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DEPARTMENT OF JUSTICE - ANTITRUST DIVISION

Business Review Letter

Trustees of Columbia University, Fujitsu Limited, General Instrument Corp., Lucent Technologies Inc., Matsushita Electric Industrial Co., Ltd., Mitsubishi Electric Corp., Philips Electronics N.V., Scientific-Atlanta, Inc., and Sony Corp. (collectively the "Licensors"), Cable Television Laboratories, Inc. ("CableLabs"), MPEG LA, L.L.C. ("MPEG LA")

1997 DOJBRL LEXIS 14

June 26, 1997

PRESS-RELEASE:
[*1] FOR IMMEDIATE RELEASE
THURSDAY, JUNE 26, 1997

JUSTICE DEPARTMENT APPROVES PROPOSAL FOR JOINT LICENSING OF PATENTS ESSENTIAL FOR MEETING VIDEO TECHNOLOGY STANDARD USED IN ELECTRONICS AND BROADCAST INDUSTRIES

WASHINGTON, D.C. -- The Department of Justice today approved a proposal by a group of nine companies and one university that want to create a one-stop-shopping clearinghouse by pooling their patents, which are needed by entities looking to manufacture electronic equipment that stores or transmits compressed video data.

Under the group's proposal, a jointly owned agent known as MPEG LA would license these patents in a single package that would enable manufacturers to meet an international standard known as MPEG-2 video compression technology. The technology standard eliminates redundant information, such as images that are all the same color or figures that do not change from one moment to the next, reducing the amount of data, storage and transmission space required to reproduce video sequences.

Through the licensing agent, manufacturers of products that need to meet the standard will be able to obtain a single license for most of the patents they will need.

The [*2] owners of the essential patents are:

The Trustees of Columbia University

Fujitsu Limited

General Instrument Corp.

Lucent Technologies Inc.

Matsushita Electric Industrial Co., Ltd.

Mitsubishi Electric Corp.

Philips Electronics N.V.

Scientific-Atlanta, Inc.

Sony Corp.

The single license will be available to those who provide products or services that store or transmit video information, including televisions, digital video disks and players, telecommunications equipment; as well as cable, satellite and broadcast television services.

The Department's position was stated in a business review letter from Joel I. Klein, Acting Assistant Attorney General in charge of the Antitrust Division, to counsel for MPEG LA and its owners.

Because meeting the standard would infringe on the patent rights of many different entities, in 1993, a number of firms interested in the standard formed a working group to explore a way to efficiently disseminate the essential intellectual property rights to users of the technology. The group sponsored a well publicized search for essential patents, conducted by an independent patent expert.

The expert and his assistant reviewed about 8000 patent abstracts [*3] and 800 United States patents; the results of his search led to the formation of MPEG LA by and nine owners of essential patents and Cable Television Laboratories Inc.

Under its agreements with the nine essential patent owners, MPEG LA will serve as a licensing agent, offering nonexclusive licenses worldwide to make, use and sell products that meet the MPEG-2 standard under a portfolio of the nine firms' essential patents. The license will tell potential licensees exactly what patents are in the portfolio, that each portfolio patent is available independently from its owner, and that the portfolio does not necessarily contain all the patents the licensee will need in order to comply with the MPEG-2 standard.

In order to ensure that the portfolio contains only truly essential patents, but remains open to additions of other essential patents, the nine essential patent owners have agreed to employ an independent patent expert whenever a dispute arises as to whether a patent in the portfolio is in fact not essential, or the portfolio should include a patent that is not already part of the joint licensing program.

Klein said that it appeared that the licensing program was well designed [*4] to capture all the efficiencies that can come from joint licensing of complementary technologies, while incorporating many facets that should minimize the possibility of competitive harm. In addition to the benefits from the information the portfolio license will convey to licensees, the use of the independent-expert mechanism will help ensure that the portfolio will contain only patents that are truly essential to the MPEG-2 standard, weeding out patents that are competitive alternatives to each other.

Under the Department's Business Review Procedure, an organization may submit a proposed action to the Antitrust Division and receive a statement as to whether the Division will challenge the action under the antitrust laws.

A file containing the business review request and the Department's response may be examined in the Legal Procedure Unit of the Antitrust Division, Suite 215, Liberty Place, 325 7th Street, N.W., U.S. Department of Justice, Washington, D.C. 20004. After a 30-day waiting period, the documents supporting the business review will be added to the file.

OPINION:

Gerrard R. Beeney, Esq.
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Dear Mr. Beeney:

This is [*5] in response to your request on behalf of the Trustees of Columbia University, Fujitsu Limited, General Instrument Corp., Lucent Technologies Inc., Matsushita Electric Industrial Co., Ltd., Mitsubishi Electric Corp., Philips Electronics N.V., Scientific-Atlanta, Inc., and Sony Corp. (collectively the "Licensors"), Cable Television Laboratories, Inc. ("CableLabs"), MPEG LA, L.L.C. ("MPEG LA"), and their affiliates for the issuance of a business review letter pursuant to the Department of Justice's Business Review Procedure, 28 C.F.R. § 50.6. You have requested a statement of the Department of Justice's antitrust enforcement intentions with respect to a proposed arrangement pursuant to which MPEG LA will offer a package license under the Licensors' patents that are essential to compliance with the MPEG-2 compression technology standard, and distribute royalty income among the Licensors.

I. The Proposed Arrangement

A. The MPEG-2 Standard

The MPEG-2 standard has been approved as an international standard by the Motion Picture Experts Group of the International Organization for Standards (ISO) and the International Electrotechnical Commission (IEC) and by the

International [*6] Telecommunication Union Telecommunication Standardization Sector ("ITU-T"). It contains nine operative parts. Only Parts 1 (ISO/IEC 13818-1) and 2 (ISO/IEC 13818-2), which deal with systems and video, are relevant to the proposed activity.

Part 1, concerning systems, describes: (a) a syntax and semantics for combining separate video and audio bitstreams into a single bitstream, either a "program" stream for storage on a medium such as a digital video disk, or a "transport" stream, for transmission of multiple programs; and (b) a demultiplexer for breaking the bitstream down into its constituent video and audio bitstreams.

Part 2 describes (a) a common syntax and semantics of a bitstream containing compressed video, and (b) a decoder for decompressing the bitstream. MPEG-2 video compression allows considerable savings in the amount of data, and thus storage and transmission space, required to reproduce video sequences, by eliminating redundant information both within a particular image, as where a background is of all the same color, and between images, as where particular figures remain unmoved from one moment to the next. n1

n1 Notably, neither Part 1 nor Part 2 dictates a particular method for encoding video or programs into the specified syntax and semantics. Users of the standard are thus free to develop and use the encoding method they find most advantageous, while preserving the compatibility necessary to the integrity of the standard.

[*7]

The video and systems parts of the MPEG-2 standard will be applied in many different products and services in which video information is stored and/or transmitted, including cable, satellite and broadcast television, digital video disks, and telecommunications. However, compliance with the standards will infringe on numerous patents owned by many different entities. Consequently, a number of firms that participated in the development of the standard formed the MPEG-2 Intellectual Property Working Group ("IP Working Group") to address intellectual property issues raised by the proposed standard. Among other things, the IP Working Group sponsored a search for the patents that covered the technology essential to compliance with the proposed standard and explored the creation of a mechanism to convey those essential intellectual property rights to MPEG-2 users. n2 That exploration led ultimately to an agreement among the Licensors, CableLabs and Baryn S. Futa establishing MPEG LA as a Delaware Limited Liability Company. n3

n2 The patent search and the use of an independent expert to conduct the search are discussed in greater detail below.

n3 Amended and Restated Limited Liability Company Agreement of MPEG LA, L.L.C. ("LLC Agreement"). Previously CableLabs' executive vice president and chief operating officer, Baryn Futa is now Manager of MPEG LA.

[*8]

Each of the Licensors owns at least one patent that the IP Working Group's patent search identified as essential to compliance with the video and/or systems parts of the MPEG-2 standard (hereinafter "MPEG-2 Essential Patent" or "Essential Patent"). n4 Among them, they account for a total of 27 Essential Patents, which are most, but not all, of the Essential Patents. Pursuant to a series of four proposed agreements, the Licensors will combine their Essential Patents into a single portfolio (the "Portfolio") in the hands of a common licensing administrator that would grant licenses under the Portfolio on a nondiscriminatory basis, collect royalties, and distribute them among the Licensors pursuant to a pro-rata allocation based on each Licensor's proportionate share of the total number of Portfolio patents in the countries in which a particular royalty-bearing product is made and sold. n5

n4 Each of the draft agreements submitted with your letter defines "MPEG-2 Essential Patent" as "any Patent claiming an apparatus and/or a method necessary for compliance with the MPEG-2 Standard [defined generally as the MPEG-2 video and systems standards] under the laws of the country which issued or published the Patent." E.g., MPEG-2 Patent Portfolio License ("Portfolio License"), § 1.18.

[*9]

n5 Id., § 5.1.

This arrangement is embodied in a network of four proposed agreements: (1) an Agreement Among Licensors, in which the Licensors commit to license their MPEG-2 Essential Patents jointly through a common License Administrator and agree on basic items including the Portfolio license's authorized fields of use, the amount and allocation of royalties, and procedures for adding patents to, and deleting them from, the Portfolio; (2) a Licensing Administrator Agreement between the Licensors and MPEG LA, pursuant to which MPEG LA assumes the tasks of licensing the Portfolio to MPEG-2 users and collecting and distributing royalty income; (3) a license from each Licensor to MPEG LA for the purpose of granting the Portfolio License; and (4) the Portfolio license itself.

B. MPEG LA

Pursuant to the Licensing Administrator Agreement, MPEG LA will: (1) grant a worldwide, nonexclusive sublicense under the Portfolio to make, use and sell MPEG-2 products "to each and every potential Licensee who requests an MPEG-2 Patent Portfolio License and shall not discriminate among potential licensees"; n6 (2) solicit Portfolio licensees; n7 (3) enforce and terminate Portfolio license [*10] agreements; n8 and (4) collect and distribute royalties. n9 For this purpose, each MPEG-2 Licensor will grant MPEG LA a nonexclusive license under its Essential Patents, n10 while retaining the right to license them independently for any purpose, including for making MPEG-2-compliant products. n11

n6 Licensing Administrator Agreement, § 3.2.

n7 Id., § 3.1.

n8 Id., § 3.14. The Licensors, however, may veto a planned enforcement action or termination, by a vote of 2/3 of the licensors. Id.

n9 Agreement Among Licensors, § 2.1.

10 License from Licensor to Licensing Administrator, §§ 2.1-2.5, 2.8. Three of the Licensors, Columbia University, Fujitsu, and Mitsubishi, each own only one Essential Patent.

n11 Agreement Among Licensors, § 2.8.

The Licensing Administrator Agreement places the day-to-day conduct of MPEG LA's business, including its licensing activities, under the sole control of Futa and his staff. The other owners retain some control, however, over "major decisions," including approval of budgets and annual financial statements, extraordinary expenditures, entry into new businesses, mergers and acquisitions, and the sale or dissolution [*11] of the corporation. n12

n12 LLC Agreement, § 7.03.

C. The MPEG-2 Portfolio

As noted above, the Portfolio initially will consist of 27 patents, which constitute most, but not all, Essential Patents. These 27 patents were identified in a search carried out by an independent patent expert under the sponsorship of the IP Working Group. Once the MPEG-2 standard was largely in place, the IP Working Group issued a public call for the submission of patents that might be infringed by compliance with the MPEG-2 standard. CableLabs, whose COO Futa was an active participant in the IP Working Group, retained an independent patent expert familiar with the standard and the relevant technology to review the submissions. In all, the expert and his assistant reviewed approximately 8000 United States patent abstracts and studied about 800 patents belonging to over 100 different patentees or assignees. No submission was refused, and no entity or person that was identified as having an essential patent was in any way excluded from the effort in forming the proposed joint licensing program.

The proposed agreement among the Licensors creates a continuing role for an independent expert as an arbiter [*12] of essentiality. It requires the retention of an independent expert to review patents submitted to any of the Licensors for inclusion in the Portfolio n13 and to review any Portfolio patent which an MPEG-2 Licensor has concluded is

not essential or as to which anyone has claimed a good-faith belief of non-essentiality. n14 In both cases, the Licensors are bound by the expert's opinion. n15

n13 Agreement Among Licensors, § 6.1.

n14 Agreement Among Licensors, § 2.4.2.

n15 However, they need not consult the expert if they agree unanimously in good faith that a submitted patent is an Essential Patent, id., § 2.4.1, or that a Portfolio patent is not essential, id., § 6.1.1.

The Portfolio's composition may also change for other reasons. A patent will be deleted promptly from the Portfolio upon a final adjudication of invalidity or unenforceability by a tribunal of competent jurisdiction in the country of its issuance. n16 The expiration of a Licensor's last-to-expire Portfolio patent, or a final adjudication of invalidity or unenforceability of its last remaining Portfolio patent, terminates the Licensor's participation in the Portfolio and the Agreement Among Licensors. [*13] n17 Each MPEG-2 Licensor may terminate its participation in the Portfolio license on 30 days' notice; however, all existing Portfolio licenses will remain intact. n18

n16 Id., § 2.5. Although the Licensing Administrator Agreement does not explicitly direct MPEG LA to do so, we understand that Essential Patents will be deleted from the Portfolio as they expire.

n17 Id., § 7.1.

n18 Id., § 2.3.

D. The Portfolio License

The planned license from MPEG LA to users of the MPEG-2 standards is a worldwide, nonexclusive, nonsublicensable license under the Portfolio patents for the manufacture, sale, and in most cases, use of: (1) products and software designed to encode and/or decode video information in accordance with the MPEG-2 standard; (2) products and software designed to generate MPEG-2 program and transport bitstreams; and (3) so-called "intermediate products," such as integrated circuit chips, used in the aforementioned products and software. n19 The license grant to use encoding-related products and software for recording video information on a "packaged medium," e.g., encoding a motion picture for copying on digital video disks, is separate from [*14] the other grants for the same products and software. n20

n19 Patent Portfolio License, §§ 2.1-2.5. The intermediate product license grant as to intermediate products limits the right to use such products to internal development and testing purposes. Id., § 2.1.

n20 Id., § 2.4. Whereas most of the royalties are set at $ 4.00 per licensed product, the royalty for use of encoding products for packaged-medium recordings is measured by the production of packaged media. For packaged media recordings directed to "personal, family or household" use, the royalty is $ .04 per packaged medium times the number of "MPEG-2 Video Events" recorded on it. Id., § 3.1.6.1. For MPEG-2 Packaged Media directed to commercial channels such as rental and broadcast, the royalty is $ .40 per packaged medium times the number of "MPEG-2 Video events" thereon. Id., § 3.1.6.2.

The Portfolio license expires January 1, 2000, but is renewable at the licensee's option for a period of not less than five years, subject to "reasonable amendment of its terms and conditions." n21 That "reasonable amendment" may not, however, increase royalties by more than 25%. n22 Each Portfolio licensee may terminate [*15] its license on 30 days' written notice. The per-unit royalties are those agreed upon in the Agreement Among Licensors, but they are subject to reduction pursuant to a "most-favored-nation" clause. n23 The royalty obligations are predicated on actual use of one or more of the licensed patents in the unit for which the royalty is assessed. n24 The Portfolio license imposes no obligation on the licensee to use only the licensed patents and explicitly leaves the licensee free independently to develop "competitive video products or video services which do not comply with the MPEG-2 Standard." n25

n21 Id., § 6.1.

n22 Id.

n23 Id., § 7.7.

n24 Id., §§ 2.1-2.5.

n25 Id., § 7.8. We understand this to mean that licensees are free also to develop technological alternatives to the MPEG-2 compression standard.

The Portfolio license will list the Portfolio patents in an attachment. n26 It also explicitly addresses the licensee's ability, and possible need, to obtain Essential Patent rights elsewhere. The Portfolio license states that each Portfolio patent is also available for licensing independently from the MPEG-2 Licensor that had licensed it to MPEG [*16] LA n27 and that the license may not convey rights to all Essential Patents. n28

n26 Id., § 1.21.

n27 Id., § 4.3.

n28 Id.

The license's grantback provision requires the licensee to grant any of the Licensors and other Portfolio licensees a nonexclusive worldwide license or sublicense, on fair and reasonable terms and conditions, on any Essential Patent that it has the right to license or sublicense. n29 The Licensors' per-patent share of royalties is the basis for determining a fair and reasonable royalty for the grantback. n30 Alternatively, a licensee that controls an Essential Patent may choose to become an MPEG-2 licensor and add its patent to the Portfolio. n31 Failure to honor the grantback requirement constitutes a material breach of the license, giving MPEG LA the right to terminate the license unless the licensee has cured the breach within 60 days after MPEG LA sends it notice of the breach. n32

n29 Id., § 7.3.

n30 Id.

n31 Id., § 7.4.

n32 Id., § 6.2.

A separate provision allows for partial termination of a licensee's Portfolio license as to a particular MPEG-2 Licensor's patents. Pursuant to Section 6.3, an MPEG-2 [*17] Licensor may direct MPEG LA to withdraw its patents from the Portfolio license if the licensee has (a) brought a lawsuit or other proceeding against the MPEG-2 Licensor for infringement of an Essential Patent or an MPEG-2 Related Patent ("Related Patent") and (b) refused to grant the MPEG-2 Licensor a license under the Essential Patent or MPEG-2 Related Patent on fair and reasonable terms and conditions. n33 As with the grantback, the per-patent share of Portfolio license royalties is the basis for determining a fair and reasonable royalty for the licensee's patent. n34 Upon the withdrawal of the MPEG-2 Licensor's patents from the licensee's Portfolio license, the licensee may seek a license on the withdrawn patents directly from the MPEG-2 Licensor, which remains subject to its undertaking to the ISO and/or the ITU-T to license on fair and reasonable terms and conditions. n35

n33 Id., § 6.3. The Portfolio license, like several of the relevant documents, defines "MPEG-2 Related Patent" as "any Patent which is not an MPEG-2 Essential Patent but which has one or more claims directed to an apparatus or a method that may be used in the implementation of a product or a service designed in whole or in part to exploit the MPEG-2 Standard under the laws of the country which issued or published the Patent." Id., § 1.23. Read literally, this definition could encompass any patent capable of being employed in a product or service that exploits the MPEG-2 standard. At the extreme, it would take in any patent relevant not only to MPEG-2 applications but also to unrelated products, as well as patents on products or services that someone might build into an MPEG-2 Royalty Product -- for example, a patented informational display on a DVD player.

You have informed the Department, however, that such a broad, literal interpretation was not the intent of the drafters of the Patent Portfolio License and that your clients would construe the term "MPEG-2 Related Patents" to encompass only patents which, as applied, constitute implementations of the MPEG-2 standard. Further, you have told the Department that it is exceedingly unlikely that any Related Patent would have any utility for any application other than MPEG-2.

[*18]

n34 Id.

n35 Similarly, Sections 2.9 and 2.10 of the Agreement Among Licensors authorize each Licensor to instruct MPEG LA to withhold its Portfolio patents from any potential licensee that either: (1) has sued the Licensor for infringement of an Essential Patent or a Related Patent, and the Licensor has decided to counter with a claim of infringement of its Portfolio patents; or (2) has been sued by the Licensor for infringement of the Portfolio patents. We understand these provisions to apply only to ongoing litigation and not to authorize the vindictive withholding of Portfolio patents after the infringement suit has been resolved.

II. Analysis

A. The Patent Pool in General

An aggregation of patent rights for the purpose of joint package licensing, commonly called a patent pool, "may provide competitive benefits by integrating complementary technologies, reducing transaction costs, clearing blocking positions, and avoiding costly infringement litigation." n36 By promoting the dissemination of technology, patent pools can be procompetitive. n37 Nevertheless, some patent pools can restrict competition, whether among intellectual property rights within the [*19] pool or downstream products incorporating the pooled patents or in innovation among parties to the pool. n38

n36 Department of Justice-Federal Trade Commission, Antitrust Guidelines for the Licensing of Intellectual Property ("IP Guidelines"), § 5.5.

n37 Id.

n38 Id.

A starting point for an antitrust analysis of any patent pool is an inquiry into the validity of the patents and their relationship to each other. A licensing scheme premised on invalid or expired intellectual property rights will not withstand antitrust scrutiny. n39 And a patent pool that aggregates competitive technologies and sets a single price for them would raise serious competitive concerns. On the other hand, a combination of complementary intellectual property rights, especially ones that block the application for which they are jointly licensed, can be an efficient and procompetitive method of disseminating those rights to would-be users.

n39 See, e.g., United States v. Pilkington plc, 1994-2 Trade Cas. (CCH) P 70,842 (D. Ariz. 1994) (consent decree resolving antitrust suit against exclusive licenses premised on technology covered by expired patents).

Based on your representations [*20] to us about the complementary nature of the patents to be included in the Portfolio, it appears that the Portfolio is a procompetitive aggregation of intellectual property. The Portfolio combines patents that an independent expert has determined to be essential to compliance with the MPEG-2 standard; there is no technical alternative to any of the Portfolio patents within the standard. Moreover, each Portfolio patent is useful for MPEG-2 products only in conjunction with the others. n40 The limitation of the Portfolio to technically essential patents, as opposed to merely advantageous ones, helps ensure that the Portfolio patents are not competitive with each other and that the Portfolio license does not, by bundling in non-essential patents, foreclose the competitive implementation options that the MPEG-2 standard has expressly left open.

n40 The Department presumes from the information you have provided us that the Portfolio patents are valid. Should this prove not to be so, the Department's analysis and enforcement intentions would likely be very different. As noted above, the Agreement Among Licensors provides for the deletion from the Portfolio of licenses held invalid or unenforceable.

[*21]

The continuing role of an independent expert to assess essentiality is an especially effective guarantor that the Portfolio patents are complements, not substitutes. The relevant provisions of the Agreement Among Licensors appear well designed to ensure that the expert will be called in whenever a legitimate question is raised about whether or not a particular patent belongs in the Portfolio; in particular, they seem designed to reduce the likelihood that the Licensors might act concertedly to keep invalid or non-essential patents in the Portfolio or to exclude other essential patents from--admission to the Portfolio.

B. Specific Terms of the Agreements

Despite the potential procompetitive effects of the Portfolio license, we would be concerned if any specific terms of any of the contemplated agreements seemed likely to restrain competition. Such possible concerns might include the likelihood that the Licensors could use the Portfolio license as a vehicle to disadvantage competitors in downstream product markets; to collude on prices outside the scope of the Portfolio license, such as downstream MPEG-2 products; or to impair technology or innovation competition, either within [*22] the MPEG-2 standard or from rival compression technologies. It appears, however, that the proposed arrangement will not raise any significant competitive concerns.

1. Effect on Rivals

There does not appear to be any potential for use of the Portfolio license to disadvantage particular licensees. The Agreement Among Licensors commits the Licensors to nondiscriminatory Portfolio licensing, and the Licensing Administrator agreement both vests sole licensing authority in MPEG LA and explicitly requires MPEG LA to offer the Portfolio license on the same terms and conditions to all would-be licensees. Thus, maverick competitors and upstart industries will have access to the Portfolio on the same terms as all other licensees. The Portfolio license's "most-favored-nation" clause ensures further against any attempt to discriminate on royalty rates. n41

n41 Portfolio License, § 7.7.

Although it offers the Portfolio patents only as a package, the Portfolio license does not appear to be an illegal tying agreement. The conditioning of a license for one intellectual property right on the license of a second such right could be a concern where its effect was to foreclose competition from [*23] technological alternatives to the second. In this instance, however, the essentiality of the patents -- determined by the independent expert -- means that there is no technological alternative to any of them and that the Portfolio license will not require licensees to accept or use any patent that is merely one way of implementing the MPEG-2 standard, to the detriment of competition. Moreover, although a licensee cannot obtain fewer than all the Portfolio patents from MPEG LA, the Portfolio license informs potential licensees that licenses on all the Portfolio patents are available individually from their owners or assignees. While the independent expert mechanism should ensure that the Portfolio will never contain any unnecessary patents, the independent availability of each Portfolio patent is a valuable failsafe. The list of Portfolio patents attached to the Portfolio license will provide licensees with information they need to assess the merits of the Portfolio license.

2. Facilitation of Collusion

From what you have told us, there does not appear to be anything in the proposed agreements that is likely to facilitate collusion among Licensors or licensees in any market. [*24] Although MPEG LA is authorized to audit licensees,

n42 confidentiality provisions prohibit it from transmitting competitively sensitive information among the Licensors or other licensees. n43 Further, since the contemplated royalty rates are likely to constitute a tiny fraction of MPEG-2 products' prices, at least in the near term, it appears highly unlikely that the royalty rate could be used during that period as a device to coordinate the prices of downstream products.

n42 Licensing Administrator Agreement, § 3.15; Portfolio License, § 3.9.2.

n43 Portfolio license, § 5.1.

3. Effect on Innovation

It further appears that nothing in the arrangement imposes any anticompetitive restraint, either explicitly or implicitly, on the development of rival products and technologies. Nothing in the Agreement Among Licensors discourages, either through outright prohibition or economic incentives, any Licensor from developing or supporting a rival standard. As noted above, the Portfolio license explicitly leaves licensees free independently to make products that do not comply with the MPEG-2 standard and premises royalty obligations on actual use of at least one Portfolio patent. [*25] n44 Since the Portfolio includes only Essential Patents, the licensee's manufacture, use or sale of MPEG-2 products will necessarily infringe the Portfolio patents. By weeding out non-essential patents from the Portfolio, the independent-expert mechanism helps ensure that the licensees will not have to pay royalties for making MPEG-2 products that do not employ the licensed patents.

n44 Cf. United States v. Microsoft Corp., 1995-2 Trade Cas. (CCH) P 71,096 (D.D.C. 1995) (consent decree resolving suit against, among other things, use of per-processor royalty for license of dominant operating system).

The license's initial duration, to January 1, 2000, does not present any competitive concern. While the open-ended renewal term of "no less than five years" holds open the possibility of a perpetual license, its competitive impact will depend substantially on whether any of the "reasonable amendments" made at that time increase the license's exclusionary impact. While the term "reasonable" is the Portfolio license's only limitation on the Licensors' ability to impose onerous non-royalty terms on licensees at renewal time, the 25% cap on royalty increases and the "most-favored-nation" [*26] clause appear to constrain the Licensors' ability to use royalties to exploit any locked-in installed base among its licensees.

Nor does the Portfolio license's grantback clause appear anticompetitive. Its scope, like that of the license itself, is limited to Essential Patents. It does not extend to mere implementations of the standard or even to improvements on the essential patents. n45 Rather, the grantback simply obliges licensees that control an Essential Patent to make it available to all, on a nonexclusive basis, at a fair and reasonable royalty, just like the Portfolio patents. This will mean that any firm that wishes to take advantage of the cost savings afforded by the Portfolio license cannot hold its own essential patents back from other would-be manufacturers of MPEG-2 products. While easing, though not altogether clearing up, the holdout problem, n46 the grantback should not create any disincentive among licensees to innovate. Since the grantback extends only to MPEG-2 Essential Patents, it is unlikely that there is any significant innovation left to be done that the grantback could discourage. n47 The grantback provision is likely simply to bring other Essential Patents [*27] into the Portfolio, thereby limiting holdouts' ability to exact a supracompetitive toll from Portfolio licensees and further lowering licensees' costs in assembling the patent rights essential to their compliance with the MPEG-2 standard.

n45 Consequently, much of the section on grantbacks in the IP Guidelines is not directly applicable to this provision. The ultimate question, though, is the same: whether, by reducing licensees' incentives to innovate, the grantback causes competitive harm that outweighs its procompetitive effects. See IP Guidelines, § 5.6.

n46 Any non-manufacturing owner of an Essential Patent, in contrast, can still be a holdout, having no need for the Portfolio license.

n47 Improvements on MPEG-2 Essential Patents and technological alternatives to the Essential Patents would not be Essential Patents themselves and would not be subject to the grantback. Therefore, the grantback should not discourage their development.

In different circumstances, the right of partial termination set forth in Section 6.3 of the Portfolio license could raise difficult competition issues. That section provides that, on instruction from any Licensor, MPEG LA, [*28] pursuant to its obligations under the Licensing Administrator Agreement, shall withdraw from a particular licensee's portfolio license that Licensor's patent or patents if the licensee has sued the Licensor for infringement of an Essential Patent or a Related Patent and refused to grant a license on the allegedly infringed patent on "fair and reasonable terms."

Of course, a licensee's refusal to license an Essential Patent on fair and reasonable terms, as required by Section 7.3 of the Portfolio License, is grounds for termination of the Portfolio license altogether. Even though MPEG LA may choose not to exercise its right to terminate, a Licensor that has been denied a license may invoke the less drastic partial termination provision, which is mandatory on MPEG LA. Partial termination would force the licensee to negotiate with the Licensor as if the pool had never existed. Thus, while the partial termination right leaves the licensee no worse off than it was in the absence of the pool, it enforces the Essential Patent grantback, which, as discussed above, appears procompetitive.

The right of partial termination could have a very different impact on a Portfolio licensee that owns [*29] a Related Patent. No matter how attractive the licensee's patented implementation of the MPEG-2 standard may be, by definition the Related Patent will not be essential to compliance with the standard. And, not being essential, the patent is not subject to the Section 7.3 grantback. If the Portfolio licensee that owns a Related Patent chooses not to license others to use its technology, those others may still have alternatives to choose from. But if a Licensor chooses to infringe the Portfolio licensee's Related Patent after having been denied a license, the Portfolio licensee's decision to sue for infringement could cause it to become unable, at least temporarily, to comply with the MPEG-2 standard. n48

n48 Since, as noted in note 33 above, it is exceedingly unlikely that a Related Patent would ever have any utility outside the MPEG-2 standard, it is correspondingly unlikely that an owner of a Related Patent would ever have cause to sue an MPEG-2 Licensor for infringement of that patent in connection with the manufacture, use or sale of anything other than MPEG-2-related products or services. If Section 6.3 were used in response to such an infringement action, we could have serious concerns.

[*30]

The MPEG-2 Licensor is not entirely unconstrained: Importantly, as you have pointed out, its undertakings to the ISO and/or the ITU-T obligate it to license on fair and reasonable terms. However, it is not clear that this general commitment alone deprives the Licensor of the ability to impair competition. The partial termination right may enable Licensors to obtain licenses on Related Patents at royalty levels below what they would have been in a competitive market. Consequently, the partial termination right may dampen licensees' incentives to invest in research and development of MPEG-2 implementations, undercutting somewhat the benefits of the openness of the MPEG-2 standard and the prospects for improvements on the Essential Patents.

This impact on the incentive to innovate within the MPEG-2 standard would be of particular concern were the partial termination right designed to benefit all portfolio licensees. In that event, the partial termination right would function much like a compulsory grantback into the Portfolio. Licensees that owned Related Patents would not be able to choose among and negotiate freely with potential users of their inventions. The licensees' potential [*31] return from their R&D investments could be curtailed drastically, and the corresponding impact on their incentive to innovate could be significant.

Here, however, the partial termination right, unlike the grantback, protects only the Licensors. Other portfolio licensees have no right under the pool license to practice fellow licensees' inventions. And the Licensors are likely to be restrained in exercising their partial termination rights because the development of Related Patents will enhance MPEG-2 and, thus, the value of the Portfolio. The long-term interest of the Licensors is generally to encourage innovation in Related Patents, not to stifle it.

Moreover, the partial termination right may have procompetitive effects to the extent that it functions as a nonexclusive grantback requirement on licensees' Related Patents. It could allow Licensors and licensees to share the risk and rewards of supporting and improving the MPEG-2 standard by enabling Licensors to capture some of the value they have added to licensees' Related Patents by creating and licensing the Portfolio. n49 In effect, the partial termination

right may enable Licensors to realize greater returns on the Portfolio [*32] license from the licensees that enjoy greater benefits from the license, while maintaining the Portfolio royalty at a level low enough to attract licensees that may value it less. This in turn could lead to more efficient exploitation of the Portfolio technology.

n49 See IP Guidelines, § 5.6.

Therefore, in light of both its potentially significant procompetitive effects and the limited potential harm it poses to Portfolio licensees' incentives to innovate, the partial-termination clause appears on balance unlikely to be anticompetitive.

III. Conclusion

Like many joint licensing arrangements, the agreements you have described for the licensing of MPEG-2 Essential Patents are likely to provide significant cost savings to Licensors and licensees alike, substantially reducing the time and expense that would otherwise be required to disseminate the rights to each MPEG-2 Essential Patent to each would-be licensee. Moreover, the proposed agreements that will govern the licensing arrangement have features designed to enhance the usual procompetitive effects and mitigate potential anticompetitive dangers. The limitation of the Portfolio to technically essential patents and [*33] the use of an independent expert to be the arbiter of that limitation reduces the risk that the patent pool will be used to eliminate rivalry between potentially competing technologies. Potential licensees will be aided by the provision of a clear list of the Portfolio patents, the availability of the Portfolio patents independent of the Portfolio, and the warning that the Portfolio may not contain all Essential Patents. The conditioning of licensee royalty liability on actual use of the Portfolio patents, the clearly stated freedom of licensees to develop and use alternative technologies, and the imposition of obligations on licensees' own patent rights that do not vitiate licensees' incentives to innovate, all serve to protect competition in the development and use of both improvements on, and alternatives to, MPEG-2 technology.

For these reasons, the Department is not presently inclined to initiate antitrust enforcement action against the conduct you have described. This letter, however, expresses the Department's current enforcement intention. In accordance with our normal practices, the Department reserves the right to bring an enforcement action in the future if the actual [*34] operation of the proposed conduct proves to be anticompetitive in purpose or effect.

This statement is made in accordance with the Department's Business Review Procedure, 28 C.F.R. § 50.6. Pursuant to its terms, your business review request and this letter will be made publicly available immediately, and any supporting data will be made publicly available within 30 days of the date of this letter, unless you request that part of the material be withheld in accordance with Paragraph 10(c) of the Business Review Procedure.

Sincerely,
Joel I. Klein

ATTACHMENT

April 28, 1997

Honorable Joel I. Klein,
Acting Assistant Attorney General,
Antitrust Division,
United States Department of Justice,
10th Street & Constitution Avenue, N.W.,
Washington, D.C. 20530.

Re: Request for Business Review Letter Regarding the Licensing of Essential Patents for MPEG-2 Technology

Dear Mr. Klein:

On behalf of the Trustees of Columbia University in the City of New York ("Columbia"), Cable Television Laboratories, Inc. ("CableLabs"), Fujitsu Limited ("Fujitsu"), General Instrument Corporation ("General Instrument"), Lucent Technologies Inc. ("Lucent"), Matsushita Electric Industrial Co., [*35] Ltd. ("Matsushita"), Mitsubishi Electric Corporation ("Mitsubishi"), MPEG LA, L.L.C. ("MPEG LA"), Philips Electronics N.V. ("Philips"), Scientific-Atlanta, Inc.

("Scientific-Atlanta"), and Sony Corporation ("Sony") (and their affiliates which are involved in the patent licensing program described below), we submit this request for a Business Review pursuant to 28 C.F.R. § 50.6 regarding the proposed arrangement under which certain patents essential to the MPEG-2 compression technology standard will be licensed in a single portfolio license and royalties distributed (the "proposed licensing program").

MPEG-2 is a standard relating to digital audio video compression and related systems standard adopted jointly by the International Organization for Standards ("ISO"), an entity organized under the auspices of the United Nations, and the International Telecommunications Union-Telecommunications Sector ("ITU-T") as ISO/IEC 13818-1 and 13818-2 (Exhibit A hereto). As described in greater detail below, MPEG-2 is a flexible and open standard which provides a technique for eliminating redundant information from a video signal to conserve transmission resources and storage space on storage media [*36] such as optical discs. Certain entities which have been determined by an independent expert to have patents claiming an apparatus or method necessary for compliance with the MPEG-2 standard propose to license their patents in a single non-exclusive and non-discriminatory license under the terms and conditions described in this letter and the Exhibits hereto. n1

n1 Entities with one or more essential patents are Columbia, Fujitsu, General Instrument, Lucent, Matsushita, Mitsubishi, Philips, Scientific-Atlanta and Sony (collectively "the essential patent holders"). This letter also is submitted on behalf of MPEG LA, the entity which proposes to license the essential patents, and on behalf of CableLabs which initially financed and otherwise organized the efforts to identify essential patent holders and to provide a single patent portfolio license. CableLabs also is an investor in MPEG LA.

The single license will provide a number of pro-competitive benefits, including (1) reducing the uncertainty of the availability of patent licenses so that those who require a license to manufacture an MPEG-2 product are aware that such a license can easily be obtained; (2) reducing the royalties [*37] that likely would be payable if each essential patent holder licensed its patent(s) on its own; (3) reducing the substantial cost for each prospective licensee of determining on its own the identity of essential patent holders from whom a license must be obtained; (4) reducing the other transaction costs of licensees having to negotiate and execute multiple licenses; (5) reducing for essential patent holders the cost of providing licenses thereby allowing licenses to be offered at a lower price; and (6) offering the same royalty to all interested licensees on non-discriminatory terms so that no entity manufacturing or selling MPEG-2 products will have a price advantage over any other entity as a result of entering into a patent license for MPEG-2 essential patents.

The proposed licensing program has been structured to avoid any countervailing aspects that may be deemed anti-competitive. For example, each patent holder retains the right to license its patent(s) outside the licensing program and each prospective licensee is informed in writing of its option to negotiate individual licenses rather than accept the portfolio license, each licensor has signed and filed with the ISO (and/or [*38] the ITU-T) an undertaking to make licenses available on fair, reasonable and non-discriminatory terms and conditions, extreme care has been taken to insure that the proposed licensing program includes only blocking or essential patents and a structure has been devised both to remove from the program any patents hereafter shown to be non-essential and to include at a later date any other patents that are deemed essential. No entity holding essential patents which expressed interest has been denied the opportunity to license its patents in the proposed program, no restrictions whatsoever are placed by the proposed license on the method by which licensees may implement the MPEG-2 standard, no royalty is payable by licensees unless a licensed patent would be infringed but for the license, there is no "up-front" payment required of licensees as a condition to obtaining a license, books and records of licensees may be audited (to determine whether appropriate royalties have been paid) only by an independent certified public accountant who is forbidden to disclose to any patent holder any information learned in the audit which may be competitively sensitive, caps are placed on the amount [*39] by which royalties may increase upon renewal of the license by the licensee, and while licensees are required to offer to the patent licensors and other portfolio licensees a license on any essential MPEG-2 patents the licensee may hold, that requirement allows the licensee to insist on the payment of reasonable royalties and other fair and reasonable terms and conditions.

In the sections that follow, we explain the MPEG-2 technology and its applications, other available compression technologies, the process by which MPEG-2 became an ISO/IEC standard, the procedure for selecting essential patents to be included in the proposed licensing program, and describe various features of the documents which establish the proposed licensing program.

I. MPEG-2 Technology and its Applications

The transmission of information through digital rather than analog systems has widely been recognized as vastly superior for a number of reasons including the ability to interact with, manipulate and process a digital transmission, and the fact that digital transmissions can be stored, retrieved, transmitted and received virtually problem-free as compared with analog signals. As the applications [*40] for digital transmissions have grown from faxes and pre-recorded music to motion pictures, cable and terrestrial broadcast television, direct broadcast satellite and the like, the need to "compress" digital information or decrease the amount of bits that must be stored or transmitted also has grown. MPEG-2 provides a process which compresses the amount of digital information that must be stored or transmitted by eliminating redundancies in the stream of 0's and 1's which represent the information to be encoded and decoded.

MPEG-2 reduces the amount of information which must be encoded and decoded by eliminating both spatial and temporal redundancies in the encoded bitstream. For example, a motion picture is typically comprised of 24 frames per second; a television camera typically generates 30 frames per second. In either case, a single frame will typically be comprised of identical information (spatial redundancy) such as a frame of a uniformly blue sky with a single white cloud. Identical information also generally appears from frame to frame (temporal redundancy), such as a frame of a person's face in which over several frames the only change is the wink of an eye. MPEG-2 provides [*41] a method by which these redundancies -- the blue sky and the face characteristics which do not change -- are not repeated in the encoded bit stream in order to produce the identical effect as if the redundant information had been encoded.

The MPEG-2 video standard applies to both progressive scan video such as that used in computer screens and high definition television and to interlaced video such as that used in conventional television. A major difference between MPEG-1 and MPEG-2 is that the latter provides a method for interlaced scan compression. n2

n2 MPEG-2 eliminates spatial redundancy within a frame or field by dividing the frames or fields into 8X8 blocks of pixels or pels. A two dimensional discrete cosine transformation ("DCT") is then applied independently to each block which transforms the pels into certain spatial frequency domain coefficients. The DCT is a fast and inexpensive computation which concentrates the information contained in an 8X8 block of pels into a small number of coefficients. Through a procedure called quantization, many of the DCT coefficients are set to zero in the bitstream coding. This is accomplished by "rounding" high precision values to the nearest lower precision value of a set of permissible values. Compression of the data results from transmitting to a decoder only the non-zero quantized DCT coeffients and coding their magnitude and location within the block using a technique called run-level pair encoding. MPEG-2 reduces temporal redundancy between consecutive fields or frames by measuring and then transmitting to the decoder an interframe or interfield difference signal referred to as a prediction error determined by comparing 16X16 or 16X8 blocks of pels. The prediction error is transmitted using the same basic DCT technique referred to above. As an example of the openness of the MPEG-2 standard, it does not prescribe the mathematical algorithm which must be employed at the encoder so long as the algorithm which is chosen produces a video stream that is within the specified syntax. For example, there are numerous algorithms available for performing the DCT; the MPEG-2 standard does not dictate use of one over another. Licensees are therefore offered numerous choices which can affect the cost of implementation and quality of the decoded picture. The MPEG-2 standard obviously is quite complex. A more detailed description is set out in Appendix B hereto.

[*42]

While the MPEG-2 standard consists of nine operative parts, the proposed licensing program is limited to essential patents relating to the video and systems sections. n3

n3 Also included are specifications on audio, conformance, software, digital storage media-command and control, non-backward compatible audio, real time interface and digital storage media-command and control conformance. The video and system parts are believed to have far wider significance than any other part.

The MPEG-2 video and systems applications (hereafter "MPEG-2 standard") are exceedingly flexible. It in no way specifies any product parameters whatsoever other than the format necessary to compress digital bit streams in the encoding process and then to decode the stream. In effect, the MPEG-2 video standard sets no hardware requirements but rather sets out broad functional requirements regarding how the bit stream must "look" (bitstream syntax) and what the contents of the bitstream "mean" (bitstream semantics). Because of the flexibility of the standard, however, certain constrained parameters are set to assure interoperability among the multiple MPEG-2 applications. Thus, profiles and levels

are [*43] defined in the MPEG-2 specifications which provide for certain characteristics of the encoded picture such as resolution, bit rate, etc.

The MPEG-2 systems section also proscribes no hardware requirements but sets forth the bitstream syntax and semantics for combining separate video and audio bitstreams into a single bitstream for storage and transmission, and describes a demultiplexing (or unbundling) process for returning the bitstream to its constituent audio and video components for decoding and playing.

Just as the MPEG-2 standard places no limits on product designs or features, it also allows for virtually limitless applications. MPEG-2 is likely to be used world-wide in the next generation of digital television. The United States HDTV specifications accepted by the Federal Communications Commission include MPEG-2, and the technology may also be used in Europe for the next generation system to replace HD-MAC and in Japan in the system that replaces MUSE.

MPEG-2 also is expected to be used by cable television and multichannel multipoint distribution providers to increase the number of program services that can be transmitted over a wire or wireless network. In addition to increasing [*44] by a significant factor the number of programming services which can be transmitted per conventional channel, e.g. by a factor of 6, MPEG-2 can be used to improve the quality of both the audio and video signal that is transmitted.

A third expected application of MPEG-2 is use in direct broadcast satellite transmissions. As with its use in CATV, MPEG-2 will allow the transmission of a far greater number of programming services as well as improve the quality of signal transmissions.

In addition to real time broadcast, MPEG-2 is expected to be widely employed in digital storage media. MPEG-2 has been selected for DVD and will most likely be used in DVD movies as well as in DVD-ROM. In addition to the CD-sized DVD discs, MPEG-2 may also be used to conserve storage capacity on larger magnetic disks or other storage media.

MPEG-2 also may be used to significantly improve the quality of video teleconferencing. Teleconferencing in digital rather than analog transmission is capable of improving both the video and audio quality of the process.

Thus, at present, MPEG-2 is expected to have widespread application in a variety of fields. Therefore, potential licensees of the proposed licensing [*45] program include, for example, real time broadcast camera manufacturers which may incorporate MPEG-2 encoders, real time broadcasters, television manufacturers which decide to incorporate MPEG-2 decoders within the set, manufacturers of set top boxes for CATV or direct broadcast satellite transmissions, content providers for storage media such as DVD and DVD-ROM, computer manufacturers who decide to provide DVD-ROM drives, DVD player manufacturers, manufacturers of teleconferencing equipment and others.

II. Other Compression Technologies

While there are numerous other compression technologies, we are unaware of any single technology which provides the broad applications of MPEG-2. MPEG-1, a subset of the MPEG-2 standard, is directed at non-interlaced video such as that used in computer displays. MPEG-1 is not optimal for interlaced scan, and products incorporating only MPEG-1 and not MPEG-2 are not included in the proposed licensing program.

Several proprietary progressive scan digital video compression standards also have been developed. Intel's system is called INDEO © and Apple Computer's is called QUICKTIME ©. A digital television system developed by General Instrument, [*46] called the DIGICIPHER II © system, is compliant with MPEG-2 at the video and transport layers. Motion JPEG developed by the Joint Photographic Experts Group, can reduce spatial redundancy but not temporal redundancy. ITU standards H-261 and H-263 provide compression at low bit rates suitable for video phone and video conferencing use.

Thus, while any particular participant in any industry is free to employ any existing available technology or develop its own proprietary compression specifications, MPEG-2 provides a flexible, effective and, as shown below at least with respect to intellectual property, cost effective alternative. In light of the inclusion of MPEG-2 in the HDTV and DVD standards, it is anticipated that MPEG-2 will be the compression standard of choice to insure compatibility within those industries.

Other technologies and techniques are being developed. For example, the Moving Picture Experts Group currently is working on MPEG-4. n4 It is currently anticipated that a draft of MPEG-4 will be available by November of this year and that the new standard may be published a year or so thereafter.

n4 The MPEG-3 project was discontinued when it became evident that MPEG-2 would meet the needs MPEG-3 attempted to address.

[*47]

MPEG-4 seeks, among other things, to improve on coding efficiencies and adding functionalities. MPEG-4 likely will be complementary to MPEG-2. MPEG-4 also seeks to provide interactivity among various industries including wireless communications, interactive computer applications and other audio-visual data.

III. Selection of the MPEG-2 Standard and Essential Patents

The Moving Picture Expert Group ("MPEG") was organized at an ISO/IEC meeting in January of 1988 and first met in May of that year. The MPEG process of discussing proposed standards and methods of implementation has always been open to all interested parties as evidenced by the August 1991 MPEG meeting in California which included 160 delegates representing 89 entities from 16 countries. At various times, any interested parties were given the opportunity to prepare solutions and methods to meet the MPEG goals. Many entities proposed various technologies, and major decisions typically were made by international ballot.

The requirements for MPEG-2 were set at the end of 1990 at a meeting in Berlin, Germany, attended by 112 delegates. Work on the proposed standard continued into the summer of 1992 when the International [*48] Telecommunications Union joined the ISO effort and collaboration on MPEG-2 began in earnest. As the proposed MPEG-2 standard began to take on added significance for a broader range of applications, additional industries -- such as cable television -- joined the meetings.

The first video MPEG-2 working draft was proposed by an ad hoc group at the November 1992 MPEG meeting. Test models were produced, and substantial progress toward defining the proposed standard was reached in April 1993 in Australia. Subsequent meetings in New York, Brussels and Seoul resulted in completion of a working draft of the MPEG-2 standard toward the end of 1993. An international ballot was then held over the next three months, and resulted in Draft International Standard 13818.

Ultimately, on November 11, 1994, the ISO Moving Picture Expert Group finalized the MPEG-2 recommendations. On January 27, 1995, the International Telecommunications Union-Telecommunications Sector approved a series of specifications which incorporate MPEG-2.

Prior to adoption of the Draft Standard, various participants in the process recognized the likelihood that numerous patents held by various entities would read on the MPEG-2 [*49] standard. Some MPEG participants in early 1993 began to consider how to prevent intellectual property from effectively blocking the implementation of the eventual MPEG-2 standard, and later turned to consider methods by which essential patents would be made available in an efficient manner and on reasonable and non-discriminatory terms.

That effort proceeded, and in July of 1993, MPEG recommended that steps be taken to explore methods by which most or all essential MPEG-2 patents would be offered in a single license. To further this goal, CableLabs offered to convene a series of open meetings to discuss the intellectual property which was implemented by MPEG-2. n5 Baryn Futa, an executive of CableLabs, agreed to organize the meetings of what was later known as the MPEG-2 Intellectual Property Rights Working Group ("IP Working Group").

n5 CableLabs is a research and development organization whose members consist of cable television system operators. It was organized as a non-stock membership corporation under Delaware law on May 11, 1988. CableLabs is qualified as a § 501(c) (6) organization under the Internal Revenue Code, and was registered in 1988 under the National Cooperative Research Act of 1984. The purpose of CableLabs is to gather, assess and disseminate technological information that is significant to the cable television industry, to develop new technologies for the benefit of the industry, and to transfer such new technologies to the industry through a variety of means. The Board of CableLabs is comprised of representatives of various entities in the United States and Canada with interests in cable television. CableLabs' members include more than 60 companies serving more than

85% of cable subscribers in the United States, 75% of the subscribers in Canada and 5-10% of the subscribers in Mexico.

[*50]

A well-publicized meeting of the IP Working Group was convened on September 11, 1993. This meeting was attended by representatives of approximately 40 to 50 entites. Although membership in the group fluctuated, its members included CableLabs, General Instrument, Matsushita, Philips, Scientific-Atlanta, Sony, Thomson Consumer Electronics and 3DO. The September 11 meeting resulted in a consensus on several issues: (1) that licenses for patents owned by several entities would be required by those wishing to produce or sell an MPEG-2 product; (2) that the group should continue to discuss ways of making patent licenses available in an efficient manner and on fair, reasonable and non-discriminatory terms; (3) that Mr. Futa should chair subsequent meetings; and (4) that a patent search originally began on behalf of CableLabs headed by Dr. Kenneth Rubenstein, Esq., should continue. n6

n6 Kenneth Rubenstein, a member of Meltzer, Lippe, Goldstein, Wolf & Schlissel, P.C. of New York, received his Ph.D in plasma physics from the Massachusetts Institute of Technology in 1979 and his J.D. *cum laude* from New York Law School in 1982.

At the November 1993 MPEG meeting, Mr. Futa proposed [*51] to the wide audience in attendance that essential patent holders form a licensing entity which would be given the authority by essential patent holders to sublicense their respective patents on non-discriminatory and fair and reasonable terms and conditions. Dr. Rubenstein also reported at length on the patent search effort being funded by CableLabs.

The effort to identify essential patents continued. Under Dr. Rubenstein's direction, and with the assistance of Cliff Reader, Ph.D, then an independent engineering consultant, approximately 8,000 United States patent abstracts were reviewed and 800 patents issued to more than 100 assignees were studied. The well-publicized effort invited any patent holder who so desired to submit its patent for review. No submission was refused, and no entity or person who was identified as having an essential patent was in any way excluded from the effort in forming the proposed joint licensing program. Based on Dr. Rubenstein's analysis, the essential patent holders believe that the proposed licensing arrangement includes most, but not all, MPEG-2 essential patents.

Ultimately, the IP Working Group identified those entities believed to hold essential [*52] patents and, under Mr. Futa's leadership, the Group suggested in March 1995 that a licensing entity be formed to provide efficient access to intellectual property rights necessary to implement MPEG-2 technology. The Group also outlined a tentative royalty model, and invited all essential patent holders to participate. The licensing entity -- MPEG LA -- was formed as a Delaware limited liability company in May of 1996, and a series of agreements, described *infra* and made exhibits hereto, were drafted to specify the terms of the proposed licensing program.

It is hard to imagine the adoption of an international standard and the identification of essential patents which it implicates in a more open and inclusive procedure. The MPEG-2 standard was adopted prior to identifying those entities with essential patents, and the standard reflects choices based on providing the best and most cost effective technological solutions for the various industries impacted by the standard. Essential patents were identified by independent experts unrelated to any patent holders. In addition, the essential patent holders have signed and submitted to the ISO Information Technology Task Force an undertaking [*53] which requires that they license their patents under fair, reasonable and non-discriminatory terms. n7

n7 An example of an ISO undertaking is attached hereto as Exhibit C.

IV. The Terms of the Proposed Licensing Program

The proposed Licensing program is defined by five agreements: the MPEG-2 Patent Portfolio License (Exhibit D hereto); the License from Licensor to Licensing Administrator (Exhibit E hereto); the Licensing Administrator Agreement (Exhibit F hereto); the Agreement Among Licensors (Exhibit G hereto), and the Amended and Restated Limited Liability Company Agreement of MPEG LA, LLC (Exhibit H hereto). The Agreements and certain provisions thereof are described briefly below.

A. The MPEG-2 Patent Portfolio License

The MPEG-2 Patent Portfolio License ("Portfolio License") provides the terms under which a minimum of 27 essential patents and their foreign counterparts held by nine entities will be licensed to all interested parties. Initially, the Portfolio License recites that each licensor has signed an ISO undertaking, and that each licensor is willing to license its patents on fair, reasonable and non-discriminatory terms outside of the Portfolio License [*54] (at 2).

Licensees pay royalties only upon the sale of products that would infringe one or more of the licensed patents but for the license (Article 3). Royalty rates differ based on the nature of the product sold, its use of the MPEG-2 standard, and the economic value of the product. Sellers of consumer products such as TV set top boxes, computers and the like which incorporate an MPEG-2 encoder or decoder pay a royalty rate of $ 4.00 per product (Art. 2.2, 2.3, 3.1.1, 3.1.2). Consumer products which incorporate both an encoder and decoder such as a camcorder are licensed for a total royalty of $ 6.00 (Art. 3.1.4).

The royalty for packaged media such as DVD or other optical disks or magnetic tapes depend on whether the product is sold for consumer use ($ .04 per disk or medium per "MPEG-2 Video Event") or commercial use ($ .40 per disk or medium per "MPEG-2 Video Event"). Thus, for example, the royalty due on a DVD disk sold to consumers employing an essential MPEG-2 patent and containing a single full length motion picture (which qualifies as a single "MPEG-2 Video Event") is $ .04.

The rationale between the different rates for packaged media is that greater economic value [*55] is derived from commercial than from consumer use. A commercial product is likely to be played more frequently and thereby employ the licensed patent more often than a consumer product. The royalty rate structure also reflects that a seller of a consumer medium has a single sale opportunity in which to recover the royalty while the renter of the commercial medium is likely to have many transactions in which to recover royalties paid.

Finally, royalty rates for "Distribution Encoding Products" -- generally those used in real time broadcasts and cable transmissions -- are $ 4.00 per device per channel which is incorporated in the device. (Art. 2.5, 3.1.3). Royalty rates for "Transport or Program Stream Products" such as multiplexers are $ 4.00 times the greater number of inputs or outputs.

Thus, for example, the royalty due from a film studio on a DVD disc sold to consumers incorporating a single "MPEG-2 Video Event" would be $ .04, or .16% of the retail price, assuming a price of $ 25.00. If the disc incorporates a patent of each essential patent holder where the disc is manufactured or sold, the gross pro rata royalty for each essential patent holder would be $ .0044, not considering [*56] any applicable taxes and licensing costs. The royalty due from a camcorder manufacturer which incorporates both an encoder and decoder would be $ 6, or .15% of the retail price, assuming a price of $ 400. If the camcorder incorporates a patent of each essential patent holder where the unit is manufactured or sold, the gross pro rata royalty for each essential patent holder would be $ .67, not including any applicable taxes and licensing costs.

The Portfolio License, as do many patent licenses, provides the Licensing Administrator with the right to audit books and records of the licensee to determine whether appropriate royalties are being paid (Art. 3.9). The Portfolio License insures that potentially sensitive competitive information is not disclosed to essential patent holders by permitting the audit to be conducted only by certified public accountants who are prohibited from disclosing any information other than the appropriate royalties due (Art. 3.9.2.1).

The Portfolio License expires in 2000, but each licensee is given the option to renew the license for an additional period of five years (Art. 6.1). Licensees are assured that royalties will increase, if at all, by no more [*57] than 25% for the five year renewal period.

Article 6.3 of the Portfolio License gives each licensor-essential patent holder the right to withdraw its own patent(s) from the Portfolio License with respect to any licensee which (1) refuses to grant a license on fair and reasonable terms and conditions to the patent holder-licensor for a patent which is essential to or may be used to exploit the MPEG-2 standard and (2) brings a lawsuit against the patent holder-licensor alleging infringement of such a patent. This provision of the Portfolio License states an assumption that the Portfolio License royalty rate is fair and reasonable.

This provision is critical to prevent Portfolio licensees from taking unreasonable and unfair advantage of the fact that each Portfolio licensor already has agreed to license its patents on open, non-discriminatory terms at what would likely be a fraction of the royalties that would be payable if patents were licensed individually outside the Portfolio License. Without this provision, a Portfolio licensee could -- while enjoying the considerable benefits of the Portfolio License -- attempt to extract unreasonable terms for licensing its patent as a result [*58] of already being licensed under the Portfolio. Article 6.3 merely "evens the playing field", puts the parties back into the bargaining position each would have been in but for the Portfolio License, and creates no competition issues. The individual licensor's patents are only

withdrawn from the Portfolio License when and if the licensee refuses to grant a license to the Portfolio licensor on fair and reasonable terms. Moreover, the ISO undertaking signed by each essential patent holder-licensor insures that the licensee will be able to obtain a license under the essential patent at issue, just not necessarily on the terms offered in the Portfolio License. Any potential licensee which objects to this provision remains free to negotiate individual licenses from essential patent holders.

Article 6.4 of the Portfolio License permits any licensee to terminate the license for any reason on thirty days notice and, as noted above, royalties are payable under the license only if the licensee would infringe an essential licensed patent but for the License (Art. 3).

The Portfolio License requires licensees to grant licensors and other Portfolio licensees a license under any essential MPEG-2 [*59] patent(s) it has the right to license or sublicense, but specifies that this "grant back" only requires that a license be offered by the licensee on fair and reasonable terms and conditions. Thus, the scope of licensee's obligation is no greater than the scope of the Portfolio License, the license which is "granted-back" is non-exclusive, and there is no disincentive to innovate because the licensee's obligation to license is on terms and conditions which include a reasonable royalty such as that payable under the Portfolio License (Art. 7.3).

If a licensee prefers not to license its essential patent(s) on its own but to have them licensed by MPEG LA with all other essential patents in the Portfolio License, the licensee has the right to join the proposed licensing program on the same terms and conditions as the original licensors (Art. 7.4). The licensee which decides to join the Portfolio License is assured of having its patent(s) evaluated by the same process under which the original licensors' essential patents were evaluated.

Various provisions of the Portfolio License insure that only essential patents are included in the License. Patents originally included in the License [*60] which later are determined not to be essential are deleted from the License (Art. 7.6.2). In order to protect licensees, however, licensees are given the option of including the non-essential patent in the license for the term thereof (Art. 7.6.3). Alternatively, licensees are free to negotiate with individual patent holders for a license on the non-essential patents outside the Portfolio License.

Article 7.7 of the Portfolio License assures each licensee that it will recieve royalty rates as favorable as any other licensee of the Portfolio License. Certain limitations are set out in Article 7.7.1, such as the settlement of litigation or the unauthorized issuance of portfolio licenses.

The Portfolio License specifically provides that the License does not in any way prohibit or restrict licensees from developing competitive products which do not comply with MPEG-2 (Art. 7.8).

B. License from Licensor to Licensing Administrator

Each essential patent holder also grants a license to MPEG LA, the licensing administrator, in the License from Licensor to Licensing Administrator. This License facilitates the ability of MPEG LA to grant sublicenses under the Portfolio License, and [*61] sets forth many of the terms discussed above which are included in the Portfolio License.

Although technically having the right to do so as a result of the License, it is not anticipated that MPEG LA will produce or sell any MPEG-2 products. Indeed, the Licensing Administrator Agreement, discussed *infra*, would require MPEG LA to resign as the licensing administrator before selling or producing MPEG-2 products (*id.* at Art. 11.3(c)), and the Amended and Restated Limited Liability Company Agreement of MPEG LA, L.L.C., discussed *infra*, also would prevent MPEG LA from producing and selling MPEG-2 products unless such activities were authorized by the patent holders (*id.* at Art. 7.03(d)).

C. Licensing Administrator Agreement

The Licensing Administrator Agreement ("Agreement") provides the basic terms under which MPEG LA is retained by the patent holders to license essential patents through the Portfolio License. The Agreement reflects that essential patent holders have granted MPEG LA the non-exclusive right to sublicense all their essential patents, that each essential patent holder retains the right to license its patents outside the Portfolio License, and that essential [*62] patent holders and MPEG LA have discussed matters necessary to the proposed licensing program, but have not discussed any matters such as marketing or selling MPEG-2 products or potential terms and conditions under which each essential patent holder might individually license its patents (at 2).

Article III of the Agreement sets forth the basic duties of MPEG LA to identify potential licensees and to grant sublicenses to interested parties in the form of the Portfolio License. While MPEG LA is instructed not to "discriminate

against potential licensees" (Art. 3.2(b)), MPEG LA is given the right to make independent decisions about the creditworthiness of licensees and to require additional security for royalty payments from those licensees deemed to be a credit risk.

Article 3.4 of the Agreement reflects that MPEG LA has no authority to institute any claim for infringement of any patent licensed in the Portfolio License. MPEG LA may, however, institute enforcement actions against Licensees who fail to abide by the terms of the Portfolio License (Art. 3.14).

The Agreement reflects that an Administrative Committee of licensors will be established pursuant to the Agreement Among Licensors [*63] discussed *infra.* The Administrative Committee has certain limited rights to supervise the activities of MPEG LA or its successor, such as reviewing a business plan (3.11), vetoing MPEG LA's decision to terminate a licensee (Art. 3.14) conducting periodic meetings (Art. 5.1), and replacing MPEG LA as the licensing administrator (Article X).

The Agreement also sets forth the compensation of MPEG LA (Article VI) and provides for the distribution of royalties to licensors (*id.*). Licensors are given the right to withdraw from the proposed licensing arrangement, but the patents of any withdrawing licensor continue to be licensed under any license entered into by MPEG LA prior to the withdrawal (Art. 11.2).

D. Agreement Among Licensors

Like other documents, the Agreement Among Licensors recites that each licensor has one or more essential patents, that each retains the right to license these patents outside the Portfolio License "under terms and conditions agreeable to the [licensor] and its licensee" (Art. 2.7) that each patent holder has signed an ISO undertaking to license their patent(s) on fair and reasonable and non-discriminatory terms, and that the licensors have not [*64] discussed matters relating to the marketing or selling of MPEG-2 products (at 2).

The Agreement establishes an Administrative Committee (Article 3) consisting of a representative of each licensor. The Administrative Committee has responsibility for selecting the Licensing Administrator, and reviewing certain activities of the Licensing Administrator. The Licensing Administrator, however, and not the Administrative Committee or individual licensors, has exclusive responsibility to identify and solicit potential portfolio licensees, audit sublicensees, determine back royalties which potential licensees may owe, bring actions to enforce a Portfolio License and other licensing administration matters (Article 3.5.4).

The Agreement Among Licensors also provides the formula for apportioning royalty income among licensors (Article 5.1) as well as a basis for dividing any joint expenses or liability which may arise (Article 5.2, 5.3). The licensors agree to reimburse certain of the expenses which were incurred by CableLabs in connection with the patent search and other efforts to organize the proposed licensing program (Art. 5.3.2).

The Agreement also provides the procedures for removing [*65] existing or adding new essential patents to the Portfolio License -- whether such new patents are held by the original licensors or other entities -- and provides that any new licensor will reimburse the original licensors $ 25,000 for certain start-up expenses which the original licensors incurred (Articles 2, 6).

E. Amended and Restated Limited Liability Company Agreement of MPEG LA, L.L.C.

MPEG LA was established as a Delaware limited liability company as of May 31, 1996. It subsequently existed pursuant to a Limited Liability Company Agreement initially executed by three members. MPEG LA has yet to engage in any licensing activities. All current members of MPEG LA have agreed to enter into the Amended and Restated Limited Liability Company Agreement of MPEG LA, L.L.C. ("Company Agreement") (Exhibit H hereto) which sets forth the basic terms of ownership in MPEG LA and its powers and purposes.

Most significantly, the Company Agreement provides for three classes of ownership (denominated A, B and C) -- each with considerably different voting rights -- to reflect the appropriate role of the Licensing Administrator, the patent holder-owners and the non-patent holder-owners. [*66] n8 Class A interests of MPEG LA will be held exclusively by MPEG-2 essential patent holders who have granted MPEG LA a non-exclusive right to license their patents in the Portfolio License (Art. 7.01(a) (v)). Class A interests are non-voting except that patent holder-owners are entitled to vote on the requirement of additional capital contributions or advances to MPEG LA, and certain major decisions regarding MPEG LA financial matters, changes in business, dissolution and other matters referred to in Article 7.02 (Art. 7.01(a)

(i)). There is no right provided in the Company Agreement for any patent holder to make any decision on day-to-day licensing issues which may arise in the course of licensing the Portfolio License.

n8 Current essential patent holders who are members of MPEG LA (either by themselves or through related entities) are Columbia, Fujitsu, General Instrument, Matsushita, Mitsubishi, Philips, Scientific-Atlanta and Sony.

Class B interests have been issued to Baryn S. Futa as consideration for his agreement to act as MPEG LA manager and to allow Futa to attract and reward competent staff by providing to them limited ownership interest in MPEG LA. n9 Class B interests [*67] are voting interests as long as Futa remains manager of MPEG LA. Once Futa's duties as manager of the Licensing Administrator cease, Futa's interest in MPEG LA becomes essentially non-voting (Art. 7.02(j)).

n9 Prior to serving as manager of MPEG LA beginning in May of 1996, Baryn S. Futa was executive vice president and chief operating officer of CableLabs. He received his B.A. *cum laude* in government from the University of San Francisco in 1976 and his J.D. from the University of California, Hastings College of Law, in 1979.

In recognition of the substantial role played by CableLabs in organizing the proposed licensing program CableLabs -- which along with Sony provided the original capital in return for its membership interest in MPEG LA -- initially will be issued the only Class C interests in MPEG LA. CableLabs' interest is non-voting except as to a disproportionate redemption of Class C interests or a change in the economic characteristic of Class C interests as compared with Class A interests (Art. 7.01(a) (i)). Class C interests also have limited votes in matters affecting tax elections or accounting policies. The intent and effect of the Company Agreement is to [*68] give Class C interests the same economic value as that represented in Class A interests while insuring that Class C interests shall have no voice whatsoever in licensing matters.

Voting rights of each respective class may change if interests are sold or transferred to another entity having different characteristics with regard to the proposed licensing program. For example, if CableLabs acquires Class A interests from a patent-licensor, then the acquired Class A interests become Class C interests with the attendant limited voting rights (Art. 7.01(a) (iv)). Similarly, the Class A interests of a patent holder who withdraws from the proposed licensing program automatically convert to Class C interests (Art. 9.04(b)). Each member, with the exception of Futa, has made a capital contribution for its respective ownership interest to MPEG LA which, after certain oversubscription amounts are refunded, will amount to $ 333,333.

Any "profit" earned by MPEG LA is distributed to the members based on the formula set forth in Article 6.02(d). The compensation paid to MPEG LA by the patent holders is determined under Article VI of the Licensing Administrator Agreement. That amount, less expenses [*69] and cash needed to conduct business, may be available for distribution to owners of MPEG LA under the formula provided in the Company Agreement.

V. Conclusion

MPEG-2 technology is expected to have widespread application in several next generation products which will be significant to American consumers and various American industries. The ability to compress digital information, encode it, transmit it or store it, and decode it will be essential to the ability to compete in various global markets.

Intellectual property rights granted by the United States and other nations to numerous unrelated entities threatened to create a serious damper on the introduction of this essential technology. The proposed licensing program described above, however, will all but eliminate this potential bottleneck, and will provide for an efficient and cost effective means by which virtually all patents essential to the MPEG-2 standard can be licensed in a single license. The proposed licensing program has been carefully crafted in an effort to avoid any competition concerns which may arise from the joining of the patents belonging to various entities in a single license, the terms under which [*70] those patents are licensed, the distribution of royalties, and the ownership of the licensing administrator. We respectfully submit that the proposed licensing program has successfully addressed any competition concerns, and that the procompetitive aspects of the program far outweigh any potential competition issues which may remain.

We will be available at your convenience to provide any further information you may require. We very much appreciate the Division's attention to this matter.

Respectfully,
Garrard R. Beeney

Legal Topics:

For related research and practice materials, see the following legal topics:
Antitrust & Trade LawIndustry RegulationProfessional Associations & Higher EducationGeneral OverviewAntitrust & Trade LawIntellectual PropertyOwnership & Transfer of RightsLicensesAntitrust & Trade LawU.S. Federal Trade Commission ActionsConsent DecreesGeneral Overview