless the copyright is registered within five years of publication and a reasonable effort is made to add notice to all copies distributed in the U. S. after the omission has been discovered. Publication is defined as distributing copies of a work to the public by sale or other transfer of ownership. Transferring software through NASIS would constitute publication.

Even though the software is protected for five years after publication, those who innocently infringe the copyright in reliance on the absence of a copyright notice may not be sued for damages. Despite the automatic copyright provisions of federal law, there is a risk that third parties may earn profits from software developed with State funds. An easy way to eliminate this risk is for State agencies to place a copyright notice on software that they develop or that is developed for them. JLARC therefore recommends that State agencies place a copyright notice on computer software developed by or at the agency's request before the software is transferred to another public entity.

Transfer Of Marketable Computer Software And Other Intellectual Properties to The CIT. State agencies are not in the business of selling software or other intellectual properties. The Center for Innovative Technology, however, is capable of evaluating and marketing intellectual properties.

State agencies should not develop intellectual properties solely because such properties may produce revenue for the Commonwealth. This does not mean, however, that the Commonwealth should not profit from intellectual properties developed by State agencies.

JLARC therefore recommends that when an agency believes it has developed an intellectual property which may be marketable, the agency should transfer that property to the Center for Innovative Technology for evaluation and marketing. When the intellectual property developed is computer software, the agency should consult with the Department of Information Technology for a preliminary evaluation of its commercial marketability. Agencies which participate in user's groups such as the National Association for State Information Systems should retain the right to transfer software for a nominal cost to other members of the group.

Averting Conflicts over Ownership of Intellectual Properties

Virginia does not have a statute or policy stating what actions of an employee will entitle the Commonwealth to claim ownership of an intellectual property developed by the employee. Furthermore, the Office of the Attorney General does not have an attorney who is knowledgeable in the area of patent and copyright administration. A clear-cut executive policy, based on enabling legislation, outlining the Commonwealth's position with regard to State employees could help avert future conflicts over ownership of intellectual properties. The Office of the Attorney General should play a prominent role in draftingthis policy and acquiring a basic level of expertise in patent and copyright law.

Under the general common law rule, a State employee who develops a patentable invention while performing his duties, is the owner of that invention and the State receives merely a "shop right." A "shop right" entitles the Commonwealth to use the invention for State purposes, but does not entitle the Commonwealth to share in any royalties earned from the invention should the employee decide to market his invention. The result is that an employee may personally profit from services he performed on behalf of the Commonwealth.

On the other hand, if an employee were to develop something subject to copyright such as computer software, the Commonwealth would own that item only if the employee developed it within the scope of his employment. Federal law does not clearly define what activities are within the scope of employment. There may arise situations where it is unclear whether or not an employee has developed a material subject to copyright within the scope of his employment.

Therefore, it is recommended that the Governor, with the assistance of the Office of the Attorney General, develop and periodically update an intellectual property policy consistent with any future legislation that might be enacted by the General Assembly. This policy should apply to all State agencies but not to State universities and colleges.

During the course of the JLARC study, the Office of the Attorney General was contacted on its role in matters related to patents and copyrights. We could not find an attorney who was knowledgeable in this area. It seems desirable from the Commonwealth's standpoint that the Attorney General designate one attorney, on a part-time basis, to become familiar with patent and copyright law. This individual should serve as a consultant to State universities and agencies.

Need for a Meritorious Service Awards Program

Some ideas and inventions discovered by classified employees have resulted in savings to the State but have not been patentable. For example, a classified employee of VCU invented a door knob guard. Although this invention resulted in savings to the university and the Commonwealth, it was not patented, and the employee did not receive any monetary award for his initiative or idea.

The employee joined VCU as lead locksmith in 1970. Part of his duties included replacing door knobs that had been broken off by orderlies wheeling carts, bins, and gurneys through doorways in the university's hospital. Two to four door knobs were being broken weekly, each costing $50-75 to replace. Recognizing that a problem existed, the employee began thinking of possible solutions and had an idea about a door guard. He developed a prototype out of cardboard. He took the prototype to some of his friends at VCU's sheet metal shop who transformed the cardboard design into a working metal door knob guard. The employee experimented with several designs until he developed the current design.

The employee has installed approximately 50 door knob guards at MCV. According to the employee, the rate of door knob breakage for MCV has been reduced to approximately one per month. None of the door knobs which have been protected by the invention have been broken. The JLARC staff observed one of the guards installed on a door frequently used by construction workers carrying supplies and equipment. The guard had been in place for six years and had several large dents, but nevertheless the knob remained in operation.

In mid-1983 the employee became aware that VCU might be interested in patenting the door knob guard. There was no question in the locksmith's mind that all rights to the

invention were vested in VCU. He presented his idea to the Research Director at VCU who then contacted the Research Corporation, an organization which evaluates the patentability and marketability of inventions developed at universities. The Research Corporation stated that the invention was not patentable under the rigorous criteria established by patent law and that even if the invention were patentable, it would not be possible to prevent patent infringement. VCU has offered to return all rights in the invention to the employee with the exception of a non-exclusive royalty-free license to use the invention for university and State purposes. The employee has stated that he is not interested in regaining his rights to the invention because he does not intend to exploit it.

The locksmith estimates that it costs approximately $15 to produce a door guard, and the invention has saved the Commonwealth at least $60,000 over the last seven years. The employee has been presented a certificate of recognition by the director of physical plant operations, but no monetry award. This case demonstrates a need for the Commonwealth to establish a monetary awards program for employees who suggest or invent ways to save the State money but are unable to derive economic benefits from a patent.

The General Assembly has already authorized the Department of Personnel and Training to "Adopt and implement a program of meritorious service awards to employees who propose procedures or ideas which are adopted and which result in eliminating or reducing State expenditures or improving operations; provided such proposals are placed in effect" (§2.1-114.5 K). This statutory provision has been in existence since 1976 but has not been implemented by the department. We suggest that the General Assembly encourage the Governor to execute this statute and develop a meritorious service awards program which includes a monetary award provision for cost-saving ideas.

CONCLUSIONS AND RECOMMENDATIONS

Many colleges and universities in Virginia do not have intellectual property policies. Of those universities and colleges with intellectual property policies, the policies vary significantly. Neither the Commonwealth nor the inventor benefit by having universities with differing intellectual property policies. A uniform university patent and copyright policy is needed.

Virginia does not have any statutes dealing with ownership of intellectual properties developed by employees of State agencies. The possibility exists that an agency employee will develop an intellectual property as part of his job or in direct relation to his employment and the Commonwealth will be

unable to recover its costs or to profit from the resulting revenue. Agencies are rapidly developing computer software which may have market potential, yet they are failing to adequately protect the software under federal law. One of the reasons for this failure is that agencies believe that, since they are not in the business of selling software, it is not important whether the software is adequately protected under law. The Center for Innovative Technology has the capability to market intellectual properties developed by State agencies, and it should do so.

Recommendations of this study are as follows:

1. To establish a uniform patent and copyright policy for colleges and universities, the General Assembly may wish to enact legislation establishing such policies, or it may delegate the duty to another governmental entity such as the State Council of Higher Education for Virginia (SCHEV).

It is recommended that SCHEV be given the statutory authority to draft and routinely update uniform patent and copyright policies in cooperation with State universities and colleges. Allowing SCHEV to draft and update the policies will provide the Commonwealth with intellectual property policies capable of being easily modified to reflect changes in federal law or the development of new technology.

It is further recommended that SCHEV monitor and periodically report to the General Assembly concerning: (a) the number of patents, copyrights, and materials which at some point in time could have been patented or copyrighted; (b) the steps taken to fully protect such properties under law or contract; and (c) in the event of transfer, to whom the intellectual property has been transferred.

2. Many courts in the nation are holding that patent, copyright, and other university policies are part of a faculty member's or other employee's employment contract with the university. The Virginia Supreme Court has not ruled on this question. In addition, universities in Virginia have the authority to establish rules and regulations for the employment of professors, teachers, instructors and all other employees pursuant to §23-9.2:3 (a)(2) of the *Code of Virginia*. Rather than relying on these provisions to enforce the university intellectual property policies, the General Assembly should adopt legislation stating that in consideration of employment, all employees of universities and colleges in Virginia shall abide by the university's or college's intellectual property policies.

3. Consistent with the findings included in the special report of the Virginia Tech Library System, the General

Assembly may wish to authorize the Governor to review and approve transfers of patents and copyrights from colleges and universities to non-State entities.

4. The General Assembly may wish to authorize the Governor, with the assistance of the Office of the Attorney General, to develop an intellectual property policy for State agencies. The policy should clearly define under what circumstances the Commonwealth will claim ownership of intellectual properties developed by employees of State agencies.

5. The Attorney General may wish to designate one attorney, on a part-time basis, to become knowledgeable in the area of patent and copyright law. This attorney would serve as a consultant to State agencies and universities on matters related to intellectual properties.

6. Before transferring software to other state or federal agencies, State agencies should take appropriate steps to protect the Commonwealth's interest in computer software developed by or at the agency's request. Since federal copyright law covers computer software, State agencies should protect software by placing a copyright notice on the system software. When appropriate, the State agency may allow or share with a third party copyright ownership so long as the agency has entered into a contract with that third party detailing the Commonwealth's interest in the software and copyright.

7. The General Assembly may wish to amend the Virginia Freedom of Information Act to exclude computer software developed by or at the request of agencies or political subdivisions of the Commonwealth from the disclosure and copying provisions of the Act.

8. Intellectual properties developed by or at the request of State agencies which may have market potential could be transferred to the Center for Innovative Technology for evaluation and marketing. The General Assembly may wish to authorize the CIT to carry out this task. If the intellectual property is not already fully protected under law, the CIT should take the necessary steps to protect the Commonwealth's interest in the property.

When the intellectual property developed is computer software, the agency should consult with the Department of Information Technology for a preliminary assessment of its commercial marketability. State agencies should retain the right to transfer intellectual properties to other members of a group of public agencies and organizations who freely exchange intellectual properties at little or no cost.

Revenues resulting from sales of State agency intellectual properties should be applied first to recover CIT's

marketing and other costs. Any excess revenues should be returned to the agency. If general funds were used to develop the intellectual property, the agency should return any revenues it receives from the CIT to the general fund unless the Governor authorizes a portion of the net royalties to be shared with the inventor of the intellectual property.

9. The General Assembly may wish to encourage the Governor to develop and and execute a program of meritorious service awards to State employees consistent with §2.1-114.5 of the *Code of Virginia*.

APPENDIXES

APPENDIX A

FACTORS TO BE CONSIDERED IN PREPARING A MODEL UNIVERSITY PATENT POLICY

1. Who Should Be Covered Under The Policy? The first provision to be considered is who should be covered by the policy. The drafters may wish to include under the policy the following individuals: faculty members, staff members, individuals using university facilities who have not directly paid for such use, predoctoral and postdoctoral fellows, and students.

The drafters may wish to recognize partial ownership rights in students to the extent they have paid for their education beyond the amount contributed by the taxpayers. The cost of a student's education is frequently shared between the student and the State. The university should claim ownership only with respect to its contribution to the student's education. If a student invents something using university facilities, he has in part paid for the use of those facilities and in part the State has paid for his use of the facilities.

The drafters may wish to consider the student as absolute owner of a percentage of an invention or to have the university claim complete ownership of the invention but allow the student to receive 100% of the royalties with respect to his rights in the invention. In the latter situation, if the student paid for 38% of his education and the State paid for 62%, then 38% of royalties would belong exclusively to the student and 62% would be shared between the student and the university under the patent policy.

2. Ownership Rights. The second element to be considered is under what circumstances the university will take ownership of all rights in the patent. The drafters should consider whether the university should claim ownership of all patent rights when the invention results from (a) significant use of university facilities and services,(b) significant use of university funds, (c) an assigned duty of the inventor, or (d) research conducted in the prior 12 months where had the invention been reduced to practice during that prior research period it would have been an invention covered by the patent policy. Such terms as "significant," "university funds," "university facilities," and "assigned duties" should be specifically defined. The drafters may also wish to specifically exclude from the definition of "university facilities and services" such things as the mere provision of office space for teaching or certain other duties.

It would appear to be inappropriate for universities to adopt the corporate practice of requiring all employees to assign ownership of patents to the university even where the employee developed the invention as part of a hobby completely unrelated to his employment. Although corporations generally return all rights to the inventor when the invention is developed independently of the employee's course of employment, the practice of automatically assuming ownership may deter faculty members from pursuing a breadth of research interests. If a university intends to liberally return ownership rights in inventions developed independently of the university, then such a practice should be incorporated into the patent policy.

Another important consideration is under what circumstances the university will return ownership of the invention to the inventor. The university may wish to return all rights in the invention to the inventor where (a) the university unreasonably delays in determining university ownership in the invention, (b) the university unreasonably delays in obtaining the appropriate protection for the invention, (c) the university determines that the invention is unmarketable, (d) the invention becomes obsolete, or (e) the university unreasonably fails to bring suit or take other actions necessary to prevent patent infringement. Such a requirement would foster prompt action by the university and deal with the inventor in an equitable manner. In all situations where ownership rights are returned to the inventor, the university may wish to retain a non-exclusive royalty-free license to use the invention for university and State purposes.

3. *Royalty Calculation and Distribution.* A key component of any patent policy is what percentage of royalties should be shared with the inventor or inventors. It is important to establish a uniform system of sharing royalties with the inventor. As shown in the study, under the current system a researcher may receive a significantly different share of royalties depending solely upon the university at which he developed his invention. Since all faculty and staff members are ultimately employees of the Commonwealth, it seems inappropriate to treat them differently under circumstances where a significant amount of money may be earned. The only reason given to treat inventors differently is that the universities wish to retain their independence.

If there is a disparity between the salary a researcher at a university receives and what he would receive working for industry, the drafters should include in the patent policy an adequate incentive and reward for the development of intellectual properties. As a benchmark, the percentage of royalties to be shared with the inventor could be at least equal to the percentage of royalties shared by major universities in America. The drafters may wish to establish a different percentage of royalties to share with the inventor when the

university chooses to exploit the invention through a patent management corporation or when the university must enter into a contract with a corporate or other sponsor altering the inventor's share. The policy could also include a sliding scale provision which decreases the inventor's percentage as total royalties increase.

Given that an invention may be profitable yet not patentable, the drafters should refer to royalties resulting from an "invention" rather than from a "patented invention". The policy should cover all inventions whether or not protected under federal law.

The model policy or guidelines could require that a university spend its share of royalties solely in furtherance of research at the university. Such a requirement could be made applicable to an affiliated foundation by making it a condition for transferring the intellectual property to the foundation. It can be argued that because the Commonwealth, through its universities, has made an investment in research, the Commonwealth's investment is best protected by requiring that royalties derived from research activities be reinvested in research.

The policy should also include a provision denying a share of royalties to anyone who uses university facilities or funds without the university's permission.

Another consideration is how to calculate the percentage of royalties due the inventor. The drafters should determine what costs, if any, should be deducted from the revenues earned from an invention. The drafters should specifically address how the model policy will deal with the costs of development, costs of obtaining patent protection, and costs of protecting patent rights.

Where the costs of development include general fund monies, these costs should be reimbursed in full before any royalties are distributed in order to protect the interests of the taxpayers of Virginia. Before a university can determine the costs of development, it should have an accounting system which adequately identifies the source of funds spent on a project.

If the invention is commercially successful, competitors or other parties might infringe the university's patent. The policy should address whether the inventor will be liable to reimburse the university to the extent of royalties already paid to him in order to cover the costs of protecting the patent. The situation may arise where revenues are paid to an inventor and then the university incurs substantial litigation costs in excess of all revenues derived from the

patent. The drafters of a model policy could either make the inventor liable to the extent of royalties distributed to him but make exception in the case of undue hardship (such as where the inventor has already spent the royalties he has earned), or hold him harmless for all royalties distributed.

4. Administrative Review. The fourth factor to be considered is who will determine whether the university has any proprietary interests in an invention developed within the university community. The drafters may wish to have universities form patent committees or administrative units similar to those already existing at the major universities in Virginia. The duties of the committee may include determining the university's interest in an invention, deciding whether to apply for a patent or other form of legal protection, deciding the most appropriate means of promoting the invention, and resolving disputes between individuals claiming to be co-inventors.

5. Ability to Publish. The model policy should consider whether to limit a researcher's ability to publish information concerning the invention. Under federal patent law, if an inventor publishes the essential elements of his invention, he has one year from that date to apply for a patent application. Failure to do so renders the invention unpatentable and unprotected.

The one-year statutory bar, however, may not provide enough time for a university to present the invention to patent management groups for them to evaluate its patentability and marketability. Moreover, under the laws of many foreign countries, publication prior to the inventor applying for a patent in his home country would allow that country to treat the invention as if it were unpatentable even if the invention is patented in the United States within the one year deadline. In other words, infringement taking place in the foreign country cannot be stopped. The policy should address not simply publication by the faculty researcher but also graduate students working with him who intend to write theses and dissertations related to the invention.

6. Disclosure Of A Patent. The model policy should include a provision requiring prompt disclosure of a newly developed invention and limiting the inventor's use of the invention. Under federal law, an inventor who prior to filing a patent application uses his invention for certain purposes other than testing may be in danger of rendering his invention unpatentable. If the inventor promptly discloses his invention to the university, the university can inform the inventor of what he must do to preserve the opportunity to patent the invention. The drafters may wish to give the university the authority to impose limitations on the use of the invention before a patent application is filed.

The policy should also include a provision requiring the inventor and his agents to cooperate with the university in patenting and exploiting the invention to which the university claims ownership. Such a provision is important for many reasons, including the fact that the U.S. Patent Office will grant a patent only to the actual inventor or to someone authorized by the inventor to use the inventor's name in obtaining the patent.

7. *Inventor's Use Of University's Methods Of Promotion.* Another consideration is whether an inventor should be allowed to use the university's methods of promoting an invention when the invention was not developed under circumstances giving the university ownership rights. In such a case, the faculty member may prefer to have the university promote his invention in order to avoid the tasks related to patenting and marketing. The drafters may wish to treat such an inventor as if he had developed the invention in a manner that would give the university ownership rights.

8. *Researchers Who Leave The University.* How will the university and Commonwealth be protected in cases where a researcher substantially develops an invention, but before reducing that invention to practice, leaves the university? The problem is that a researcher may use university facilities and funds to substantially develop an invention, but once he realizes that it may be profitable, he may leave the university -- taking all the research and ideas with him. Or the researcher may go to another position without knowing the research he has accomplished with the assistance of the university will soon lead to a profitable invention. The university and the taxpayers have made an investment but may not receive any of the rewards from that investment. The drafters of a model policy may wish to provide that certain research materials and documents belong to the university and may not be removed from the university without permission from the appropriate authority.

9. *Faculty Exemptions.* Should certain faculty members be exempted from the policy? The drafters may wish to establish some procedure to exempt prospective faculty members from the patent policy in order to attract preeminent scholars to the university who would otherwise go to a university located in another state. If the drafters choose to adopt such an exemption, the conditions for obtaining the exemption should be clear.

10. *Assignees and Beneficiaries.* The drafters may wish to specifically bind the researcher's assignees, successors, and beneficiaries under a will to the terms of the policy. Although such a provision may never be needed, it would be appropriate to include such a provision in order to avoid the risk of lawsuits or other expenses following the researcher's death.

11. Supplemental Regulations. Universities should be allowed to promulgate regulations in addition to those developed under the model policy or guidelines. The drafters of the policy may wish to include a provision allowing universities to adopt additional regulations, so long as those regulations do not conflict with the model policy. The provisions of the model policy should take precedence in all cases over any additional regulations adopted by the university.

12. Relationships with Private Industry and the CIT. Within the past few years, new research relationships have emerged with the private sector and the newly created Center for Innovative Technology. The model guidelines should require colleges and universities to articulate these relationships in their patent policies.

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HOUSE BILL NO. 1493

Offered January 22, 1985

A BILL to amend and reenact §§ 2.1-342 and 9-254 of the Code of Virginia and to amend the Code of Virginia by adding in Chapter 2 of Title 2.1 a section numbered 2.1-20.1:1 relating to ownership, policies and marketing of patents and copyrights developed by state employees.

Patrons—Morrison, Ball, Quillen, Manning, Callahan, Putney and Philpott; Senators: Andrews, H. B., Willey, and Buchanan

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Referred to Committee on Rules

Be it enacted by the General Assembly of Virginia:

1. That §§ 2.1-342 and 9-254 of the Code of Virginia are amended and reenacted and that the Code of Virginia is amended by adding in Chapter 2 of Title 2.1 a section numbered 2.1-20.1:1 as follows:

§ 2.1-20.1:1. Ownership of patents and copyrights developed by state employees.— Patents, copyrights or materials which were potentially patentable or copyrightable developed by a state employee during working hours or within the scope of his employment or when using state-owned or state-controlled facilities shall be the property of the Commonwealth of Virginia. The Governor shall set such policies as he deems necessary to implement this provision.

This provision shall not apply to employees of state-supported institutions of higher education who shall be subject to the patent and copyright policies of the institution employing them.

§ 2.1-342. Official records to be open to inspection; procedure for requesting records and responding to request; charges; exceptions to application of chapter.—(a) Except as otherwise specifically provided by law, all official records shall be open to inspection and copying by any citizens of this Commonwealth during the regular office hours of the custodian of such records. Access to such records shall not be denied to any such citizen of this Commonwealth, nor to representatives of newspapers and magazines with circulation in this Commonwealth, and representatives of radio and television stations broadcasting in or into this Commonwealth. The custodian of such records shall take all necessary precautions for their preservation and safekeeping. Any public body covered under the provisions of this chapter shall make an initial response to citizens requesting records open to inspection within fourteen calendar days from the receipt of the request by the public body. Such citizen request shall designate the requested records with reasonable specificity. If the requested records or public body is excluded from the provisions of this chapter, the public body to which the request is directed shall within fourteen calendar days from the receipt of the request tender a written explanation as to why the records are not available to the requestor. Such explanation shall make specific reference to the applicable provisions of this chapter or other Code sections which make the requested records unavailable. In the event a determination of the availability of the requested records may not be made within the fourteen-calendar-day period, the public body to which the request

is directed shall inform the requestor as such, and shall have an additional ten calendar days in which to make a determination of availability. A specific reference to this chapter by the requesting citizen in his records request shall not be necessary to invoke the time limits for response by the public body. The public body may make reasonable charges for the copying and search time expended in the supplying of such records; however, in no event shall such charges exceed the actual cost to the public body in supplying such records. Such charges for the supplying of requested records shall be estimated in advance at the request of the citizen.

(b) The following records are excluded from the provisions of this chapter:

(1) Memoranda, correspondence, evidence and complaints related to criminal investigations, reports submitted to the state and local police and the campus police departments of public institutions of higher education as established by Chapter 17 (§ 23-232 et seq.) of Title 23 of the Code of Virginia in confidence, and all records of persons imprisoned in penal institutions in this Commonwealth provided such records relate to the said imprisonment. Information in the custody of law-enforcement officials relative to the identity of any individual other than a juvenile who is arrested and charged, and the status of the charge of arrest, shall not be excluded from the provisions of this chapter.

(2) Confidential records of all investigations of applications for licenses and all licensees made by or submitted to the Alcoholic Beverage Control Commission.

(3) State income tax returns, personal property tax returns, scholastic records and personnel records, except that such access shall not be denied to the person who is the subject thereof, and medical and mental records, except that such records can be personally reviewed by the subject person or a physician of the subject person's choice; however, the subject person's mental records may not be personally reviewed by such person when the subject person's treating physician has made a part of such person's records a written statement that in his opinion a review of such records by the subject person would be injurious to the subject person's physical or mental health or well-being. For the purposes of this chapter such statistical summaries of incidents and statistical data concerning patient abuse as may be compiled by the Commissioner of the Department of Mental Health and Mental Retardation shall be open to inspection and releasable as provided in subsection (a) above. No such summaries or data shall include any patient identifying information. Where the person who is the subject of scholastic or medical and mental records is under the age of eighteen, his right of access may be asserted only by his parent or guardian, except in instances where the person who is the subject thereof is an emancipated minor or a student in a state-supported institution of higher education.

(4) Memoranda, working papers and correspondence held or requested by members of the General Assembly or by the office of the Governor or Lieutenant Governor, Attorney General or the mayor or other chief executive officer of any political subdivision of the Commonwealth or the president or other chief executive officer of any state-supported institutions of higher education.

(4a) Written opinions of the city and county attorneys of the cities, counties and towns in the Commonwealth and any other writing protected by the attorney-client privilege.

(5) Memoranda, working papers and records compiled specifically for use in litigation or as a part of an active administrative investigation concerning a matter which is properly

the subject of an executive or closed meeting under § 2.1-344 and material furnished in confidence with respect thereto.

(6) Confidential letters and statements of recommendation placed in the records of educational agencies or institutions respecting (i) admission to any educational agency or institution, (ii) an application for employment, or (iii) receipt of an honor or honorary recognition.

(7) Library records which can be used to identify both (i) any library patron who has borrowed material from a library and (ii) the material such patron borrowed.

(8) Any test or examination used, administered or prepared by any public body for purposes of evaluation of (i) any student or any student's performance, (ii) any employee or employment seeker's qualifications or aptitude for employment, retention, or promotion, (iii) qualifications for any license or certificate issued by any public body.

As used in this paragraph (8), "test or examination" shall include (i) any scoring key for any such test or examination, and (ii) any other document which would jeopardize the security of such test or examination. Nothing contained in this paragraph (8) shall prohibit the release of test scores or results as provided by law, or limit access to individual records as is provided by law. However, the subject of such employment tests shall be entitled to review and inspect all documents relative to his performance on such employment tests.

When, in the reasonable opinion of such public body, any such test or examination no longer has any potential for future use, and the security of future tests or examinations will not be jeopardized, such test or examination shall be made available to the public. However, minimum competency tests administered to public school children shall be made available to the public contemporaneously with statewide release of the scores of those taking such tests, but in no event shall such tests be made available to the public later than six months after the administration of such tests.

(9) Applications for admission to examinations or for licensure and scoring records maintained by the Department of Health Regulatory Boards or any board in that department on individual licensees or applicants. However, such material may be made available during normal working hours for copying, at the requestor's expense, by the individual who is subject thereof, in the offices of the Department of Health Regulatory Boards or in the offices of any health regulatory board, whichever may possess the material.

(10) Records of active investigations being conducted by the Department of Health Regulatory Boards or by any health regulatory board in the Commonwealth.

(11) Memoranda, legal opinions, working papers and records recorded in or compiled exclusively for executive or closed meetings lawfully held pursuant to § 2.1-344.

(12) Reports, documentary evidence and other information as specified in §§ 2.1-373.2 and 63.1-55.4.

(13) Proprietary information gathered by or for the Virginia Port Authority as provided in § 62.1-134.1 or § 62.1-132.4.

(14) Contract cost estimates prepared for the confidential use of the Department of Highways and Transportation in awarding contracts for construction or the purchase of goods or services.

(15) Vendor proprietary information software which may be in the official records of a public body. For the purpose of this section, "vendor proprietary software" means computer programs acquired from a vendor for purposes of processing data for agencies or political subdivisions of this Commonwealth.

(16) Data, records or information of a proprietary nature produced or collected by or for faculty or staff of state institutions of higher learning, other than the institutions' financial or administrative records, in the conduct of or as a result of study or research on medical, scientific, technical or scholarly issues, whether sponsored by the institution alone or in conjunction with a governmental body or a private concern, where such data, records or information have not been publicly released, published, copyrighted or patented.

(17) Financial statements not publicly available filed with applications for industrial development financings.

(18) Lists of registered owners of bonds issued by a political subdivision of the Commonwealth, whether the lists are maintained by the political subdivision itself or by a single fiduciary designated by the political subdivision.

(19) Confidential proprietary records, voluntarily provided by private business to the Division of Tourism of the Department of Economic Development, used by that Division periodically to indicate to the public statistical information on tourism visitation to Virginia attractions and accommodations.

(20) Information which meets the criteria for being filed as confidential under the Toxic Substances Information Act (§ 32.1-239 et seq.) of Title 32.1, regardless of how or when it is used by authorized persons in regulatory processes.

(21) Documents as specified in § 10-186.9 B 2.

(22) Computer software developed by or for a state agency, state-supported institution of higher education or political subdivision of the Commonwealth.

(c) Neither any provision of this chapter nor any provision of Chapter 26 (§ 2.1-377 et seq.) of this title shall be construed as denying public access to records of the position, job classification, official salary or rate of pay of, and to records of the allowances or reimbursements for expenses paid to any public officer, official or employee at any level of state, local or regional government in this Commonwealth whatsoever. The provisions of this subsection, however, shall not apply to records of the official salaries or rates of pay of public employees whose annual rate of pay is $10,000 or less.

§ 9-254. Powers.—The Authority is hereby granted and shall have and may exercise all powers necessary or convenient for the carrying out of its statutory purposes, including, but without limiting the generality of the foregoing, the following rights and powers:

1. To sue and be sued, implead and be impleaded, complain and defend in all courts.

2. To adopt, use, and alter at will a corporate seal.

3. To acquire, purchase, hold, use, lease or otherwise dispose of any project and property, real, personal or mixed, tangible or intangible, or any interest therein necessary or desirable for carrying out the purposes of the Authority, and, without limitation of the foregoing, to lease as lessee, any project and any property, real, personal or mixed, or any interest therein, at such annual rental and on such terms and conditions as may be determined by the board of the Authority and to lease as lessor to any person, any project and any property, real, personal or mixed, tangible or intangible, or any interest therein, at

any time acquired by the Authority, whether wholly or partially completed, at such annual rental and on such terms and conditions as may be determined by the board of the Authority, and to sell, transfer or convey any property, real, personal or mixed, tangible or intangible or any interest therein, at any time acquired or held by the Authority on such terms and conditions as may be determined by the board of the Authority.

4. To plan, develop, undertake, carry out, construct, improve, rehabilitate, repair, furnish, maintain, and operate projects.

5. To make bylaws for the management and regulation of its affairs.

6. To establish and maintain satellite offices within the Commonwealth.

7. To fix, alter, charge, and collect rates, rentals, and other charges for the use of projects of, or for the sale of products of or for the services rendered by, the Authority, at rates to be determined by it for the purpose of providing for the payment of the expenses of the Authority, the planning, development, construction, improvement, rehabilitation, repair, furnishing, maintenance, and operation of its projects and properties, the payment of the costs accomplishing its purposes set forth in § 9-252, the payment of the principal of and interest on its obligations, and to fulfill the terms and provisions of any agreements made with the purchasers or holders of any such obligations.

8. To borrow money, make and issue bonds including bonds as the Authority may, from time to time, determine to issue for the purpose of accomplishing the purposes set forth in § 9-252 or of refunding bonds previously issued by the Authority, and to secure the payment of all bonds, or any part thereof, by pledge or deed of trust of all or any of its revenues, rentals, and receipts or of any project or property, real, personal or mixed, tangible or intangible, or any interest therein, and to make such agreements with the purchasers or holders of such bonds or with others in connection with any such bonds, whether issued or to be issued, as the Authority shall deem advisable, and in general to provide for the security for said bonds and the rights of holders thereof.

9. To make and enter into all contracts and agreements necessary or incidental to the performance of its duties, the furtherance of its purposes and the execution of its powers under this chapter, including agreements with any person or federal agency.

10. To employ, in its discretion, consultants, attorneys, architects, engineers, accountants, financial experts, investment bankers, superintendents, managers and such other employees and agents as may be necessary, and to fix their compensation to be payable from funds made available to the Authority.

11. To receive and accept from any federal or private agency, foundation, corporation, association or person grants to be expended in accomplishing the objectives of the Authority, and to receive and accept from the Commonwealth or any state, and any municipality, county or other political subdivision thereof and from any other source, aid or contributions of either money, property, or other things of value, to be held, used and applied only for the purposes for which such grants and contributions may be made.

12. To render advice and assistance, and to provide services, to institutions of higher education and to other persons providing services or facilities for scientific and technological research or graduate education, provided that credit towards a degree, certificate or diploma shall be granted only if such education is provided in conjunction with an institution of higher education authorized to operate in Virginia.

13. To develop, undertake and provide programs, alone or in conjunction with any person or federal agency, for scientific and technological research, technology management, continuing education and in-service training, provided that credit towards a degree, certificate or diploma shall be granted only if such education is provided in conjunction with an institution of higher education authorized to operate in Virginia; to foster the utilization of scientific and technological research information, discoveries and data and to obtain patents, copyrights and trademarks thereon; to coordinate the scientific and technological research efforts of public institutions and private industry and to collect and maintain data on the development and utilization of scientific and technological research capabilities. The universities set forth in § 9-253 shall be the principal leading universities in the research institutes.

14. To pledge or otherwise encumber all or any of the revenues or receipts of the Authority as security for all or any of the obligations of the Authority.

15. To do all acts and things necessary or convenient to carry out the powers granted to it by this chapter or any other acts.

16. To receive, administer, and market any interest in patents, copyrights and materials which were potentially patentable or copyrightable developed by or for state agencies, state-supported institutions of higher education and political subdivisions of the Commonwealth. The Authority shall return to the agency, institution or political subdivision any revenue in excess of its administrative and marketing costs. When general funds are used to develop the patent or copyright or material which was potentially patentable or copyrightable, any state agency, except a state-supported institution of higher education, shall return any revenues it receives from the Authority to the general fund unless the Governor authorizes a percentage of the net royalities to be shared with the developer of the patented, copyrighted, or potentially patentable or copyrightable property.

Official Use By Clerks

Passed By The House of Delegates		**Passed By The Senate**	
without amendment	☐	without amendment	☐
with amendment	☐	with amendment	☐
substitute	☐	substitute	☐
substitute w/amdt	☐	substitute w/amdt	☐

Date: _____ Date: _____

_____ _____

Clerk of the House of Delegates Clerk of the Senate

HOUSE JOINT RESOLUTION NO. 310

Offered January 22, 1985

Requesting the Governor to develop a meritorious service awards program for state employees.

Patrons–Morrison, Ball, Quillen, Manning, Callahan, Putney, and Philpott; Senators: Andrews, H. B., Willey, and Buchanan

---

Referred to Committee on Rules

WHEREAS, the Commonwealth of Virginia has a tradition of excellence in its state programs; and

WHEREAS, this reputation for quality depends on the commitment of conscientious and innovative employees; and

WHEREAS, many state employees are engaged in the development of materials which are patentable or copyrightable in the scope of their employment and, thereby, may contribute to the fiscal integrity of the Commonwealth, if such materials are marketed for the benefit of the Commonwealth; and

WHEREAS, other employees develop procedures, management systems, etc., which allow the State to be a more effective and efficient manager; and

WHEREAS, it is in the best interests of the Commonwealth to encourage the development of innovative technology, efficient management and interaction between the public and the private sectors; and

WHEREAS, it would, therefore, be a sound and equitable management policy to establish a program of meritorious service awards for state employees; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Governor is hereby requested to develop a meritorious service awards program for state employees who develop materials in the scope of their employment, which (i) are patentable or copyrightable and may bring revenues into the Commonwealth or (ii) assist state government in saving the taxpayers' money or (iii) assist state government in being a more efficient manager.

Official Use By Clerks

Agreed to By The House of Delegates		Agreed to By The Senate	
without amendment	☐	without amendment	☐
with amendment	☐	with amendment	☐
substitute	☐	substitute	☐
substitute w/amdt	☐	substitute w/amdt	☐

Date: _____ Date: _____

Clerk of the House of Delegates

Clerk of the Senate

HP6003324

ENGROSSED

HOUSE BILL NO. 1494

House Amendments in [ ] - February 3, 1985

A BILL to amend the Code of Virginia by adding sections numbered 23-4.3, 23-4.4 and 23-9.10:4, relating to policies on and transfers of patents and copyrights by institutions of higher education.

Patrons–Morrison, Ball, Quillen, Manning, Callahan, Putney, and Philpott; Senators: Andrews, H. B., Willey, and Buchanan

---

Referred to Committee on Rules

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding sections numbered 23-4.3, 23-4.4 and 23-9.10:4 as follows:

§ 23-4.3. Adoption of patent and copyright policies; employees to be bound by such policies.–A. The boards of visitors of state-supported institutions of higher education and the State Board for Community Colleges shall adopt patent and copyright policies consistent with the guidelines promulgated by the State Council of Higher Education pursuant to § 23-9.10:4. Prior to the adoption, such policies shall be submitted to the Council to determine their consistence with the Council's patent and copyright guidelines.

B. All employees of state-supported institutions of higher education, including the Virginia Community College System, as a condition of employment, shall be bound by the patent and copyright policies of the institution employing them.

[~~*§ 23-4.4. Authorization to transfer interest; Governor's approval required under certain circumstances.–The Boards of Visitors and the State Board for Community Colleges are authorized to transfer any interests they may possess in patents, copyrights or materials which were potentially patentable or copyrightable. However, if such property was developed through the expenditure of general funds by an employee of the institution acting within the scope of his employment, the Governor's approval shall be obtained prior to the transfer. The Governor may attach such conditions to these transfers as he deems necessary.*~~

§ 23-4.4. Authorization to transfer interest; Governor's approval required under certain circumstances.–The Boards of Visitors or the State Board for Community Colleges may transfer any interest they possess in patents, copyrights or materials which are potentially patentable or copyrightable. However, the Governor's prior written approval shall be required for transfers of such property developed wholly or significantly with the use of general funds of the Commonwealth and either (i) such property was developed by an employee of the institution acting within the scope of his assigned duties, or (ii) such property is to be transferred to an entity other than one whose sole purpose is to benefit the respective institutions. The Governor may attach conditions to these transfers as he deems necessary. In the event the Governor does not approve such transfer, the materials shall remain the property of the respective institutions and may be used and developed in any manner permitted by law. The State Council of Higher Education in accordance with § 23-9.10:4 shall adopt a uniform statement defining (i) the conditions under which a

significant use of general funds occurs and (ii) the circumstances constituting an assigned duty.]

§ 23-9.10:4. Council to develop patent and copyright guidelines for state-supported institutions of higher education; duty to report.—In addition to any other powers and duties, the State Council of Higher Education for Virginia shall promulgate and, from time to time, revise patent and copyright guidelines for the state-supported institutions of higher education, including the Virginia Community College System. These guidelines shall not be subject to the requirements of the Administrative Process Act (§ 9-6.14:1 et seq.) of this Code. However, the Council shall take into consideration the views of the presidents of the institutions, the Chancellor of the Virginia Community College System and the executive director of the Innovative Technology Authority prior to issuing any such guidelines.

The Council, with the cooperation of the Innovative Technology Authority, shall monitor and annually report to the General Assembly: (i) the number of patents, copyrights and materials, which were potentially patentable or copyrightable, developed at the institutions; (ii) measures taken to protect such properties; and (iii) the identity of the transferor, if the interest in any patent, copyright or other material which was potentially patentable or copyrightable is transferred.

Official Use By Clerks

Passed By The House of Delegates		**Passed By The Senate**	
without amendment	☐	without amendment	☐
with amendment	☐	with amendment	☐
substitute	☐	substitute	☐
substitute w/amdt	☐	substitute w/amdt	☐

Date: _____ Date: _____

Clerk of the House of Delegates

Clerk of the Senate

APPENDIX C

AGENCY RESPONSES

State agencies involved in a JLARC study effort are given the opportunity to comment on an exposure draft of the report, and appropriate corrections are made to the text. Page references in a response may not correspond to the page numbers in this final version of the special study.

Agencies responding to the exposure draft were:

-- The College of William and Mary
-- Old Dominion University Research Foundation
-- Virginia Commonwealth University
-- Department of Information Technology
-- State Corporation Commission
-- University of Virginia

Any errors in fact or interpretation noted by the agencies have been corrected.

CHARTERED 1693
THE COLLEGE OF WILLIAM AND MARY IN VIRGINIA
OFFICE OF THE PRESIDENT
WILLIAMSBURG, VIRGINIA 23185

JAN 18 1985

January 16, 1985

Mr. Ray D. Pethtel, Director
Joint Legislative Audit and Review Commission
Suite 1100, 910 Capitol Street
Richmond, Virginia 23219

Dear Mr. Pethtel:

We thank you for sharing a copy of the JLARC Exposure Draft Patent and Copyright Issues in Virginia State Government for our review and comment. It appears to us to be a thorough compilation and presentation of the facts and issues related to this topic.

We have identified one factual inaccuracy. Though the text includes appropriate comments about the two publications and associated royalties related to the Virginia Institute of Marine Science, Table 1 indicates that those royalties are directed to an affiliated foundation. That is not the case; all these royalties (while certainly modest) reside under the control of the Board of Visitors. Just over $2,000 was brought into the Agency as miscellaneous revenu (fund detail 0200) and the remainder was placed in the private (local) funds of the Board.

If you should have any questions, please call Mr. Paul Koehly at VIM or me.

Sincerely,

George R. Healy
Acting President

GRH:dt

Old Dominion University Research Foundation
P.O. Box 6369 • Norfolk, Virginia 23508-0369
Phone 804/440-4293

JAN 18 1985

January 17, 1985

Philip Leone
Commonwealth of Virginia
Joint Legislative Audit and Review Commission
Suite 1100, 910 Capitol Street
Richmond, Virginia 23219

Dear Mr. Leone:

The purpose of this letter is to confirm proposed changes to the JLARC Exposure Draft Patent And Copyright Issues In Virginia State Government that relate to Old Dominion University Research Foundation.

Page 3 of the Draft, fourth new paragraph currently reads:

> "The Old Dominion University Research Foundation owns one patent and the rights to five copyrighted books. None of these properties are revenue producing. All of these intellectual properties were developed by ODU faculty members. The Foundation's internal auditor believes that ODU claimed ownership of these properties because it provided financial assistance to the faculty members."

We propose that the Draft be edited to read:

> "The Old Dominion University Research Foundation owns two patents and the rights to five copyrighted books. Although these properties have produced some revenue, expenses to date exceed income. All of these intellectual properties were developed by ODU faculty members. The Foundation's ownership of these properties is based on the financial assistance provided to the ODU faculty members."

In addition, please note that the Research Foundation owns two patents. In confirming intellectual properties owned by the Research Foundation with Mr. Carl Schmidt December 11, 1984 I omitted the following:

Weiman-Chaiken Patent - "Image Processing Method and Apparatus." This property is jointly owned by Old Dominion University Research Foundation and New York University. Carl Weiman, Math and Computer Science Department, is the ODU faculty member responsible for co-development of this patent.

The Research Foundation wrote the book value of this patent to zero ($-0-) during Fiscal Year 1982.

If you should need additional information, please do not hesitate to contact me at (804) 440-4293.

Sincerely,

Dewey B. Durham
Internal Auditor

DBD/

cc: Bob E. Wolfson,
Executive Director

Virginia Commonwealth University

Mr. Ray B. Pethtel, Director
Joint Legislative Audit and Review Commission
Suite 1100
910 Capitol Street
Richmond, Virginia 23219

Dear Mr. Pethtel:

In response to your request to review and comment on the JLARC Exposure Draft, Patent And Copyright Issues In Virginia State Government, I note that a number of items do not reflect an understanding of how universities operate in terms of research and publications. Secondly, the expertise for handling patents lies with the individual universities rather than with JLARC or SCHEV.

Attached are items dealing with fact and others as comments regarding intellectual properties in universities.

Sincerely,

Ed Ackell

Edmund F. Ackell, D.M.D., M.D.

January 16, 1985

gmp

Enclosures

cc: Dr. Janet Greenwood, President, Longwood College, and Chairman, Council of Presidents
Dr. Frank L. Hereford, Jr., President, University of Virginia
Dr. William E. Lavery, President, Virginia Polytechnic Institute and State University

Comments on statements of fact.

p.2, bottom of page: "...ideas that are patentable."

Ideas are not patentable: Gottschalk v. Benson, 409 U.S. 63,67,175 USPQ 673, 675 (1972); In re Christensen, 478 F.2d 1392, 1393-94, 178 USPQ. 35,37 (C.C.P.A. 1973)."Discovery" is used in the U.S. Constitution (Art I, Sect 8). "Invention" is the commonly used word today.

p.6, VCU's properties:

As of January 6, 1985 a new patent was applied for on VCU research. The property has not yet been licensed, and no revenue has been realized.

p.7, top:" ... inventors [have] right to make, use or sell..."

A patent grants only the right to exclude others from making, using and selling, unless licensed by the patent owner (Rosenberg, Peter D., Patent Law Fundamentals, 2nd ed, New York: Clark Boradman (1983), Sect 2.05)). This is a critical difference. The difference leads to practical decisions not to patent an invention which, although possibly patentable, can be so easily practiced that it is impractical to attempt to prosecute (or even detect) infringers. VCU's doorknob guard is a case in point: almost anyone can make this device. This situation is especially germane to university patents. A university is usually ill advised to attempt to practice its own invention, so it can bring the invention to the public only by licensing. However, a license can be sold only if the licensee perceives that infringers can be economically prosectued. In short, the license must convery a useful power to exclude others.

p.6, middle of page.

The following sentence appears: "All such research is conducted on behalf of the taxpayers." While this statement may be technically accurate, if "taxpayers" includes taxpayers of the federal as well as the state government, it would be important to clarify this statement by noting that much of the research conducted at state-supported colleges and universities is funded by external sources, including the federal government and private industry; and that certain rights and benefits, including those relating to intellectual properties develope in the course of such externally-funded research, may accrue to the fudning source, which may or may not be the taxpayers of the Commonwea of Virginia.

p.9, Table 4.

Research Corp. is the only patent management organization with which VCU has an agreement resulting in a 15% of gross share to the inventor. In the case of all other methods of patent management, including use of other patent management organization, the inventor receives 35% of net.

The figure of $454,000 expenses assumed in this example is confusing. Only $53,000 of that is assumed to be development costs. It would be generous to assign $25,000 to the costs of obtaining the patent, and another $25,000 for marketing/managing the patent. This leaves $351,000 to be accounted for as costs of patent defense and/or infringement prosecution. Wise patent administration would require the licensee to absorb these costs. The effect of this on gross royalties and on royalties received by the university would depend on the agreements in force in the specific case, thus making JLARC's assumptions regarding shares of net royalties of very limited validity.
This does not negate the conclusion that the inventor's share differs between the various universities. It also points out the necessity for careful definition of "net royalties" in patent policies.

p.12, Copyright

There is a conceptual problem coloring this entire discussion.

Under federal law, a copyright exists when the creation is made. The creator may contract away his rights, for example, as a condition of employment. In order to enforce the copyrights, the owner of the rights must both give notice of the copyright by marking the product and all copies appropriately, and register the copyright with the Copyright Office prior to instigating litigation. Registration need not be contemporaneous with creation or first publication. The 5 year period for registering (see p. 15 of draft report) is only for establishing prima facie evidence of ownership and validity of the copyright (Goldsmith v. Max, 213 U.S.P.Q. 1008, 1011 (S.D. N.Y. 1981)).

It should also be noted that copyright protection extends to creative works of art, including paintings, musucal scores, plays, etc. Policies regarding such works might be very different from policies regarding, say, software.

p.13, beginning

The report discusses intellectual property development at "other state agencies" (other than state-supported colleges and universities) and recommends, at page 16, that when an agency believes that it has developed an intelletcual property which may be marketable the agency should transfer that property to the Center for Innovative Technology for evaluation and marketing. It should be clearly stated that this approach be limited in its application solely to "other state agencies" and would not apply to intellectual properties developed at state-supported colleges and universities.

Comments regarding intellectual properties in universities

p.2, Types of intellectual properties

Some innovations not subject to patent or copyright protection can be protected by contractual agreements, for example, "know-how" and research products such as cell lines. Trademarks can also be protected, and can be attached to unpatentable creations. I believe that the university can use such techniques to realize revenue. As each such case requires a unique approach, I do not think these types of intellectual properties can easily be subject to legislated control.

p.6, Need for Policy: "A sound policy should encourage faculty to create ..." [emphasis added].

A university's societal mission includes creating knowledge. A sound policy would encourage protecting the commercial value of new knowledge if it is subject to protection, to benefit the public good. However, creating intellectual property per se is not seen by the academic community as its mission.

p.6, "When a university recaptures its costs..."

I believe this is not a sound approach. A university is in the business of creating knowledge, and a given final product is built on many immesurable contributions. Hence, any revenue realized cannot be reasonably related to most of its antecedents.

Instead, I believe that revenue realized should be considered "found money." Only direct costs of protection, management, and possibly final stages of development, should be offset against revenue. The public's investment was made to further the public ends of the institution. Thus the public's interest is best served by reinvesting "found" revenue in future public ends of the institution as a supplement to its appropriation.

p.10, Model University Patent Policy

It is not clear that a model policy, consistent for all Virginia universities, is best. Each university is a separate organization with separate traditions, mixes of expertise, Boards, and patent policy histories. Altering historic shares between inventors and institutions could lead to grave inequities, or at least to perceptions of inequity.

p.10, "could be drafted by SCHEV" and p.20, recommendation #1.

SCHEV has no expertise in intellectual properties. If a model policy were to be developed, it might best be done by experienced persons from the universities themselves.

p.10-12 Listed factors (also see Appendix)

1) Coverage of students has implications different from coverage of employees. However, JLARC's suggestion of pro-rating shares as the cost of education is pro-rated could lead to significant inequities and almost impossible administrative situations. Furthermore, most students who would be involved in an invention receive stipends of one sort or another; in many cases the student could argue strongly that it was a payment for services rendered, leading to a strong probability of litigation if the student were treated differently from other employees. Furthermore, what would be the situation if the student is the employee of an industry to which it has a contractual duty to turn over all inventions, and the

employer is paying for the student's education and paying a salary? This is not uncommon in graduate education.

2) The range of consideration is well covered.

3) Very important; required if federal funds are involved.

4) It is improbable that a faculty will accept such judgements unless rendered by a body primarily comprising faculty members.

5) I do not believe a faculty will accept any externally imposed limitations on freedom of publication. Instead, universities should seek ways to inform inventors how they can publish without restricting patent rights; so long as they share in royalties, they are likely to have enlightened self interest in patents as well as in publication.

6) Existing policies require disclosure. The practical problem is getting inventors to recognize that, in fact, they have an invention.

7) VCU's practice is to consider accepting for administration any personal invention offered by a member of the VCU Community under the same terms as the result of university research. This is a service to individuals who would not otherwise pursue commercialization. It can allow both the inventor and the university to realize revenue that would otherwise not be obtained. No such invention has yet been accepted by Research Corp, the only patent administration route the Patent Committee has used for such circumstances.

8) This is a very difficult area to deal with. The first question is, how would the institution learn of the circumstances? Second, how would the relative contribution of the university be determined? Third, what if a current employer laid claim to the invention (typical if the faculty member went to industry) and resisted the university's claim?

9) Creating two classes of faculty would be most divisive.

10) Rights in patents or royalties are property, so existing laws and precedents are adequate, if policies are mute on this point. Any attempt to restrict these rights could lead to litigation costly in both money and reputation; "widows and orphans" are due special fiduciary consideration in our society.

11) Of course!

12) This would probably de disastrous. It is necessary that universities have case-by-case flexibility to negotiate the best overall agreement. There are already enough restrictions devolving from the state relationship making agreements with industry difficult to negotiate. Intellectual property concerns can be very important to potential industrial sponsors. One policy to consider -- I do not necessarily recommend it in all cases -- is to require, as a condition of granting an industrial sponsor all patent rights, that it pays all costs (i.e., no cost sharing of faculty time, full indirect costs, etc.) plus a premium. Generally, however, this is inappropriate, as the university should not undertake "work for hire" in which is has no substantive interest.

p.12 Copyright

JLARC is correct in its emphasis on computer software as a reason for considering copyrights. In my opinion, software could easily become a much more important revenue producer than patents. Last year, for example, Georgia Tech. earned $1 million from software licenses, as compared to $0.2 million from patent licenses.

p.13 "should reflect the work-made-for-hire doctrine"

I believe that this is not broadly workable in academia. First,

exactly what work is "hired" ? Second, academia has traditionally claimed few, if any, rights to creative expression, and a significant change would be unacceptable to most faculty members. Third, few academics' expressions would be revenue producing, so too broad a claim by the university would easily create many costs with no prospect of return. Universities value the scholarly publications of their faculties; traditionally the copyrights to these are held by the publisher; inserting university administration between the author and the publisher would delay and discourage publication. The entire area of "arts" (paintings, music, plays, etc.) raises grave considerations regarding such a change in traditional approaches.

Yet narrowly, it can be workable if there is an acceptable definition of "assigned duty."

p.13 Other agencies

A significant problem could arise for sponsored programs if other Virginia agencies' claims to intellectual property are implemented broadly, and an attempt is made to extend this to work they sponsor at universities. As both the university and the sponsor are instrumentalities of the state, a resolution could be found, but it could turn into a distasteful internecine conflict.

p.16 CIT as agency for software sale

I believe this concept should not be extended to university-created software. Some "this is available:" listings exist at little or not cost by which universities can market software. Generally, I believe a university will know of the markets for its products better than CIT.

p.16 Policy toward intellectual property ownership, and p.20, recommendation No.4.

It is not clear if this recommendation will be understood or implemented as separately applicable to universities and other state agencies. It would be particularly disasterous if universities were required to assign patents to another state agency. Many, if not most, university inventions will have involvement of some federal sponsorship. Hence, by federal statute (PL 96-517), there are severe limits as to the nature of organization to which rights in such inventions may be assigned. The institution must share royalties with the inventor. Further, the balance of royalties after administration costs must be used for the support of research and education.

p.20, recommendation No.2

The recommendation is good. However, overextension by the legislature that excluded the university employee from a share in royalties would often conflict with federal statute.

p.24, reimbursement of general fund monies.

I believe this is not a good recommendation. Determining these costs would require significant and possibly impossible changes in accounting practices and systems. I recommend the "found money" approach.

No Page Reference

As some universities do have patent expertise, other state agencies might use university skills and systems on a fee for service basis to administer patents. This might be more beneficial and cost effective than any other approach, as few patents would be generated by other state agencies.

COMMONWEALTH of VIRGINIA

LEMUEL C. STEWART, JR.
Director

Department of Information Technology
110 SOUTH SEVENTH STREET
RICHMOND, VIRGINIA 23219

(804) 344-5000

January 16, 1985

Mr. Ray D. Pethtel
Director
Joint Legislative Audit and
Review Commission
Suite 1100, 910 Capital Street
Richmond, Virginia 23219

Dear Mr. Pethtel:

This is in response to your letter of January 9, 1985 requesting our review and comments on the exposure draft of your report on Patent and Copyright Issues in Virginia State Government.

Attached are selected pages from the report with suggested changes penned in. As you will note, the changes are non-substantive in nature, but merely correct some technical terminology.

Thank you for the opportunity to review the document. If we can be of any further assistance, please let us know.

Sincerely,

Michael J. Durkin
Deputy Director
Plans and Operations

/lfl

Attachment

cc: Lemuel C. Stewart, Jr.

COMMONWEALTH OF VIRGINIA

JAN 16 1985

THOMAS P. HARWOOD, JR.
CHAIRMAN
JUNIE L. BRADSHAW
COMMISSIONER
PRESTON C. SHANNON
COMMISSIONER

WILLIAM C. YOUNG
CLERK OF THE COMMISSION
BOX 1197
RICHMOND, VIRGINIA 2320

STATE CORPORATION COMMISSION

January 14, 1985

Mr. Ray D. Pethtel
Joint Legislative Audit
and Review Commission
Suite 1100
910 Capitol Street
Richmond, Virginia 23219

Dear Mr. Pethtel:

We certainly appreciate receiving the exposure draft of the Patent and Copyright Issues In Virginia State Government, and the opportunity to comment. After reviewing the document we cannot find the need to correct any statements made concerning actions by the State Corporation Commission. Again, thank you for keeping us informed. We look forward to receiving the final document to ensure that the SCC is in concert with policy for this area.

Sincerely

Thomas P. Harwood, Jr.

Thomas P. Harwood, Jr.
Chairman

UNIVERSITY OF VIRGINIA
ASSOCIATE PROVOST FOR RESEARCH
WASHINGTON HALL, EAST RANGE
(804) 924-3606

January 22, 1985

Mr. Ray D. Pethtel
Director
Commonwealth of Virginia
Joint Legislative Audit and
Review Commission
Suite 1100, 910 Capitol Street
Richmond, Virginia 23219

Dear Mr. Pethtel:

Thank you very much for the opportunity to review the JLARC exposure draft on patent and copyright issues in Virginia state government. Over the last twenty years, institutions of higher education have been developing policies dealing with intellectual property. The University of Virginia and other major research universities were the first institutions to develop these policies, but there is an arguable need for policies at all institutions.

Our chief concern is that the role proposed for legislation, the State Council, the Governor, and the Attorney General will unnecessarily complicate our determined efforts to make our program succeed. The need for rapid response in decisions to claim institutional ownership, to apply for patent protection, and to negotiate with industrial licensees is critical.

Furthermore, the University's patent policy was developed after long faculty deliberations, careful administrative review, and with appropriate consideration by the Rector and Visitors. It is not easy or necessarily appropriate to expect that our process would produce a document or policies identical with those of another institution.

The University is in the process of developing a policy on copyrights. This effort has taken nearly three years and is indicative of the complexity of the issues involved.

We would be willing to sponsor a meeting in Charlottesville of officials from state colleges to discuss issues and review sample policies dealing with both patents and copyrights. We would coordinate this with the State Council to make sure that the appropriate individuals were invited.

BOX 533, NEWCOMB HALL STATION
CHARLOTTESVILLE, VA 22904

In conclusion, our view is that the intrusion of other groups into this area is uncalled for by either the circumstances or the past events. Any statewide policy should be limited to providing a broad framework within which each institution could adopt its own policy.

Sincerely yours,

David C. Benjamin
Associate Provost for Research

DCB/nch

CC: Kathy Reed
Edwin Floyd
Len Sandridge
Ray Hunt
Dennis Barnes

JLARC STAFF

RESEARCH STAFF

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