NATIONAL COUNCIL
OF
UNIVERSITY RESEARCH ADMINISTRATORS

INTELLECTUAL PROPERTY SERIES

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NATIONAL COUNCIL OF UNIVERSITY RESEARCH ADMINISTRATORS

Introduction to

PATENTS AND PATENT RIGHTS

Workshop Materials - NCURA Intellectual Property Series - 1984

Title	Unit
> Patents and Patent Rights	1 <
Patent Rights under Government Contracts	2
University Patent Policies and Practices	3
Patent Clauses in Industrial Research Agreements	4
Patent License Agreements	5
The Law of Copyrights	6
Rights in Data under Government Contracts (Reserved)	7
University Copyright Policies	8
Copyright Clauses in Industrial Research Agreements	9
Software Licensing Agreements	10

Introduction to

PATENTS AND PATENT RIGHTS

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Other Guidance

This series is intended to provide university research administrators with only an introduction to the basic concepts of intellectual property. Those who require a more complete understanding of the subject will wish to study other materials cited herein or developed from time to time by such organizations as the Society of University Patent Administrators, the Licensing Executives Society, the COGR Committee on Patents, Copyrights and Rights in Data, and the National Association of College and University Attorneys.

User Feedback

This material is intended to be self-improving. Users are, therefore, invited to forward comments, suggestions and new materials for the next revision to:

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Introduction to

PATENTS AND PATENT RIGHTS

Contents

1.	PATENT LAW	Page 4
	The United States Constitution The United States Code, Title 35	
2.	THE NATURE OF PATENTS AND PATENT RIGHTS	6
	The "Right to Exclude" Assignment Joint Ownership Licenses Government Rights	
3.	WHAT CAN BE PATENTED: PATENTABLE SUBJECT MATTER	8
	Statutory Subject Matter Non-Statutory Subject Matter	
4.	CONDITIONS FOR PATENTABILITY	11
	Novelty, Utility and Non-Obviousness Other Conditions	
5.	PATENT APPLICATIONS AND PROSECUTION	14
	Who May Apply Preliminary Search The Application Prosecution	
6.	PRIORITY: CONCEPTION AND REDUCTION TO PRACTICE	18
	Introduction Conception Reduction to Practice Constructive Reduction to Practice Diligence	
7.	REMEDIES	23
	Infringement Interferences	
8.	TREATIES AND FOREIGN PATENTS	25
9.	BIBLIOGRAPHY	26

1. PATENT LAW

The United States Constitution

Article 1, Section 8 of the Constitution provides that:

> "The Congress shall have power...to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and inventors the exclusive Right to their respective Writings and Discoveries."

Under this broad Constitutional authority, the Congress has enacted the Patent Laws, Title 35 of the United States Code, and the Copyright Laws, Title 17 of the United States Code.

The economic philosophy behind this Constitutional authority to grant patent and copyrights is the conviction that the opportunity for personal gain will provide an incentive for authors and inventors to devote their talents to science and the useful arts to the ultimate benefit to the public. As stated in an early court decision, the authority of Congress is exercised in the hope that the "productive effort thereby fostered will have a positive effect on society through the introduction of new products and processes of manufacture into the economy, and the emanations by way of increased employment and better lives for our citizens."

In order to provide an incentive for research and inventiveness and for disclosing the results, thereby promoting scientific progress, the U.S. patent laws grant to the inventor, the right to exclude others from making, using or selling his/her invention for a limited period.

Without this protection, anyone who learns of another's invention (assuming it does not violate a nondisclosure agreement or other legal obligation) would be free to copy that invention and make full use of it in the same manner as the inventor, and without having shared any of the costs incurred in its development.

In return for this exclusive right, however, the inventor must make a full disclosure of his invention to the public. The purpose of disclosure is to spur other inventors into activity and make possible additional advances in the art, and to ensure that the public gains the benefit of the original invention after a limited period.

2. THE NATURE OF PATENTS AND PATENT RIGHTS

The "Right to Exclude"

A patent is issued in the name of the United States. It grants to the patentee "the right to exclude others from making, using or selling the invention throughout the United States" for a term of 17 years. The patent contains the grant and a printed copy of the specification and drawing, which are annexed to the patent and form a part of it.

Since the essence of the right granted by a patent is the right to exclude others from commercial exploitation of the invention, the patentee is the only one who may make, use or sell his invention. Since a patent is a property right, it may be sold or assigned, pledged, mortgaged, licensed, willed or donated, and may be the subject of grants, contracts and other agreements. It may be controlled by the exercise of the exclusive rights which the patent grants, or by permitting others to exercise such rights under the terms of a license agreement.

The exact nature of the right conferred must be carefully distinguished, and the key is in the words "right to exclude." The patent does not grant the right to make, use, or sell the invention. The patent only grants the right to exclude others from doing so.

Since the patent does not grant the right to make, use or sell the invention, the patentee's own right to do so depends upon the rights of others and whatever general laws might be applicable. Merely because he has received a patent for an invention, a patentee is not thereby authorized to make, use or sell the invention if it is prohibited by law, violates state licensing requirements, infringes the prior rights of others, violates the anti-trust laws, etc. Ordinarily, however, there is nothing which prohibits a patentee from making, using or selling his own invention unless he thereby infringes another patent which is still in force.

Patent rights are purely statutory: there is no definitive body of common law relating to patents as such. However, assuming that his invention is not illegal and does not infringe another patent, an inventor has the right, independent of the Constitution and the patent laws, to make, use sell and otherwise enjoy his invention. These rights are sometimes spoken of as an inventor's common law rights and are subject to the protection of that law. If, for example, an inventor discloses an unpatented invention to another individual under agreement of confidentiality, that individual, if he breaches that agreement and attempts to manufacture an article which embodies the invention, may be liable for damages on the basis of common law and equity.

Assignment

As noted in the preceding section, a patent is personal property and may be sold, assigned, pledged, mortgaged, licensed, willed or donated, and may be the subject of grants, contracts and other agreements. The patent law provides for the transfer or sale of a patent, or of an application for

3. WHAT CAN BE PATENTED: PATENTABLE SUBJECT MATTER

Statutory Subject Matter

The patent law specifies the general field of subject matter that can be patented (i.e., statutory subject matter) and the conditions under which a patent may be obtained.

35 U.S.C. Chapter 10 deals with the patentability of inventions. Sec. 101 describes patentable subject matter as follows:

> " Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvements thereof, may obtain a patent therefor, subject to the conditions and requirements of this title."

(a) Process

Sec. 101(b) states that:

> "The term process means process, art or method, and includes a new use of a known process machine, manufacture, composition of matter or materials."

A statutory process may consist of a combination of physical or manipulative steps. Where it consists of more than one step, patentability may depend on various factors, such as the particular arrangement, order or sequence of individual steps which are not novel in themselves. On the other hand, if the combinations of steps is not new, patentability of a process may depend on the materials used. Depending on the circumstances, computer software may be eligible for patent protection as part of a patentable process.

(b) Machine

As the terms are used in patent law, "machine" is virtually interchangeable with mechanism, device, engine or apparatus, the latter term being more common in practice. The term "machine" includes tools and other implements intended for use by hand. The particular way in which the components are arranged, as well as the nature of the components themselves, are the parameters which define and distinguish a machine.

(c) Manufacture

This is synonymous with "articles of manufacture" and refers to articles which are man-made. The Supreme Court has held that to obtain a patent for a product made from raw material, it must possess a new or

importance as a food source) and plants found in an uncultivated state. Asexual reproduction refers to vegetative propagation, i.e, without the use of seed). Patents for plants confer upon the patentee the right to exclude others from asexually reproducing the plant and from selling and using any plants so reproduced. What constitutes a distinct plant variety within the meaning of the plant patent act appears to be a plant which possesses at least one significantly different characteristic, such as color, immunity to disease, size or shape, etc.

In addition, the Plant Variety Protection Act provides patent like protection to breeders of plants that have been reproduced by sexual means, i.e., by seed. It is administered by the Office of Plant Variety Protection in the Department of Agriculture. Grants under the Plant Variety Protection Act are called certificates of plant variety protection.

Nonstatutory Subject Matter

(a) Specifically excluded by statute. Certain subject matter is specifically excluded from patent protection by the patent law itself. The principal example is the exclusion of certain plants, as noted in the preceding section.

Some subject matter which might otherwise fall into the statutory classes defined under the patent law is excluded by other statutes. For example, the Atomic Energy Act contains a blanket provision excluding from patent protection any invention or discovery which is useful solely in the utilization of special nuclear material or atomic energy in any atomic weapon. Anti-radiation agents have been deemed not to constitute such special nuclear materials and are, therefore, statutory subject matter.

(b) Discoveries. Often considered as a class of unpatentable subject matter is that which is so broad as to be incapable, as a practical matter, of adequate definition and/or which is not really new but was merely unknown or unappraciated previously. Such inventions are more appropriately styled discoveries and have been characterized in the court decision quoted in a preceding section. They include principles or laws of nature and naturally occurring articles.

(c) Other. Another class of subject matter has been excluded by judicial construction and includes, for example, printed matter (which may be protectable under the copyright laws but does not have novelty based on its physical structure), methods of doing business (which may be protected to some extent unde the law of trademarks), and mental processes.

(b) Utility

35 U.S.C. Section 101, quoted earlier, provides that subject matter and improvements thereof must be "new and useful. to be patentable. The subject matter must have a useful purpose and operability, i.e., it must operate to perform its intended purpose. 35 U.S.C. Sect. 112 requires that the applicant describe how to use the invention:

> "The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same..."

(C) Nonobviousness

The following provision was incorporated in the 1952 Patent Act as 35 U.S.C. Sect. 103, Conditions for patentability; non-obvious subject matter:

> "A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the difference between the subject matter sought to be patented would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains...."

Even if the subject matter sought to be patented is not exactly shown by the prior art, and involves one or more differences over the most nearly similar thing already known, a patent may still be refused if the differences would have been obvious to a person skilled in the art at the time the invention was made. The subject matter sought to be patented must be sufficiently different from what has been used or described before so that it may be said to be non-obvious over the prior art. Small advances that would be obvious to a person having ordinary skill in the art are not considered inventions capable of being patented. For example, the substitution of one material for another, or changes in size are not ordinarily patentable.

Other Conditions

(a) Abandonment

35 U.S.C. Sect. 102(c) declares that a person is not entitled to a patent if he has abandoned his invention, but leaves the question of what constitutes abandonment to the courts. Although it is beyond the scope of this presentation, it might be noted that there is a distinction between abandoning a patent application and abandoning the invention it discloses.

5. PATENT APPLICATIONS AND PROSECUTION

Who may apply for a patent

According to the statute, only the inventor may apply for a patent, with certain exceptions. If a person who is not the inventor should apply, any patent obtained would be void. The person applying in such a case who falsely states that he is the inventor would also be subject to criminal penalties. If the inventor is dead, the application may be made by his legal representatives, that is, the administrator or executor of his estate. If an inventor refuses to apply for a patent or cannot be found, a joint inventor or a person having a proprietary interest in the invention may apply on behalf of the missing inventor.

If two or more persons make an invention jointly, they apply for a patent as joint inventors. A person who makes only a financial contribution is not a joint inventor and cannot be joined in the application as an inventor; to be an inventor, a person must contribute to the conception of the invention. It is possible to correct an innocent mistake in omitting a joint inventor or in erroneously joining a person as an inventor.

Preliminary Search

Since a patent is not always granted when an application is filed for an invention, many inventors or institutions to which an invention is assigned conduct a so-called preliminary search through the prior United States patents to discover if the particular device or one similar to it has been shown in some prior patent. This preliminary patent search is usually conducted by a patent searcher before a patent application is filed.

The search may be conducted in the Search Room of the Patent and Trademarks Office, and to some extent in public libraries which have data links to the Patent and Trademarks Office. This search is not always as complete as that made by the Patent and Trademark Office during the examination of an application, but only serves a preliminary purpose as the name indicates. The Patent and Trademark Office examiner may, and often does, reject claims in an application on the basis of prior patents or publications not found in the preliminary search.

The Application

The application for a patent is made to the Commissioner of Patents and Trademarks and includes:

1. A written document in the English language which comprises a specification (description), claims, and an oath or declaration;
2. A drawing in those cases in which a drawing is possible;
3. The filing fee

prior United States and foreign patents, and such prior literature as is available, to determine if the invention is new. The examiner reaches a decision as to compliance with the statutes and rules, novelty and patentability of the invention, and other matters.

(b) Office Action. The applicant is notified in writing of the examiner's decision by an "Office action" mailed to his attorney or agent. The reasons for any adverse Office action, objection or requirement are stated in the action plus information or references which may help the applicant judge the propriety of continuing the prosecution of his application.

If the invention is not considered patentable, or patentable as claimed, the claims (or those considered unpatentable) will be rejected. It is not uncommon for some or all of the claims to be rejected on the first action by the examiner. Relatively few applicatons are allowed as filed.

(c) Applicant's Response

If the Office action is adverse in any respect and the applicant wishes to persist in applying for a patent, he must reply within the time allowed, and may request reexamination or reconsideration, with or without amendment of the application. The request must be in writing and distinctly and specifically point out the supposed errors in the examiner's action. It must also respond to every ground of objection and rejection in the prior Office action.

After response by the applicant, the application will be reexamined and reconsidered, and the applicant will be notified if claims are rejected, or objections or requirements made, in the same manner as the first examination. The second Office action will usually be made final.

(d) Final Rejection or Allowance. On the second, as noted above, or on any subsequent examination or consideration, the rejection or other action may be made final. In responding to a final rejection or action, the applicant must cancel each claim which is rejected, or appeal the rejection. If any claim is allowed, the applicant must comply with any requirement or objection as to form.

Interviews with examiners may be arranged, but an interview does not remove the necessity for responding to office actions within the required time, and the action of the Patent Office is based solely on the written record.

As a result of the examination by the Patent and Trademark Office, patents are granted for roughly two out of every three patent applications filed.

(e) Abandonment or Final Issue. The response of an applicant to an action by the Patent Office must be made within a prescribed time limit.The maximum period being set at 6 months by the statute, which also provides, however, that the Commissioner may shorten the time for reply to not less than 30 days. The normal period for response to an office action is 3 months. If no reply is received within the time period, the application

6. PRIORITY: CONCEPTION AND REDUCTION TO PRACTICE

Introduction

35 U.S.C. Sect. 102(g) provides that:

> "A person shall be entitled to a patent unless: before the appplicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other."

Thus, the United States settles the question of priority on the basis of who is "first to invent." Nearly every other country (except Canada and the Philippines) resolves the conflict solely on the basis for who is "first to file" the application disclosing the invention. For accuracy, however, it should be noted that even in this country, one's date of invention is presumed to be one's application filing date. The presumption is rebuttable, however, whereas in "first to file" countries it is not.

For the purpose of determining what constitutes the making of an invention, the inventive process is broken down into two steps: (1) conception, the mental part, and (2) reduction to practice, the physical part. Under general patent law, an invention is not completed until both the conception and reduction to practice have occurred, whether separately or simultaneously.

One should remember, however, that under Federal research contracts and applicable regulations, the Federal government defines the making of an invention as the conception or reduction to practice, and acquires Government rights on the basis of either. This contractual definition should not be confused with the patent law under discussion here, and the consequence of this Federal policy will be discussed in a separate part of this series entitled "Patent Rights under Government Contracts."

Conception

"Conception" has been defined by one court as follows:

> "The conception of the invention consists in the complete performance of the mental part of the inventive act. All that remains to be accomplished..., belongs to the department of construction, not invention. It is therefore the formation, in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is thereafter to be applied in practice, that constitutes an available conception, within the meaning of the patent law. This definition consists of two elements. First,

Reduction to practice

In the eyes of the law, an invention is not complete and does not exist until it has been reduced to practice. Actual reduction to practice contemplates actual and complete use of the invention for its intended purpose. It occurs when an invention has been (1) embodied in some physical form which is (2) used to demonstrate its workability.

Physical embodiment involves the actual construction of an article of manufacture, preparation of a composition of matter, etc. that demonstrates in tangible form every element of the invention. Every particular aspect of the invention as claimed must be found in the physical embodiment, although it is still the claim, and not the physical embodiment, that defines the invention. Reduction to practice does not occur until there is a recognition and appreciation that the invention was in fact made.

Demonstrating workability requires that the physical embodiment be tested to determine whether it performs as contemplated, and it must be reasonably certain that the invention will perform its intended function in actual use. Workability, and hence reduction to practice, is established when it is shown that the invention is able to perform its intended purpose beyond a probability of failure in order to give assurance that the device will operate under normal working conditions for a reasonable length of time. The nature of testing required to establish actual reduction to practice depends upon the particular facts of each case.

Tests have been held to establish a reduction to practice when they show actual performance of the intended function with a quality, extent and character of operation sufficient to indicate that the invention has utility in the environment in which it is to be used. Testing is generally deemed sufficient if the paramaters observed in the testing bear an established relationship to performance in actual use and if the tests are sufficiently comprehensive to assure one reasonably skilled in the art that the intended functions either were being performed or would be performed in actual use. The invention need not pass the test with flying colors. A single successful use of the invention is sufficient to establish its actual reduction to practice.

Reduction to practice is not equivalent to commercialization, and it is not necessary that the invention be capable of commercial exploitation without further refinement.

Constructive reduction to practice

A reduction to practice may be either actual or constructive. An actual reduction to practice involves the physical construction or carrying out of the invention. The actual reduction to practice of a process occurs when the constituent steps have been performed. In the case of a product producing process, reduction requires the establishment of a utility for the products produced. The actual reduction of a composition of matter occurs when the composition has been produced and its usefulness demonstrated by actual testing, unless its utility is self evident.

Diligence

As noted earlier, 35 U.S.C. 102(g) states in part that "In determining priority of invention there shall be considered not only the respective dates of conception but also the reasonable diligence of one who was first to conceive and last to reduce to practice..."

Diligence is only significant where one party was the first to conceive but the last to reduce to practice. The party who was first to conceive need not have commenced due diligence at the time of his own conception. Diligence must, however, commence prior to his rival's conception and be continuously maintained until his own reduction to practice. Consequently, one who was the first to conceive cannot recapture priority by spurting into renewed activity upon learning that another has entered the field. At that point he can only regain priority by becoming the first to reduce to practice. Commercialization is not a requirement for diligence, conception or reduction to practice.

Diligence has the same significance whether there is reliance on an actual or a constructive reduction to practice. (In the latter case, there must have been diligence in preparing and filing the patent applicaton.) However, an unreasonable delay in filing after an actual reduction to practice, which in a sense is a lack of diligence, is more commonly characterized as suppression, as discussed below.

Diligence, as used in 35 USC Sect. 102(g) involves the continued application of the inventor or his representative to the task of reducing the conceived invention to practice. The law requires only ordinary or reasonable diligence, not uninterrupted effort or the concentration of all the applicant's energies. A party charged with showing diligence must account for the entire period during which diligence is required. Reasonable diligence may be shown by affirmative acts toward reduction to practice or by reasons for failing to act. Reasonable diligence by an inventor must be corroborated. Mereley asserting diligence does not factually establish it. A showing of diligence must include a showing of what acts occurred as well as the specific dates on which they occurred.

A party who was the first to reduce to practice, but thereafter suppressed or concealed his invention, forfeits the right to use the date of that reduction to practice to establish priority over a subsequent inventor. Such right cannot be resurrected by thereafter taking steps to file a patent application, even if such steps are taken before an opponent enters the field. However, even though an inventor has suppressed or concealed his invention, he will be entitled to a patent where his filing date is earlier than his rival's date of actual reduction to practice.

Interferences

The policy of awarding a patent only to the first inventor is the basis for interference proceedings. An interference arises when two or more inventors claim the same invention and seek to determine which competing claimant made the invention first and is entitled to patent rights in it.

A patent owner who suspects that another patent interferes with his patent may seek to have his patent declared "prior in time." An action to determine priroty commences when the Patent Office, in considering the application of the potential infringer, believes that conflicting interests exist and gives notice to the parties (35 USC 135). In an action instituted under that section, the question of priority is determined by the Board of Patent Interferences. A party dissatisfied with the decision of the Board may appeal to the Court of Appeals for the Federal Circuit, although the party that prevailed before the Board may elect a different procedure which provides for review by civil action in the district court, with an appeal to the federal circuit. The remedy in an interference action is a declaration of priority.

Interference actions involving the government most often result when the government requests rights in a patent application filed by a party who allegedly reduced his invention to practice with federal funds. Such interference actions generally are authorized by agency enabling statutes. Those statutes provide that the Commissioner shall forward certain patent applications to agency administrators and shall issue patents in the name of the administrator upon request, unless the applicant petitions for a hearing before the Board of Interferences.

9. BIBLIOGRAPHY

Patent law and practice is a complex topic, most of it beyond the scope of this introductory material. However, there are a great many materials available to those who wish to pursue the subject. The following provide a useful starting point:

1. General Information Concerning Patents, a publication of the Patent and Trademark Office of the U.S. Department of Commerce. This 44-page pamphlet is described as "A brief introduction to patent matters including definitions of patents, copyrights, and trademarks; the workings of the Patent and Trademark Office; and what applicants must do." The table of contents of this publication is reproduced as Attachment 1 to this material. It may be ordered from the Government Printing Office. The current price is $3.

2. Patent Law Fundamentals (Second Edition) by Peter D. Rosenberg, New York: Clark Boardman Company LTD, 1981. This is a two-volume reference work, the price of which includes a subscription to continuing releases which keep the material up-to-date. The title pages and a summary of the contents are reproduced as Attachment 2 to this material. The price is 1983 was approximately $125.

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Patents and Patent Rights		1
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University Patent Policies and Practices		3
Patent Clauses in Industrial Research Agreements		4
Patent License Agreements		5
The Law of Copyrights		6
Rights in Data under Government Contracts	(Reserved)	7
University Copyright Policies		8
Copyright Clauses in Industrial Research Agreements		9
Software Licensing Agreements		10

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Contents

1. GOVERNMENT RIGHTS IN PATENTS Page 4

2. THE PATENT AND TRADEMARK AMENDMENTS OF 1980 5

3. OMB CIRCULAR A-124 6

4. COMMINGLING 7

5. FEDERAL ACQUISITION REGULATIONS (FAR) - PART 27 11

Appendices

1. FAR SUBPARTS 13

   Part 27.1 - General
   Part 27.2 - Patents
   Part 27.3 - Patent Rights Under Government Contracts

2. FAR 52.227-11, PATENT RIGHTS - RETENTION IN THE CONTRACTOR (SHORT FORM) 18

1. GOVERNMENT RIGHTS IN PATENTS

Unit 1 in this series, "Patents and Patent Rights", discusses the legislative authority granted to Congress under the Constitution for the enactment of the Patent Laws contained in Title 35 of the United States Code, and the Copyright Laws, Title 17 of the Code.

The fact that the governnment may grant a patent under the authority of the patent laws, however, does not in and of itself give the government a right to use it. To obtain this right, the government must acquire it in some manner, as, for example, by contract, by purchase, as a condition of employment for its own employees, or by special procedures in the interest of public safety, etc.

In this paper we are primarily interested in the extent to which the United States may acquire rights in inventions made in the performance of Federally funded research grants and contracts. This may depend on such factors as the manner in which the Federal funds contributed to the making of the invention, the nature of that invention, the particular agency from which the funds were received, whether an independent contractor is a nonprofit organization or small business or other entity, etc.

As university administrators, however, our interest tends to focus more narrowly on rights acquired by the Government in inventions resulting from federally funded research grants and contracts with small businesses and non-profit organizations. This is determined in accordance with Public Law 96-517, OMB Circular A-124, the implementing Federal Acquisition Regulations (FAR Chapter 27), and agency supplements.

Public Law 96-517 creates a dichotomy in federal policy regarding the disposition of patent rights inventions arising from federally supported research and development efforts, (i.e., in "subject inventions"), between small business firms and non-profit organizations on the one hand, and private enterprises not qualifying either as a small business firm or non-profit on the other. It establishes a uniform policy for all federal agencies, except the TVA, thereby replacing some 26 different policies.

PL 96-517 and the implementing regulations are, therefore, of major importance to universities in the determination of patent rights and ownership under federal research grants and contracts, and are the focus of this paper.

3. OMB CIRCULAR A-124

Public Law 96-517 was initially implemented by OMB Bulletin 81-22, which university representatives felt did not accurately reflect the intent of the law. A period of further discussion and negotiation followed, and OMB Circular A-124, which was effective March 1, 1982, superseded OMB Bulletin 81-22.

The stated purpose of OMB Circular A-124 is to provide "the policies, procedures and guidelines with respect to inventions made by small business firms and nonprofit organizations, including universities, under funding agreements with Federal agencies where a purpose is to perform experimental, development, or research work."

It is important for university representatives to be familiar with OMB Circular A-124 to ensure that the implementing FAR patent regulations and agency supplements are consistent with that Circular from a university standpoint. However, on a day-to-day basis, university administrators will be working with the policies and procedures set forth in FAR Chapter 27 and the standard patent rights clause in FAR 52.227-11, as these relate to universities, since they have been picked up almost verbatim, or with non-substantive modifications, in the various Federal agency supplements. For this reason, OMB Circular A-124 is not included in the appendices.

However, in order to avoid confusion, the following section explains how the standard patent rights clause first issued as Attachment A to Circular A-124 became the standard patent clause set forth at FAR 52.227-11.

Standard Patent Rights Clause

OMB Circular A-124 stipulates that each "funding agreement" (as defined in the Circular) must contain the standard patent rights clause which is set forth as Attachment A to that Circular. As issued in March 1982 that clause was intended to be used only in contracts with small businesses and domestic nonprofit organizations. However, the Presidential Memorandum of February 1983 stipulated that all Federal agencies would extend the principles of P.L. 96-517 to Federal R&D contracts with large business organizations (unless precluded by statute, as is the case with DOD, DOE and NASA). Consequently, in 1984, the standard clause was revised in minor details so that it could be used in all such contracts. It was also improved in a manner favorable to universities. That revised clause is now set forth in FAR 52.227-11, "Patent Rights - Retention by the Contractor (Short Form)," and is the clause contained in Appendix 2 to this paper.

a general rule, when a project is supported in whole or in part through direct costs, the patent regulations apply and the Government retains rights. When the Government supplies indirect costs only, as in previous Government funding for equipment or facilities, the patent regulations don't apply, unless there is a quid pro quo stipulated in the funding agreement."

Note: Those who have read the GAO report prepared at the request of Rep. Albert Gore concerning the contract between Massachusetts General Hospital and the Hoechst Company of West Germany, will recall the statement below (underlining supplied), which apparently contradicts the NIH formulation. There is reason to believe, however, that the GAO report overstated the case with respect to indirect costs, and this has been conceded by a GAO representative familiar with the report:

GAO: "Care must be taken, however, that no Federal funds directly or indirectly support the research leading to an invention if MGH is to claim that the terms of a (NIH) funding agreement do not apply. This may very well mean that MGH must account separately for all expenses leading to an invention including the cost of the research itself as well as indirect or overhead costs, to be able to show that the expenses were paid with funds provided by Hoechst. In the event MGH is unable to prove that NIH funding was in no way involved, the terms of the Act, as embodied in a (NIH) funding agreement, would apply."

3. Supplemental projects

OMB: "Notwithstanding the right of research organizations to accept supplemental funding from other sources for the purpose of expediting or more comprehensively accomplishing the research objectives of the government sponsored project, it is clear that the Act would remain applicable to any invention 'conceived or first actually reduced to practice in the performance' of the project. Separate accounting for the two funds used to support the project in this case is not the determining factor."

4. Simultaneous, closely related projects

OMB: "To the extent that a non-government sponsor establishes a project which, although closely related, falls outside the planned and committed activities of a government funded project and does not diminish or distract from the performance of such activities, inventions made in performance of the non-government sponsored project would not be subject to the conditions of the Act. An example of such related but separate projects would be to expand scientific understanding in a field, with a closely related industry sponsored project having as its objective the application of such new knowledge to develop usable new technology. The time relationship in conducting the two projects and the use of new fundamental knowledge from one in the performance of the other are not important determinants since most inventions rest on a knowledge base built up by numerous independent research efforts extending over many years. Should such an invention

Where Federal Rights Apply

In those situations in which the Federal government acquires rights in an invention by having funded the research "in whole or in part," and the licensing of the invention is, therefore, subject to OMB Circular A-124 and the implementing Federal Acquisition Regulations, the following constraints apply. They are set forth in the paragraphs cited below in the patent rights clause at FAR 52.227-11. That clause is reproduced in Appendix 2 of this paper as published in the Federal Register. The page numbers after "Ref:" identify the page of the Register and the column (Left, Middle, Right) in which the paragraph may be found.

Paragraph in FAR 52.227-11	Ref: Federal Register page in Appendix 2

(b) Allocation of principal rights. Provides the Federal government with a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject inventions throughout the world. Ref: 12989-M

(i) Preference for United States industry. Exclusive licensees must agree that products embodying the subject invention will be manufactured substantially in the United States. Ref: 12990-R

(j) March-in rights. Government may require granting of a license to responsible applicant(s) under certain specified circumstances and subject to procedural safeguards. Ref: 12990-R

(k) Special provisions for contracts with nonprofit organizations.

(1) Rights may not be assigned without Federal agency approval except to patent management organizations which meet the criteria set forth therein. Ref: 12991-L

(2) Contractor may not grant exclusive licenses to persons other than small business firms for a period in excess of those set forth therein (5 years from first commercial sale or use, 8 years from date of the exclusive license, not counting time for pre-market regulatory clearance, with fields of use differentiated). Ref: 12991-L

March 30, 1984 - Publication of FAR - Part 27

When the FAR's were first published, Part 27, dealing with patents, data and copyrights, was omitted due to a number of unresolved policy issues, many of which related to data and copyrights.

On March 30, 1984, Federal Acquisition Circular 84-1 was published in the Federal Register, beginning on page 12794. In addition to various amendments to the FAR's published earlier, it contained Part 27 for the first time. (Subpart 27.4, however, relating to data and copyrights, contained only a brief policy statement to guide Federal agencies in framing their own regulations until FAR 27.4 is eventually issued.)

Federal agencies have generally incorporated FAR Part 27 with respect to patents into their own regulations by reference, although some have woven new explanatory text of their own around the FAR regulations. In any event, this paper will not discuss individual agency FAR supplements relating to patents since, in one way or another, they adopt the substance of FAR Part 27.

FAR Subparts 27.1, 27.2 & 27.3 and 52.227-11

University administrators should be familiar with FAR Subparts 27.1, 27.2 and 27.3, and these are reproduced in Appendix 1, as published in the Federal Register of March 30, 1984 at pages 12974 through 12985.

FAR Subpart 27.3 deals with "Patent Rights under Government Contracts," and Section 27.303 requires that the clause at 52.227-11, "Patent Rights - Retention by the Contractor (Short Form)," be inserted in contracts for experimental, developmental, or research work where the contractor is a small business concern or non-profit organization or (except for contracts of DOD, DOE or NASA) any other type of contractor. Limited exceptions to this requirement are set forth in 27.303(d) and involve (1) contracts for the operation of a Government-owned research or production facility, (2) exceptional circumstances, or (3) foreign intelligence activities.)

The patent rights clause set forth in FAR 52.227-11 is included in Appendix 2, and was reproduced from the same Federal Register at pages 12989 through 12991.

However, Subpart 27.3, "Patent Rights under Government Contracts," intertwines the guidance for all types of contractors in a sometimes confusing manner which makes it difficult to isolate that which relates solely to universities and small businesses from that which pertains to other contractors. In addition, the standard clause in 52.227-11 is not organized in a way which parallels the material in Subpart 27.3. It is, therefore, difficult to move back and forth between the two. For these reasons, we have added to the front of Appendix 1 a summary of the sections in Subpart 27.3 and have cross-referenced them to the paragraphs in the standard clause. Similarly, we have added to the front of Appendix 2 a summary of the paragraphs in the standard clause and have cross-referenced these back to the sections in Subpart 27.3.

SUBPART 27.3 PATENT RIGHTS UNDER GOVERNMENT CONTRACTS

In order to simplify the use of Subpart 27.3, we have listed below the section headings and, in parentheses, the page and column (Left, Middle or Right) in which each is located in the Federal Register as reproduced in this Appendix 1. No comments are provided where the material is self-explanatory.

In order to facilitate a comparison of Subpart 27.3 with the standard clause in 52.227-11 as set forth in Appendix 2, each section listed below is also cross-referenced to the corresponding paragraph, if any, in the standard clause. For example, "Ref: 12990-R-(j)" next to a section heading means that the most closely related paragraph, if any, in the standard patent clause is paragraph (j), located on page 12990, right-hand column, of the Federal Register as reproduced in Appendix 2.

Subpart 27.3		Ref: to 52.227-11 para. (if any) in F.R. (Appendix 2)
27.300	Scope (12978-R)	
27.301	Definitions (12978-R)	Ref: 12989-L-(a)
	Same as short-form clause but different order	
27.302	Policy (12979-L)	
(a)	Introduction - Origin and objectives	
(b)	Contractor right to elect title	Ref: 12989-M-(b)
(c)	Government license	Ref: 12989-M-(b) Ref: 12991-M-Alt.I
(d)	Government right to receive title	Ref: 12989-R-(d)
(e)	Utilization reports	Ref: 12990-M-(h)
(f)	March-in rights	Ref: 12990-R-(j)
(g)	Preference for United States Industry	Ref: 12990-R-(i)
(h)	Minimum rights to contractor	Ref: 12989-R-(e)
(i)	Confidentiality of inventions	

Subpart 27.3	Ref: to 52.227-11 para. (if any) in F.R. (Appendix 2)

(d) Additional requirements (12982-L) - Contract modifications to require contractor to provide listings, reports, information, notices, copies of documents, confirmatory instruments, etc.

(e) Revocation or modification of contractor's minimum rights - (12982-L) - (covers written notice and appeal procedures applicable to revocation under Section 27.302(h)(2).

(f) Modification, waiver, or omission of rights of the Government or obligations of the contractor - Not applicable to universities; applies to contracts not subject to 35 U.S.C. Chapter 18.

(g) Exercise of march-in rights (12982-R) - States procedures governing the exercise of march-in rights set forth in paragraph (j) of the clause at 52.227-11. Ref: 12990-R-(j)

(h) Licenses and assignments under contracts with nonprofit organizations - Covers restrictions on assignment, and on the terms of exclusive licenses. Ref: 12991-L-(k)

27.304-2 Contracts placed by or for other government agencies.

27.304-3 Contracts for construction work or architect-engineer services.

27.304-4 Subcontracts (12983-R) Ref: 12990-M-(g)

(a) Policies and procedures of this subpart apply to all contracts at any tier. Hence, a contractor awarding a subcontract, and a subcontractor awarding a lower-tier subcontract, that has as a purpose the conduct of experimental, developmental or research work is required to determine the appropriate patent rights clause consistent with the policies and procedures of Subpart 27.3. Universities should always receive the clause at 52.227-11 unless an alternate clause is adopted in accordance with Subpart 27.3.

(b) Disputes to be resolved by agency contracting officer in consultation with counsel.

(c) "It is Government policy that contractors shall not use their ability to award subcontracts as economic leverage to acquire rights for themselves in inventions resulting from subcontracts."

APPENDIX 2

FAR 52.227-11, PATENT RIGHTS - RETENTION BY THE CONTRACTOR (SHORT FORM)

Summary and Cross-References

As noted earlier, the standard patent rights clause contained in Attachment A to OMB Circular A-124 was revised in the Federal Register of March 20, 1984 to be applicable also to other than small business firms and non-profits. That clause is now FAR 52.227-11, "Patent Rights - Retention by the Contractor (Short Form)" and is reproduced in this appendix.

In order to simplify the use of this clause, we have listed below the paragraph headings and, in parentheses, the page and column (Left, Middle or Right) in which each is located in the Federal Register as reproduced in this Appendix 2. The general content of individual paragraphs is summarized in some cases to help the reader locate particular topics, but these summaries should not be relied on as a legally adequate substitutes for a close reading of the paragraphs themselves.

In order to facilitate a comparison of this clause with Subpart 27.3 in Appendix 1, each paragraph listed below is also cross-referenced to the corresponding section, if any, of Subpart 27.3. "Ref: 12979-R-302(f)" next to a paragraph heading means, for example, that the most closely related section, if any, in Subpart 27.3 is Section 27.302(f), located on page 12979, right-hand column, Federal Register, as reproduced in Appendix 1.

Standard Patent Rights Clause at FAR 52.227-11	Ref: to Subpart 27.3 Section (if any) in Fed.Reg. (Appendix 1)
(a) Definitions (12989-L)	Ref: 12978-R-301
(b) Allocation of Principal Rights (12989-M)	Ref: 12979-L-302(b) Ref: 12979-M-302(c)

The contractor may elect to take title to any subject invention, with a non-exclusive, paid-up license to the United States to practice the invention or have it practiced on the government's behalf.

(c) Invention disclosure, election of title, & filing of applications by Contractor (12989-M)	Ref: 12984-M-305

Note: The time periods referred to in each subparagraph below are critical and should be studied in detail from the clause itself.

Standard Patent Rights Clause at FAR 52.227-11

Ref: to Subpart 27.3 Section (if any) in Fed.Reg. (Appendix 1)

(f) 2. Contractor will require employees, other than clerical and non-technical, by written agreement to disclose inventions and cooperate in filing and establishing government rights.

3. Contractor will notify Federal agency of decision not to prosecute or maintain patents.

(f) 4. Contractor will acknowledge Federal support and rights in the patent application and any patent issuing.

(g) Subcontracts (12990-M) Ref: 12983-R-304-4

Contractor will include this clause, suitably modified, in subcontracts, regardless of tier, for experimental, developmental or research work to be performed by a small business firm or nonprofit organization.

(h) Reporting on Utilization of Subject Inventions (12990-M) Ref: 12979-R-302(e)

Contractor will submit reports no more frequently than annually on utilization of subject inventions or on efforts at obtaining it.

(i) Preference for U.S. Industry (12990-R) Ref: 12980-L-302(g)

Precludes granting exclusive right to use or sell in the U.S. unless the grantee agrees that any products embodying the subject invention will be manufactured substantially in the United States, but with waiver by the Federal agency permitted under certain circumstances.

(j) March-in Rights (12990-R) Ref: 12979-R-302(f) Ref: 12982-R-304-1(g)

The Federal agency, in accordance with procedures in A-124, may require the licensing of others in a field of use if it determines that such action is necessary for any of four reasons stipulated in the clause.

FAR segment	OMB control No.
SF 25-A	3090-0172
SF 25-B	3090-0172
SF 26	3090-0005
SF 33	3090-0074
SF 34	3090-0172
SF 35	3090-0172
SF 119	3090-0017
SF 129	3090-0009
SF 254	3090-0028
SF 255	3090-0029
SF 273	3090-0172
SF 274	3090-0172
SF 275	3090-0172
SF 294	3090-0052
SF 295	3090-0053
SF 1403	3090-0110
SF 1404	3090-0110
SF 1405	3090-0110
SF 1406	3090-0110
SF 1407	3090-0110
SF 1408	3090-0110
SF 1411	3090-0116
SF 1412	3090-0116
SF 1413	3090-0119
SF 1416	3090-0172
SF 1417	3090-0164
SF 1423	3090-0120
SF 1424	3090-0120
SF 1426	3090-0120
SF 1427	3090-0120
SF 1428	3090-0120
SF 1429	3090-0120
SF 1430	3090-0120
SF 1431	3090-0120
SF 1432	3090-0120
SF 1433	3090-0120
SF 1434	3090-0120
SF 1435	3090-0115
SF 1436	3090-0115
SF 1437	3090-0115
SF 1438	3090-0115
SF 1439	3090-0115
SF 1440	3090-0115
SF 1443	3090-0105
All other requirements	3090-0194

PART 3—IMPROPER BUSINESS PRACTICES AND PERSONAL CONFLICTS OF INTEREST

2. The heading for Subpart 3.3 is revised to read as follows:

Subpart 3.3—Reports of Suspected Antitrust Violations

* * * * *

3. Section 3.302 is revised to read as follows:

3.302 Definitions.

"Identical bids" means bids for the same line item that are determined to be identical as to unit price or total line item amount, with or without the application of evaluation factors (e.g., discount or transportation cost).

"Line item" means an item of supply or service, specified in an invitation for bids, for which the bidder must bid a separate price.

3.302-1 and 3.302-2 [Removed]

4. Subsections 3.302-1 and 3.302-2 are removed.

5. In section 3.303, paragraph (d) is revised to read as follows:

3.303 Reporting suspected antitrust violations.

* * * * *

(d) Identical bids shall be reported under this section if the agency has some reason to believe that the bids resulted from collusion.

* * * * *

PART 13—SMALL PURCHASE AND OTHER SIMPLIFIED PURCHASE PROCEDURES

6. Section 13.000 is revised to read as follows:

13.000 Scope of part.

This part prescribes policies and procedures for the acquisition of supplies, nonpersonal services, and construction from commercial sources, the aggregate amount of which does not exceed $25,000.

7. In section 13.101, the definition of "Small purchase" is revised to read as follows:

13.101 Definitions.

* * * * *

"Small purchase" means an acquisition of supplies, nonpersonal services, and construction in the amount of $25,000 or less using the procedures prescribed in this part.

* * * * *

8. In section 13.302, paragraph (a) is revised to read as follows:

13.302 Conditions for use.

* * * * *

(a) Individual orders do not exceed $25,000, except that executive agencies may establish higher dollar limitations for specified activities or items.

* * * * *

PART 22—APPLICATION OF LABOR LAWS TO GOVERNMENT ACQUISITIONS

* * * * *

Subpart 22.10—[Reserved]

* * * * *

9. The title and text of Subpart 22.10, consisting of sections 22.1000 through 22.1015, are removed, and the subpart is reserved.

PART 25—FOREIGN ACQUISITION

* * * * *

25.401 [Amended]

10. In section 25.401, the table in "Designated country" is amended by adding "Israel" to the list.

11. Section 25.402 is amended as follows:

In paragraphs (a) and (c) change "$169,000" to read "161,000".

Paragraph (b) is revised to read as follows:

25.402 Policy.

* * * * *

(b) Except when waived under section 302(b)(2) of the Trade Agreements Act, there shall be no purchases of foreign end products subject to the Act unless the foreign end products are designated country end products.

* * * * *

25.403 [Amended]

12. In section 25.403, paragraph (a) is amended by changing "$169,000" to read "$161,000".

25.405 [Amended]

13. In section 25.405, the introductory text and paragraph (e) are amended by changing "$169,000" to read "161,000".

25.406 [Amended]

14. Section 25.406 is amended by alphabetically inserting "Maritime Administration of the Department of Transportation" and "Peace Corps" to the list.

15. A new Part 27 is added to read as follows:

TABLE OF CONTENTS

27.000 Scope of part.

SUBPART 27.1—GENERAL

27.101 Applicability.
27.102 Reserved.
27.103 Policy.
27.104 General guidance.

SUBPART 27.2—PATENTS

27.200 Scope of subpart.
27.201 Authorization and consent.
27.201-1 General.
27.201-2 Clauses on authorization and consent.
27.202 Notice and assistance.
27.202-1 General.
27.202-2 Clause on notice and assistance.
27.203 Patent indemnification of Government by contractor.
27.203-1 General.
27.203-2 Clauses for formally advertised contracts (excluding construction).
27.203-3 Negotiated contracts (excluding construction).
27.203-4 Clauses for negotiated contracts (excluding construction).
27.203-5 Clause for construction contracts and for dismantling, demolition, and removal of improvements contracts.
27.203-6 Clause for Government waiver of indemnity.
27.204 Reporting of royalties—anticipated or paid.
27.204-1 General.
27.204-2 Solicitation provision for royalty information.

(b) The contracting officer shall insert the clause with its Alternate I in all R&D solicitations and contracts (including those for construction and architect-engineer services calling exclusively for R&D work or exclusively for experimental work), unless both complete performance and delivery are outside the United States, its possessions, and Puerto Rico. When a proposed contract involves both R&D work and supplies or services, and the R&D work is the primary purpose of the contract, the contracting officer shall use this alternate. In all other proposed contracts involving both R&D work and supplies or services, the contracting officer shall use the basic clause. Also, when a proposed contract involves either R&D or supplies and materials, in addition to construction or architect-engineer work, the contracting officer shall use the basic clause.

(c) If the solicitation or contract is for communication services with a common carrier and the services are unregulated and not priced by a tariff schedule set by a regulatory body, the contracting officer shall use the clause with its Alternate II.

27.202 Notice and assistance.

27.202-1 General.

The contractor is required to notify the contracting officer of all claims of infringement that come to the contractor's attention in connection with performing a Government contract. The contractor is also required, when requested, to assist the Government with any evidence and information in its possession in connection with any suit against the Government, or any claims against the Government made before suit has been instituted, on account of any alleged patent or copyright infringement arising out of or resulting from the contract performance.

27.202-2 Clause on notice and assistance.

The contracting officer shall insert the clause at 52.227-2, Notice and Assistance Regarding Patent and Copyright Infringement, in supply, service, or research and development solicitations and contracts (including construction and architect-engineer contracts) which anticipate a contract value above the dollar limit set forth at 13.000, except when small purchase procedures apply or both complete performance and delivery are outside the United States, its possessions, and Puerto Rico, unless the contracts indicate that the supplies or other deliverables are ultimately to be shipped into one of those areas.

27.203 Patent indemnification of Government by contractor.

27.203-1 General.

(a) To the extent set forth in this section, the Government requires reimbursement for liability for patent infringement arising out of or resulting from performing construction contracts or contracts for supplies or services that normally are or have been sold or offered for sale by any supplier to the public in the commercial open market or that are the same as such supplies or services with relatively minor modifications. Appropriate clauses for indemnification of the Government are prescribed in the following subsections.

(b) A patent indemnity clause shall not be used in the following situations:

(1) When the clause at 52.227-1, Authorization and Consent, with its Alternate I, is included in the contract, except that in contracts calling also for supplies of the kind described in paragraph (a) above, a patent indemnity clause may be used solely with respect to such supplies.

(2) When the contract is for supplies or services (or such items with relatively minor modifications) that clearly are not or have not been sold or offered for sale by any supplier to the public in the commercial open market. However, a patent indemnity clause may be included in (i) formally advertised contracts to obtain an indemnity regarding specific components, spare parts, or services so sold or offered for sale (see 27.203-2(b) below), and (ii) contracts to be awarded (either by formal advertising or negotiation) if a patent owner contends that the acquisition would result in patent infringement and the prospective contractor, after responding to a solicitation that did not contain an indemnity clause, is willing to indemnify the Government against such infringement either (A) without increase in price on the basis that the patent is invalid or not infringed, or (B) for other good reasons.

(3) When both performance and delivery are to be outside the United States, its possessions, and Puerto Rico, unless the contract indicates that the supplies or other deliverables are ultimately to be shipped into one of those areas.

(4) When the contract is awarded by small purchase procedures.

(5) When the contract is solely for architect-engineer work (see Part 36).

27.203-2 Clauses for formally advertised contracts (excluding construction).

(a) Except when prohibited by 27.203-1(b) above, the contracting officer shall insert the clause at 52.227-3, Patent Indemnity, in formally advertised contracts for supplies or services (excluding construction and dismantling, demolition, and removal of improvements), if the contracting officer determines that the supplies or services (or such items with relatively minor modifications) normally are or have been sold or offered for sale by any supplier to the public in the commercial open market. Also the clause may be included as authorized in 27.203-1(b)(2)(i).

(b) In solicitations and contracts (excluding those for construction) that call in part for specific components, spare parts, or services (or such items with relatively minor modifications) that normally are or have been sold or offered for sale by any supplier to the public in the commercial open market, the contracting officer may use the clause with its Alternate I or II, as appropriate. The choice between Alternate I (identification of excluded items) and Alternate II (identification of included items) should be based upon simplicity, Government administrative convenience and ease of identification of the items.

(c) In solicitations and contracts for communication services and facilities where performance is by a common carrier, and the services are unregulated and are not priced by a tariff schedule set by a regulatory body, use the basic clause with its Alternate III.

27.203-3 Negotiated contracts (excluding construction).

A patent indemnity clause is not required in negotiated contracts, (except construction contracts covered at 27.203-5), but may be used as discussed in 27.203-4 below. A decision to omit a patent indemnity clause in a negotiated fixed-price contract described in this subsection should be based on a price consideration to the Government for the foregoing indemnification rights normally received by commercial purchasers of the same supplies or services.

27.203-4 Clauses for negotiated contracts (excluding construction).

(a) The contracting officer may insert the clause at 52.227-3, Patent Indemnity—

(1) As authorized in 27.203-1(b)(2)(ii); and

(2) Except as prohibited by 27.203-1(b), in solicitations anticipating negotiated contracts (and such contracts) for supplies or services (excluding construction and dismantling, demolition, and removal of

27.204-4 Clause for reporting of royalties (foreign).

In solicitations contemplating negotiated contracts (and such contracts) to be performed outside the United States, its possessions, and Puerto Rico, regardless of the place of delivery, the contracting officer shall insert the clause at 52.227-8, Reporting of Royalties (Foreign).

27.205 Adjustment of royalties.

(a) If at any time the contracting officer has reason to believe that any royalties paid, or to be paid, under an existing or prospective contract or subcontract are inconsistent with Government rights, excessive, or otherwise improper, the facts shall be promptly reported to the office having cognizance of patent matters for the contracting activity concerned. The cognizant office shall review the royalties thus reported and such royalties as are reported under 27.204 and 27.206 and, in accordance with agency procedures, shall either recommend appropriate action to the contracting officer or, if authorized, shall take appropriate action.

(b) In coordination with the cognizant office, the contracting officer shall promptly act to protect the Government against payment of royalties on supplies or services—

(1) With respect to which the Government has a royalty-free license;

(2) At a rate in excess of the rate at which the Government is licensed; or

(3) When the royalties in whole or in part otherwise constitute an improper charge.

(c) In appropriate cases, the contracting officer in coordination with the cognizant office shall obtain a refund pursuant to any refund of royalties clause in the contract (see 27.206) or negotiate for a reduction of royalties.

(d) For guidance in evaluating information furnished pursuant to 27.204 and 27.205(a) above, see 31.205-37 and 31.311-34. See also 31.109 regarding advance understandings on particular cost items, including royalties.

27.206 Refund of royalties.

27.206-1 General.

When a fixed-price contract is negotiated under circumstances that make it questionable whether or not substantial amounts of royalties will have to be paid by the contractor or a subcontractor, such royalties may be included in the target or contract price, provided the contract specifies that the Government will be reimbursed the amount of such royalties if they are not paid. Such circumstances might include, for example, either a pending Government anti-trust action or prospective litigation on the validity of a patent or patents or on the enforceability of an agreement (upon which the contractor or subcontractor bases the asserted obligation) to pay the royalties to be included in the target or contract price.

27.206-2 Clause for refund of royalties.

The contracting officer shall insert the clause at 52.227-9, Refund of Royalties, in negotiated fixed-price contracts and solicitations contemplating such contracts if the contracting officer determines that circumstances make it questionable whether or not substantial amounts of royalties will have to be paid by the contractor or a subcontractor at any tier.

27.207 Classified contracts.

27.207-1 General.

(a) Unauthorized disclosure of classified subject matter, whether in patent applications or resulting from the issuance of a patent, may be a violation of 18 U.S.C. 792 et seq. (Espionage and Censorship), and related statutes, and may be contrary to the interests of national security.

(b) Upon receipt from the contractor of a patent application, not yet filed, that has been submitted by the contractor in compliance with paragraph (a) or (b) of the clause at 52.227-10, Filing of Patent Applications—Classified Subject Matter, the contracting officer shall ascertain the proper security classification of the patent application. Upon a determination that the application contains classified subject matter, the contracting officer shall inform the contractor of any instructions deemed necessary or advisable relating to transmittal of the application to the United States Patent Office in accordance with procedures in the Department of Defense Industrial Security Manual for Safeguarding Classified Security Information. If the material is classified "Secret" or higher, the contracting officer shall make every effort to notify the contractor of the determination within 30 days, pursuant to paragraph (a) of the clause.

(c) In the case of all applications filed under the provisions of this section 27.207, the contracting officer, upon receiving the application serial number, the filing date, and the information furnished by the contractor under paragraph (d) of the clause at 52.227-10, Filing of Patent Applications—Classified Subject Matter, shall promptly submit that information to personnel having cognizance of patent matters in order that the steps necessary to ensure the security of the application may be taken.

(d) A request for the approval referred to in paragraph (c) of the clause at 52.227-10, Filing of Patent Applications—Classified Subject Matter, must be considered and acted upon promptly by the contracting officer in order to avoid the loss of valuable patent rights of the Government or the contractor.

27.207-2 Clause for classified contracts.

The contracting officer shall insert the clause at 52.227-10, Filing of Patent Applications—Classified Subject Matter, in all classified solicitations and contracts and in all solicitations and contracts where the nature of the work or classified subject matter involved in the work reasonably might be expected to result in a patent application containing classified subject matter.

SUBPART 27.3—PATENT RIGHTS UNDER GOVERNMENT CONTRACTS

27.300 Scope of subpart.

This subpart prescribes policies, procedures, and contract clauses with respect to inventions made in the performance of work under a Government contract or subcontract thereunder if a purpose of the contract or subcontract is the conduct of experimental, developmental, or research work, except to the extent statutory requirements necessitate different agency policies, procedures, and clauses as specified in agency supplemental regulations.

27.301 Definitions.

"Invention," as used in this subpart, means any invention or discovery that is or may be patentable or otherwise protectable under Title 35 of the U.S. Code.

"Made," as used in this subpart, when used in relation to any invention, means the conception or first actual reduction to practice of such invention.

"Nonprofit organization," as used in this subpart, means a domestic university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)), or any domestic nonprofit scientific or educational organization qualified under a State nonprofit organization statute.

"Practical application," as used in this subpart, means to manufacture, in the case of a composition or product; to practice, in the case of a process or method; or to operate, in the case of a

(i) Because the contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;

(ii) To alleviate health or safety needs which are not reasonably satisfied by the contractor, assignee, or their licensees;

(iii) To meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the contractor, assignee, or licensees; or

(iv) Because the agreement required by paragraph (g) below has neither been obtained nor waived, or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of its agreement obtained pursuant to paragraph (g) below.

(2) This right of the agency shall be exercised only after the contractor has been provided a reasonable time to present facts and show cause why the proposed agency action should not be taken, and afforded an opportunity to take appropriate action if the contractor wishes to dispute or appeal the proposed action, in accordance with 27.304-1(g).

(g) *Preference for United States industry.* Unless provided otherwise in accordance with 27.304-1(f), contracts provide that no contractor which receives title to any subject invention and no assignee of any such contractor shall grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by the agency upon a showing by the contractor or assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(h) *Minimum rights to contractor.* (1) When the Government acquires title to a subject invention, the contractor is normally granted a revocable, nonexclusive, royalty-free license to that invention throughout the world. The contractor's license extends to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the contractor is a part and includes the right to grant sublicenses of the same scope to the extent the contractor was legally obligated to do so at the time the contract was awarded. The license is transferable only with the approval of the contracting officer except when transferred to the successor of that part of the contractor's business to which the invention pertains.

(2) The contractor's domestic license may be revoked or modified to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with the applicable provisions in the Federal Property Management Regulations and agency licensing regulations. This license will not be revoked in that field of use or the geographical areas in which the contractor has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified to the extent the contractor, its licensees, or its domestic subsidiaries or affiliates have failed to achieve practical application in that country. See the procedures at 27.304-1(e).

(i) *Confidentiality of inventions.* The publication of information disclosing an invention by any party before the filing of a patent application may create a bar to a valid patent. Accordingly, 35 U.S.C. 205 and OMB Circular A-124 provide that Federal agencies are authorized to withhold from disclosure to the public information disclosing any invention in which the Federal Government owns or may own a right, title, or interest (including a nonexclusive license) for a reasonable time in order for a patent application to be filed. Furthermore, Federal agencies shall not be required to release copies of any document which is part of an application for patent filed with the United States Patent and Trademark Office or with any foreign patent office. The Presidential Memorandum on Government Patent Policy specifies that agencies should protect the confidentiality of invention disclosures and patent applications required in performance or in consequence of awards to the extent permitted by 35 U.S.C. 205 or other applicable laws.

27.303 Contract clauses.

In contracts (and solicitations therefor) for experimental, developmental, or research work (but see 27.304-3 regarding contracts for construction work or architect-engineer services), a patent rights clause shall be inserted as follows:

(a) (1) The contracting officer shall insert the clause at 52.227-11, Patent Rights—Retention by the Contractor (Short Form), if all the following conditions apply:

(i) The contractor is a small business concern or nonprofit organization as defined in 27.301 or, except for contracts of the Department of Defense (DOD), the Department of Energy (DOE), or the National Aeronautics and Space Administration (NASA), any other type of contractor.

(ii) No alternative patent rights clause is used in accordance with paragraphs (c) or (d) below or 27.304-2.

(2) To the extent the information is not required elsewhere in the contract, and unless otherwise specified by agency supplemental regulations, the contracting officer may modify paragraph (f) of the clause to require the contractor to do one or more of the following:

(i) Provide periodic (but not more frequently than annually) listings of all subject inventions required to be disclosed during the period covered by the report.

(ii) Provide a report prior to the closeout of the contract listing all subject inventions or stating that there were none.

(iii) Provide notification of all subcontracts for experimental, developmental, or research work.

(iv) Provide, upon request, the filing date, serial number and title; a copy of the patent application; and patent number and issue date for any subject invention in any country in which the contractor has applied for patents.

(v) Furnish the Government an irrevocable power to inspect and make copies of the patent application file.

(3) If the acquisition of patent rights for the benefit of a foreign government is required under a treaty or executive agreement or if the agency head or a designee determines at the time of contracting that it would be in the national interest to acquire the right to sublicense foreign governments or international organizations pursuant to any existing or future treaty or agreement, the contracting officer shall use the clause with its Alternate I.

(b) (1) The contracting officer shall insert the clause at 52.227-12, Patent Rights—Retention by the Contractor (Long Form), if all the following conditions apply:

(i) The contractor is other than a small business firm or nonprofit organization.

(ii) No alternative clause is used in accordance with paragraph (c) or (d) below or 27.304-2.

(iii) The contracting agency is one of those excepted under subdivision (a)(1)(i) above.

(d) *Additional requirements.* (1) If it is desired to have the right to require any of the following, the contract shall be modified to require the contractor to do one or more of the following:

(i) Provide periodic (but not more frequently than annually) listings of all subject inventions required to be disclosed during the period covered by the report.

(ii) Provide a report prior to the closeout of the contract listing all subject inventions or stating that there were none.

(iii) Provide notification of all subcontracts for experimental, developmental, or research work.

(iv) Provide upon request, the filing date, serial number and title; a copy of the patent application; and patent number and issue date for any subject invention in any country in which the contractor has applied for patents.

(v) Furnish the Government an irrevocable power to inspect and make copies of the patent application file.

(2) To the extent provided by such modification (and automatically under the terms of the clauses at 52.227-12 and -13), the contracting officer may require the contractor to—

(i) Furnish a copy of each subcontract containing a patent rights clause (but if a copy of a subcontract is furnished under another clause, a duplicate shall not be requested under the patent rights clause);

(ii) Submit interim and final invention reports listing subject inventions and notifying the contracting officer of all subcontracts awarded for experimental, developmental, or research work;

(iii) Submit information regarding the filing date, serial number and title, and, upon request, a copy of the patent application, and patent number and issue date for any subject invention in any country for which the contractor has retained title; and

(iv) Submit periodic reports on the utilization of a subject invention or on efforts at obtaining utilization that are being made by the contractor or its licensees or assignees.

(3) The contractor is required to deliver to the contracting officer an instrument confirmatory of all rights to which the Government is entitled and to furnish the Government an irrevocable power to inspect and make copies of the patent application file. Such delivery should normally be made within 6 months after filing each patent application, or within 6 months after submitting the invention disclosure if the application has been previously filed.

(e) *Revocation or modification of contractor's minimum rights.* Before revocation or modification of the contractor's license in accordance with 27.302(h)(2), the contracting officer will furnish the contractor a written notice of intention to revoke or modify the license, and the contractor will be allowed 30 days (or such other time as may be authorized by the contracting officer for good cause shown by the contractor) after the notice to show cause why the license should not be revoked or modified. The contractor has the right to appeal, in accordance with applicable provisions in the Federal Property Management Regulations and agency licensing regulations, any decisions concerning the revocation or modification.

(f) *Modification, waiver, or omission of rights of the Government or obligations of the contractor.* (1) In contracts not subject to 35 U.S.C. Chapter 18, an agency may modify, waive, or omit, in whole or in part, any of the rights of the Government or obligations of the contractor described in 27.302(c) through (h) if the agency head or designee determines at the time of contracting (i) that the interests of the United States and the general public will be better served thereby as, for example, where this is necessary to obtain a uniquely or highly qualified contractor, or (ii) that the contract involves cosponsored, cost sharing, or joint venture research and development, and the contractor, cosponsor, or joint venturer is making a substantial contribution of funds, facilities, or equipment to the work performed under the contract.

(2) Any modification, waiver, or omission of the rights of the Government shall be in writing and accompanied by a written statement of facts justifying the determination. Inasmuch as these rights are normally considered the minimum rights necessary to protect the interests of the United States and the general public under the policy and objectives of 27.302(a)(1), such statement must specifically—

(i) Describe the extent to which the Government's rights are to be modified, waived, or omitted;

(ii) State the facts and rationale for such modification, waiver, or omission; and

(iii) Include a statement as to why the interests of the United States and the general public will be better served by such modification, waiver, or omission under the policy and objectives of 27.302(a)(1), with particular emphasis on (A) ensuring that the Government obtains sufficient rights to meet its needs competitively and at the lowest cost when relinquishing the Government's royalty-free license rights, (B) protecting the public against nonuse or unreasonable use of inventions arising out of the contract when relinquishing march-in rights intended to prevent suppression of such inventions and to assure their availability to meet health or safety needs or regulatory requirements, and (C) promoting the public availability of such inventions through commercialization by United States industry and labor.

(g) *Exercise of march-in rights.* The following procedures shall govern the exercise of the march-in rights set forth in 35 U.S.C. 203, paragraph (j) of the Patent Rights—Retention by the Contractor clauses, and subdivision (c)(1)(ii) of the Patent Rights—Acquisition by the Government clause:

(1) When the agency receives information that it believes might warrant the exercise of march-in rights, before initiating any march-in proceeding in accordance with the procedures of subparagraph (2) below, it shall notify the contractor in writing of the information and request informal written or oral comments from the contractor. In the absence of any comments from the contractor within 30 days the agency may, at its discretion, initiate the procedures below. If a comment is received, whether or not within 30 days, then the agency shall, within 60 days after it receives the comment, either initiate the procedures below or notify the contractor, in writing, that it will not pursue march-in rights based on the information about which the contractor was notified.

(2) A march-in proceeding shall be initiated by the issuance of a written notice by the agency head or a designee to the contractor and its assignee or exclusive licensee, as applicable, stating that the Government has determined to exercise march-in rights. The notice shall state the reasons for the proposed march-in in terms sufficient to put the contractor on notice of the facts upon which the action is based, and shall specify the field or fields of use in which the Government is considering requiring licensing. The notice shall advise the contractor, assignee, or exclusive licensee of its rights as set forth in 33.011 and in any supplemental agency regulations or procedures. The determination to exercise march-in rights shall be made by the contracting officer, as a final decision for purposes of the Contract Disputes Act in accordance with 33.011.

(3) These procedures shall also apply to the exercise or march-in rights against inventors receiving title to subject inventions under 35 U.S.C. 202(d) and, for that purpose, the term

rights clause in any lower-tier contract in accordance with the policies and procedures of this subpart. For instance, when the clause at 52.227-13 is in the prime contract because the work is to be performed overseas, any subcontract with a nonprofit organization would contain the clause at 52.227-11.

(b) Whenever a prime contractor or a subcontractor considers the inclusion of a particular clause in a subcontract to be inappropriate or a subcontractor refuses to accept the proffered clause, the matter shall be resolved by the agency contracting officer in consultation with counsel.

(c) It is Government policy that contractors shall not use their ability to award subcontracts as economic leverage to acquire rights for themselves in inventions resulting from subcontracts.

27.304-5 Appeals.

(a) The agency official initially authorized to take any of the following actions shall provide the contractor with a written statement of the basis for the action at the time the action is taken, including any relevant facts that were relied upon in taking the action:

(1) A refusal to grant an extension to the invention disclosure period under subparagraph (c)(4) of the clauses at 52.227-11 and 52.227-12.

(2) A request for a conveyance of title to the Government under 27.302(d)(1)(i) through (v).

(3) A refusal to grant a waiver under 27.302(g), Preference for U.S. Industry.

(4) A refusal to approve an assignment under 27.304-1(h)(1).

(5) A refusal to approve an extension of the exclusive license period under 27.304-1(h)(3).

(b) Each agency shall establish and publish procedures under which any of the agency actions listed in paragraph (a) above may be appealed to the head of the agency or designee. Review at this level shall consider both the factual and legal basis for the action and its consistency with the policy and objectives of 35 U.S.C. 200-206 and this subpart.

(c) Appeals procedures established under paragraph (b) above shall include administrative due process procedures and standards for fact finding at least comparable to those set forth in Part 13e-g of OMB Circular A-124 whenever there is a dispute as to the factual basis for an agency request for a conveyance of title under 27.302(d)(1)(i) through (v) including any dispute as to whether or not an invention is a subject invention.

(d) To the extent that any of the actions described in paragraph (a) above are subject to appeal under the Contract Disputes Act, the procedures under that Act will satisfy the requirements of paragraphs (b) and (c) above.

27.305 Administration of patent rights clauses.

27.305-1 Patent rights follow-up.

(a) It is important that the Government and the contractor know and exercise their rights in inventions conceived or first actually reduced to practice in the course of or under Government contracts in order to ensure their expeditious availability to the public and to enable the Government, the contractor, and the public to avoid unnecessary payment of royalties and to defend themselves against claims and suits for patent infringement. To attain these ends, contracts having a patent rights clause should be so administered that—

(1) Inventions are identified, disclosed, and reported as required by the contract, and elections are made;

(2) The rights of the Government in such inventions are established;

(3) Where patent protection is appropriate, patent applications are timely filed and prosecuted by contractors or by the Government;

(4) The rights of the Government in filed patent applications are documented by formal instruments such as licenses or assignments; and

(5) Expeditious commercial utilization of such inventions is achieved.

(b) If a subject invention is made under funding agreements of more than one agency, at the request of the contractor or on their own initiative, the agencies shall designate one agency as responsible for administration of the rights of the Government in the invention.

27.305-2 Follow-up by contractor.

(a) *Contractor procedures.* If required by the applicable clause, the contractor shall establish and maintain effective procedures to ensure its patent rights obligations are met and that subject inventions are timely identified and disclosed, and when appropriate, patent applications are filed.

(b) *Contractor reports.* Contractors shall submit all reports required by the patent rights clause to the contracting officer or other representative designated for such purpose in the contract. Agencies may, in their implementing instructions, provide specific forms for use on an optional basis for such reporting.

27.305-3 Follow-up by Government.

(a) Agencies shall maintain appropriate follow-up procedures to protect the Government's interest and to check that subject inventions are identified and disclosed, and when appropriate, patent applications are filed, and that the Government's rights therein are established and protected. Follow-up activities for contracts that include a clause referenced in 27.304-2 shall be coordinated with the appropriate agency.

(b) The contracting officer administering the contract (or other representative specifically designated in the contract for such purpose) is responsible for receiving invention disclosures, reports, confirmatory instruments, notices, requests, and other documents and information submitted by the contractor pursuant to a patent rights clause. If the contractor fails to furnish documents or information as called for by the clause within the time required, the contracting officer shall promptly request the contractor to supply the required documents or information and, if the failure persists, shall take appropriate action to secure compliance. Invention disclosures, reports, confirmatory instruments, notices, requests, and other documents and information relating to patent rights clauses shall be promptly furnished by the contracting officer administering the contract (or other designee) to the procuring agency or contracting activity for which the procurement was made for appropriate action.

(c) Contracting activities shall establish appropriate procedures to detect and correct failures by the contractor to comply with its obligations under the patent rights clauses, such as failures to disclose and report subject inventions, both during and after contract performance. Ordinarily a contractor should have written instructions for its employees covering compliance with these contract obligations. Government effort to review and correct contractor compliance with its patent rights obligations should be directed primarily towards contracts that, because of the nature of the research, development, or experimental work or the large dollar amount spent on such work, are more likely to result in subject inventions significant in number or quality, and towards contracts when there is reason to believe the contractors may not be complying with their contractual obligations. Other contracts may be reviewed using a spot-check method, as feasible. Appropriate follow-up procedures and activities may include the investigation or review of selected contracts or contractors by those qualified in patent and technical matters

data, and other data made available to the Government for use, is required in order to preclude the compromise of such property right or economic interest, jeopardizing the contractor's commercial position, and impairment of the Government's ability to obtain access to or use of such data. Protecting this data is therefore necessary to encourage qualified contractors to participate in Government programs and apply innovative concepts to such programs. Specific agency regulations shall be framed in light of the above considerations to strike a balance between the Government's need and the contractor's economic interest.

SUBPART 27.5—RESERVED

SUBPART 27.6—FOREIGN LICENSE AND TECHNICAL ASSISTANCE AGREEMENTS

27.601 General.

Agencies shall provide all necessary rules and regulations as are required for the proper application of the laws and policies of the U.S. Government regarding—

(a) Elimination in agreements between domestic concerns and foreign governments or foreign concerns of charges for the use of patents in which the U.S. Government has a royalty-free license or of charges in agreements for the use of data that the U.S. Government has a right to use and disclose to others, that is in the public domain, or that was acquired by the U.S. Government with the unrestricted right to use, duplicate, or disclose and to have or permit others to do so;

(b) Foreign license and technical assistance agreements between the U.S. Government and United States domestic concerns;

(c) Guidance on negotiating contract prices and terms concerning patents and data, including royalties, in contracts between the U.S. Government and a foreign government or foreign concern; and

(d) Regulations and guidance on controls on the exportation of data relating to certain designated items, such as arms or munitions of war, and guidance on reviews of agreements involving such data (see 22 CFR 124).

PART 31—CONTRACT COST PRINCIPLES AND PROCEDURES

31.205-18 [Amended]

16. In subsection 31.205-18, paragraphs (c)(1)(i) and (c)(1)(v) are amended by changing "$4 million" to read "$4,400,000", and paragraph (c)(1)(ii) is amended by changing "$500,000" to read "$550,000".

PART 52—SOLICITATION PROVISIONS AND CONTRACT CLAUSES

17. The table of contents for Part 52 is amended by adding the following entries:

* * * * *

52.227-1 Authorization and Consent.
52.227-2 Notice and Assistance Regarding Patent and Copyright Infringement.
52.227-3 Patent Indemnity.
52.227-4 Patent Indemnity—Construction Contracts.
52.227-5 Waiver of Indemnity.
52.227-6 Royalty Information.
52.227-7 Patents—Notice of Government Licensee.
52.227-8 Reporting of Royalties (Foreign).
52.227-9 Refund of Royalties.
52.227-10 Filing of Patent Applications—Classified Subject Matter.
52.227-11 Patent Rights—Retention by the Contractor (Short Form).
52.227-12 Patent Rights—Retention by the Contractor (Long Form).
52.227-13 Patent Rights—Acquisition by the Government.

* * * * *

Authority: 40 U.S.C. 486(c); Chapter 137, 10 U.S.C.; and 42 U.S.C. 2453(c).

18. The titles and text of subsections 52.222-40 through 52.222-44 are removed and reserved.

19. In paragraph (b) of the contract clause at subsection 52.225-9, the last sentence is revised to read as follows:

52.225-9 Buy American Act—Trade Agreements Act—Balance of Payments Program.

* * * * *

(b) * * * Contractors may not supply a foreign end product with a total value of $161,000 or more unless the foreign end product is a designated country end product (see FAR 25.401), or unless a waiver is granted under section 302 of the Trade Agreements Act of 1979 (see FAR 25.402(b)).

* * * * *

52.227 [Removed]

20. Section 52.227 [Reserved] is removed.

21. Subsections 52.227-1 through 52.227-13 are added to read as follows:

52.227-1 Authorization and Consent.

As prescribed at 27.201-2(a), insert the following clause:

AUTHORIZATION AND CONSENT (APR 1984)

(a) The Government authorizes and consents to all use and manufacture in performing this contract or any subcontract at any tier, of any invention described in and covered by a United States patent (1) embodied in the structure or composition of any article the delivery of which is accepted by the Government under this contract or (2) used in machinery, tools, or methods whose use necessarily results from compliance by the Contractor or a subcontractor with (i) specifications or written provisions forming a part of this contract or (ii) specific written instructions given by the Contracting Officer directing the manner of performance. The entire liability to the Government for infringement of a patent of the United States shall be determined solely by the provisions of the indemnity clause, if any, included in this contract or any subcontract hereunder (including any lower-tier subcontract), and the Government assumes liability for all other infringement to the extent of the authorization and consent hereinabove granted.

(b) The Contractor agrees to include, and require inclusion of, this clause, suitably modified to identify the parties, in all subcontracts at any tier for supplies or services (including construction, architect-engineer services, and materials, supplies, models, samples, and design or testing services expected to exceed $25,000; however, omission of this clause from any subcontract, under or over $25,000, does not affect this authorization and consent.

(End of clause) (R 7-103.22 1961 JAN)

Alternate I (APR 1984). The following is substituted for paragraph (a) of the clause:

(a) The Government authorizes and consents to all use and manufacture of any invention described in and covered by a United States patent in the performance of this contract or any subcontract at any tier.

(R 7-302.21 1964 MAR)

Alternate II (APR 1984). The following is substituted for paragraph (a) of the clause:

(a) The Government authorizes and consents to all use and manufacture in the performance of any order at any tier or subcontract at any tier placed under this contract for communication services and facilities for which rates, charges, and tariffs are *not* established by a government regulatory body, of any invention described in and covered by a United States patent (1) embodied in the structure or composition of any article the delivery of which is accepted by the Government under this contract or (2) used in machinery, tools, or methods whose use necessarily results from compliance by the contractor or a subcontractor with specifications or written provisions forming a part of this contract or with specific written instructions given by the Contracting

Officer directing the manner of performance.

(R 7-1702.5(a) 1971 APR)

52.227-2 Notice and Assistance Regarding Patent and Copyright Infringement.

As prescribed at 27.202-2, insert the following clause:

NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (APR 1984)

(a) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the Contractor has knowledge.

(b) In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed under this contract, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in possession of the Contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the Contractor has agreed to indemnify the Government.

(c) The Contractor agrees to include, and require inclusion of, this clause in all subcontracts at any tier for supplies or services (including construction and architect-engineer subcontracts and those for material, supplies, models, samples, or design or testing services) expected to exceed the dollar amount set forth in 13.000 of the Federal Acquisition Regulation (FAR).

(End of clause) (R 7-103.23 1965 JAN)

52.227-3 Patent Indemnity.

Insert the following clause as prescribed at 27.203-1(b), 27.203-2(a), or 27.203-4(a)(2)as applicable:

PATENT INDEMNITY (APR 1984)

(a) The Contractor shall indemnify the Government and its officers, agents, and employees against liability, including costs, for infringement of any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a Secrecy Order under 35 U.S.C. 181) arising out of the manufacture or delivery of supplies, the performance of services, or the construction, alteration, modification, or repair of real property (hereinafter referred to as "construction work") under this contract, or out of the use or disposal by or for the account of the Government of such supplies or construction work.

(b) This indemnity shall not apply unless the Contractor shall have been informed as soon as practicable by the Government of the suit or action alleging such infringement and shall have been given such opportunity as is afforded by applicable laws, rules, or regulations to participate in its defense. Further, this indemnity shall not apply to (1) an infringement resulting from compliance with specific written instructions of the Contracting Officer directing a change in the supplies to be delivered or in the materials or equipment to be used, or directing a manner of performance of the contract not normally used by the Contractor, (2) an infringement resulting from addition to or change in supplies or components furnished or construction work performed that was made subsequent to delivery or performance, or (3) a claimed infringement that is unreasonably settled without the consent of the Contractor, unless required by final decree of a court of competent jurisdiction.

(End of clause) (R 7-104.5 1975 JUN)

Alternate I (APR 1984). The following paragraph (c) is added to the clause:

(c) This patent indemnification shall not apply to the following items:

.....

[*Contracting Officer list and/or identify the items to be excluded from this indemnity*]

(R 7-104.5(a) 1964 SEP)

Alternate II (APR 1984). The following paragraph (c) is added to the clause:

(a) This patent indemnification shall cover the following items:.....

[*List ond/or identify the items to be included under this indemnity*] (R 7-104.5(a) 1964 SEP)

Alternate III (APR 1984). The following paragraph is added to the clause:

( ) As to subcontracts at any tier for communication service, this clause shall apply only to individual communication service authorizations over $5,000 issued under this contract and covering those communications services and facilities (1) that are or have been sold or offered for sale by the Contractor to the public, (2) that can be provided over commercially available equipment, or (3) that involve relatively minor modifications.

(R 7-1701.10 1971 APR)

52.227-4 Patent Indemnity--Construction Contracts.

As prescribed at 27.203-5, insert the following clause:

PATENT INDEMNITY—CONSTRUCTION CONTRACTS (APR 1984)

Except as otherwise provided, the Contractor agrees to indemnify the Government and its officers, agents, and employees against liability, including costs and expenses, for infringement upon any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a Secrecy Order under 35 U.S.C. 181) arising out of performing this contract or out of the use or disposal by or for the account of the Government of supplies furnished or work performed under this contract.

(End of clause) (R 7-602.16 1964 JUN)

Alternate I (APR 1984) Designate the first paragraph as paragraph(a) and add the following to the basic clause as paragraph (b):

(b) This patent indemnification shall not apply to the following items:

.....

[*Contracting Officer specifically identify the item to be excluded*]

(R 7-602.16(b) 1966 APR)

NOTE: Exclusion from indemnity of specified, identified patents, as distinguished from items, is the exclusive prerogative of the agency head or designee (See 27.203-6).

52.227-5 Waiver of Indemnity.

As prescribed at 27.203-6, insert the following clause:

WAIVER OF INDEMNITY (APR 1984)

Any provision or clause of this contract to the contrary notwithstanding, the Government hereby authorizes and consents to the use and manufacture, solely in performing this contract, of any invention covered by the United States patents identified below and waives indemnification by the Contractor with respect to such patents:

.....

.....

[*Contracting Officer identify the patents by number or by other means if more appropriate*].

(End of clause) (AV 7-104.5(b) 1955 JAN)

52.227-6 Royalty Information.

As prescribed at 27.204-2, insert the following provision:

ROYALTY INFORMATION (APR 1984)

(a) *Cost or charges for royalties.* When the response to this solicitation contains costs or charges for royalties totaling more than $250, the following information shall be included in the response relating to each separate item of royalty or license fee:

(1) Name and address of licensor.

(2) Date of license agreement.

to detect failures to comply with contract obligations.

(d) Follow-up activities should include, where appropriate, use of Government patent personnel—

(1) To interview agency technical personnel to identify novel developments made in contracts;

(2) To review technical reports submitted by contractors with cognizant agency technical personnel;

(3) To check the Official Gazette of the United States Patent and Trademark Office and other sources for patents issued to the contractor in fields related to its Government contracts; and

(4) If additional information is required, to have cognizant Government personnel interview contractor personnel regarding work under the contract involved, observe the work on site, and inspect laboratory notebooks and other records of the contractor related to work under the contract.

(e) If it is determined that a contractor or subcontractor does not have a clear understanding of the rights and obligations of the parties under a patent rights clause, or that its procedures for complying with the clause are deficient, a post-award orientation conference or letter should ordinarily be used to explain these rights and obligations (see Subpart 42.5). When a contractor fails to establish, maintain, or follow effective procedures for identifying, disclosing, and, when appropriate, filing patent applications on inventions (if such procedures are required by the patent rights clause), or after appropriate notice fails to correct any deficiency, the contracting officer may require the contractor to make available for examination books, records, and documents relating to the contractor's inventions in the same field of technology as the contract effort to enable a determination of whether there are such inventions and may invoke the withholding of payments provision (if any) of the clause. The withholding of payments provision (if any) of the patent rights clause or of any other contract clause may also be invoked if the contractor fails to disclose a subject invention. Significant or repeated failures by a contractor to comply with the patent rights obligation in its contracts shall be documented and made a part of the general file (see 4.801(c)(3)).

27.305-4 Conveyance of invention rights acquired by the Government.

(a) Agencies are responsible for those procedures necessary to protect the Government's interest in subject inventions. When the Government acquires the entire right, title, and interest in an invention by contract, this is normally accomplished by an assignment either from each inventor to the contractor and from the contractor to the Government, or from the inventor to the Government with the consent of the contractor, so that the chain of title from the inventor to the Government is clearly established. When the Government's rights are limited to a license, there should be a confirmatory instrument to that effect.

(b) The form of conveyance of title from the inventor to the contractor must be legally sufficient to convey the rights the contractor is required to convey to the Government. Agencies may, by supplemental instructions, develop suitable assignments, licenses, and other papers evidencing any rights of the Government in patents or patent applications, including such instruments as may be required to be recorded in the Statutory Register or documented in the Government Register maintained by the U.S. Patent and Trademark Office pursuant to Executive Order 9424, February 18, 1944.

27.305-5 Publication or release of invention disclosures.

(a) In accordance with the policy at 27.302(i), to protect their mutual interests, contractors and the Government should cooperate in deferring the publication or release of invention disclosures until the filing of the first patent application, and use their best efforts to achieve prompt filing when publication or release may be imminent. The Government will, on its part and to the extent authorized by 35 U.S.C. 205, withhold from disclosure to the public any invention disclosures reported under the patent rights clauses of 52.227-11, 52.227-12, or 52.227-13 for a reasonable time in order for patent applications to be filed. The policy in 27.302(i) regarding protection of confidentiality shall be followed.

(b) The Government will also use reasonable efforts to withhold from disclosure to the public for a reasonable time other information disclosing a reported invention included in any data delivered pursuant to contract requirements; *provided*, that the contractor notifies the agency as to the identity of the data and the invention to which it relates at the time of delivery of the data. Such notification must be to both the contracting officer and any patent representative to which the invention is reported, if other than the contracting officer.

27.306 Licensing background patent rights to third parties.

(a) A contract with a small business firm or nonprofit organization will not contain a provision allowing the Government to require the licensing to third parties of inventions owned by the contractor that are not subject inventions unless such provision has been approved by the agency head and written justification has been signed by the agency head. Any such provision will clearly state whether the licensing may be required in connection with the practice of a subject invention, a specifically identified work object, or both. The agency head may not delegate the authority to approve such provisions or to sign justifications required for such provisions.

(b) The Government will not require the licensing of third parties under any such provision unless the agency head determines that the use of the invention by others is necessary for the practice of a subject invention or for the use of a work object of the contract and that such action is necessary to achieve the practical application of the subject invention or work object. Any such determination will be on the record after an opportunity for a hearing, and the contractor shall be given notification of the determination by certified or registered mail. The notification shall include a statement that any action commenced for judicial review of such determination must be brought by the contractor within 60 days after the notification.

SUBPART 27.4—RIGHTS IN DATA AND COPYRIGHTS

27.401 General.

It is necessary for Government departments and agencies, in order to carry out their missions and programs, to acquire or obtain access to many kinds of data developed under or used in performing their contracts. Such data are required in order to obtain competition among suppliers; to meet acquisition needs; to ensure logistic support; to fulfill certain responsibilities for disseminating and publishing the results of their activities; to ensure appropriate use of the results of research, development, and demonstration activities; and to meet other programmatic and statutory requirements. At the same time, the Government recognizes that its contractors may have a property right or other valid economic interest in certain data resulting from private investment, and that the protection from unauthorized use and disclosure of this

"contractor" as used herein shall be deemed to include the inventor.

(4) The contractor, assignee, or exclusive licensee will not be required to grant a license and the Government will not grant any license until after either (i) 90 days from the date of the contractor's receipt of the contracting officer's decision, if no appeal of the decision has been made to a Board of Contract Appeals and if no action has been brought under 41 U.S.C. 609 within that time, or (ii) the board or court has made a final decision, in cases when an appeal or action has been brought within 90 days of the contracting officer's decision.

(h) *Licenses and assignments under contracts with nonprofit organizations.* If the contractor is a nonprofit organization, the clause at 52.227-11 provides that certain contractor actions require agency approval, as specified below. Agencies shall provide procedures for obtaining such approval.

(1) Rights to a subject invention in the United States may not be assigned without the approval of the contracting agency, except where such assignment is made to an organization which has as one of its primary functions the management of inventions and which is not, itself, engaged in or does not hold a substantial interest in other organizations engaged in the manufacture or sale of products or the use of processes that might utilize the invention or be in competition with embodiments of the invention (provided that such assignee will be subject to the same provisions as the contractor).

(2) The contractor may not grant exclusive licenses under United States patents or patent applications in subject inventions to persons other than small business firms for a period in excess of the earlier of—

(i) Five years from first commercial sale or use of the invention; or

(ii) Eight years from the date of the exclusive license excepting that time before regulatory agencies necessary to obtain premarket clearance, unless on a case-by-case basis the contracting agency approves a longer exclusive license. If exclusive field of use licenses are granted, commercial sale or use in one field of use will not be deemed commercial sale or use as to other fields of use, and a first commercial sale or use with respect to a product of the invention will not be deemed to end the exclusive period to different subsequent products covered by the invention.

27.304-2 Contracts placed by or for other Government agencies.

The following procedures apply unless agency agreements provide otherwise:

(a) When a Government agency requests another Government agency to award a contract on its behalf, the request should explain any special circumstances surrounding the contract and specify and furnish the patent rights clause to be used. Normally, the clause will be in accordance with the policies and procedures of this subpart. If, however, the request states that a clause of the requesting agency is required (e.g., because of statutory requirements, a deviation, or exceptional circumstances) that clause shall be used rather than those of this subpart.

(1) If the request states that an agency clause is required and the work to be performed under the contract is not severable and is funded wholly or in part by the agency, then that agency clause and no other patent rights clause shall be included in the contract.

(2) If the request states that an agency clause is required, and the work to be performed under the contract is severable and is only in part for the requesting agency, then the work which is on behalf of the requesting agency shall be identified in the contract, and the agency clause shall be made applicable to that portion. In such situations, the remaining portion of the work (for the agency awarding the contract) shall likewise be identified and the appropriate patent rights clause (if required) shall be made applicable to that remaining portion.

(3) If the request states that an agency clause is not required in any resulting contract, then the appropriate patent rights clause shall be used, if a patent rights clause is required.

(b) Where use of the specified clause, or any modification, waiver, or omission of the Government's rights under any provisions therein, requires a written determination, the reporting of such determination, or a deviation, if any such acts are required in accordance with 27.303(d)(2), 27.304-1(f)(2), or 1.4, it shall be the responsibility of the requesting agency to make such determination, submit the required reports, and obtain such deviations, in consultation with the contracting agency, unless otherwise agreed between the contracting and requesting agencies. However, a deviation to a specified clause of the requesting agency shall not be made without prior approval of that agency.

(c) The requesting agency may require, and provide instructions regarding, the forwarding or handling of any invention disclosures or other reporting requirements of the specified clauses. Normally the requesting agency shall be responsible for the handling of any disclosed inventions, including the filing of patent applications where the Government receives title, and the custody, control, and licensing thereof, unless provided otherwise in the instructions or other agreements with the contracting agency.

27.304-3 Contracts for construction work or architect-engineer services.

(a) If a solicitation or contract for construction work or architect-engineer services has as a purpose the performance of experimental, developmental, or research work or test and evaluation studies involving such work and calls for, or can be expected to involve, the design of a Government facility or of novel structures, machines, products, materials, processes, or equipment (including construction equipment), it shall include a patent rights clause selected in accordance with the policies and procedures of this Subpart 27.3.

(b) A solicitation or contract for construction work or architect-engineer services that calls for or can be expected to involve *only* "standard types of construction" to be built by previously developed equipment, methods, and processes shall not include a patent rights clause. The term "standard types of construction" means construction in which the distinctive features, if any, in all likelihood will amount to no more than—

(1) Variations in size, shape, or capacity of otherwise structurally orthodox and conventionally acting structures or structural groupings; or

(2) Purely artistic or esthetic (as distinguished from functionally significant) architectural configurations and designs of both structural and nonstructural members or groupings, which may or may not be sufficiently novel or meritorious to qualify for design protection under the design patent or copyright laws.

27.304-4 Subcontracts.

(a) The policies and procedures covered by this subpart apply to all contracts at any tier. Hence, a contractor awarding a subcontract and a subcontractor awarding a lower-tier subcontract that has as a purpose the conduct of experimental, developmental, or research work is required to determine the appropriate patent rights clause to be included that is consistent with these policies and procedures. Generally, the clause at either 52.227-11, 52.227-12, or 52.227-13 is to be used and will be so specified in the patent rights clause contained in the higher-tier contract, but the contracting officer may direct the use of a particular patent

(2) If the acquisition of patent rights for the benefit of a foreign government is required under a treaty or executive agreement or if the agency head or a designee determines at the time of contracting that it would be in the national interest to acquire the right to sublicense foreign governments or international organizations pursuant to any existing or future treaty or agreement, the contracting officer shall use the clause with its Alternate I.

(c) (1) The contracting officer shall insert the clause at 52.227-13, Patent Rights—Acquisition by the Government, if any of the following conditions apply:

(i) No alternative clause is used in accordance with subparagraph (c)(2) or paragraph (d) below or 27.304-2.

(ii) The work is to be performed outside the United States, its possessions, and Puerto Rico by contractors that are not small business firms, nonprofit organizations as defined in 27.301, or domestic firms. For purposes of this subparagraph, the contracting officer may presume that a contractor is not a domestic firm unless it is known that the firm is not foreign owned, controlled, or influenced. (See 27.304-4(a) regarding subcontracts with U.S. firms.)

(2) Pursuant to their statutory requirements, DOE and NASA may specify in their supplemental regulations use of a modified version of the clause at 52.227-13 in contracts with other than small business concerns or nonprofit organizations.

(3) If the acquisition of patent rights for the benefits of a foreign government is required under a treaty or executive agreement or if the agency head or a designee determines at the time of contracting that it would be in the national interest to acquire the right to sublicense foreign governments or international organizations pursuant to any existing or future treaty or agreement, the contracting officer shall use the clause with its Alternate I.

(d) (1) If one of the following applies, the contracting officer may insert the clause prescribed in paragraph (a) or (b) above as otherwise applicable; agency supplemental regulations may provide another clause and specify its use; or the contracting officer shall insert the clause prescribed in paragraph (c) above:

(i) The contract is for the operation of a Government-owned research or production facility.

(ii) There are exceptional circumstances and the agency head determines that restriction or elimination of the right to retain title to any subject invention will better promote the policy and objectives of Chapter 18 of Title 35 of the United States Code.

(iii) It is determined by a Government authority which is authorized by statute or executive order to conduct foreign intelligence or counterintelligence activities that restriction or elimination of the right to retain any subject invention is necessary to protect the security of such activities.

(2) Any determination under subdivision (1)(ii) above will be in writing and accompanied by a written statement of facts justifying the determination. The statement of facts will contain such information as the agency deems relevant and, at a minimum, will (i) identify the organization involved, (ii) describe the extent to which agency action restricted or eliminated the right to retain title to a subject invention, (iii) state the facts and rationale supporting the agency action, (iv) provide supporting documentation for those facts and rationale, and (v) indicate the nature of any objections to the agency action and provide any documentation in which those objections appear. In the case of contracts with small business concerns or nonprofit organizations, a copy of each such determination and written statement of facts will be sent to the Comptroller General of the United States within 30 days after the award of the applicable funding agreement. In the case of contracts with small business concerns, copies will also be sent to the Chief Counsel for Advocacy of the Small Business Administration.

(e) To qualify for the clause at 52.227-11, a prospective contractor may be required by the agencies excepted under subdivision (a)(1)(i) above to certify that it is either a small business firm or a nonprofit organization. If one of these agencies has reason to question the status of the prospective contractor, the agency may file a protest in accordance with 13 CFR 121.3-5 if small business firm status is questioned or require the prospective contractor to furnish evidence of its status as a nonprofit organization.

(f) The Alternates to the clauses at 52.227-11, 52.227-12, and 52.227-13, as applicable, may be modified by deleting the reference to future treaties or agreements or by otherwise more narrowly defining classes of future treaties or agreements. It may also be modified to make clear that the rights granted to the foreign government or international organization may be for additional rights beyond a license or sublicense if so required by the applicable treaty or international agreement. For example, in some cases exclusive licenses or even assignment of title in the foreign country involved might be required. In addition, the Alternate may be modified to provide for direct licensing by the contractor of the foreign government or international organization.

27.304 Procedures.

27.304-1 General.

(a) *Greater rights determinations.* Whenever the contract contains the clause at 52.227-13, Patent Rights—Acquisition by the Government, the contractor (or an employee-inventor of the contractor after consultation with the contractor) may request greater rights to an identified invention within the period specified in such clause. Requests for greater rights may be granted if the agency head or designee determines that the interests of the United States and the general public will be better served thereby. In making such determinations, the agency head or designee shall consider at least the following objectives:

(1) Promoting the utilization of inventions arising from federally supported research and development.

(2) Ensuring that inventions are used in a manner to promote free competition and enterprise.

(3) Promoting public availability of inventions made in the United States by United States industry and labor.

(4) Ensuring that the Government obtains sufficient rights in federally-supported inventions to meet the needs of the Government and protect the public against nonuse or unreasonable use of inventions.

(b) *Retention of rights by inventor.* If the contractor does not elect to retain title to a subject invention, the agency may consider and, after consultation with the contractor, grant requests for retention of rights by the inventor. Retention of rights by the inventor will be subject to the conditions in paragraph (d) (except subparagraph (d)(1)), subparagraph (f)(4), and paragraphs (h), (i), and (j) of the applicable Patent Rights—Retention by the Contractor clause.

(c) *Government assignment to contractor of rights in Government employees' inventions.* When a Government employee is a coinventor of an invention made under a contract with a small business firm or nonprofit organization, the agency employing the coinventor may transfer or reassign whatever right it may acquire in the subject invention from its employee to the contractor, subject to the conditions of 35 U.S.C. Chapter 18 and OMB Circular A-124.

machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

"Small business firm," as used in this subpart, means a domestic small business concern as defined at 15 U.S.C. 632 and implementing regulations of the Administrator of the Small Business Administration. (For the purpose of this definition, the size standard contained in 13 CFR 121.3-8 for small business contractors and in 13 CFR 121.3-12 for small business subcontractors will be used. See FAR Part 19).

"Subject invention," as used in this subpart, means any invention of the contractor conceived or first actually reduced to practice in the performance of work under a Government contract.

27.302 Policy.

(a) *Introduction.* (1) The policy of this section is based on 35 U.S.C. Chapter 18 (Pub. L. 96-517), OMB Circular A-124, and the Presidential Memorandum on Government Patent Policy to the Heads of Executive Departments and Agencies dated February 18, 1983. The objectives of this policy are to use the patent system to promote the utilization of inventions arising from federally supported research or development; to encourage maximum participation of industry in federally supported research and development efforts; to ensure that these inventions are used in a manner to promote free competition and enterprise; to promote the commercialization and public availability of the inventions made in the United States by United States industry and labor; to ensure that the Government obtains sufficient rights in federally supported inventions to meet the needs of the Government and protect the public against nonuse or unreasonable use of inventions; and to minimize the costs of administering policies in this area.

(2) Some agencies are subject, in whole or in part, to one of the following statutes, which require that information as to uses, products, processes, patents, or other developments "be available to the general public": 31 U.S.C. 666, 22 U.S.C. 2572, 50 U.S.C. 167b, 30 U.S.C. 951(c), 30 U.S.C. 937(b), 40 U.S.C. App. 302(e), 30 U.S.C. 1226, and 15 U.S.C. 1395(c). Such agencies shall generally use the clauses herein allowing title to patents to be retained by the contractor, and the related procedures.

(b) *Contractor right to elect title.* Under the policy set forth in paragraph (a) above, each contractor may, after disclosure to the Government as required by the patent rights clause included in the contract, elect to retain title to any invention made in the performance of work under the contract. To the extent an agency's statutory requirements necessitate a different policy, or different procedures and/or contract clauses to effectuate the policy set forth in paragraph (a) above, such policy, procedures, and clauses shall be contained in or expressly referred to in that agency's supplement to this subpart. In addition, a contract may provide otherwise (1) when the contract is for the operation of a Government-owned research or production facility; (2) in exceptional circumstances when it is determined by the agency that restriction or elimination of the right to retain title in any subject invention will better promote the policy and objectives of 35 U.S.C. Chapter 18 and the Presidential Memorandum, or (3) when it is determined by a Government authority which is authorized by statute or Executive Order to conduct foreign intelligence or counterintelligence activities that the restriction or elimination of the right to retain title to any subject invention is necessary to protect the security of such activities. In those instances when the Government has the right to acquire title at the time of contracting the contractor may, nevertheless, request greater rights to an identified invention. (See 27.304-1(a).) The right of the contractor to retain title shall, in any event, be subject to the provisions of paragraphs (c) through (g) below unless for contracts with other than small business or nonprofit organizations the agency determines before contract award that all or portions of these provisions may be modified, waived, or omitted. (See 27.304-1(f).)

(c) *Government license.* The Government shall have (unless provided otherwise in accordance with 27.304-1(f)) at least a nonexclusive, nontransferable, irrevocable, paid-up license to practice, or have practiced for or on behalf of the United States, any subject invention throughout the world; and may, if provided in the contract (see Alternate I of the applicable patent rights clause), have additional rights to sublicense any foreign government or international organization pursuant to existing treaties or agreements identified in the contract, and any future treaty or agreement.

(d) *Government right to receive title.* (1) The Government has the right to receive title to any invention if the contract so provides pursuant to a determination made in accordance with subparagraph (b)(1), (2), or (3) above. In addition, to the extent provided in the patent rights clause, the Government has the right to receive title to an invention—

(i) If the contractor has not disclosed the invention within the time specified in the clause;

(ii) In any country where the contractor does not elect to retain rights or fails to elect to retain rights to the invention within the time specified in the clause;

(iii) In any country where the contractor has not filed a patent application within the time specified in the clause;

(iv) In any country where the contractor decides not to continue prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on the patent; and/or

(v) In any country where the contractor no longer desires to retain title.

(2) For the purposes of this paragraph, election or filing in a European Patent Office Region or under the Patent Cooperation Treaty constitutes election or filing in any country covered therein to meet the times specified in the clause, provided that the Government has the right to receive title in those countries not subsequently designated by the contractor.

(e) *Utilization reports.* Unless provided otherwise in accordance with 27.304-1(f), contracts provide that the Government shall have the right to require periodic reporting on the utilization or efforts at obtaining utilization that are being made by the contractor or its licensees or assignees. Such reporting by small business firms and nonprofit organizations may be required in accordance with instructions as may be issued by the Department of Commerce. Agencies should protect the confidentiality of utilization reports to the extent permitted by 35 U.S.C. 205 or other applicable laws and OMB Circular A-124.

(f) *March-in rights.* (1) With respect to any subject invention in which a contractor has acquired title, contracts provide that the agency shall have the right (unless provided otherwise in accordance with 27.304-1(f)) to require the contractor, an assignee, or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the contractor, assignee, or exclusive licensee refuses such request, to grant such a license itself, if the agency determines that such action is necessary—

improvements), if the contracting officer determines that the supplies or services (or such items with relatively minor modifications) normally are or have been sold or offered for sale by any supplier to the public in the commercial open market. Ordinarily, the contracting officer, in consultation with the prospective contractor, should be able to determine whether the supplies or services being purchased normally are or have been sold or offered for sale by any supplier to the public in the commercial open market. (For negotiated construction contracts, see 27.203-5).

(b) In solicitations and contracts that call in part for specific components, spare parts, or services (or such items with relatively minor modifications) that normally are or have been sold or offered for sale by any supplier to the public in the commercial open market, the contracting officer may use the clause with its Alternate I or II, as appropriate. The choice between Alternate I (identification of excluded items) and Alternate II (identification of included items) should be based upon simplicity, Government administrative convenience, and the ease of identification of the items.

(c) In solicitations and contracts for communication services and facilities where performance is by a common carrier, and the services are unregulated and are not priced by a tariff schedule set by a regulatory body, the clause shall be used with its Alternate III.

27.203-5 Clause for construction contracts and for dismantling, demolition, and removal of improvements contracts.

Except as prohibited by 27.203-1(b), the contracting officer shall insert the clause at 52.227-4, Patent Indemnity—Construction Contracts, in solicitations and contracts for construction or that are fixed-price for dismantling, demolition, or removal of improvements. If it is determined that the construction will necessarily involve the use of structures, products, materials, equipment, processes, or methods that are nonstandard, noncommercial, or special, the contracting officer may expressly exclude them from the patent indemnification by using the basic clause with its Alternate I.

27.203-6 Clause for Government waiver of indemnity.

If, in the Government's interest, it is appropriate to exempt one or more specific United States patents from the patent indemnity clause, the contracting officer shall obtain written approval from the agency head or designee and shall insert the clause at 52.227-5, Waiver of Indemnity, in solicitations and contracts in addition to the appropriate patent indemnity clause. The contracting officer shall document the contract file with a copy of the written approval.

27.204 Reporting of royalties—anticipated or paid.

27.204-1 General.

(a) (1) To determine whether royalties anticipated or actually paid under Government contracts are excessive, improper, or inconsistent with any Government rights in particular inventions, patents, or patent applications, contracting officers shall require prospective contractors to furnish certain royalty information and shall require contractors to furnish certain royalty reports. Contracting officers shall take appropriate action to reduce or eliminate excessive or improper royalties.

(2) Royalty information shall not be required (except for information under 27.204-3) in formally advertised contracts unless the need for such information is approved at a level above that of the contracting officer as being necessary for proper protection of the Government's interests.

(b) When it is expected that work may be performed in the United States, its possessions, or Puerto Rico, any solicitation that may result in a negotiated contract for which royalty information is desired or for which cost or pricing data is obtained (see 15.804) should contain a provision requesting information relating to any proposed charge for royalties. If the work is to be performed in the United States, its possessions, or Puerto Rico and the response to the solicitation includes a charge for royalties, the contracting officer shall, before award of the contract, forward the information relating to the proposed payments of royalties to the office having cognizance of patent matters for the contracting activity concerned. The cognizant office shall promptly advise the contracting officer of appropriate action. Before award, the contracting officer shall take action to protect the Government's interest with respect to such royalties, giving due regard to all pertinent factors relating to the proposed contract and the advice of the cognizant office.

(c) The contracting officer, when considering the approval of a subcontract for work to be performed in the United States, its possessions, or Puerto Rico, shall require and obtain the same royalty information and take the same action with respect to such subcontracts in relation to royalties as required for prime contracts under paragraph (b) above. However, consent need not be withheld pending receipt of advice in regard to such royalties from the office having cognizance of patent matters.

(d) The contracting officer shall forward the royalty information and/or royalty reports received to the office having cognizance of patent matters for the contracting activity concerned for advice as to appropriate action.

27.204-2 Solicitation provision for royalty information.

If it is expected that work may be performed in the United States, its possessions, or Puerto Rico, the contracting officer shall insert a solicitation provision substantially as shown in 52.227-6, Royalty Information, in any solicitation that may result in a negotiated contract for which royalty information is desired or for which cost or pricing data is obtained under 15.804. If the solicitation is for communication services and facilities by a common carrier, use the provision with its Alternate I.

27.204-3 Patents—notice of Government as a licensee.

(a) When the Government is obligated to pay a royalty on a patent because of a license agreement between the Government and a patent owner and the contracting officer knows (or has reason to believe) that the licensed patent will be applicable to a prospective contract, the Government should furnish information relating to the royalty to prospective offerors since it serves the interest of both the Government and the offerors. In such situations, the contracting officer should include in the solicitation a notice of the license, the number of the patent, and the royalty rate recited in the license.

(b) When the Government is obligated to pay such a royalty, the solicitation should also require offerors to furnish information indicating whether or not each offeror is a licensee under the patent or the patent owner. This information is necessary so that the Government may either (1) evaluate an offeror's price by adding an amount equal to the royalty, or (2) negotiate a price reduction with an offeror-licensee when the offeror is licensed under the same patent at a lower royalty rate.

(c) If the Government is obligated to pay a royalty on a patent involved in the prospective contract, the contracting officer shall insert in the solicitation, substantially as shown, the provision at 52.227-7, Patents—Notice of Government Licensee.

27.204-3 Patents—notice of Government as a licensee.
27.204-4 Clause for reporting of royalties (foreign).
27.205 Adjustment of royalties.
27.206 Refund of royalties.
27.206-1 General.
27.206-2 Clause for refund of royalties.
27.207 Classified contracts.
27.207-1 General.
27.207-2 Clause for classified contracts.

SUBPART 27.3—PATENT RIGHTS UNDER GOVERNMENT CONTRACTS

27.300 Scope of subpart.
27.301 Definitions.
27.302 Policy.
27.303 Contract clauses.
27.304 Procedures.
27.304-1 General.
27.304-2 Contracts placed by or for other Government agencies.
27.304-3 Contracts for construction work or architect- engineer services.
27.304-4 Subcontracts.
27.304-5 Appeals.
27.305 Administration of patent rights clauses.
27.305-1 Patent rights follow-up.
27.305-2 Follow-up by contractor.
27.305-3 Follow-up by Government.
27.305-4 Conveyance of invention rights acquired by the Government.
27.305-5 Publication or release of invention disclosures.
27.306 Licensing background patent rights to third parties.

SUBPART 27.4—RIGHTS IN DATA AND COPYRIGHTS

27.401 General.

SUBPART 27.5—RESERVED

SUBPART 27.6—FOREIGN LICENSE AND TECHNICAL ASSISTANCE AGREEMENTS

27.601 General

AUTHORITY: 40 USC 486(c); Chapter 137, 10 USC; and 42 USC 2453(c).

27.000 Scope of part.

This part prescribes policies, procedures, and contract clauses pertaining to patents and directs agencies to develop coverage for Rights in Data and Copyrights.

SUBPART 27.1—GENERAL

27.101 Applicability.

The policies, procedures, and clauses prescribed by this Part 27 are applicable to all agencies. Agencies are authorized to adopt alternate policies, procedures, and clauses, but only to the extent determined necessary to meet the specific requirements of laws, executive orders, treaties, or international agreements. Any agency action adopting such alternate policies, procedures, and clauses shall be covered in published agency regulations.

27.102 Reserved.

27.103 Policy.

The policies pertaining to patents, data, and copyrights are set forth in this Part 27 and the related clauses in Part 52.

27.104 General guidance.

(a) The Government encourages the maximum practical commercial use of inventions made while performing Government contracts.

(b) Generally, the Government will not refuse to award a contract on the grounds that the prospective contractor may infringe a patent.

(c) Generally, the Government encourages the use of inventions in performing contracts and, by appropriate contract clauses, authorizes and consents to such use, even though the inventions may be covered by U.S. patents and indemnification against infringement may be appropriate.

(d) Generally, the Government should be indemnified against infringement of U.S. patents resulting from performing contracts when the supplies or services acquired under the contracts normally are or have been sold or offered for sale by any supplier to the public in the commercial open market or are the same as such supplies or services with relatively minor modifications.

(e) The Government acquires supplies or services on a competitive basis to the maximum practical extent, but it is important that the efforts directed toward increasing competition not improperly demand or use data relating to private developments.

(f) The Government honors the rights in data resulting from private developments and limits its demands for such rights to those essential for Government purposes.

(g) The Government honors rights in patents, data, and copyrights, and complies with the stipulations of law in using or acquiring such rights.

(h) Generally, the Government requires that contractors obtain permission from copyright owners before including privately-owned copyrighted works in data required to be delivered under Government contracts.

SUBPART 27.2—PATENTS

27.200 Scope of subpart.

This subpart prescribes policy with respect to—

(a) Patent infringement liability resulting from work performed by or for the Government;

(b) Royalties payable in connection with performing Government contracts; and

(c) Security requirements covering patent applications containing classified subject matter filed by contractors.

27.201 Authorization and consent.

27.201-1 General.

(a) In those cases where the Government has authorized or consented to the manufacture or use of an invention described in and covered by a patent of the United States, any suit for infringement of the patent based on the manufacture or use of the invention by or for the United States by a contractor (including a subcontractor at any tier) can be maintained only against the Government in the U.S. Claims Court and not against the contractor or subcontractor (28 U.S.C. 1498). To ensure that work by a contractor or subcontractor under a Government contract may not be enjoined by reason of patent infringement, the Government shall give authorization and consent in accordance with this regulation. The liability of the Government for damages in any such suit against it may, however, ultimately be borne by the contractor or subcontractor in accordance with the terms of any patent indemnity clause also included in the contract, and an authorization and consent clause does not detract from any patent indemnification commitment by the contractor or subcontractor. Therefore, both a patent indemnity clause and an authorization and consent clause may be included in the same contract.

(b) The contracting officer shall not include in any solicitation or contract—

(1) Any clause whereby the Government expressly agrees to indemnify the contractor against liability for patent infringement; or

(2) Any authorization and consent clause when both complete performance and delivery are outside the United States, its possessions, and Puerto Rico.

27.201-2 Clauses on authorization and consent.

(a) The contracting officer shall insert the clause at 52.227-1, Authorization and Consent, in solicitations and contracts (including those for construction; architect-engineer services; dismantling, demolition, or removal of improvements; and noncommon carrier communication services), except when small purchase procedures apply or both complete performance and delivery are outside the United States, its possessions, and Puerto Rico. Although the clause is not required when small purchase procedures apply, it may be used with them.

Standard Patent Rights
Clause at FAR 52.227-11

Ref: to Subpart 27.3
Section (if any) in
Fed.Reg. (Appendix 1)

(k) Special Provisions for Contracts with Non-Profit Organizations (12991-L) Ref: 12983-L-304(1)(h)

If the contractor is a non-profit organization, it agrees that:

1. Rights to the subject invention in the United States may not be assigned without approval of the Federal agency, except to a patent management organization as defined in this subpar. (k).

2. It will not grant exclusive licenses to other than small business firms for a period in excess of the earlier of five years from the first commercial sale or use of the invention, or eight years from the date of the exclusive license, excluding time before regulatory agencies necessary to obtain premarket clearance. Fields of use may be differentiated.

3. It will share royalties with the inventor.

4. The balance of royalties to the contractor after expenses incidential to the administration of subject inventions (including payments to inventors) will be utilized for the support of scientific research or education.

Standard Patent Rights Clause at FAR 52.227-11	Ref: to Subpart 27.3 Section (if any) in Fed.Reg. (Appendix 1)

(c) 1. Disclosure - The contractor must disclose each subject invention to the federal agency within two months arter the inventor discloses it in writing to Contractor personnel responsible for patent matters.

Ref: to Subpart 27.3

2. Election - The contractor must elect in writing whether or not to retain title to any such invention by notifying the Federal agency within 12 months of disclosure; provided that the agency may shorten this period if the 1-year statutory patent filing period has been initiated by publication, sale or public use.

3. Filing - The contractor must file its initial patent application on an elected invention within a stated time.

(d) Conditions When The Government May Obtain Title (12989-R) Ref: 12979-M-302(d)

The contractor will convey title to the Federal Agency at its request when:

1. The contractor fails to disclose or elect within the times specified, or elects not to retain title

2. In those countries in which the contractor fails to file patent applications within the specified times, or decides not to continue prosecution or maintenance.

(e) Minimum Rights to Contractor (12989-R) Ref: 12980-L-302(h)

1. The contractor retains a nonexclusive, royalty-free license throughout the world (with limits on its transferability) in each invention to which the government obtains title, unless the contractor fails to disclose in the specified time.

2. The contractors license may be revoked under stated circumstances and (3.) with proper notice.

(f) Contractor Action to Protect the Government's Interest (12990-L) Ref: 12984-M-305
Ref: 12980-R-303(a)(2)

1. Contractor will cooperate in confirming government license rights or conveying title.

Subpart 27.3

Ref: to 52.227-11 para. (if any) in F.R. (Appendix 2)

27.304-5 Appeals (12984-L)

Covers procedures by which contractors can appeal certain agency actions such as refusal to extend disclosure period, convey title, grant a waiver under 27.302(d), approve an assignment, extend an exclusive license period, etc.

27.305 Administration of patent rights clauses (12984-M)

Ref: 12989-M-(c)
Ref: 12990-L-(f)

27.305-1 Patent rights follow-up

27.305-2 Follow-up by contractor

27.305-3 Follow-up by Government

27.305-4 Conveyance of invention rights acquired by Government

27.305-5 Publication or release of invention disclosures

27.306 Licensing background patent rights to third parties (12985-R)

(a) Contracts with small business firms or nonprofits will not contain provisions allowing the Government to require the licensing to third parties of inventions owned by the contractor that are not "subject inventions" unless such provisions have been approved by, and written justification signed by the agency head.

(b) Criteria for determining whether licensing of background patents to third parties should be required.

Subpart 27.3

Ref: to 52.227-11 para. (if any) in F.R. (Appendix 2)

27.303 Contract clauses (12980-M) Ref: 12989-L

(a) (1) Clause at 52.227-11, "Patent Rights - Retention by the Contractor (Short Form)" to be inserted where the contractor is a small business concern or non-profit organization (except as may be required under (d) below)), or and other type of contractor, except for contracts of DOD, DOE or NASA.

(2) Contracting officer may modify paragraph (f) of the clause to require certain listings, notifications, and copies of documents.

(3) Contracting office may add Alt. I to permit the government to sublicense foreign governments.

(b) (1) Criteria for use of clause at 52.227-12, "Patent Rights - Retention by the Contractor (Long Form) for contractors other than small business firms or nonprofit organizations.

(c) (1) Criteria for use of clause at 52.227-13, "Patent Rights - Acquisition by the Government"

(d) (1) Contracting officer may use alternative clauses in connection with the operation of a Government-owned research or production facility, exceptional circumstances, or foreign intelligence or counter-intelligence activities.

(2) Sets forth procedures for making determinations under (d)(1).

(e) Contractor may be required to certify that it is a small business firm or a nonprofit organization. The agency may protest.

(f) Alternate clause I providing license rights to foreign governments under (a)(3) above may be modified in certain respects.

27.304 Procedures (12981-R)

27.304-1 General

(a) Greater rights determination - (Covers acquisition of rights by the contractor or employee-inventor where the Government acquires rights under the clause at 52.227-13.)

(b) Retention of rights by inventor (where contractor does not elect to retain title)

(c) Government assignment to contractor of rights in Government employees' inventions.

APPENDIX 1

FAR SUBPARTS 27.1, 27.2 & 27.3

Summary and Cross-Reference

SUBPART 27.1 GENERAL

This subpart states that Part 27 is applicable to all agencies, which may adopt alternate policies, procedures and clauses only to the extent determined necessary to meet the specific requirements of laws, executive orders, treaties, or international agreements. It also lists eight guiding principles underlying goverrnment policy on patents, rights in data, and copyrights.

SUBPART 27.2 PATENTS

This subpart prescribes policy with respect to:

a. Patent infringement liability resulting from work performed by or for the government (including authorization and consent, notification and assistance, and indemnification).

b. Royalties payable in connection with performing government contracts, and

c. Security requirements covering patent applications containing classified subject matter filed by contractors.

The policy statements set forth in this subpart also identify the implementing contract clauses set forth in FAR 52.227. These policies and implementing clauses, however, will not be discussed further since our principal focus is on patent rights under government contracts. For that reason, we will concentrate on Subpart 27.3 in the remainder of this Appendix, and on the clause in 52.227-11 in Appendix 2.

5. FEDERAL ACQUISITION REGULATIONS (FAR) - PART 27

In order to understand the current status of the Federal Acquisition Regulations, Part 27, with respect to patents, it may be useful to provide the following background.

1983 - Proposed FAR Part 27

In mid-1983, a proposed Part 27 of the Federal Acquisition Regulations was issued. After its Committee on Patents, Copyrights and Rights in Data had reviewed the proposed Part 27, the Council on Governmental Relations (COGR) responded with two main points:

1. The proposed regulations were materially inconsistent with P.L.96-517 and OMB Circular A-124; and

2. The proposed regulations attempted to set new federal policy on rights in data by (a) restricting the use and release of research data by university scientists and (b) shifting to the government title to computer programs arising under contracts.

March 20, 1984 - Revisions to the A-124 Standard Patent Rights Clause

On March 20, 1984, in the Federal Register at page 10393, the Office of Federal Procurement Policy, part of OMB, published a revision to OMB Circular A-124 consisting of minor modifications to the standard patent rights clause set forth in Attachment A of that circular. The purpose of the modifications was to implement the President's memorandum of February 1983, which directed that all Federal agencies, to the extent permitted by law, extend the principles of Public Law 96-517 to large businesses, in addition to small business firms and non-profit organizations. As modified, the clause can be used for all classes of research contractors.

It is intended that agencies use the revised clause in all grants, contracts, and cooperative agreements awarded after April 1, 1984 to small business and nonprofit organizations for the performance of research and development work. It is also to be used in such awards to big businesses to the extent permitted by law (which primarily excludes DOD, DOE and NASA).

The only substantive change, viewed by universities as favorable, provides that a Federal agency wishing to obtain title to an invention must request title within 60 days after learning of the contractor's failure to report the invention or failure to elect title within the specified times. This precludes a continuing cloud on the contractor's title to an invention when the agency could, but does not intend to request title.

This revised clause is now contained in FAR 52.227-11, "Patent Rights - Retention by the Contractor (Short Form)," which is reproduced in Appendix 2 of this paper.

be claimed by the performing organization to be the product of non-government sponsored research and be challenged by the sponsoring agency as being reportable to the government as a 'subject invention,' the challenge is appealable as described in Part 14.c."

Note: The legal significance of the proviso that the private research "does not diminish or distract" from the performance of the government funded project is unclear, but in other respects the position appears reasonable.

NIH: "If a single individual spends one-half time on a project supported with Government funds and one-half time on a privately supported project, the Government obtains patent rights only if the privately supported project is directly dependent on ideas or materials generated in the publicly supported project."

Note: It would seem more useful if this description were revised to refer to the "conception of the invention" rather than the "project" being directly dependent.

5. Sequential research

NIH: "Similarly, if a scientist spends ten years on a publicly supported project and then ten years on a privately supported project, the Government obtains no patent rights to the invention developed under private support unless it is clear that the idea was conceived with public funds".

6. Use of equipment

OMB: "An invention which is made outside of the research activities of a government funded project but which in its making otherwise benefits from such project without adding to its cost, is not viewed as a "subject invention" since is cannot be shown to have been "conceived or first actually reduced to practice" in performance of the project. An obvious example of this is a situation where an instrument purchased with government funds is later used, without interference with or cost to the government funded project in making an invention all expenses of which involve only non-government funds.

7. Use of buildings

NIH: "In the situation where privately supported work is done in a building previously constructed with Government funds, the Government obtains no patent rights in inventions developed through those private funds."

4. COMMINGLING

Those individuals negotiating patent clauses in contracts with industrial sponsors must understand the issue of "commingling."

Part 6.a. of OMB Circular A-124 defines "funding agreement" as follows:

> "a. The term 'funding agreement' means any contract, grant or cooperative agreement entered into between any Federal agency, other than the Tennessee Valley Authority, and any contractor for the performance of experimental, developmental, or research work funded in whole or in part by the Federal government." (Underlining added)

Thus, the partial support of research by the Federal government may result in the "commingling" of Federal funds and private funds, with the government acquiring rights in the resulting inventions, which thereby become subject to the provisions of OMB Circular A-124. It should be noted that "commingling," as used in this context, is not limited to the mixing of Federal and non-Federal funds in the same account, since the partial Federal support may be provided in separate research accounts, or may have been provided at an earlier time. It is important, therefore, to know under what circumstances the government will be considered as having provided partial support. The following guidance is taken from the transmittal letter to OMB Circular A-124 (prefaced by "OMB"), from inputs provided by OMB to the Director of NIH (prefaced by "NIH"), and from a GAO report requested by Rep. Albert Gore (prefaced by "GAO").

1. "De Minimus"

OMB: "There were several comments that some 'de minimus' standard be established to define the threshold contribution of government funding to the making of a jointly funded invention below which the Circular regulation should not apply. These recommendations were rejected as being inconsistent with the Act, which does not define subject invention in terms of the size of the government financial contribution in making the invention.

2. Direct vs. Indirect Costs

NIH: "Many apparent problems can be resolved by the application of general cost accounting and auditing principles. In a project funded by commingled funds, the Federal Government's support is either through direct costs (i.e., salaries of the principal investigator and staff, laboratory supplies, equipment) or indirect costs (i.e., reimbursement of general university overhead, construction costs). As

2. THE PATENT AND TRADEMARK AMENDMENTS OF 1980

(Public Law 96-517)

On December 12, 1980, the Patent and Trademark Law Amendments Act (P.L. 96-517) was signed into law. This Act seeks to reform a number of areas of the United States patent law which have been troublesome for many years. Of major importance to university research administrators, however, the Act adds a completely new chapter to Title 35 of the U.S. Code. Chapter 38, entitled "Patent Rights in Inventions Made with Federal Assistance," and commonly referred to as the Uniform Patent Legislation, allows non-profit organizations and small business firms to elect to retain, with limited exceptions, title to inventions made in the course of government sponsored research.

Chapter 38 declares that it is the policy and objective of Congress to use the patent system to promote the utilization of inventions arising from federally supported research or development; to encourage maximum participation of small business firms in federally supported research and development efforts; to promote collaboration between commercial concerns and nonprofit organizations, including universities; to ensure that inventions made by nonprofit organizations and small business firms are used in a manner to promote free competition and enterprise; to promote the commercialization and public availability of inventions made in the United States by United States industry and labor; to ensure that the Government obtains sufficient rights in federally supported inventions to meet the needs of the Government and protect the public against nonuse or unreasonable use of inventions; and to minimize the costs of administering policies in this area.

These policies and objectives are in marked contrast to the position urged for many years in Congressional hearings by those who viewed the patent system with suspicion and who felt that the Federal government should acquire title to all inventions resulting from federally funded research and that universities and other contractors should not be granted title and the right to license government funded inventions.

In effect, the policy stated in Chapter 38 is more likely to effectuate the intent of Article 1, Section 8, of the Constitution, which provides that the Congress shall haved power "To promote the progress of science and useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."

8. TREATIES AND FOREIGN PATENTS

Since the rights granted by a United States patent extend only throughout the territory of the United States, an inventor who wishes patent protection in foreign countries must apply for a patent in those countries.

Each country has its own requirements on patenting and the laws of other countries differ in various respects from the patent law of the United States and even from each other. In most foreign countries, publication of the invention before the date of the application will bar the right to a patent. Most foreign countries require that the patented invention must be manufactured in that country after a certain period, usually 3 years. If not, the patent might be void in some countries, and in others might be subject to the grant of compulsory licenses to other qualified licensees.

A treaty relating to patents, known as the Paris Convention for the protection of Industrial Property, is adhered to by 79 countries, including the United States. It provides that each country guarantees to the citizens of the other countries the same rights in patent and trademark matters that it gives to its own citizens. The treaty also provides for the right of priority in the case of patents, trademarks and industrial designs. This right means that, on the basis of a regular first application filed in one of the member companies, the applicant may, within a certain period of time, apply for protection in all the other member countries. These later applications will then be regarded as if they had been filed on the same day as the first application. The period of time within which the subsequent application may be filed in other countries is 12 months in the case of applications for patents and 6 months in the case of industrial designs and trademarks.

Another treaty, known as the Patent Cooperation Treaty, prersently signed by 35 countries, including the United States, became effective on January 24, 1978. The treaty facilitates the filing of applications for patents on the same invention in member countries by providing, among other things, for centralized filing procedures and a standardized application format.

Under United States law it is often necessary, in the case of inventions made in the United States, to obtain a license from the Commissioner of Patents and Trademarks before applying for a patent in a foreign country. Such a license is required if the foreign application is to be filed before an application is filed in the United States or before the expiration of 6 months from the filing of an application in the United States. After 6 months from the United States filing, a license is not required unless the invention has been ordered to be kept secret.

7. REMEDIES

Infringement

35 U.S.C. 271(a) provides that the making, using or selling of a patented invention without authority within the United States during the patent term infringes the patent. In addition, 35 USC 271 (c), provides that the sale of a component of a patented machine, or of a composition, material, or apparatus for use in practicing a patented process, while knowing the same to be made especially for use in an infringement of the patent (and not a staple article or commodity of commerce) is contributory infringement.

If a patent is infringed, the patentee may sue for relief in the appropriate Federal District court, and ask the court for an injunction to prevent the continuation of the infringement and for damages because of the infringement. The defendant may question the validity of the patent, which is then decided by the court. The defendant may also aver that what he is doing does not constitute infringement, and this question will be determined primarily on the basis of whether what the defendant is doing falls within the language of any of the patent claims.

In all suits for patent infringment, the patent is presumed valid and the burden of establishing invalidity is on the challenging parties (35 USC 282). Remedies for infingement by a private party include injunctive relief (35 USC 283) and damages adequate to compensate for the infringment, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court (35 USC 284). Suits for infringement of patents follow the rules of procedure of the Federal courts.

The United States Government may use any patented invention without permission of the patentee and no injunction can issue against such use. If the Government use infringes the patent, however, the patentee has a remedy for damages in the Court of Claims of the United States (28 USC 1498(a)).

If the patentee notifies anyone that they are infringing his patent or threatens suit, the one charged with infringement may himself start a Declaratory Judgment action in a Federal court and get a judgment in the matter.

A constructive reduction to practice, however, is a reduction to practice deemed to be such solely in the contemplation of the law without any physical construction or carrying out of the invention. A constructive reduction to practice involves only the formal filing in the Patent and Trademark Office of a patent application disclosing the invention.

Constructive reduction to practice is, in effect, a fiction which has arisen to meet the requirement that in order to file a patent application in the Patent and Trademark Office there must be a completed invention. The fiction assumes that the invention was previously conceived and the filing of the patent application completes the inventive act. This practice, of course, results in many paper patents which pertain to inventions that have never been built or tried. The same standards of proof of utility are applicable to a constructive reduction to practice as are applicable to an actual reduction.

conception is a "mental" act. Second, this mental act must embody the invention that is actually reduced to practice. Or, to state it differently, the invention that is actually reduced to practice must have been anticipated by the alleged mental act for that act to be deemed the conception of the invention."

Another court has defined "conception" in the following terms:

"The formation in the mind of the inventor of a definite idea of a complete and operative invention as it is thereafter to be reduced to practice...The date of conception is the date when the invention is crystallized in all of its essential attributes and becomes so clearly defined in the mind of the inventor as to be capable of being converted to reality and reduced to practice by the inventor or by one skilled in the art."

The conception is, furthermore, of legal significance only if it is disclosed, but the mere idea or appreciation of what the inventor wishes to accomplish is not legally sufficient. With conception, the corroboration goes to the inventor's formation of the idea. If the invention is recorded in a readily identifiable form, it can be corroborated by a witness who is completely ignorant of the technology. Where there is no record of conception, however, and verbal testimony is offered, the witness must have a fairly sophisticated understanding of the technology to establish that the conception was in the same form.

The second element, that the mental act must be embodied in a physical form, presents certain problems. The ultimate expression of an idea tends to differ in some degree from the original idea itself. The inquiry therefore is whether the embodiment is a mere refinement of the mental act, or one of a different concept brought about by a more detailed study of the initial idea.

The courts have attempted to refine further the rule enunciated in one classic case that conception is shown when "the inventor or others skilled in the art can reduce the conception to practice without any further excercise of inventive skill." In restating the above rule, one case expanded the requirment into "without any further research or exercise of the inventive skill."

Emphasizing the concept of "research", the courts have tended to distinguish the inventor and persons of like skill in the art from those of ordinary skill in the art. If the inventor or others with his qualifications stayed with the idea, any later development is considered to be research. If the idea was "turned over" to one of ordinary skill who then altered it or added some feature to its physical embodiment, that development was considered something less than research. It suggests the view that if the inventor, or one of comparable skill, stayed with the idea, it was not complete, but if the inventor was willing to turn it over to a mechanic, the inventor at least believed it was complete.

is considered abandoned and no longer pending, although there are procedures for petitioning for a revival.

(f) Appeals. If the examiner persists in his rejection of any of the claims in an application, or if the rejection has been made final, the applicant may appeal to the Board of Appeals in the Patent and Trademark Office. The applicant must file a brief and is entitled to an oral hearing, if desired. (As an alternative to appeal, in situations where an applicant desires consideration of different claims or further evidence, a new continuation application is often filed.) If the decision of the Board of Appeals is still adverse to the applicant, other avenues of appeal to the courts are available.

(g) Interferences. Occasionally two or more applications are filed by different inventors claiming substantially the same patentable invention, and a proceeding known as an "interference" is instituted by the Patent and Trademark Office to determine who is the first inventor and therefore entitled to the patent. About 1% of the applications filed become involved in an interference proceeding. Interference proceedings may also be instituted between an application and a patent already issued within the preceding twelve months.

Each party to such a proceeding must submit evidence concerning when the invention was made. If no evidence is submitted, a party is restricted to the date his application was filed as his earliest date. The determination as to priority is made by a three examiners on the Board of Patent Interferences on the basis of the evidence submitted. The losing party may appeal to the Court of Customs and Patent Appeals or file a civil action against the winning party in the appropriate United States District Court.

The terms "conception" and "reduction to practice" are encountered in connection with priority questions since the inventor who proves to be the first to conceive the invention and the first to reduce it to practice will be held to be the prior inventor. However, there are many complicated circumstances where the rule cannot be stated this simply and the nuances of "conception" and "reduction to practice" are many. However, due to the importance of these terms and the fact that the rights acquired by research sponsors are also determined on the basis of conception and/or reduction to practice, a brief discussion of these follows in the next part.

(h) Allowance and Issue of Patent. If, on examination of the application, or at a later stage during the re-examination or reconsideration of the application, the application is found to be allowable, a notice of allowance will be sent to the applicant or his attorney, and a fee for issuing the patent is due within 3 months from the date of the notice. The basic issue fee for each original or reissue patent, except in design cases, is generally $250 for educational institution patents.

As noted earlier, the specification must include a written description of the invention and of the manner and process of making and using it, and is required to be in such clear, concise, and exact terms as to enable any person skilled in the art to which the invention pertains, or with which it is most nearly connected, to make and use the same.

The specification must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement invented, and must set forth the best mode contemplated by the inventor of carrying out his invention.

The application must conclude with one or more claims, which are brief but precise definitions of the subject matter of the invention, eliminating unnecessary details and reciting all essential features necessary to distinguish the invention from what is old. The claims are the operative part of the patent. Novelty and patentability are judged by the claims, and, when a patent is granted, questions of infringement are judged by the courts on the basis of the infringement of the claims.

The inventor must make an oath or declaration of his or her belief to be the original and first inventor, as well as other allegations required by the Patent and Trademark Office rules.

One portion of the oath requires acknowledgment of the inventor's duty to disclose informtion which is material to the examination of the application in accordance with Title 37, Code of Federal Regulations, Section 1.56(a), which imposes a duty of candor and good faith toward the Patent and Trademark Office on the part of the inventor and others substantively involved in the preparation or prosecution of the application. An application will be stricken from the files under certain circumstances, including fraud on the Patent Office and any violation of the duty of disclosure through bad faith or gross negligence.

The basic fee for filing an appplication for an original patent is $300, but if the invention is owned by an educational institution and has not been licensed to a large business concern, the fee is $150. There are other fees which must be paid, including fees for excess claims, recording assignments, patent issue and patent maintenance.

Prosecution

The prosecution of a patent application usually runs from a year and a half to three years, but may run for several additional years if it involves certain appeals or the resolution of an interference. In most case, prosecution includes the following steps:

(a) Examination. Applications filed in the Patent and Trademark Office, if complete, are assigned for examination to the group of examiners responsible for the class of inventions involved.

The examiner to whom the application is assigned studies it for compliance with legal requirements, and searches the prior art contained in

(b) Prior foreign filing

35 U.S.C. Sect. 102(d) precludes from patent protection in the United States an invention on which the same applicant filed a foreign patent application more than twelve months prior to the United States filing date, and which matured into a patent before an application was filed in the United States. In other words, where the U.S. application is filed late (more than year after the foreign filing), a U.S. patent can be obtained only if a foreign patent does not issue in the meantime.

However, an invention which was the subject of a foreign filing within twelve months of the United States filing date is not only entitled to patent protection but can receive the benefit of the earlier foreign filing date.

(c) Previously filed patent application

35 U.S.C. Sect. 102 (e) provides that a patent cannot be obtained if the invention was described in a patent granted as the result of an application which was filed before the applicant made his invention. In other words, the specifications of United States patents become prior art as of their filing date, even though what they disclosed was not then actually available to the public. The rationale is that if the applicant's invention is fully described in an earlier application that subsequently results in a patent, that is prima facie evidence that the later applicant is not the first inventor. Were this not the case, any administrative delays in the Patent Office which, in turn, delayed the issuance of the patent would adversely affect the first applicant's rights.

(d) Non-inventorship

35 U.S.C. Sect. 102(f) states a person shall not be entitled to a patent if he did not himself invent the subject matter sought to be patented. It is primarily applicable where the appplicant has derived the invention from another.

(e) Prior invention

35 U.S.C. Sect. 102(g) negates novelty where the same invention was made earlier by another inventive entity in the U.S. and such earlier inventive entity is deemed not to have abandoned, suppressed or concealed the invention. Section 102(g) is the basis for interference proceedings to determine the priority of inventions and may be the basis for a defense in a suit for patent infringement.

4. CONDITIONS FOR PATENTABILITY

Novelty, Utility and Non-obviousness

The requirements of novelty, utility and non-obviousness derive from 35 USC 101, 102, 103.

(a) Novelty

35 U.S.C. Sect. 102. Conditions for patentability; novelty and loss of right to patent, reads in part as follows:

"A person shall be entitled to a patent unless --

"(a) The invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

"(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States."

In other words, a patent cannot be obtained on an invention described in a printed publication anywhere, or known or used by others in the United States, before the invention is made by the applicant. Nor can a patent be obtained if the invention has been described in a printed publication anywhere, or has been in public use or on sale in this country, more than one year before the date on which a patent application is filed in this country. Regardless of when the invention was made, if the inventor, or someone else, describes the invention in a printed publication, uses it publicly, or places it on sale, the inventor must apply for a patent before one year has gone by, or lose the right to do so.

Although there is a one year grace period in the United States for filing a patent application following publication, most other countries require "absolute novelty" as a condition for obtaining patent protection. Absolute novelty is destroyed if the invention is published or publicly disclosed prior to the filing of a patent application in that country or some other country. Consequently, issues relating to the dissemination of research results are quite likely to arise when a university or a research sponsor wishes to pursue foreign filings on inventions resulting from the research.

In addition, a publication includes any written material to which the public has access. For example, a single copy of a thesis which has been catalogued and placed in a library available to the public is a "publication" The amount of use is immaterial.

distinctive form, quality, or property. Excluded are articles whose appearance, properties, function, form, and/or shape have been only slightly altered in the manufacturing process.

(d) Composition of matter

This relates to chemical compositions and may include mixtures of ingredients as well as new chemical compounds. A mixture is deemed to be new even where the only novelty is in the proportions of the constituent ingredients. The novelty of a mixture may also reside in the arrangement or segregation of its ingredients. The patentability of a composition of matter may turn not only upon the novelty of its ingredients but on the manner in which these are combined.

After protracted litigation, the Supreme Court has held that live bacteria, and perhaps other forms of living microorganisms, that result from genetic engineering, such as gene splicing, and which do not occur naturally, are patentable subject matter as compositions of matter or as articles of manufacture (Diamond vs. Chakrabarty (1980)).

The court stated that "In choosing such expansive terms as 'manufacture' and 'composition of matter' modified by comprehensive 'any,' Congress plainly contemplated that the patent laws would be given wide scope." However, the court noted further that:

> "This is not to suggest that 101 has no limits or that it embraces every discovery. The laws of nature, physical phenomena and abstract ideas have been held not patentable. Thus a new mineral discovered in the earth or a new plant found in the wild is not patentable subject matter. Likewise, Einstein could not patent his celebrated law that $E=mc^2$ nor could Newton have patented the law of gravity. Such discoveries are manifestations of nature, free to all men and reserved exclusively to none."

Other Statutory Subject Matter

Designs - The patent laws (35 U.S.C Chapter 16) provide for the granting of design patents to any person who has invented any new, original and ornamental design for an article of manufacture. The patentability of a design rests in its appearance, and all portions of it are material in that they contribute to the overall appearance which constitutes the design. Some physical objects may have aspects which are patentable as a manufacture and others which are patentable as a design. A patentable design, like a patentable process, machine, manufacture or composition of matter, must be new and unobvious, but the requirement of utility does not apply. Patents for design are granted for a period of up to 14 years.

Plants - The patent laws (35 U.S.C. Chapter 15) also provide for the granting of a patent to anyone who has invented or discovered and asexually reproduced any distinct and new variety of plant, including cultivated sports, mutants, hybrids, and newly found seedlings. Specifically excluded from plant patent protection are tuber propagated plants (because of their

a patent, by an instrument in writing. Such an instrument is referred to as an assignment and may transfer the entire interest in the patent. The assignee, when the patent is assigned to him, becomes the owner of the patent and has the same rights that the original patentee had.

The statute also provides for the assignment of a part interest, that is, a half interest, a fourth interest, etc., in a patent. There may also be a grant which conveys the same character of interest as an assignment but only for a particular, specified part of the United States.

An assignment, grant, or conveyance of any patent or application for patent should be acknowledged before a notary public or officer authorized to administer oaths or perform notarial acts. The certificate of such acknowledgement constitutes prima facie evidence of the execution of the assignment, grant, or conveyance.

The Patent and Trademark Office records assignments, grants and similar instruments sent to it for recording , and the recording serves as notice. If an assignment, grant or conveyance of a patent or an interest in a patent (or an application for patent) is not recorded in the Patent and Trademark Office within three months from its date, it is void against a subsequent purchaser for a valuable consideration without notice, unless it is recorded prior to the subsequent purchase.

Joint Ownership

Patents may be owned jointly by two or more persons, as in the case of a patent granted to joint inventors or where there is an assignment of a part interest. Any joint owner of a patent, no matter how small his part interest, may make, use, and sell the invention for his own profit, without regard to the other owner, and may sell his interest or any part of it, or grant licenses to others without regard to the other joint owner, unless the joint owners have entered a contract governing their relation to each other. It may, therefore, be unwise to assign a part interest without a definite agreement between the parties as to the extent of their respective rights and their obligations to each other.

Licenses

The owner, or joint owner, of a patent may grant licenses to others. A license is the permission granted by the patent owner to another to make, use or sell the invention. No particular form of license is required. A license is a contract and may include whatever provisions the parties agree upon, including the payment of royalties, etc.

Government Rights

The United States does not, by granting a patent, thereby acquire the right to use it. Such rights must be acquired in some manner, as, for example, by contract, by purchase, as a condition of employment for its own employees, etc. For small businesses and nonprofit organizations, government rights are determined in accordance with Public Law 96-517 and OMB Circular A-124, which are discussed in the paper in this NCURA series entitled Patent Rights under Government Contracts.

Title 35, United States Code

Under the authority of Article 1, Section 8, of the Constitution, Congress has from time to time enacted various laws relating to patents. The first patent law was enacted in 1790. The law now in effect is a general revision which was enacted on July 19, 1952. The U.S. patent laws are found in Title 35 of the U.S. Code and are reprinted in a pamphlet entitled Patent Laws, which is sold by the Government Printing Office.

The scope of 35 U.S.C. is indicated by the following table of chapters:

Part I - Patent and Trademark Office

1. Establishment, Officers, Functions
2. Proceedings in the Patent and Trademark Office
3. Practice before Patent and Trademark Office

Part II - Patentability of Inventions and Grant of Patents

10. Patentability of Inventions
11. Application for Patent
12. Examination of Application
13. Review of Patent and Trademark Office Decision
14. Issue of Patent
15. Plant Patents
16. Designs
17. Secrecy of Certain Inventions and Filing Applications

Part III - Patents and Protection of Patent Rights

25. Amendment and Correction of Patents
26. Ownership and Assignment
27. Government Interest in Patents
28. Infringement of Patents
29. Remedies for Infringement of Patents and Other Actions

Part IV - Patent Cooperation Treaty

35. Definitions
36. International Stage
37. National Stage
38. Patent Rights in Inventions Made with Federal Assistance

