



# ANNOUNCEMENT

from the Copyright Office, Library of Congress, Washington, D.C. 20559

## PROPOSED REGULATION

### MASK WORK PROTECTION; REGISTRATION OF CLAIMS OF PROTECTION IN MASK WORKS

The following excerpt is taken from Volume 54, Number 24 of the Federal Register for Tuesday, February 7, 1989 (pp. 5942-5944)

#### LIBRARY OF CONGRESS

#### Copyright Office

#### 37 CFR Part 211

(Docket No. RM 88-71)

#### Mask Work Protection; Registration of Claims of Protection in Mask Works Proposed Regulations

**AGENCY:** Library of Congress, Copyright Office

**ACTION:** Proposed regulations.

**SUMMARY:** The Copyright Office of the Library of Congress is proposing an amendment to its regulations on mask work registration to provide an exception to the most complete form requirement. Section § 211.4(c) and (e) now require one registration per work and that the registration cover the most complete form of the semiconductor chip product in existence. The proposed exception would permit separate registration of unpersonalized gate arrays and the customized metallization layers despite the existence of a completed final form.

**DATES:** Comments should be received on or before March 9, 1989.

**ADDRESSES:** Ten copies of written comments should be addressed, if sent by mail to: Library of Congress, Department 100, Washington, DC 20540. If delivered by hand, copies should be brought to: Office of the General Counsel, James Madison Memorial Building, Room LM-407, First and Independence Avenue, SE., Washington, DC 20559, (202) 707-8380.

**FOR FURTHER INFORMATION CONTACT:** Dorothy Schrader, General Counsel, U.S. Copyright Office, Library of Congress, Washington, DC 20559, (202) 707-8390.

**SUPPLEMENTARY INFORMATION:** On November 8, 1984, the President signed into law the Semiconductor Chip Protection Act of 1984, Pub.L. 98-620. The Act created a new form of intellectual property law separate and apart from any earlier law. The legislation consisted of an amalgam of patent and copyright principles, but also contained new features. The law was codified as Chapter 9 of Title 17 of the U.S. Code, and is primarily administered by the Copyright Office.

On June 28, 1985, the Copyright Office issued final regulations implementing the Semiconductor Chip Protection Act. A public hearing (49 FR 39171) and interim regulations (50 FR 283) preceded the formulation of final regulations.

One of the most controversial issues raised in the rulemaking proceeding was the registerability of "intermediate forms" of semiconductor chip products. Section 901 of the Act defines "semiconductor chip product" as including "the final or intermediate form of any product . . ." A mask work cannot be protected under the Act until it has been fixed in such a product.

In the interim regulations, a principle was advanced allowing only one registration for the same version of a mask work. Special rules were established for registering mask works fixed as intermediate forms whereby registration of the intermediate form was possible only if the intermediate form represented twenty percent or more of the intended final form.

The purpose of the policy was to discourage applicants from fractionalizing their mask work contributions into smaller portions. The commentary preceding the interim regulation cited a number of reasons for this policy. In cases where claims were asserted on the basis of small portions of mask works fixed in semiconductor chip products, it would be difficult to develop and apply standards of originality. The practice of registering multiple claims in small portions of mask works might discourage legitimate reverse engineering under section 906 of the Act. A problem in calculating the duration of protection might also arise if several portions of a final product were registered separately at different times because duration for unexploited mask works begins upon registration. Finally, multiple registrations could lead to compounding of statutory damages in a way not contemplated by Congress.

In comments on the interim regulation, industry spokesmen attacked the prohibition against registering an intermediate form where a final form was in existence. They also attacked the twenty percent rule as an arbitrary standard which was without support under the Act.

At the heart of the argument was the industry view that applicants should have discretion to subdivide their mask work contribution. That it would be easier to prove substantial similarity in litigation was cited as the primary reason an applicant would choose to follow such a course.

The Copyright Office concluded that the basic policy of the interim regulation in favor of one registration per work was a sound policy. In implementing the

policy, however, the final regulation adopted a number of changes. The language of § 211.4(e) was recast to require applicants to register mask work contributions in their most complete form. The twenty percent rule as an absolute bar to registration was eliminated. However, in cases where an applicant sought registration of a contribution of less than 20 percent of the intended final form, a full disclosure deposit was required.

The primary reason for the policy adopted in the final regulation was the belief of the Copyright Office that reference to "intermediate forms" in the Act was intended to have a limited purpose. According to testimony in the Congressional hearings on the Act, lengthy testing of semiconductor chip products often took place before a final product became commercially available. In the interim, a semiconductor chip producer might need protection before the product was completed in its final form. In order to address this problem, Congress included the reference to "intermediate forms" in the Act. This consideration, however, in no way justified making multiple registrations of completed semiconductor chip products.

The Copyright Office rejected the assertion that multiple registrations of final semiconductor chip products were necessary, in order to prevent judges from misconstruing the Act. On the contrary, far greater confusion would likely arise from permitting multiple registrations of completed semiconductor chip products. If discretionary subdivision of claims were permitted, each manufacturer would be tempted to divide his mask works into as small a portion as possible in order to maximize his level of protection. Moreover, under the interim deposit regulation, applicants were not required to disclose fully the content of their mask work contribution due to trade secret concerns. It appeared clear from the comment letters received that claims in very small portions of semiconductor chip products would be advanced. Therefore, without policies discouraging discretionary subdivision of claims, adjudicating protection in only one semiconductor chip product could require judges to take into account multiple registrations based on deposits which were calculated to obscure the nature of the claim. The registration and the public record would be of minimal assistance to the court, if helpful at all.

A related issue concerned the registration of gate arrays. In general, unpersonalized gate arrays contain an array of unconnected cells which can be customized to create a variety of semiconductor chip products. Customizing is accomplished by adding metallization layers to the unpersonalized gate array to complete

the electrical circuitry.

Commentators on the interim regulations argued that the regulations prevented the registration of unpersonalized gate arrays. In its commentary on the final regulations, the Copyright Office disputed this assertion by pointing out that under the regulations registration was possible for both the unpersonalized gate arrays as an intermediate form (or where that was the extent of the owner's right to claim) and the custom metallization layers, and this policy was continued under the final regulations. However, once a final product was produced by adding metallization layers, only registration based on the most complete form would be possible.<sup>1</sup>

The Copyright Office believes the general policies adopted in the final regulations have worked well. While disagreements over the necessity of the most complete form regulation may exist, applicants seemed to have experienced few problems in complying with the policy. No case litigating any aspect of the Semiconductor Chip Protection Act has been argued in federal court.

Despite the general appropriateness of the most complete form regulation, it has come to the attention of the Copyright Office that there may be one instance in which a hardship is raised. The hardship concerns the different registration treatment of unpersonalized gate arrays according to whether the owner is a merchant manufacturer or a captive manufacturer.

So-called merchant manufacturers are companies that license unpersonalized gate arrays to others who customize the chips into finished products by adding the customized metallization layers. In the typical circumstances, the merchant manufacturer will own the mask work contribution in the unpersonalized gate array, and the company manufacturing the final product will own the rights in the customized metallization layers. As a result, two separate registrations may be made covering each owner's mask work contribution.

The so-called captive manufacturer owns both the gate array and the metallization layers. Typically, captive manufacturers are large manufacturers of computer products. Once a captive manufacturer has produced any final product by adding the metallization layers, the company loses the right to register separately the unpersonalized gate array under the existing regulations. A captive manufacturer can avoid this result by registering the unpersonalized gate array before any metallization layers have been added. As a practical matter, captive

<sup>1</sup> The requirement of one registration assumes that the owner of the unpersonalized gate array and the metallization layers is the same. If the owner of the gate array is different from the owner of the metallization layers, then each owner is entitled to register his mask work contribution.

manufacturers have not adopted such a practice, apparently because it is thought to be too disruptive to the manufacturing process.

Captive manufacturers have complained to the Copyright Office that the most complete form regulation puts them at a competitive disadvantage in protecting their unpersonalized gate arrays. They theorize that it would be more difficult for them to prove substantial similarity against an infringer of the gate array because their registration covers both the gate array and the metallization layers. Merchant manufacturers, on the other hand, have registrations typically covering only the gate array.

It is reasonable that captive manufacturers should be accorded the same protection in their unpersonalized gate arrays as merchant manufacturers. Whether a competitive disadvantage would arise is impossible to evaluate in the absence of cases. The Copyright Office believes it is unlikely that serious competitive disadvantage would arise. Nevertheless, the Copyright Office concedes that there is uncertainty on the issue. In order to put all manufacturers of gate arrays on equal footing, the Copyright Office proposes a limited exception to the most complete form requirement allowing separate registration of unpersonalized gate arrays and custom metallization layers.

The exception has purposely been drawn narrowly to accomplish the limited purpose of extending to captive manufacturers of gate arrays the same treatment as merchant manufacturers. Essentially, the exception allows the captive manufacturer two registrations: one in the entire unpersonalized gate array and one in the custom metallization layers. Applicants seeking to invoke the exception are required to make the nature of their claim clear at line 8 of Form MW. With respect to the Regulatory Flexibility Act, the Copyright Office takes the position that this Act does not apply to Copyright Office rulemaking. The Copyright Office is a department of the Library of Congress and is part of the legislative branch. Neither the Library of Congress nor the Copyright Office is an "agency" within the meaning of the Administrative Procedure Act of June 11, 1946, as amended [Title 5, Chapter 5 of the U.S. Code, Subchapter II and Chapter 7]. The Regulatory Flexibility Act consequently does not apply to the Copyright Office since that Act affects only those entities of the Federal Government that are agencies as defined in the Administrative Procedure Act.<sup>2</sup>

<sup>2</sup> The Copyright Office was not subject to the Administrative Procedure Act before 1978, and it is now subject to it only in areas specified by section 701(d) of the Copyright Act (i.e. "all actions taken by the Register of Copyrights under this title (17), except with respect to the making of copies of copyright deposits). (17 U.S.C. 708(b)). The Copyright Act does not make the Office an "agency" as defined in the Administrative Procedure Act. For example, personnel actions taken by the Office are not subject to APA FOIA requirements.

**List of Subjects in 37 CFR Part 211**

**Mask works, Semiconductor chip products.**

**Proposed Regulations**

In consideration of the foregoing, the Copyright Office proposes to amend Part 211 of 37 CFR, Chapter II.

1. The authority citation for Part 211 would continue to read as follows:

Authority: Copyright Act of 1976; Pub. L. 94-533, 90 Stat. 2541 [17 U.S.C. 702 and 906].

2. Section 211.4 (c), (d), and (e) would be revised to read as follows:

**§ 211.4 [Amended]**

(c) *One registration per mask work.*  
(1) Subject to the exception specified in paragraph (c)(2), only one registration can generally be made for the same version of a mask work fixed in an intermediate or final form of any semiconductor chip product. However, where an applicant for registration alleges that an earlier registration for the same version of the work is unauthorized and legally invalid and submits for recordation a signed affidavit, a registration may be made in the applicant's name.

(2) Notwithstanding the general rule permitting only one registration per work, owners of mask works in final forms of semiconductor chip products which are produced by adding metal-connection layers to unpersonalized

gate arrays may separately register the entire unpersonalized gate array and the custom metallization layers. Applicants seeking to register separately entire unpersonalized gate arrays or custom metallization layers should make the nature of their claim clear at Space 8 of application Form MW.

(d) *Registration as a single work.*  
Subject to the exception specified in paragraph (c)(2), for purposes of registration on a single application and upon payment of a single fee the following shall be considered a single work:

(1) In the case of a mask work that has not been commercially exploited: All original mask work elements fixed in a particular form of a semiconductor chip product at the time an application for registration is filed and in which the owner or owners of the mask work is or are the same; and

(2) In the case of a mask work that has been commercially exploited: All original mask work elements fixed in a semiconductor chip product at the time that product was first commercially exploited and in which the owner or owners of the mask work is or are the same.

(e) *Registration in most complete form.* Owners seeking registration of a mask work contribution must submit the entire original mask work contribution in its most complete form as fixed in a semiconductor chip product. The most

complete form means the stage of the manufacturing process which is closest to completion. In cases where the owner is unable to register on the basis of the most complete form because he or she lacks control over the most complete form, an averment of this fact must be made at Space 2 or Form MW. Where<sup>3</sup> such an averment is made, the owner may register on the basis of the most complete form in his or her possession. For applicants seeking to register an unpersonalized gate array or custom metallization layers under paragraph (c)(2), the most complete form is the entire gate array or customized metallization layers in which mask work protection is asserted.

Dated: January 12, 1989.

Ralph Oman,

Register of Copyrights.

Approved by:

Dr. James H. Billington,

The Librarian of Congress.

[FR Doc. 89-2853 Filed 2-8-89; 8:45 am]

BILLING CODE 1410-07-01

<sup>3</sup>Error; line should read:  
"made at Space 2 of Form MW. Where"