PUBLIC

UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION

In the Matter of **RAMBUS INC.,** **a corporation.**	**Docket No. 9302**

TRIAL BRIEF OF RESPONDENT RAMBUS INC.

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I. Introduction and Summary of Argument

Complaint Counsel's theory of antitrust liability in this case is unprecedented and unsupportable. In essence, Complaint Counsel contend that Rambus has monopolized or attempted to monopolize certain markets for technologies related to dynamic random access memory ("DRAM") by failing to warn a standard-setting organization ("JEDEC") that it was incorporating into industry standards inventions conceived by Rambus's founders and over which Rambus might, sometime in the future, acquire patents. Complaint Counsel ask Your Honor to find that as a result of this alleged misconduct, Rambus should be stripped of its statutory right to license or enforce its valid U.S. and foreign patents.

The evidence that will be put before Your Honor at this hearing will not support Complaint Counsel's allegations. For example, the fact that Rambus's founders believed they had conceived the inventions in question was public information; the inventions were described in detail in publicly available patent documents that were discussed at JEDEC and that were closely scrutinized by engineers and lawyers employed by JEDEC members. Complaint Counsel do not contend otherwise. What is it, then, that Complaint Counsel say Rambus kept secret from JEDEC while it was attending JEDEC meetings? Complaint Counsel *cannot* contend that Rambus failed to disclose the existence of issued patents that covered devices built to JEDEC standards; Rambus had no such patents. Complaint Counsel similarly *cannot* contend that Rambus failed to disclose the existence of pending patent *applications* that, if issued, would have covered JEDEC-compliant devices; Rambus had no such applications. Instead, Complaint Counsel contend that Rambus had a duty to tell JEDEC members that its executives and engineers at times hoped for, wondered about, and thought justified the filing or amendment of patent applications that broadly claimed the use of Rambus's inventions in many memory devices, including devices being discussed by JEDEC for possible standardization.

This extraordinarily expansive duty – a duty to disclose a *desire* to obtain intellectual property rights – is not found anywhere in writing other than in the Complaint in this action. It does not appear in the manuals made available to Rambus and to other JEDEC members. It does not appear in the presentations shown at JEDEC meetings about JEDEC's patent policies. It does not appear in any of the more than 1,500,000 pages of evidence gathered in this case and in the related private cases. Complaint Counsel's description of the JEDEC disclosure duty is, in short, itself an invention. Not patentable, perhaps, but nevertheless an invention, and one that represents what the Court of Appeals for the Federal Circuit has described as an "after-the-fact morphing of a vague, loosely defined policy…" designed "to capture actions not within the actual scope of the policy. . . ." *Rambus Inc. v. Infineon Techs. AG*, 318 F.3d 1081, 1102 n.10 (Fed. Cir. 2003) ("*Infineon*").

Complaint Counsel's theory of antitrust liability is as inventive as their description of the JEDEC disclosure duty. According to Complaint Counsel, if Rambus had described its desires to JEDEC, JEDEC would have incorporated alternative technologies that avoided Rambus's patents. According to Complaint Counsel, it is now too late for the industry to avoid Rambus's patents, for JEDEC members and the DRAM industry are allegedly "locked in" to the use of Rambus's patented inventions in their current and future memory devices. This, Complaint Counsel contend, amounts to monopolization.

Complaint Counsel's theory of liability is both legally unsound and premised on a spate of unsupported factual assumptions. Among the many insurmountable hurdles that Complaint Counsel face are the following:

First, to sustain a monopolization claim, Complaint Counsel must prove that Rambus engaged in "exclusionary conduct," which is defined by the case law (and the Federal

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Trade Commission) as conduct that makes no economic sense but for the elimination of competition and, therefore, has no legitimate business justification. Complaint Counsel assert that Rambus engaged in anticompetitive conduct by failing to disclose information about its *potential* patent portfolio. Patent law, however, recognizes that there are legitimate business reasons for inventors like Rambus to maintain the confidentiality of information regarding their patent applications and pending patent claims. Such information is, by statute, kept strictly confidential by the Patent Office. *See* 35 U.S.C. § 122. *See generally Eagle Comtronics, Inc. v. Arrow Communication Laboratories, Inc.*, 305 F.3d 1303, 1314 (Fed. Cir. 2002) ("Patent applications are preserved in secrecy . . . for a reason. The integrity of the patent system is maintained in part by inventors' understanding that their patent applications will remain secret until either the patents issue or the applications are otherwise published by the PTO."). Rambus's alleged refusal to disclose information about its intellectual property aspirations thus had a legitimate business purpose and cannot be the basis for a monopolization claim.

Nor can Complain

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Your Honor's summary decision ruling, patent law allows inventors to amend their patent applications to protect against the use of their inventions in the marketplace. There is nothing unexpected, illegitimate or exclusionary in this practice. Accordingly, Rambus's exercise of rights allowed it by United States patent law cannot be considered exclusionary conduct under the antitrust laws.

Second, even assuming that a failure to disclose its trade secrets could be exclusionary under the antitrust laws, Complaint Counsel must prove that Rambus in fact had a clear and unambiguous duty to disclose that information. After an extensive review and analysis of evidence regarding the JEDEC patent policy, the Federal Circuit held in *Infineon* that, during the time Rambus was a JEDEC member, there was a "staggering lack of defining details" in JEDEC's patent policy. *Infineon*, 318 F.2d at 1102. The evidence at trial will confirm that the Federal Circuit's description was apt. In similar circumstances, the Federal Circuit has held that a failure to comply with an unclear and ambiguous disclosure duty *cannot*, as a matter of law, justify a finding of fraud or inequitable conduct. *See*

Fourth, even if Rambus intentionally breached a duty to disclose, Complaint Counsel must prove that Rambus's conduct caused competitive harm. To do this, Complaint Counsel must prove each link in an exceedingly long causal chain. They must first prove that JEDEC members reasonably relied on Rambus's conduct. The overwhelming evidence will show, however, that JEDEC members were concerned about Rambus's potential patents and that these concerns were elevated (not diminished) by Rambus's conduct at JEDEC. The evidence will therefore show that JEDEC members did not rely on Rambus's alleged failure to disclose and that any reliance would have been unreasonable.

Fifth, Complaint Counsel must prove that JEDEC had *available* to it acceptable *noninfringing* alternative technologies at the time that Rambus supposedly should have disclosed its patent interests. The evidence will, however, show that Rambus's inventions were superior to any available noninfringing alternatives in terms of performance and/or cost (even accounting for

Rambus Direct DRAM ("DRDRAM"), the non-JEDEC standard DRDRAM would be the dominant memory device today.

Eighth, Complaint Counsel must prove that the failure of JEDEC and the market to adopt an alternative standard constitutes injury to competition within the meaning of the antitrust laws. The evidence will show, however, that there were no alternative technologies that would have improved consumer welfare.

Ninth, even if Complaint Counsel prove that there were available and acceptable noninfringing alternatives, Complaint Counsel must prove that the DRAM industry was locked-in to using Rambus's inventions. The evidence will show, however, that the DRAM industry was not locked in but continues to use Rambus's inventions because they are superior in terms of price and cost and because the DRAM manufacturers continue to believe that Rambus's patents are invalid.

In short, the evidence at trial will demonstrate that Complaint Counsel cannot prove any of the essential elements of liability under Complaint Counsel's theory of the case, and that the Complaint should be dismissed.

II. Background

In the late 1980's, it became apparent to some observers of the semiconductor market that the development of computer memory products – dynamic random access memory ("DRAM") – was not keeping pace with the development of computer microprocessors – central processing units ("CPUs"). Specifically, while the speed at which CPUs could process information increased exponentially during the 1980s, the speed at which DRAMs could be accessed showed only modest improvement.[1] As these trends continued, the performance of computer systems began to be limited not by the speed of available CPU technology but by the speed of available DRAM technology. As CPU speeds were projected to increase dramatically over time, this trend would create a "memory bottleneck."

A. The Farmwald and Horowitz Inventions

In 1989, two distinguished electrical engineers, Dr. Michael Farmwald and Dr. Mark Horowitz solved the memory bottleneck. While previous improvements had focused on improving discrete aspects of the memory chip, Farmwald and Horowitz sought a system level solution. The result of their efforts was a host of independent inventions that, when used together, provided a revolutionary memory subsystem. A partial list of these inventions would include:

- using a relatively small number of bussed signal lines to transmit information between the DRAM and the CPU or memory controller without the need for separate device select lines specific to each DRAM;
- sending information from the CPU or memory controller to the DRAM in the form of information "packets";
- programming the delay between the time that the DRAM receives a request until data is output in response to the request (the "latency" of theo

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- allowing for variable amounts of data (“block size” or “burst length”) to be output in response to a request;
- transferring data on both the rising edge and the falling edge of the clock;
- performing fine timing adjustments using a delay locked loop or DLL (that is, a feedback circuit using delay elements to synchronize two signals) on the DRAM.

Each of these separate inventions would improve the performance of DRAMs; together these technologies would take DRAM performance to levels unheard of in the industry. While contemporary DRAM devices were transferring data at a top speed of 33 MHz, the combination of the Farmwald-Horowitz inventions promised memory operating speeds over 500 MHz.

In April 1990, Farmwald and Horowitz filed a detailed U.S. patent application describing these inventions (the ’898 application).

Rambus would then make the RDRAM technology available for license by manufacturers industry-wide, together with a whole system of testing, design, and implementation services. This business model was therefore dependent upon patent protection.

Throughout 1990 and 1991, Farmwald and Horowitz met with representatives of the major DRAM manufacturers and many others in the semiconductor industry to introduce them to Rambus's technology and to persuade them to license that technology. Under nondisclosure agreements ("NDA's"), Farmwald, Horowitz, and other Rambus employees made detailed presentations to each company's management and high-level engineers, discussing the uses of Rambus's new technology, the reasons why Rambus's technology would eventually become necessary, and technical details for implementation of the technology.[3] Farmwald and Horowitz also disclosed the fact that they had filed a patent application covering the new technology. Indeed, because they were being asked to pay fees to license the technology, companies sought assurances that an application had been filed, and some (such as Toshiba, Fujitsu, and Intel) requested and were given a copy of the application.

C. Rambus's Participation In JEDEC

After it disclosed its technology under confidentiality agreements to members of the DRAM industry, Rambus joined one of the standard-setting organizations for semiconductor devices, JEDEC, which was (until 1998) a part of the Electronic Industries Association ("EIA") and formally and "rigidly" governed by EIA policies. The particular JEDEC committee most involved in this case is the "JC-42.3" subcommittee, which has responsibility within JEDEC for computer memory devices. The members of JC-42.3 included such computer memory

[3] The evidence will show that Rambus made these detailed disclosures to numerous companies in the industry, including Sun Microsystems, Hewlett-Packard, Siemens, Mitsubishi, Toshiba, Micron, Intel, Motorola, NEC, Hitachi, Texas Instruments and IBM.

manufacturers and users as Siemens

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patent revealed, on its face, that Rambus had nine other divisional applications and one continuation application pending that shared the same written description as the ’703 patent. The evidence will also show that at a prior meeting, in May 1992, JEDEC members had discussed Rambus’s PCT application, which was also substantially identical to the ’898 application, and that a longtime JEDEC representative, Howard Sussman, expressed the view that the application was barred by prior art and would not issue.

Although each of the inventions claimed in the patents at issue here can be found in the ’898 application, Rambus did not, while a JEDEC member have any undisclosed *claims* in patent applications that, if issued, would have needed to be licensed to make JEDEC-compliant memory devices. It was not until long after Rambus withdrew from JEDEC and hired new patent counsel that Rambus filed claims that would, if they issued, need to be licensed to make JEDEC-compliant SDRAM and DDR products. The first of these patents issued in 1999. *Id.* at 1086.

D. The RDRAM Boycott

While the semiconductor industry was attempting to refine the SDRAM standard at JEDEC, Rambus sought to have its memory technology, “Direct RDRAM” or “DRDRAM,” adopted by the industry. In 1996, Intel became dissatisfied with the progress of JEDEC standardization and concerned that DRAM performance was not keeping pace with the existing and projected performance requirements of Intel’s microprocessors. Intel’s solution to the problem was DRDRAM, and it publicly announced that it had selected DRDRAM as its “next generation” memory technology. DRDRAM was then the most current generation of Rambus’s RDRAM technology, and it incorporated many of the features described in the ’898 application, as well as additional features subsequently developed by Rambus engineers. Industry observers quickly realized that Intel’s backing would lead to DRDRAM being the dominant form of PC

likely to be probative on several disputed issues. As an example, Rambus will prevent evidence that DRAM manufacturers were on notice of Rambus' possible intellectual property claims and proceeded nevertheless, for various reasons, to include the affected technologies in JEDEC standards. Complaint Counsel will argue that this evidence should be discounted because it would not make business sense for the manufacturers to have proceeded if they knew of the intellectual property risks. Complaint Counsel will also argue (and must, in fact, prove) that if the manufacturers had been aware of these risks, they could have and would have adopted alternative technologies. In response to this argument, it is clearly relevant to show that the DRAM manufacturers were sufficiently concerned about the possibility that DRDRAM would become the *de facto* industry standard that they were also willing to take the risks associated with concerted action, in violation of the antitrust laws, in order to prevent DRDRAM's introduction. If the manufacturers were willing to assume *those* risks, it is logical to assume that they were also willing to assume the risk that Rambus might some day obtain patents covering various technologies or features considered for incorporation in the DDR SDRAM standard, especially when they also believed that any such patents would be invalid, and especially when they also believed that the technologies in question were necessary in order to claim performance equivalent to that of the DRDRAM. For these and other reasons, the evidence of collusion is relevant because the evidence will in many ways tend "to make the existence of [a] fact . . . more

Rambus's patents by arguing that Rambus had committed fraud by failing to disclose to JEDEC certain patent applications that allegedly related to the SDRAM and DDR standards. After the jury agreed with Infineon's arguments, the trial judge entered judgment notwithstanding the verdict as to that portion of the fraud claim based on the inclusion of Rambus's inventions in the DDR SDRAM standard. On appeal, the Federal Circuit held that Rambus had not committed fraud with respect to *any* JEDEC standard and that it did not breach any duty to disclose any patent or patent applications to JEDEC. *Infineon*, 318 F.3d at 1084.

To determine whether Rambus breached any duty to disclose, the Federal Circuit first "ascertain[ed] what duty Rambus owed JEDEC." *Id.* at 1096. Reviewing the evidence, the Federal Circuit found that JEDEC's written policies did "not impose any direct duty on members." *Id.* at 1098. It nevertheless treated the policies as imposing a duty because JEDEC members did so. *Id.* Examining all of the evidence, including the testimony of JEDEC representatives and officers – the same evidence that will be presented at this trial – the Federal Circuit was shocked by the "staggering lack of defining details in the EIA/JEDEC patent policy." *Id.* at 1102. Carefully discerning the evidence, however, the Federal Circuit concluded that whatever disclosure duty existed, it "hinges on whether the issued or pending claims are needed to practice the standard" and that disclosure of a patent or patent application was required, if at all, only if "a license under its claims reasonably might be required to practice the standard." *Id.*

After a lengthy review of Rambus's patent portfolio, including its patent application history, the Federal Circuit held that Rambus did not have any patents or patent applications that fell within the JEDEC disclosure duty with respect to the SDRAM standard. *Id.* at 1104. Accordingly, the court held that no reasonable jury could find that Rambus had breached a duty to disclose and committed fraud. *Id.* at 1105. With respect to the DDR standard, the Federal Circuit unanimously affirmed the trial court's entry of judgment on the ground that, because formal standard setting for the DDR standard began after Rambus left JEDEC, no duty to disclose with regard to the DDR standard was triggered while Rambus was a JEDEC member.[4] *Id.*

III. Complaint Counsel's Theory

Premising its case on precisely the same conduct reviewed by the Federal Circuit, Complaint Counsel allege that Rambus's conduct at JEDEC violated Section 5 of the FTC Act. 15 U.S.C. § 45(a)(1). The Act encompasses "practices that violate the Sherman Act and the other antitrust laws." *FTC v. Indiana Federation of Dentists*, 476 U.S. 447, 454 (1986). The first two of Complaint Counsel's three claims, therefore, "are based on principles emanating from Section 2 of the Sherman Act – *i.e.*, the monopolization and attempted monopolization claims." Complaint Counsel's Memorandum in Opposition to Respondent Rambus Inc.'s Motion for Summary Decision, filed Mar. 25, 2003 (Summary Decision Opp.), p. 33. Complaint Counsel's final claim alleges that Rambus has engaged in "unfair methods of competition," which Complaint Counsel "advances . . . as one entailing proof falling somewhere in between that which would be required to establish, on the one hand monopolization, or on the other, attempted monopolization, under Section 2 of the Sherman Act." *Id.* at 35. By this, Complaint Counsel mean that the "unfair methods of competition" claim requires proof of anticompetitive effects "more than the threatened effect that might suffice for attempted monopolization." *Id.* at 36. Accordingly, to prevail in this case, Complaint Counsel must prove all of the elements of a monopolization claim or an attempted monopolization claim.

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to Sherman Act."

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A. The Elements of Complaint Counsel's Claims

To prove monopolization, a plaintiff "must show that 1) the defendant possessed monopoly power in the relevant market and 2) the defendant willfully acquired or maintained this monopoly power by anticompetitive conduct as opposed to gaining that power as a result 'of a superior product, business acumen, or historical accident.'"

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monopolization case court looks at threatened effects "in light of the state of the market"). In other words, Complaint Counsel must prove not only that Rambus's conduct was "anticompetitive" (a term with a particular meaning defined below), but that the conduct caused or threatens to cause some increase in price, restriction in output, or diminishment of quality in some relevant market. *See, e.g., Big Bear Lodging Ass'n v. Snow Summit, Inc.*, 182 F.3d 1096, 1104 (9th Cir. 1999) ("Monopolization claims can only be evaluated with reference to properly defined geographic and product markets."); *Town of Concord, Mass. v. Boston Edison Co.*, 915 F.2d 17, 22 (1st Cir. 1990) (monopolization only occurs where conduct "obstruct[ed] the achievement of competition's basic goals – lower prices, better products, and more efficient production methods").

B. Complaint Counsel's Allegations

In support of these monopolization claims, the Commission filed a lengthy Complaint, which alleges that Rambus violated certain purported "commonly known" JEDEC rules by failing to disclose to JEDEC's members that it had filed, or might in the future file, patent applications that "might be involved in" JEDEC's standard-setting work. Complaint, ¶¶ 21,24,47-55,70-80. Several years *after* Rambus left JEDEC, it obtained patents that read on products that are compliant with the SDRAM standard and/or with the DDR SDRAM standard, which was proposed and voted on after Rambus left JEDEC. *Id*., ¶¶ 82, 91. In addition, the Complaint alleges that JEDEC members were entirely unaware of the possibility that Rambus might obtain patents on technologies being incorporated in the JEDEC standards for SDRAM (which incorporated Rambus's programmable latency and variable burst length inventions) and DDR SDRAM (which incorporated Rambus's programmable latency, variable burst length, dual-edge clocking, and on-chip DLL inventions). *Id*., ¶ 2. According to the Complaint, if JEDEC members had been aware of this possibility, they would have incorporated alternative technologies into the relevant standards. *Id.*, ¶¶ 62,65,69. Finally, the Complaint alleges that DRAM manufacturers are now "locked-in" to producing JEDEC-compliant DRAM products and that Rambus is thus able to demand excessive royalties from DRAM manufacturers. *Id.*, ¶ 93. Thus, the Complaint alleges that Rambus has monopolized or attempted to monopolize five carefully drawn technology markets – a market for latency technology, a market for burst length technology, a market for data acceleration technology, a market for clock synchronization technology, and a cluster market consisting of all four technology markets. *Id.*, ¶¶ 110-24.

In November 2002, Judge Timony summarized the Complaint in the following way:

> *The Complaint's core allegation is that, through omissions, Rambus intentionally misled the members of JEDEC with regard to the possible scope of Rambus's pending or future patent applications, in violation of the purported JEDEC patent disclosure policy*. Complaint at ¶¶ 2, 47-55, 70-80. According to the Complaint, had Rambus made the allegedly necessary disclosures, JEDEC could have adopted alternative technologies and avoided Rambus's patented technologies. Complaint at ¶¶ 62, 65, 69. These allegations raise three fundamental issues: (1) *whether the JEDEC disclosure duty is as broad and comprehensive as alleged in the Complaint*; (2) *whether Rambus actually violated any such duty to disclose imposed by JEDEC rules*; and (3) whether the alleged failure to disclose was material and caused the competitive injury alleged in the Complaint.

See Opinion Supporting Order Denying Motion by Mitsubishi to Quash or Narrow Subpoena, filed November 18, 2002, at 4 (emphasis added). Thus, the central allegation in the Complaint is that Rambus violated JEDEC's disclosure rules.

Similarly, Chairman Muris represented to Congress that the Complaint against Rambus alleged a violation of JEDEC's rules:

> In a complaint filed in June, the Commission has charged that Rambus, Inc., a participant in an electronics industry standards-setting organization, *failed to disclose – in violation of the organization's rules – that it had a patent and several pending*

> *patent applications on technologies that eventually were adopted as part of the industry standard*.

Prepared Statement of the Federal Trade Commission Before the Committee on the Judiciary Subcommittee on Antitrust, Competition, and Business and Consumer Rights United States Senate, Concerning an Overview of Federal Trade Commission Antitrust Activities, 2002 FTC Lexis 53 at *29-30 (September 19, 2002) (emphasis added).

C. Complaint Counsel's Change in Theory

Apparently in response to the Federal Circuit's decision in the *Infineon* case, Complaint Counsel have now asserted that they need not demonstrate that Rambus violated a JEDEC disclosure duty in order to prevail. They now argue that it would be sufficient to warrant the imposition of antitrust liability to show that Rambus engaged in "unethical" or "deceptive" conduct. *See* Summary Decision Opp., p. 12.

This is a fundamental change from the core allegations of the Complaint. Well aware of the ramifications of such a change, Complaint Counsel claim that there has been no change at all, pointing to two boilerplate, catch-all recitations appearing in the Complaint. *See* Summary Decision Opp., p. 9 ("As stated in the opening sentences of the Commission's Complaint, '[t]hrough this action, the Commission challenges a pattern of anticompetitive acts and practices' by Rambus, including Rambus's concealment of patent-related information 'in violation of JEDEC's own operating rules and procedures,' as well as 'other bad-faith, deceptive conduct.'"). Even a cursory review of the balance of the 34-page Complaint reveals, however, that the only conduct before JEDEC that is actually alleged is that Rambus made "Limited and Misleading Disclosures to JEDEC" resulting in "Violations of the JEDEC Disclosure Duty." *See* Complaint, ¶¶ 70-78, 79-80. Given the absence of any specific allegations describing Rambus's "other bad-faith, deceptive conduct," a few generic phrases in the introduction to a 34-page Complaint did not disclose Complaint Counsel's new "duty-free" theory of the case.

1. Complaint Counsel Cannot Advance a New Theory of Liability

"As is well known, the Commission itself originates and issues complaints and it has not delegated this authority to its staff. . . . [T]he Commission itself ma[kes] the original determination that it [i]s possessed of sufficient evidence to form reason to believe that the law ha[s] been violated." *In the Matter of Grand Caillou Packing Co.*, 65 F.T.C. 799, 1964 FTC Lexis 111, *27-28 (1964).[5]

The Commission has repeatedly refused to impose liability on a theory not explicitly pleaded in the complaint. In *In the Matter of Beatrice Foods Co.*, 101 F.T.C. 733, 1983 FTC Lexis 76 (1983), for example, the Commission reviewed the decision of an ALJ in an action brought under § 7 of the Clayton Act to prevent the acquisition of one orange juice manufacturer by another. As characterized by the Commission, the complaint alleged "that the acquisition eliminated actual competition between [the two parties to the acquisition] and between competitors generally, and that it might foster other mergers between competitors, causing a further loss of competition in the processing, distribution and sale of ready-to-serve orange juice." 1983 FTC Lexis 76, *136. The Commission concluded the ALJ had erred in holding that the acquisition violated the antitrust laws because, among other things, the theory upon which the ALJ relied – at the urging of complaint counsel – involved the loss of potential

[5] *See also In the Matter of Kaiser Aluminum & Chemical Corp.*, 1977 FTC Lexis 121, *4 (1977) ("[T]he Commission reserves to itself the discretionary determination of when there is reason to believe the law has been violated and when the public interest requires the institution of a proceeding, as well the authority to frame the charges."); *In re Standard Camera Corp.*, 63 F.T.C. 1238, 1963 FTC Lexis 69, *60 (1963) (where complaint counsel's proposed amendment "alleges substantially different acts or practices on the part of the respondent, or where it requires different determinations with respect to the belief that a violation has occurred and that the public interest is jeopardized," only the Commission may amend the complaint).

competition, while the complaint alleged that the proposed acquisition would result in the loss of actual competition. *Id.*

to amend. *Id.* at *7. *See also In re Standard Camera Corp.*, 63 F.T.C. 1238 1963 FTC Lexis 69, *61-63 (1963) (where complaint counsel abandoned theory of complaint that respondent misled camera purchasers into believing that its cameras were manufactured in the U.S. once the hearing examiner observed that the cameras were obviously of foreign origin, holding that the hearing examiner erred in allowing the case to proceed, in the absence of an amendment to the complaint by the Commission, on a replacement theory that purchasers were misled into believing that the cameras were manufactured outside the Soviet bloc).

The Courts of Appeal have also vacated Commission orders that were based on theories not detailed in the initial complaint. For instance, in *Rodale Press, Inc. v. FTC*, 407 F.2d 1252 (D.C. Cir. 1968), the Commission had ordered the petitioners to cease and desist making certain representations in advertisements promoting health publications. The theory of the complaint had been that the advertising contained false promises of benefits. On appeal to the Commission, the agency found against the petitioners on a different theory, that the advertising misrepresented the contents of the books. *Id.* at 1255-56. The D.C. Circuit vacated the Commission's order and remanded the case for further proceedings, noting that "it is well settled that an agency may not change theories in midstream without giving respondents reasonable notice of the change." *Id. at 1255* (citing 5 U.S.C. § 554(b)). The Court of Appeals reasoned that "[b]y substituting an issue as to the books' content for the one framed by the pleadings, effectiveness of the books' ideas and suggestions, the Commission has deprived petitioners of both notice and hearing on the substituted issue." *Id.* at 1257.

These decisions show that Complaint Counsel cannot stretch the Commission's Complaint to fit the theory of liability that Complaint Counsel now believe has some prospect of

Because of the onerous nature of antitrust liability, the federal courts have held that a showing of nothing less than "common law fraud [is] needed to support a *Walker Process* []claim," conduct that "could alone form the basis of an actionable wrong." *Nobelpharma AB v. Implant Innovations, Inc.*, 141 F.3d 1059, 1069 (Fed. Cir. 1998) (quotations omitted); *see also C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1364 (Fed. Cir. 1998) (stating that the Court clarified in *Walker Process* that "'knowing and willful' fraud must be shown, and is predicate to potential antitrust violation").

Complaint Counsel has never been able to point specifically to an affirmative misrepresentation of material fact – that is, a knowingly false statement uttered by Rambus. *See, e.g.*, Summary Decision Opp., p. 9 n.2 (failing to cite any allegedly false statements allegedly uttered by Rambus). The anticompetitive conduct alleged here are instead acts of fraud by nondisclosure. Thus, while Complaint Counsel repeatedly use pejorative terms like "bad faith" and "deceptive," it is clear that the conduct Complaint Counsel allege was required of Rambus depended on the rules and policies of JEDEC. Complaint Counsel's claim would not have been brought had Rambus's conduct occurred in the context of a different standard setting organization that had no patent rules or policies of the type they attribute to JEDEC. Contrary to Complaint Counsel's contention, then, Rambus's "literal compliance" with its JEDEC disclosure obligations *does* preclude a finding that Rambus defrauded JEDEC members, and accordingly *does* preclude the imposition of antitrust liability in this case. *See generally Nobelpharma AB*, 141 F.3d at 1069 (noting that conduct before the PTO falling short of common law fraud does not warrant the imposition of antitrust liability).

b. **Complaint Counsel's Sole Authority Exposes the New Theory's Fatal Flaws**

Complaint Counsel's reliance on *Indian Head* is misplaced. Contrary to Complaint Counsel's implication, *see* Summary Decision Opp., pp. 12, 38, *Indian Head* does not stand for the proposition that "subverting" the proceedings of a standard-setting organization is anticompetitive conduct warranting the imposition of antitrust liability.

In *Indian Head*, the defendant "packed the annual meeting [of the private standard-setting organization] with newly registered members, whom it subsidized, for the sole purpose of achieving an anticompetitive result – the exclusion of [a competing product] from the marketplace." 817 F.2d at 947. On appeal, defendant argued that the conspiracy to suppress competition that it had initiated – conduct that would plainly have been in violation of the antitrust laws if undertaken outside the private standard-setting context – should not subject it to antitrust liability because the conspiracy was entered into in the private standard-setting context. *Id.* at 946. The court rejected defendant's argument, holding, *inter alia*, that an unlawful conspiracy is not immune from antitrust liability simply because the conduct occurs in the private standard-setting context, even if the rules of the organization do not prohibit such conduct. *Id.* ("[W]e refuse to permit a defendant to use its literal compliance with a standard-setting organization's rules as a shield to protect such conduct from antitrust liability."); *see also Allied Tube & Conduit Corp. v. Indian Head, Inc.*, 486 U.S. 492, 509 (1988) ("The antitrust validity of these efforts is not established, without more, by petitioner's literal compliance with the rules. . .").

In *Indian Head*, then, the court rejected the notion that conduct otherwise unlawful under the antitrust laws is somehow lawful when undertaken in the private standard-setting context, reasoning that conduct in that context is not exempt from generally applicable antitrust principles. Here, Complaint Counsel asks this court to do the opposite of what the

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Such claims are called "*Walker Process*" claims, after the Supreme Court's decision in *Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp.*, 382 U.S. 172 (1964), which allowed the fraudulent procurement of a patent to form the basis for an antitrust claim under certain circumstances.

The courts have consistently required parties asserting *Walker Process* claims to prove the elements of fraud with "clear and convincing" evidence. *See, e.g., Loctite Corp.*, 781 F.2d at 876-7. They have done so not simply because many, if not most, states require clear and convincing evidence of common law fraud. *See generally* 9 WIGMORE, EVIDENCE (Chadbourn rev. 1981), ¶ 2498 at p. 424. Instead, the courts have required the heightened burden of proof for substantial public policy reasons, in recognition of the statutory basis of a patent's monopoly status and to "prevent frustration of patent law by the long reach of antitrust law." *Handgards Inc. v. Ethicon, Inc.*, 601 F.2d 986, 996 (9th Cir. 1979) (discussing *Walker Process* and holding that the "clear and convincing" standard that had been applied in such cases would also apply to antitrust claims based upon the bad faith enforcement of a patent); *see also Zenith Electronics Corp. v. Exzec, Inc.*, 182 F.3d 1340, 1352 (Fed. Cir. 1999) (observing that a "suitable accommodation" between the patent and antitrust laws "has been achieved by erecting certain barriers to antitrust suits against a patentee attempting to enforce its patent").

As Complaint Counsel will be quick to point out, this is not a private antitrust suit brought in federal court, and the Administrative Procedure Act has been held to require that an administrative agency need satisfy only a preponderance of the evidence burden in most agency proceedings. *See Steadman v. S.E.C.*, 450 U.S. 91, 95 (1981). The Federal Trade Commission, however, has acknowledged the tension between the interests served by the patent and antitrust laws and has expressly adopted the "clear and convincing" standard of proof in Section 5 cases based on the allegedly fraudulent procurement of a patent. As early as the 1960's, in the *American Cyanamid* cases, the Commission observed that "[w]here fraud in the procurement of a patent has been alleged in infringement suits and cancellation proceedings, the courts have stated that it must be established by clear and convincing evidence that the false and misleading stateTj 0 V7 Tw (in v3 ,7corngemormprocee (inwithheld) deliber0 Vthe leawithngeas beto deceiveearllso,0 -27

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Commission alleged that as a result of its non-disclosure, the patentee had unfairly acquired market power that it would not have otherwise held. And in each case, the remedy sought was (and is here) an order barring the respondent from exercising its right of free access to the courts to enforce its patents. Since the right to petition the courts is based not just in the patent laws but also springs from the Constitution, it may not lightly be taken away by a court or agency. *See generally CVD, Inc. v. Raytheon Co.*, 769 F.2d 842, 849-50 (1st Cir. 1985) ("courts have protected the federal interests in patent law enforcement and the free access to the courts by requiring, in addition to the other necessary elements of an antitrust claim, 'clear and convincing evidence' of fraud in asserting or pursuing patent infringement claims.")

A heightened burden of proof is appropriate here not just because of the nature of the remedy sought. In addition, there are strong public policy considerations arising from what Complaint Counsel concede is the social importance of standard-setting organizations in today's high-tech economy. The risks associated with participation in standards-setting must not be so great that innovators are deterred from participating by fear that a mistake in judgment, or an "after-the-fact morphing of a vague, loosely defined policy," could lead to forfeiture of valuable intellectual property. *Infineon*, 318 F.3d at 1102 n. 10.

The clear and convincing burden of proof is also appropriate here because of the nature of the claims asserted and the evidence offered to support those claims. As a three-judge panel in a Nuclear Regulatory Commission proceeding explained in 1992, an agency finding of dishonesty or fraud can result in "severe reputational injury," which supports the utilization of a higher standard of proof. *See Inquiry Into Three Mile Island Unit 2 Leak Rate Data Falsification*, 1992 19XX WL 910, *14 (N.R.C.). In addition, where an agency's examination of events comes well after the events transpired, and the resolution of important issues "depends on strained and faded memories, it would be unfair to find a person guilty of dishonest or fraudulent conduct on a mere preponderance of the evidence." *Id.*

In sum, given the conflicting statutory interests involved, given the nature of the claims alleged and the evidence offered to support and rebut them, and given the fundamental nature of the rights that would be lost were the remedy sought ever implemented, it is not just appropriate, but necessary that Complaint Counsel bear the burden of showing the essential elements of fraud by clear and convincing evidence.

IV. Complaint Counsel Must Prove That Rambus Engaged In "Exclusionary Conduct"

To support its monopolization claims, Complaint Counsel must prove that Rambus engaged in anticompetitive conduct, which

Br.”).[7] In other words, a defendant may incur antitrust liability only when its conduct does “not make economic sense *except* as an effort to diminish competition,” *id.*

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Cir. 1993); *see also Stearns Airport Equipment Co., Inc. v. FMC Corp.*, 170 F.3d 518, 522 (5th Cir. 1999) ("The key factor courts have analyzed in order to determine whether challenged conduct is [exclusionary] is the proffered business justification for the act. If the conduct has no rational business purpose other than its adverse effects on competitors, an inference that it is exclusionary is supported."); *Trace X Chemical, Inc. v. Canadian Industries, Ltd.*, 738 F.2d 261, 266 (8th Cir.1984) ("Acts which are ordinary business practices typical of those used in a competitive market do not constitute anti-competitive conduct violative of Section 2.").

Valid business justifications – or, in the Supreme Court's words, "normal business purpose[s]"[9] – include any reason that makes economic sense, including enhancing efficiency,[10] reducing costs,[11] protecting intellectual property,[12] and even "merely trying to make more money."[13] *See also* Complaint Counsel's Appeal Brief, *In The Matter Of Schering-Plough Corporation*, FTC Dkt No. 9297 (August 9, 2002) (citing *Data Gen.*, 36 F.3d at 1183, for the proposition that a business justification is "valid if it relates directly or indirectly to the enhancement of consumer welfare"). A business justification will rebut an allegation of anticompetitive conduct even if "one reason for [defendant's conduct] was to disadvantage the

[9] *Aspen Skiing*, 472 U.S. at 608-10 (conduct that tends to exclude competitors may survive antitrust scrutiny if the exclusion is the product of a "normal business purpose").

[10] *See, e.g., Bell v. Dow Chem. Co.*, 847 F.2d 1179, 1185 (5th Cir. 1988) ("If the justifications are supported by legitimate business concerns (such as cost savings, shortage of supplies, more efficient production), then the district court may decide as a matter of law….").

[11] *See, e.g., Ocean State Physicians Health Plan, Inc. v. Blue Cross & Blue Shield*, 883 F.2d 1101, 1111 n.11 (1st Cir. 1989) (whether or not defendant "actually passed along its savings to subscribers, ... achieving lower costs is a legitimate business justification under the antitrust laws").

[12] *See, e.g., In re Indep. Serv. Orgs. Antitrust Litig.*, 203 F.3d 1322, 1329 (Fed. Cir. 2000) (excluding others from use of copyrighted work is a presumptively valid business justification for any immediate harm to consumers).

[13] *Drinkwine v. Federated Publ'ns, Inc.*, 780 F.2d 735, 740 (9th Cir. 1985) ("Even that motive is consistent with competition").

competition" *Universal Analytics, Inc. v. MacNeal-Schwendler Corp.*, 914 F.2d 1256, 1259 (9th Cir. 1990).

B. That Rambus's Conduct Might Have Violated Some Common-Law or Other Non-Antitrust Duty Does Not Make It Exclusionary

This case is unusual in that under Complaint Counsel's theory, Rambus's conduct was predatory or exclu development of competitive local markets"); *Trinko v. Bell Atlantic Corp.*, 305 F.3d 89, 109 (2d Cir. 2002) (plaintiff must state antitrust action "on its own terms");

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In sum, to prevail here, as in any monopolization claim, Complaint Counsel must demonstrate that "absent a tendency to reduce competition," Rambus's actions would have been "economically inexplicable." FTC *Trinko* Br. 18. Regardless of whether the conduct is deemed to violate a non-antitrust rule, Rambus, in turn, may rebut the evidence as to this element of the claim against it by showing that its conduct made "economic sense" for it, apart from any tendency it may have had to reduce competition.

C. Rambus'

trade secret protection. Indeed, patent attorneys routinely counsel their client to keep information regarding pending patent applications confidential, and companies, especially companies in the high-tech semiconductor industry, routinely institute policies to ensure the applicant may be developing or research the applicant may be pursuing. Indeed, in cases interpreting antitrust law, courts have recognized that even a monopolist is not required to warn its competitors about its future innovations because they could then take steps to reduce the innovation's commercial value. *See Berkey Photo, Inc. v. Eastman Kodak Co.*, 603 F.2d 263, 281-82 (2d Cir. 1979) ("a firm may normally keep its innovations secret from its rivals as long as it wishes . . . . [E]nforced predisclosure would cause undesirable consequences beyond merely encouraging the sluggishness the Sherman Act was designed to prevent").

Third, knowledge on the part of competitors of an applicant's pending patent actual claims being pursued) and to ensure that a non-disclosure agreement is in place. The evidence will show that Rambus received this advice and followed it.

Given these legitimate business justifications for keeping information about its patent applications confidential, Rambus's nondisclosure of this information was not exclusionary conduct.[16] Accordingly, Complaint Counsel's case fails at the outset.

D. Rambus's Decision To Amend Its Patent Applications Was Not Exclusionary

"ideas" described in the original Farmwald-Horowitz patent application (the '898 application). Rambus could not have "taken" ideas from JEDEC to be incorporated into its patent applications.[17] The patent laws also make it clear that Rambus was well within its rights to seek claims for the inventions disclosed in the '898 application that it saw being considered for use by JEDEC members. The courts have repeatedly held that there is nothing improper with such "standard practice."

Because Complaint Counsel's vague charges of "unethical" conduct appear to conflict with these fundamental principles of patent law and patent practice, it is worth describing these principles in more detail. Patent law has developed an intricate system that allows an inventor to claim each of the inventions that is properly disclosed in a patent application as well as the full scope of each individual invention. To comprehend this system, it is important to first understand the two parts of a patent and the interaction between the two:

> The patent document which grants the patentee a right to exclude others and hence bestows on the owner the power to license, consists of two primary parts: (1) a written description of the invention, which may and here does include drawings, called the "specification," enabling those skilled in the art to practice the invention, and (2) claims which define or delimit the scope of the legal protection which the government grant gives the patent owner, the patent "monopoly."

General Foods Corp. v. Studiengesellschaft Kohle mbH, 972 F.2d 1272, 1274 (Fed. Cir. 1992). At the most basic level, these two parts are intertwined because each patent claim must be making and using the invention, and (3) the best mode contemplated by the inventor of carrying out the invention. 35 U.S.C. § 112; *see also* 3-7 CHISUM ON PATENTS § 7.01 (2003).

The patent system recognizes, however, that an inventor might not fully claim all inventions nor the full scope of the individual inventions in an initial application. Rather than force inventors – at great cost to inventors and at great added burden to the Patent Office – to claim everything possible in an original application, the patent system has several mechanisms that allow an inventor to go back to an original application to refine the patent claims. Important policies underlie this scheme. First, the patent laws seek to encourage early disclosure of inventions, allowing further innovation based on the disclosed inventions. Requiring inventors to claim everything possible in an original application upon pain of losing rights to an invention would go against this policy; inventors would delay filing an application until sure that each possible claim has been meticulously drafted. Second, it is well recognized that reducing an invention to particular claims is a difficult task and that oftentimes the commercial value of a particular potential claim is not apparent at first. The patent laws therefore allow the inventor sufficient flexibility to claim the full scope of the disclosed inventions as the importance of particular aspects of an invention become apparent. The scope of these mechanisms, however, is limited by the patent rules governing the interaction between the two parts of a patent – the written description and the claims.

This means that, to maintain the same priority date as the original application, neither an amendment to a continuation application, nor a divisional application, may add any "new matter." 35 U.S.C. § 132 ("No amendment shall introduce new matter into the disclosure of the invention."); 35 U.S.C. § 120 (giving benefit of original application filing date under certain circumstances); *Applied Materials, Inc. v. Advanced Semiconductor Materials America, Inc.*, 98 F.3d 1563, 1579 (Fed. Cir. 1996) (Mayer, J., concurring) ("By definition, a continuation adds no new matter and is akin to an amendment of a pending application."); 35 U.S.C. § 121 (according original priority date to divisional application only if the divisional conforms to section 120). "New matter" is something that describes a different invention or adds to or changes the nature of the disclosed inventions. *See, e.g., Regents Of University Of New Mexico v. Knight*, 321 F.3d 1111, 1121 (Fed. Cir. 2003).

These requirements – that any amendment, continuation application, or divisional be supported by the original disclosure without any "new matter" – ensure that the inventor is limited to claiming only those inventions disclosed in the original application:

> The written description requirement and its corollary, the new matter prohibition of 35 U.S.C. § 132, both serve to ensure that the patent applicant was in full possession of the claimed subject matter on the application filing date. When the applicant adds a claim or otherwise amends his specification after the original filing date . . . the new claims or other added material must find support in the original specification.

TurboCare Div. of Demag Delaval Turbomachinery Corp. v. General Elec. Co., 264 F.3d 1111, 1117 (Fed. Cir. 2001).

Thus, while the '898 application continues to be the progenitor of numerous patents, the Patent Office has determined that each and every claim contained in these new patents is supported by the original written description filed by Farmwald and Horowitz in 1990.

by Rambus was disclosed in the written description of the ’898 application (and therefore the PCT application that became public in 1991).

2. It is Fully Legitimate For a Patent Applicant To Amend Its Pending Claims to Cover Competitor’s Products

The right of an inventor to claim all of the inventions properly described in the written description of his application is not cut off because some other person begins to use the inventions before the inventor has filed a specific claim over those inventions. In other words, because the inventor has staked out his inventions in the written description of his application, the fact that someone uses one of the inventions in a competing product after the application has been filed but before the inventor claims that specific invention does not override the inventor’s entitlement to claim the invention. In fact, the Federal Circuit has explicitly held that there is nothing improper in amending a patent application to cover a competing product:

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the inventor's brainstorm" is "standard practice and has been for a long time." MERGES, MENELL & LEMLEY, INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE 225 (2d ed. 2000)

These principles apply in the DRAM industry as they do in any other. For example, in *Instruments Inc. v. U.S. Intern. Trade Comm'n*, 871 F.2d 1054 (Fed. Cir. 1989), the patentee, Texas Instruments, amended its pending patent claims to cover a DRAM device sold by a company called MOSTEK. *Id.* at 1064-65. Specifically, Texas Instruments broadened its pending claims by deleting certain claim limitations. *Id.* at 1065. Rejecting the trial judge's

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the members must disclose does not provide a firm basis for the

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that Rambus's conduct was somehow "unethical" or undertaken in "bad faith." As the Supreme Court has made clear, it is not the purpose of the antitrust laws to regulate such issues; *other* laws "provide remedies for various 'competitive practices thought to be offensive to proper standards of business morality.'" *NYNEX Corp. v. Discon, Inc.*, 525 U.S. 128, 137 (1998) (quoting 3 P.

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patent applications. A policy of encouragement, rather than requirement, is fully consistent with JEDEC members' legitimate business reasons for keeping patent applications confidential.

Second, Complaint Counsel must prove that the patent policy was so broad as to require the disclosure of patent applications that, even if they issued as patents, were not required to be licensed in order to practice the standard. In other words, Complaint Counsel must prove that the duty to disclose encompassed "situations where an application describes (but does not claim) technologies under discussion at JEDEC," 318 F.3d at 1100, which Complaint Counsel has described as applications that "might involve" technologies being standardized at JEDEC. The evidence at trial will demonstrate that the JEDEC disclosure policy was not so broad and

reasonable given the concern that a presenter would lead JEDEC to adopt the presenter's patented technology. Further, the evidence at trial will show that the conduct of JEDEC members comports with this understanding; the instances of self-disclosure of patent applications invariably involved presenters.

Fourth, Complaint Counsel must prove that a duty to disclose was triggered while Rambus was a member of JEDEC. The evidence at trial will show that Rambus left JEDEC before JEDEC began (and *long* before it finalized) the DDR SDRAM standard. Complaint Counsel, therefore, must prove that a duty to disclose patent applications relevant to the DDR standard arose before Rambus left JEDEC. The evidence at trial will demonstrate that any duty to disclose did not arise merely because technologies are discussed at JEDEC; rather, any duty would arise only when "legitimate proposals were directed to and formal consideration began on the DDR-SDRAM standard." *Infineon*, 318 F.3d 1105. Further, the evidence will show that as the Federal Circuit found, "JEDEC did not begin formal work on the DDR-SDRAM standard until December 1996." *Id.*

To maintain their antitrust claims, Complaint Counsel must therefore prove that JEDEC imposed a clear and unambiguous duty to disclose (1) patent applications; (2) including applications that "might involve" the technologies standardized by JEDEC, i.e., even those that if issued as patents would not be infringed by practicing the standard but somehow related in some undefined way on the technologies; (3) held by members that were not presenting their technologies for standardization, and (4) with respect to DDR SDRAM, that a duty to disclose arose before Rambus left JEDEC.

F. Complaint Counsel Must Prove That Rambus Knowingly and Intentionally Breached a Duty to Disclose to Mislead JEDEC

To prevail on their monopolization claim, Complaint Counsel must prove that Rambus "willfully acquired or maintained this monopoly power by anticompetitive conduct." *Concord Boat*, 207 F.3d at 1060. That is, Complaint Counsel must prove that Rambus intentionally engaged in anticompetitive conduct. *See, e.g., U.S. Football League v. National Football League*, 842 F.2d 1335,

(reversing because "the trial instructions allowed the jury to infer specific intent and dangerous probability of success from the defendants' predatory conduct, without any proof of the relevant market or of a realistic probability that the defendants could achieve monopoly power in that market"); *see also Ashkanazy v. I. Rokeach & Sons*, 757 F. Supp. 1527, 1540 (N.D. Ill. 1991) (holding in an attempted monopolization case that there must be a "causal link between the anticompetitive behavior and the dangerous probability of success").

Under Complaint Counsel's theory, the causal chain is exceptionally long. To prove that Rambus's alleged misleading conduct caused competitive harm, Complaint Counsel must prove: (1) that JEDEC members were actually misled by Rambus's conduct, i.e., that they relied on the alleged omissions; (2) that reliance on those omissions was reasonable under the circumstances; (3) that there existed acceptable noninfringing alternatives to each of Rambus's technologies; (4) that JEDEC would have adopted those alternatives had Rambus disclosed its patent interests (or JEDEC members would have negotiated lower royalties from Rambus); (5) that the market would have accepted an alternative standard instead of DRDRAM; (6) that consumer welfare would be enhanced by the adoption of this alternative standard; and (7) the DRAM industry is locked-in to using Rambus's technologies so that members in the industry cannot switch to noninfringing alternatives. A failure to prove any one of these links breaks the causal chain, and Complaint Counsel's case must collapse.

A. Complaint Counsel Must Prove That JEDEC Members Reasonably Relied On Rambus's Conduct at JEDEC to Conclude that They Could Incorporate Rambus's Technologies Without Concern for Rambus's Potential Patent Rights

To establish the first step in this chain, Complaint Counsel must prove that JEDEC would have adopted a different standard but for Rambus's alleged failure to disclose. *See, e.g.,* 2 H. HOVENKAMP, ET. AL., IP AND ANTITRUST § 35.5, at 35-40 (2002) (stating that an antitrust plaintiff "must establish that the standard-setting organization adopted the standard in question, and would not have done so but for the misrepresentation or omission"). The gravaman of Complaint Counsel's case is that Rambus, through its conduct, made false and misleading representations to JEDEC regarding Rambus's patent interests. As the leading antitrust treatise explains for antitrust cases premised on misleading representation, "To determine the impropriety of a representation implicates the usual tort issues with respect to nondisclosure (when is there a duty to speak?), the distinction between fact and opinion, the knowledge or due care of the speaker, the actual degree of reliance by those allegedly deceived, and the reasonableness of any such reliance." 2 H. HOVENKAMP. ET. AL., Just as in a fraud or patent equitable estoppel case,[25] an antitrust plaintiff whose claim is based on misrepresentations or omissions must prove reliance on the alleged misrepresentations or omissions. To prove an antitrust claim based on fraudulent patent procurement, for example, the claimant not only must demonstrate that the patentee knowingly and willfully made a fraudulent omission or misrepresentation with clear intent to deceive the patent examiner, but also must make a "*clear showing of reliance*, i.e., that the patent would not have issued but for the misrepresentation or omission" that "*cause[d]* [the] PTO to grant [an] invalid patent." *Nobelpharma AB v. Implant Innovations, Inc.*

Finally, the evidence will also show that Rambus put JEDEC's leadership on notice (as early as 1992) that it would not comply with JEDEC's patent policies, and that Rambus's conduct continued to put JEDEC members on notice of this fact throughout the time that Rambus participated in JEDEC. In particular, the evidence will show that when asked by JEDEC chairmen, Rambus repeatedly refused to discuss its patent position. These refusals raised red flags, and the internal documents of JEDEC members show that their concerns were heightened by the refusals to comment. Moreover, the evidence will show that in September 1995, Rambus warned JEDEC *in writing* that its "presence or silence at committee meetings does not constitute an endorsement of any proposal under the committee's consideration *nor does it make any statement regarding potential infringement of Rambus intellectual property*."

2. The Evidence Will Show That Any Reliance Was Not Reasonable

In addition to proving actual reliance, Complaint Counsel must prove that reliance was reasonable under the circumstances. As is the requirement of actual reliance; reasonable reliance is a necessary link in the causal chain. *See, e.g.*, *Grubb v. Federal Deposit Ins. Corp.*, 868 F.2d 1151, 1162 (10th Cir. 1989) ("The 'justifiable reliance' requirement ensures that a causal connection exists between the misrepresentation and the plaintiff's injury."). Thus, where an allegedly deceived plaintiff had information available that put him on notice that the representations could not be trusted, reliance on those representations is not reasonable; the plaintiff has a duty to investigate. *See, e.g.*, *Hershey v. Donaldson, Lufkin & Jenrette Securities Corp.*, 317 F.3d 16, 25 (1st Cir. 2003) (holding that plaintiff's reliance on alleged misrepresentation was unreasonable given information available to plaintiff). Moreover, where a

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The evidence will show that JEDEC members believed Rambus could not obtain valid patents broad enough to encompass the technologies adopted in the SDRAM and DDR SDRAM standards because of their assumptions about the prior art.

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B. Complaint Counsel Must Prove That Had Rambus Disclosed, JEDEC Would Have Adopted Alternative Technologies and That the Alternative Standard Would Have Been Accepted In the Market

Assuming that Complaint Counsel could prove (1) that JEDEC imposed a duty to disclose that was so broad as to reached Rambus's patent interests, (2) that Rambus intentionally breached that duty, (3) that JEDEC members in fact relied on Rambus's "representation," and (4) that despite repeated warnings to the contrary, the JEDEC members' reliance was reasonable, to prove causation, Complaint Counsel must still prove that JEDEC would have rejected Rambus's technology had Rambus made the allegedly required disclosures. This, in turn, requires Complaint Counsel to prove (a) that there existed acceptable (i.e., equal or superior to Rambus's inventions in terms of performance and cost (considering Rambus's royalties)) noninfringing alternatives at the time JEDEC formulated its standards, (b) that JEDEC would have in fact adopted those alternatives had Rambus disclosed its patent interests (i.e., that the prospect of paying royalties would have driven JEDEC away from its first choice in terms of technology), and (c) that this alternative standard would have been accepted in the market. Otherwise, any market power Rambus may have was created not by the alleged conduct but by the superior technology covered by its patents. *See, e.g.*, H. HOVENKAMP, ET. AL., IP AND ANTITRUST § 35.5, at 35-42 ("if the patent is one that actually confers an economic monopoly because of the absence of feasible noninfringing alternatives, it is the patent itself – not the patentee's failure to disclose it to the standard-setting organization – that restricts competition in the market").

1. Complaint Counsel Must Prove That Acceptable Non-Infringing Alternatives Existed For Each Technology

Rambus's patents claim two key inventions that are incorporated in both the SDRAM standard and the DDR SDRAM standards: programmable latency and variable burst length. Rambus has also patented two additional inventions that are incorporated in the DDR

SDRAM standard: dual-edge clocking and the use of an on-chip DLL. For Complaint Counsel to show that Rambus's alleged breach of its disclosure obligations had any market impact, Complaint Counsel must prove that there was an available and acceptable noninfringing alternative for *both* of the necessary SDRAM technologies and for *all four* of the necessary DDR SDRAM technologies. If an alternative does not exist for any one of these technologies then Rambus could have sought – no matter what happened at JEDEC – exactly the royalties it did seek. That is, if there were no alternative for one of the two inventions incorporated into the SDRAM standard, JEDEC would have had no choice but to adopt Rambus's technology and standard-complaint products would still infringe Rambus's patents, giving it a right to royalties. The same situation would apply if there were no alternative for one of the four inventions incorporated into the DDR standard.

Where, as here, the alleged alternatives were not actually in the market, "[m]ere speculation or conclusory assertions will not suffice"; rather, there must be "concrete factual findings" sufficient to support an inference an acceptable alternative was in fact available. *Grain Processing Corp. v. American Maize-Products Co.*, 185 F.3d 1341, 1353-54 (Fed. Cir. 1999) To establish that acceptable alternative technologies existed, Complaint Counsel must prove, at a minimum, the following:

First, Complaint Counsel must prove that each alternative is noninfringing. Any alternative would have to avoid both Rambus's patents and other companies' patents. If the alternative was covered by a Rambus patent, then Rambus would be able to demand the same royalties that it currently demands.

patent allegedly procured by fraud because Respondent received new patent “that will give [Respondent] monopoly power in the technology market and market power in the apparatus market to the same extent as the old one”). If the alternative is covered by another’s patent, absent evidence that the patentee would license the technology for less than Rambus’s royalties, DRAM industry members would still have to pay royalties on standard-compliant products (or, they might be enjoined from producing any of those products).

Second, Complaint Counsel must prove that there were alternatives for each of Rambus’s inventions that had satisfactory technical performance. That is, the performance of the alternatives met or exceeded the performance of the respective Rambus invention as applied in the applicable standard. *See, e.g., Grain Processing*, 185 F.3d at 1349 (in considering whether there were acceptable noninfringing alternatives, court must look at “the intended use for the patentee’s product, similarity of physical and functional attributes of the patentee’s product to alleged competing products, and price”); *BIC Leisure Products, Inc. v. Windsurfing Int’l, Inc.*, 1 F.3d 1214, 1219 (Fed. Cir. 1993) (to be an acceptable, noninfringing alternative must be “substantially similar” to patented product).[27]

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[27] The issue of whether there exist acceptable noninfringing alternatives arises in patent damages actions seeking lost profits, where the patentee must prove the absence of such alternatives to establish but for causation, *i.e.*, but for the infringement, the patentee would have made highialwould 1ny.e.

Third, Complaint Counsel must prove that each alternative was sufficiently extendible. The evidence at trial will show that the DRAM industry preferred to incorporate technologies with performance characteristics that would allow the technology to be used in the anticipated future generations of DRAM products. If the Rambus technologies were essential to the extendibility of the SDRAM and DDR standards, any alternative would have to match this characteristic. *See, e.g., Joy Technologies, Inc. v. Flakt, Inc.*, 954 F. Supp. 796, 803 (D. Del. 1996) ("Whether a product is an acceptable non-infringing substitute is a function of the purchaser's needs. . . . The Court looks to the purchaser's motivation, first, then to the product features in determining whether a substitute exists.") (citations omitted).

Fourth, Complaint Counsel must prove that the combination of the alternatives was not more costly than the Rambus inventions (accounting for Rambus's royalty). If the cost of using alternatives for both of the Rambus inventions incorporated into the SDRAM standard would cost more to implement than paying Rambus's SDRAM royalties, the alternatives would not be acceptable. Similarly, if the cost of using alternatives for all four of the Rambus inventions incorporated into the DDR standard would cost more to implement than paying Rambus's DDR royalties, the alternatives would not be acceptable. *See, e.g., Kaufman Co., Inc. v. Lantech, Inc.*, 926 F.2d 1136, 1142 (Fed. Cir. 1991) ("To be deemed acceptable, the alleged acceptable noninfringing substitute must not have a disparately higher price than or possess characteristics significantly different from the patented product."); *Bose Corp.*, 112 F. Supp. 2d at 162 (products not substitutes where patent holder's product is substantially more expensive than infringer's).

Fifth, Complaint Counsel must prove that the technologically feasible, sufficiently extendible, cost effective, noninfringing alternatives were *available* at the time JEDEC made its decision to incorporate Rambus's inventions into the SDRAM and the DDR standards. *See, e.g., Grain Processing*, 185 F.3d at 1353 (stating that availability at the relevant time must be proven, "substitutes only theoretically possible" do not suffice).

Complaint Counsel cannot meet this burden. The evidence at trial will show that every alternative technology suggested by Complaint Counsel fails to meet these criteria.

2. Assuming That Alternatives Existed, Complaint Counsel Must Prove That JEDEC Would Have Rejected Rambus Technologies

Furthermore, it is not enough for Complaint Counsel to prove that acceptable noninfringing alternatives existed; Complaint Counsel must further prove that JEDEC would have adopted the noninfringing alternatives had Rambus disclosed its patent interests. The fact that JEDEC chose to incorporate Rambus's inventions proves that JEDEC members preferred Rambus's inventions over any available alternatives (economists call this a "revealed preference"). Complaint Counsel must prove, therefore, that had Rambus made the allegedly necessary disclosure, this would have caused JEDEC to reject Rambus's inventions.

The evidence at trial will show that, even if Rambus had disclosed, JEDEC would have proceeded to incorporate Rambus's inventions because JEDEC members were convinced that Rambus's inventions were obvious in light of the prior art. The evidence will show that Rambus warned a consortium of DRAM manufacturers that their efforts to develop a competing DRAM standard were running headlong into Rambus's patent position. Undaunted, the consortium of the same DRAM manufacturers who are in JEDEC dumped millions of dollars and thousands of engineer hours into these efforts, apparently believing that Rambus would be unable to obtain relevant patents because of prior art. There is no reason to believe that these JEDEC members would have acted any differently had Rambus made the disclosures that Complaint Counsel allege were necessary.

bargaining is not only unlikely but may in fact lead to a *higher* royalty rate because the scope of the claims in patent *applications* often change during prosecution.

To prove competitive harm, therefore, Complaint Counsel must prove that Rambus's royalty rates are not "reasonable" and "nondiscriminatory." The evidence at trial, however, will show that Rambus's royalty rates are reasonable in that they are consistent with royalty rates charged by other patent holders in the semiconductor industry for similar technology. Further, the evidence will show that Rambus's licenses are nondiscriminatory.

4. Complaint Counsel Must Show That The Market Would Have Accepted an Alternative Standard and That Consumers Would Have Been Better Off

Assuming that acceptable noninfringing alternatives existed, and that JEDEC would have rejected Rambus's inventions in favor of these alternatives, Complaint Counsel must still prove that the standard would have been accepted by the market and that consumer welfare would have been enhanced. In this regard, Complaint Counsel faces two hurdles.

First, the evidence at trial will show that the JEDEC imprimatur is neither necessary nor sufficient for marketplace acceptance of a DRAM standard. Complaint Counsel must therefore prove that the DRAM industry would have adopted the alternative JEDEC standard rather than DRDRAM. Had the industry adopted DRDRAM, its products would of course fall under Rambus's patents, and Rambus would be in the same position as it is now. Thus, Complaint Counsel must prove that the DRAM manufacturers' boycott of DRDRAM in favor of the alternative standard would have been as successful as it was in favor of SDRAM and DDR.

Second, Complaint Counsel must also prove that consumers of DRAM would have been better off with the hypothetical alternative standard. At the core, the antitrust concern in this case is not whether certain industry participants must pay royalties that they might have avoided. The antitrust concern is whether or not economic welfare has been diminished. Accordingly, for Complaint Counsel to prove that Rambus's conduct caused anticompetitive harm, it is not enough for Complaint Counsel to prove that JEDEC members would have preferred to use noninfringing alternative. Thus, for example, if JEDEC would have rejected Rambus's inventions without a careful cost-benefit analysis simply because the possibility that Rambus might obtain patents, JEDEC's choice would have harmed consumer welfare. Complaint Counsel must therefore prove that the hypothetical adoption by JEDEC of a different standard would have increased consumer welfare because the alternative was better than using Rambus's inventions on a quality-adjusted price basis.

C. If Acceptable Non-Infringing Alternatives Exist and JEDEC Would Not Have Adopted Rambus's Inventions Had Rambus Disclosed, Complaint Counsel Must Prove That JEDEC Members Could Not and Cannot Switch To the Alternatives

Assuming that Complaint Counsel could prove that there were available and acceptable noninfringing alternatives at the time JEDEC adopted the SDRAM and DDR standards, and Complaint Counsel could prove that JEDEC would have rejected Rambus's inventions in favor of those alternatives, to show that Rambus's conduct caused competitive harm, Complaint Counsel must prove that JEDEC members – once notified of Rambus's issued patents – could not then switch to the alternatives. In antitrust terms, Complaint Counsel must prove that there are significant switching costs rendering JEDEC members "locked-in" to using Rambus's inventions. *See, e.g., Eastman Kodak Co. v. Image Technical Services, Inc.*, 504 U.S. 451, 476-77 (1992) (allowing for possible inference of market power where customers are

DGI Technologies, Inc., 166 F.3d 772, 783-84 (5th Cir. 1999) (rejecting monopolization claim because plaintiff failed to prove significant switching costs); *United Farmers Agents Ass'n, Inc. v. Farmers Ins. Exchange*, 89 F.3d 233, 237-39 (5th Cir. 1996) (affirming summary judgment because antitrust plaintiff failed to show market power (even though defendant held 100% of relevant market) because switching costs were low).[28] Complaint Counsel must therefore prove lock-in with regard to each JEDEC standard.

1. Complaint Counsel Must Prove That JEDEC Members Could Not and Cannot Switch to Altern Could 8re pwDRAMologies, Inc.27 0 T8

compliant products, industry members had to redesign each component of the memory subsystem: DRAM, DIMMs, controllers, and boards. Alternative technologies therefore could have been incorporated at the time of the publication of the DDR SDRAM standard. Even after manufacturing began, switching costs did not prohibit industry members from adopting alternative technologies. Like SDRAM products, DDR products have gone through several versions. The industry could have coordinated the adoption of alternatives, even without a new JEDEC-promulgated standard, at these transitions.

3. Complaint Counsel Must Prove That JEDEC Cannot Use Alternative Technologies For Future Standards

In addition to claiming that Rambus has monopolized the markets for technologies incorporated in JEDEC-standard-compliant SDRAM and DDR products, Complaint Counsel has also asserted that Rambus's conduct will affect products compliant with future JEDEC standards – DDR2 and DDR3. The evidence will show that JEDEC did not even start work on these standards until the 2000 time frame – after Rambus's patents issued and after Rambus had brought claims of patent infringement against DRAM manufacturers. Complaint Counsel thus allege that there is a dangerous probability that Rambus will monopolize the markets for technologies incorporated into products that *do not exist* based on standards that *have not yet been promulgated*. Accordingly, Complaint Counsel must prove that, for some reason, JEDEC – equipped with the full knowledge that Rambus's patents cover technologies being incorporated into these future standards – could not adopt alternative technologies. Moreover, Complaint Counsel must prove that DRAM industry members – similarly equipped with the knowledge that JEDEC-compliant products would infringe Rambus's patents – will be forced to build infringing JEDEC-compliant DDR2 and DDR3 devices.

VI. Complaint Counsel's Proposed Remedy Is Beyond The Commission's Authority

Should Complaint Counsel somehow prove liability, it is plain the remedy they seek is legally defective. The "cease and desist" order that Complaint Counsel propose in this case is unprecedented. Complaint Counsel have proposed an order that would require Rambus to forfeit its right to recover past-due royalties as damages for infringement of its valid patents through the use of JEDEC-

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hundreds of millions of dollars in royalties under its valid patents. As the Supreme Court has recognized, an order requiring the forfeiture of property is a punishment. *Austin v. United States*, 509 U.S. 602 (1993). The Commission does not have the authority to inflict punishments for antitrust violations. Rather, a "cease and desist" order is the Commission's exclusive remedy under Section 5, and it is well-established that "cease and desist" orders may not be used to impose punishments for past conduct. *FTC v. Ruberoid*, 343 U.S. 470, 473 (1952) ("Orders of the Federal Trade Commission are not intended to impose criminal punishment or exact compensatory damages for past acts, but to prevent illegal practices in the future."); *Heater v. FTC*, 503 F.2d 321, 323-24 (9th Cir. 1974) (holding that restitution is an impermissible "penalty" under Section 5 and that the FTC lacks authority to "order private relief for harm caused by acts which occurred before the Commission). Indeed, the exclusive authority to seek forfeiture as a remedy in an antitrust enforcement matter rests with the Department of Justice, which can seek forfeiture only in a civil action in a federal district court in which the defendant is afforded its Seventh Amendment right to a jury trial. 15 U.S.C. §§ 4, 6; *United States v. Addyston Pipe & Steel Co.*, 85 F. 271, 301 (6th Cir. 1898) (holding that forfeiture may be obtained as an antitrust remedy only pursuant to 15 U.S.C. § 6 and that a forfeiture action "involves a trial by jury"). Ordering forfeiture in this administrative proceeding would thus violate the prohibition against imposing punishments in Section 5 cases and deprive Rambus of its Seventh Amendment right to a trial by jury.

Second, the proposed remedy would allow any JEDEC-compliant manufacturer to use Rambus' patented technology on a royalty-free basis, dedicating Rambus' patented technology to JEDEC-compliant manufacturers. Courts consistently have rejected royalty-

(1952); *United States v. National Lead Co.*, 332 U.S. 319, 338-39 (1947); *United States v. Singer*, 231 F. Supp. 240, 241 (S.D.N.Y. 1964), *aff'd* 374 U.S. 174, 197 (1963). These cases hold that royalty-free licensing or forced dedication of patent rights is impermissibly confiscatory. Rather, courts have consistently permitted patent holders found to have violated the antitrust laws in securing their patent rights to license their patents at reasonable royalty rates. *United States v. Glaxo Group Ltd.*, 410 U.S. 52, 59 (1973) (citing *Besser Mfg. v. United States*, 343 U.S. 444 (1952); *United States v. U.S. Gypsum Co.*, 340 U.S. 76 (1950); *International Salt Co. v. United States*, 332 U.S. 392 (1947); *Hartford-Empire Co. v. United States*, 323 U.S. 386 (1945)); *American Cyanamid Co. v. FTC*, 363 F.2d 757, 770 (6th Cir. 1966), *aff'd after remand sub. nom. Chas Pfizer & Co. v. FTC*, 401 F.2d 574, 586 (1968).[29]

Accordingly, the proposed order included in Complaint Counsel's complaint is contrary to established law and cannot be issued in this proceeding.

VII. Conclusion

Upon scrutiny, Complaint Counsel's case collapses. Complaint Counsel will not be able to prove the Rambus engaged in exclusionary conduct. Rambus had valid business reasons for maintaining the secrecy of information regarding its patent claims. Any construction of the JEDEC rules that could avoid the implications of this would render those rules anticompetitive, and a failure to abide by anticompetitive rules is not exclusionary. Complaint Counsel cannot prove that Rambus had any duty to disclose its patent interests to JEDEC. And Complaint Counsel cannot prove that Rambus intentionally violated any duty to JEDEC.

[29] Further, the proposed remedy may constitute an impermissible taking without just compensation in violation of the Fifth Amendment. The remedy would substantially diminish the value of Rambus' patent rights. Under the Fifth Amendment, the government cannot deprive Rambus of these rights without paying just compensation. *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1002-03 (1984) (recognizing that taking of intellectual property in trade secrets was subject to the Takings Clause); *Philip Morris, Inc v. Reilly*, 312 F.3d 24, 32-37 (1st Cir. 2002) (holding that statute requiring uncompensated disclosure of trade secrets was an unconstitutional taking).

Nor will Complaint Counsel be able to prove that Rambus's conduct caused any anticompetitive harm. Complaint Counsel cannot prove that JEDEC members were misled by Rambus's supposed failure to disclose; they cannot prove that JEDEC members relied on Rambus's "representations"; they cannot prove that any such reliance was reasonable. Complaint Counsel cannot show that there were available any acceptable noninfringing alternatives to Rambus's inventions. They cannot show that JEDEC would have adopted any such alternatives or that the market would accept alternative standards. They cannot show that consumers would be better off with alternative standards. And they cannot show that the DRAM industry is locked in to using Rambus's inventions.

The Complaint should be dismissed.

DATED: April __, 2003

Respectfully submitted,

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Gregory P. Stone
Steven M. Perry
Sean P. Gates
Peter A. Detre
MUNGER, TOLLES & OLSON LLP
355 South Grand Avenue, 35th Floor
Los Angeles, California 90071
(213) 683-9100
(213) 687-3702 (facsimile)

A. Douglas Melamed
IJay Palansky
Kenneth A. Bamberger
WILMER, CUTLER & PICKERING
2445 M Street, N.W.
Washington, D.C. 20037
(202) 663-6000

Sean C. Cunningham
John M. Guaragna
Gray, Cary, Ware & Freidenrich LLP
401 "B" Street, Suite 2000
San Diego, California 92101
(619) 699-2700

UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION

In the Matter of	)	
	)	Docket No. 9302
RAMBUS INCORPORATED, a corporation.	)	

CERTIFICATE OF SERVICE

I, Jacqueline M. Haberer, hereby certify that on April 22, 2003, I caused a true and correct copy of the *Trial Brief of Respondent Rambus Inc.* to be served on the following persons by hand delivery:

Hon. Stephen J. McGuire
Chief Administrative Law Judge
Federal Trade Commission
Room H-112
600 Pennsylvania Avenue, N.W.
Washington, D.C. 20580

Donald S. Clark, Secretary
Federal Trade Commission
Room H-159
600 Pennsylvania Avenue, N.W.
Washington, D.C. 20580

Richard B. Dagen, Esq.
Assistant Director
Bureau of Competition
Federal Trade Commission
Room H-372
600 Pennsylvania Avenue, N.W.
Washington, D.C. 20580

M. Sean Royall, Esq.
Deputy Director, Bureau of Competition
Federal Trade Commission
Room H-372
600 Pennsylvania Avenue, N.W.
Washington, D.C. 20580

Malcolm L. Catt, Esq.
Attorney
Federal Trade Commission
Room H-372
600 Pennsylvania Avenue, N.W.
Washington, D.C. 20580

Jacqueline M. Haberer

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