Dechert LLP

August 11, 2003

VIA FIRST CLASS MAIL

David 0. Carson, Esquire
General Counsel - Copyright GC/I&R
P.O. Box 70400, Southwest Station
Washington, DC 20024-0400

Re: Docket *No. RM 2002-4 (Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies)*

Dear Mr. Carson:

Lexmark International, Inc. welcomes the opportunity to provide the Copyright Office with some additional information concerning its technological protection measure, its Prebate program, and the sale of toner cartridges for its printers.

Much of the information that the Panel has requested is highly confidential. The release of the requested information could be considered a selected disclosure of financial information under the securities laws, because Lexmark has never disclosed that information to the investment community or to the general public. In addition, the requested information is competitively sensitive and would provide Lexmark's competitors with an unfair competitive advantage. Therefore, Lexmark has attempted to respond to the questions presented as best as it can. Even so, without an absolute assurance of strict confidentiality, Lexmark must respectfully decline to provide detailed answers for some of those questions at the present time.

As you know, Lexmark is also involved in litigation with the petitioner, Static Control Components, Inc. ("Static"), and, as you might expect, many of the issues that the Panel has raised are also at issue in that dispute. For example, the U.S. District Court for the Eastern District of Kentucky has concluded that Lexmark's technological protection measure harms neither the environment nor the end users. Static has appealed the Court's decision, and the parties have filed their briefs with the Sixth Circuit. During the last rulemaking, the Copyright Office made it clear that when a DMCA claim is pending in federal court, the Librarian should proceed with caution before he creates an exemption that would apply to the activities that are at issue in that claim. (See Final Rule, 65 Fed. Reg. 64,556, 64,569 (Oct. 27, 2000).) Therefore, Lexmark respectfully submits that the Librarian should embargo any decision in the § 1201(a)(l)(C) proceeding pending the outcome of Static's appeal to the Sixth Circuit.

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The Laser Printer Industry

Many of the Copyright Office's questions seem to focus on Lexmark's business model for selling toner cartridges. Therefore, a brief description of the laser printer industry may help the Panel put Lexmark's responses to those questions in the proper context.

- Who Is Lexmark?

Since 199 l, when Lexmark was "spun off' from IBM Corporation, Lexmark has been a leading developer, manufacturer and supplier of printing solutions -- including laser printers, and their associated supplies and services. Lexmark develops and owns most of the technology for its laser printers and associated supplies, which differentiates Lexmark from a number of its major competitors. Lexmark's research and development activity for the past several years has focused on laser and inkjet printers, printer supplies, and network connectivity products. The process of developing new technology products is complex, and requires innovative designs that anticipate customer needs and technological trends. Lexmark's research and development expenditures were $248 million in 2002, $246 million in 2001, and $2 17 million in 2000.

- The Market for Laser Printers and Related Products

The markets for printers and printer supplies are highly competitive. The market is dominated by the Hewlett Packard Company, which has a widely recognized brand name, and has a market share of approximately 50%. Several other large vendors, such as Canon, Xerox, Brother and Minolta, also compete in the laser printer market. According to International Data Corporation's Hardcopy Peripherals Tracker, Lexmark branded laser printers accounted for only 14.6% of all brands and types of laser printers sold in the United States in 200 1. Also, of all the brands and types of cartridges sold in the United States in 2001, only about 2.5% were Lexmark Prebate toner cartridges, based upon industry analyst CAP Ventures' view of the total United States sales of all brands of toner cartridges.

- Competitive Pressures within the Industry

Many of Lexmark's principal competitors have significantly greater financial, marketing and/or technological resources. In recent years, these companies have regularly lowered the prices on their printers, and it is expected that they will continue to do so in the future. Lexmark is vulnerable to these pricing pressures, which could result in lower profitability, and could jeopardize Lexmark's ability to grow or maintain market share and build an installed base of laser printers.

- Lexmark's Customers

Most of Lexmark's customers are large and experienced companies that have bought and used laser printers for many years. Many of these corporations periodically upgrade or replace their printer fleets in conjunction with a company-wide review of IT or document reproduction policies, and, thus, are willing to dedicate a large amount of internal or external resources over an extended period of time to ensure optimal cost savings.

- Buying and Selling a Laser Printer and Related Products

When large businesses buy laser printers, they usually take consumable and other costs into account. These cost comparisons have been defined as "life-cycle costing," "total cost of ownership," or "total cost of printing." The common denominator between each definition is that, at a minimum, the customer will consider *acquisition* costs, such as the price of the printer and other hardware, such as additional memory and network adapters, and *running costs,* such as toner cartridges, paper, power consumption, and service costs. In addition, most businesses also take various *hidden costs* into account, such as IT installation time, help desk support, the cost of updating and upgrading the printer, and end-user downtime associated with printer inactivity.

Large companies have a strong incentive to make these cost comparisons, because document production has become a large cost for most businesses. In fact, most businesses usually spend more on the running costs associated with toner cartridges than on the acquisition costs associated with the printer itself.

A company's ability to make total cost of ownership comparisons are facilitated by the fact that obtaining the relevant cost of ownership information is straightforward and inexpensive. Independent industry studies, such as the 200 1 DC Cost *Of Ownership Study,* are readily available. In addition, printer vendors provide their customers with a great deal of total cost of ownership data. Likewise, companies such as Lexmark who participate in competitive bid situations -- which are the norm for large customers -- routinely provide detailed total cost of ownership information.

- Lexmark's Purchasing Options

Lexmark offers its customers a number of attractive purchasing options. As Lexmark's website explains:

> When it comes to cartridges for its laser printers, Lexmark provides more choices than any of its competitors offer to their

respective laser printer customers. Specifically, Lexmark offers laser customers up to three Lexmark cartridge choices for certain Lexmark printer families:

(1) [non-Prebate] cartridges that customers may a) return to Lexmark free of charge (for remanufacturing and recycling by Lexmark), b) remanufacture themselves, or c) provide to third parties for remanufacturing or recycling;

(2) [Prebate] cartridges that provide customers with an up-front discount in exchange for their agreement to return the [empty] cartridge only to Lexmark for remanufacturing/reuse;

(3) High-quality Lexmark remanufactured cartridges

Of course, Lexmark customers may additionally choose to buy remanufactured cartridges that fit into Lexmark printers from numerous third-party remanufacturers.

As discussed above, the lifecycle price of a laser printer, including the cost of toner cartridges, is an important factor in the customer's purchasing decision. Therefore, the discount that Lexmark offers with its Prebate program, and the lower price that Lexmark charges for its remanufactured cartridge, are meaningful to customers, and help Lexmark vigorously compete in the market for printers and toner cartridges.

- Lexmark's Remanufacturing Program

Lexmark's Prebate program also supports Lexmark's remanufacturing program and protects the environment. Lexmark's Prebate program was intended to, and in fact does, increase the rate of cartridge return and the volume of its recycling and remanufacturing program, by giving customers a financial incentive to return their empty cartridges to Lexmark. In addition to the up-front discount for Prebate toner cartridges, Lexmark provides its customers with a free shipping label inside the box for Prebate and non-Prebate cartridges. This ensures that Lexmark has access to a constant supply of high quality empty cartridges for its remanufacturing program.[1] Since the introduction of the Lexmark Prebate program in 1997, the number of

1. As Lexmark's website explains: "Lexmark [Prebate] Cartridges are sold at a discount versus the prices of regular cartridges in exchange for the customer's agreement to use the cartridge only once and return it only to Lexmark for remanufacturing or recycling. Regular cartridges without this license/agreement sold at regular prices are also available. Regular cartridges are also recyclable at no cost through Lexmark Cartridge Collection Program."

cartridges returned to Lexmark in the United States for Lexmark products for which Prebate cartridges are offered has increased significantly, from roughly 100,000 in 1998 to over 900,000 in 2002. As a result, Lexmark has become one of the world's largest remanufacturers of toner cartridges, and in no case are returned cartridges disposed of in landfills.

- Distribution and Sales of Lexmark's Printers and Toner Cartridges

Lexmark employs large account sales and marketing teams to sell Lexmark printing solutions to large corporations as well as the public sector. Lexmark also distributes its products through its well-established distributor network, which includes distributors such as Ingram Micro, Tech Data, Synnex, and Computer 2000. Lexmark's products are also sold through solution providers, who offer custom solutions to specific markets, and through direct response resellers. In other words, Lexmark's business printer supplies and other office imaging products are generally available at the customer's preferred point of purchase through multiple channels of distribution.

Although channel mix varies depending on the customer's geographic location, substantially all of Lexmark's products sold in 2002 were sold through the company's network of Lexmark-authorized supplies distributors and resellers who sell directly to the end user or to independent office supply dealers. In the United States, hundreds of resellers sell Lexmark branded laser printers and associated toner cartridge products. However, Lexmark does not control the price that these entities offer to the end user, and, as a result, the prices for Lexmark's products often vary.

* * *

Lexmark's response to the Copyright Office's follow-up questions are set forth below.

Question #1 Are the prices for toner cartridges provided at pp. 5-6 of the reply comment by the Electronic Frontier Foundation accurate? If not, please explain and provide the most accurate information available to Lexmark.

The prices that the Electronic Frontier Foundation ("EFF") quoted for a Lexmark branded cartridge are apparently based on the price for a single cartridge for a T52x/T62x Lexmark printer. The price that is listed on Lexmark's website for a single remanufactured toner cartridge for the T52x is $255.00 (compared to the EFF price of $199). The price that is listed for a single remanufactured toner cartridge for the T62x is $285.00 (compared to the EFF price of $175 to $249).

As for the prices that the EFF quoted for non-Lexmark remanufactured cartridges, they are simply meaningless. First of all, a toner cartridge is a complex electromechanical system, and there is no recognized standard for manufacturing a toner cartridge.[2] Second, each remanufacturer sets it own quality standards for remanufacturing a toner cartridge. For example, a cartridge that has been used multiple times may be refilled with toner without changing any of its components, While this "remanufactured" cartridge may be sold at a "low" price, there will be some sacrifices in quality and reliability. In other words, not all remanufactured cartridges are created equal, and, thus, it should come as no surprise that prices for remanufactured toner cartridges vary dramatically.

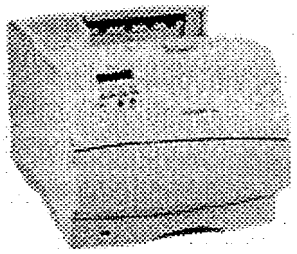
2. Toner cartridges contain toner, a photoconductive drum that is covered with a complex polymer that becomes a conductor when exposed to light, a toner delivery system comprised of various rollers, and a device that delivers a thin layer of toner particles to the photoconductive drum at just the right point in the printing process. In fact, the latent image that will eventually become the printed page are first created by the laser beam on the photoconductive drum that is found within the toner cartridge. Electrically charged toner particles are then attached to the latent image on the photoconductive drive to form the toner image that eventually forms the printed page. All of these complex chemical, mechanical and electrical interactions occur within a toner cartridge at a rate of about one sheet every two seconds.

Question #2. For each Lexmark printer for which Prebate toner cartridges are sold, what are Lexmark's prices for:

(a) original Prebate cartridges;
(b) remanufactured Prebate cartridges;
(c) original non-Prebate cartridges;
(d) remanufactured non-Prebate cartridges

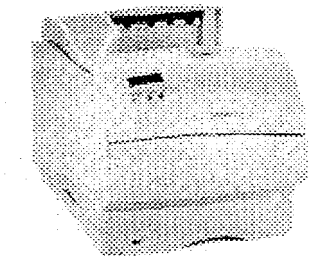
The following is a list of the prices that Lexmark charges for its toner cartridges on its website. However, it is important to recognize that Lexmark also distributes toner cartridges through a network of distributors and dealers, and therefore, the actual prices for these cartridges may vary. We should also point that the only cartridges that are at issue in the dispute between Lexmark and Static are the cartridges that are designed to work with Lexmark's T520/5522 and T620/T622 laser printers.

Lexmark T520/T522 Laser Printers



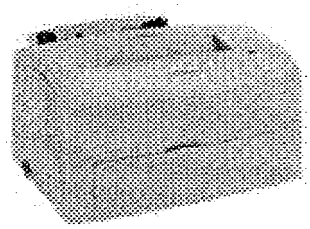
	Lexmark Web Price
T520/T522 High Yield Print [non-Prebate] Cartridge:	**$373.00**
T520/T522 High Yield Return Program Print [Prebate] Cartridge:	$325.00
T520/T522 Remanufactured High Yield Print Cartridge:	**$255.00**
T520/T522 Print [non-Prebate] Cartridge:	$192.00
T520/T522 Return Program Print [Prebate] Cartridge:	$144.00

Lexmark T620/T622 Laser Printers



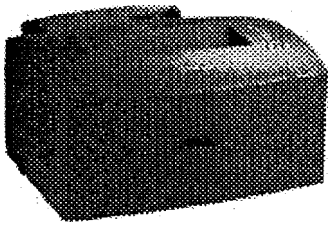
	Lexmark Web Price
T620/T622 High Yield Print [non-Prebate] Cartridge:	$414.00
T620/T622 High Yield Return Program Print [Prebate] Cartridge:	$364.00
T620/T622 Remanufactured High Yield Print Cartridge:	**$285.00**
T620/T622 Print [non-Prebate] Cartridge:	$214.00
T620/T622 Return Program Print [Prebate] Cartridge:	$164.00

Lexmark E320 / E322 Laser Printer



	Lexmark Web Price
E320/E322 High Yield Print [non-Prebate] Cartridge:	$154.00
High Yield Return Program Print [Prebate] Cartridge:	$134.00
E320/E322 Print [non-Prebate] Cartridge:	$109.00
E320/E322 Return Program Print [Prebate] Cartridge:	**$89.00**

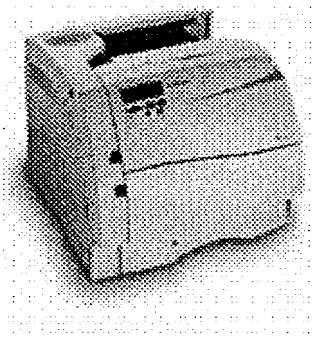
Lexmark E321 / E323 Laser Printer



Lexmark Web Price

E32 l/E323 High Yield Print [non-Prebate] Cartridge:	$156.00
E321, E323 High Yield Return Program Print [Prebate] Cartridge:	$136.00
E3 2 1 /E323 Print [non-Prebate] Cartridge:	$109.00
E321/E323 Return Program Print [Prebate] Cartridge:	$89.00

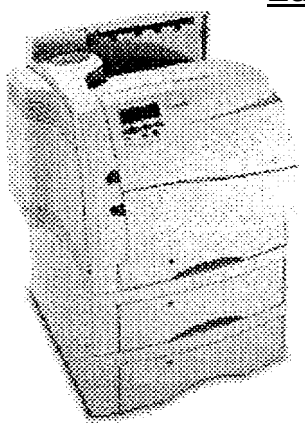
Lexmark Optra S Laser Printer



Lexmark Web Price

Optra S 17.6K Print [non-Prebate] Cartridge:	$255.50
Optra S High Yield Return Program Print [Prebate] Cartridge:	$223.50
Optra S Remanufactured High Yield Print Cartridge:	$175.00
Optra S 7.5K Print [non-Prebate] Cartridge:	$219.00
Optra S Return Program Print [Prebate] Cartridge:	$187.00

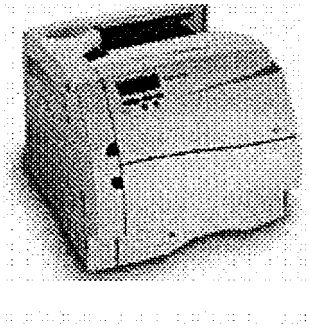
Lexmark Optra Se Laser Printer



Lexmark Web Price

Optra Se 23K Print [non-Prebate] Cartridge:	$33 1.00
Optra Se High Yield Return Program Print [Prebate] Cartridge:	$295.00

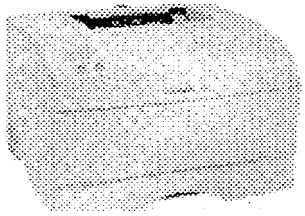
Lexmark Optra T Laser Printer



Lexmark Web Price

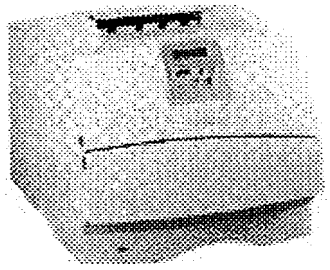
Optra T Family High Yield Print [non-Prebate] Cartridge:	$365.00
Optra T High Yield Return Program Print [Prebate] Cartridge:	$3 19.00
Optra T Remanufactured High Yield Print Cartridge:	$249.00
Optra T Family Print [non-Prebate] Cartridge:	$225.00
Optra T Family Return Program Print [Prebate] Cartridge:	$189.00

Lexmark T420d Laser Printer



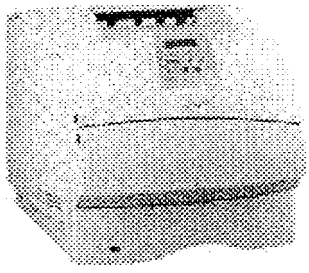
	Lexmark Web Price
T420 High Yield Print [non-Prebate] Cartridge:	**$222.00**
T420 High Yield Return Program Print [Prebate] Cartridge:	$193.00
T420 Print [non-Prebate] Cartridge:	$128.00
T420 Return Program Print [Prebate] Cartridge:	**$99.00**

Lexmark T630 Laser Printer



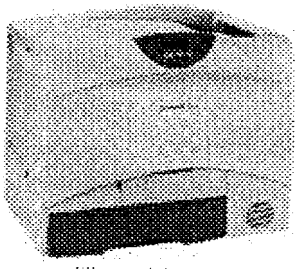
	Lexmark Web Price
T63X High Yield Print [non-Prebate] Cartridge:	**$380.00**
T63X High Yield Return Program Print [Prebate] Cartridge:	**$330.00**
T63X Print [non-Prebate] Cartridge:	$149.00
T63X Return Program Print [Prebate] Cartridge:	**$99.00**

Lexmark T632/T634 Laser Printers



	Lexmark Web Price
T632, T634 Extra High Yield Print [non-Prebate] Cartridge	**$405.00**
T632, T634 Extra High Yield Return Program Print [Prebate] Cartridge	**$355.00**
T63X High Yield Print [non-Prebate] Cartridge:	**$380.00**
T63X High Yield Return Program Print [Prebate] Cartridge:	**$330.00**
T63X Print [non-Prebate] Cartridge:	$149.00
T63X Return Program Print [Prebate] Cartridge:	**$99.00**

Lexmark C750 Color Printer



	Lexmark Web Price
C750 Black High Yield Print [non-Prebate] Cartridge	$197.00
C750 Black High Yield Return Program Print [Prebate] Cartridge	$170.00
C750 Black Print [non-Prebate] Cartridge:	$138.25
C750 Black Return Program Print [Prebate] Cartridge:	$111.25
C750 Cyan High Yield Print [non-Prebate] Cartridge	**$434.00**
C750 Cyan High Yield Return Program Print [Prebate] Cartridge	$374.00
C750 Cyan Print [non-Prebate] Cartridge:	**$260.00**
C750 Cyan Return Program Print [Prebate] Cartridge:	**$200.00**
C750 Yellow High Yield Print [non-Prebate] Cartridge:	**$434.00**
C750 Yellow High Yield Return Program Print [Prebate] Cartridge	$374.00
C750 Yellow Print [non-Prebate] Cartridge:	**$260.00**
C750 Yellow Return Program Print [Prebate] Cartridge:	**$200.00**
C750 Magenta High Yield Print [non-Prebate] Cartridge	**$434.00**
C750 Magenta High Yield Return Program Print [Prebate] Cartridge	$374.00
C750 Magenta Print [non-Prebate] Cartridge:	**$260.00**
C750 Magenta Return Program Print [Prebate] Cartridge:	**$200.00**

Question #3. For each printer for which Prebate cartridges are sold, what percentage of toner cartridges that are sold are:

(a) original Prebate cartridges;
(b) remanufactured Prebate cartridges;
(c) original non-Prebate cartridges;
(d) remanufactured non-Prebate cartridges

Lexmark has never publicly released the percentage of Prebate cartridges, non-Prebate cartridges, or remanufactured cartridges that it has sold for a particular printer model, and considers this information proprietary and highly confidential. Therefore, Lexmark respectfully declines to answer this question in full, because it could suffer competitive harm if this information were disclosed to the public.

As far as the aftermarket sale of Lexmark toner cartridges is concerned, the percentage of Prebate and non-Prebate cartridges sold will differ for each printer model sold in the United States. But, as a general rule, the split between aftermarket Prebate and non-Prebate cartridges in the United States has been approximately 90% Prebate and 10% non-Prebate. As discussed above, these percentages reflect the customer's preference for Prebate cartridges, as well as third party efforts to encourage the remanufacture of Prebate cartridges.

At the hearing, Static suggested that there may be a limit on the number of remanufactured cartridges that are available in the marketplace, because Lexmark's technological protection measure prevents end users from reusing Prebate cartridges with their Lexmark printers. Static also suggested that remanufacturers can only reuse non-Prebate cartridges, and, as discussed above, only approximately 10% of the cartridges that Lexmark sells each year are non-Prebate cartridges.

This argument is based on a flawed premise. It assumes that the number of non-Prebate cartridges in the marketplace remains constant from year to year. In fact, these cartridges do not disappear at the end of the year. They are refilled and remanufactured by third party remanufacturers and reenter the marketplace. Thus, the alleged non-availability of non-Prebate cartridges is an illusory problem. And even if the Copyright Office were to determine that non-Prebate cartridges are not plentiful today, that state-of-affairs will quickly resolve itself, because the number of these cartridges in the marketplace increases with each passing day.

Moreover, to thwart Lexmark's remanufacturing and environmental efforts, remanufacturers use chip technology from component manufacturers like Static to refill Prebate cartridges. Although contrary to their Prebate agreement with Lexmark, customers have been induced by financial incentives to make empty Prebate cartridges available to brokers and remanufacturers, since they can benefit

both from the discounted Prebate price and the payment for the empty cartridge. While Lexmark has attempted to prevent violation of Lexmark's intellectual property and contract rights, not all empty Prebate cartridges are returned only to Lexmark for remanufacturing (contrary to the agreement with the customer) and are remanufactured by third parties using third party chips. This obviously interferes with the Prebate agreement between Lexmark and the customer and adversely impacts on Lexmark's environmental efforts. For example, before Lexmark obtained an injunction preventing Static from selling chips for the T52x and T62x products, Static's president testified at the preliminary injunction hearing that Static had sold 50,000 to 60,000 chips in a very short period of time. Since a replacement chip is not required for regular cartridges (regular cartridges allow for unlimited refills), there are at least 50,000 to 60,000 Prebate cartridges being remanufactured by third parties as a result of this activity rather than returned to Lexmark for Lexmark's environmental efforts of remanufacturing and recycling.

Question #4. For each printer for which Prebate cartridges are sold, how many of the following toner cartridges have been sold since the introduction of the Prebate cartridges:

(a) original Prebate cartridges;
(b) remanufactured Prebate cartridges;
(c) original non-Prebate cartridges;
(d) remanufactured non-Prebate cartridges

Lexmark has never publicly released the number of Prebate, non-Prebate, or remanufactured cartridges that it has sold for a particular printer model, and considers this information proprietary and highly confidential. Therefore, Lexmark respectfully declines to answer this question in full, because it could suffer competitive harm if this information were disclosed to the public.

That having been said, Lexmark states that the approximate number of remanufactured cartridges that it has sold in the United States over the past six years is as follows:

Year	1998	1999	2000	2001	2002	Jan - April, 2003
U.S. sales	3 1,000	183,000	330,000	457,000	634,000	237,000

Question #5. Since the introduction of the Prebate cartridges, how many Prebate cartridges have been returned to Lexmark for remanufacturing or recycling? For each printer for which Prebate cartridges are sold, how many non-Prebate cartridges have been returned to Lexmark for remanufacturing; or recycling?

Lexmark has never publicly released the number of cartridges that have been returned for remanufacturing or recycling, and considers this information proprietary and highly confidential. Therefore, Lexmark respectfully declines to answer this question in full, because it could suffer competitive harm if this information were disclosed to the public.[3]

That having been said, Lexmark states that the approximate total number of cartridges that have been returned to Lexmark over the past six years from customers in the United States for Lexmark products for which Prebate cartridges are offered is as follows:

Year	1997	1998	1999	2000	2001	2002	Jan - April, 2003
Returns	3,294	101,982	317,772	500,120	740,990	1,028,467	434,584

Question #6. Please provide information on the rate of return for remanufacture of Prebate cartridges, as well as the rate of return for remanufacture of toner cartridges in general.

Lexmark has never publicly released the rate of return for its toner cartridges, and considers this information proprietary and highly confidential. Therefore, Lexmark respectfully declines to answer this question, because it could suffer competitive harm if this information were disclosed to the public. However, the figures provided in response to questions (4) and (5) should provide ample support for Lexmark's environmental efforts.

3. This question seems to be directed at the effect that Lexmark's technological protection measure may have on the environment. Lexmark respectfully submits that Congress did not give the Librarian the authority to consider the environment within the scope of this rulemaking. In any event, it is clear that this measure actually benefits the environment by encouraging the end user to return his or her cartridges to Lexmark for remanufacturing or recycling instead of simply throwing them away.

Question #7. Please provide Lexmark's response to the question raised on page 122 of the May 9, 2003 transcript regarding whether Static Control's use of a remanufactured cartridge with a competing chip containing an original and noninfringing toner loading program would be a noninfringing use of the Lexmark Printer Engine Program

Lexmark has considered this question very carefully, and is pleased to offer the following response.

- *The Question Assumes that Static Control Components Is Likely to Create an Original and Noninfringing Toner Loading Program*

First of all, I note that the Panel has asked a hypothetical question. As far as I know, Static has not introduced an original and noninfringing toner loading program for use in connection with a Lexmark printer -- or with any other printer for that matter. The only toner loading program that Static has developed thus far is the program that appears on Static's SMARTEK microchips.

Although the Librarian may consider future adverse impacts that are likely to occur within the next three years, the legislative history indicates that the Librarian should do so "only in extraordinary circumstances in which the evidence of likelihood of future adverse impact during that time period is highly specific, strong and persuasive." (See Copyright Office Final Rule, 65 Fed. Reg. 64,556, at 64,559 (Oct. 27, 2000).) "This standard requires proof that adverse effects are more likely than not to occur and cannot be based on speculation alone." (Notice of Inquiry, 67 Fed. Reg. 63,578, 63,579 (Oct. 15, 2002).) The proponent of the proposed exemption has the burden of proving that the future adverse impact is more likely than other possible outcomes. (See *id)*

Lexmark respectfully submits that there is not enough evidence in the record to satisfy Static's burden of proof on this issue. Static has not offered any evidence to suggest that cartridge remanufacturers have introduced or are likely to introduce their own toner loading programs within the next three years. Nor is there any evidence that they will do so in any of the comments that were submitted by the remanufacturing industry. (See Comment Nos. 288, 290, 293, 295-297, 301, 303, 305, 308-311, 313, 3 14, 3 16-322, 327, 329, 333, 338.)

That having been said, Lexmark recognizes that it is technically possible to develop a toner loading program that does not infringe Lexmark's Toner Loading Programs.[4]

4. However, the program would have to be independently created. It would have to be created in a "clean room" by a programmer who did not have access to Lexmark's Toner Loading Programs. In other words, the programmer would have to create the

- *The Nature of Static's Business*

I should also note that Static does not sell toner cartridges, and there is no evidence to suggest that it intends to enter that business within the next three years. As Mr. Greenstein explained, Static provides toner and replacement parts to remanufacturers, "who then take these products and use them in remanufacturing toner cartridges that are sold primarily to businesses, institutional and governmental users." (May 9th Hearing at 7-8.) One of the products that Static has developed is the aforementioned SMARTEK microchip, which was specifically designed to infringe Lexmark's copyrights and to circumvent the technological measure that controls access to Lexmark's computer programs. In our view, this petition under § 1201 is part of Static's ongoing effort to overturn the injunction that prevents Static from selling that microchip.

- *The Question Presented*

The purpose of this rulemaking is to determine whether technological protection measures will have a substantial adverse effect on a user's ability to make noninfringing use of a work that is protected under Title 17. The parties agree that the works at issue in this proceeding are Lexmark's Printer Engine Program and Lexmark's Toner Loading Programs, and the technological protection measure is Lexmark's "secret handshake." (See May 9th Hearing at 109-l 10, 113.)

The Panel has asked Lexmark whether the use of a Lexmark cartridge that is remanufactured by a third party, and that contains a chip with an original, noninfringing toner loading program, would qualify as a noninfringing use of the Printer Engine Program as set forth in § 1201(a)(l)(B). In order to answer this question, the Panel has asked Lexmark to make the following assumptions:

(1) The Panel asks us to assume that Static is likely to introduce a microchip within the next three years that contains an original toner loading program that would not infringe Lexmark's Toner Loading Programs;

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new program without simply engaging in thinly-disguised reverse engineering. (See, e.g., *Sega v. Accolade, 977* F.2d 15 10, 1522 (9" Cir. 1992).) Only when the new program was complete, would the programmer be allowed to study Lexmark's Printer Engine Program and reverse engineer it to the extent necessary to make the new program compatible with the Printer Engine Program.

(2) The Panel asks us to assume that the remanufacturing industry is likely to distribute remanufactured cartridges that contain Static's chip with its new, original toner loading program;

(3) The Panel asks us to assume that Lexmark's Printer Engine Program falls within "a particular class of works;" and

(4) The Panel asks us to assume that Static is a "user of a copyrighted work" that falls within "a particular class of works."

Lexmark respectfully submits that it cannot answer this question as it has been presented.

- *Static Is Not a User of a Work that Falls within a Particular Class **of** Copyrighted Works*

It is difficult to answer the question presented because Static does not "use" the Printer Engine Program. It sells microchips that are purposefully designed to circumvent the technological protection measure that controls access to Lexmark's computer programs. At some point in the future, Static may decide to sell a microchip that contains an original toner loading program, and remanufacturers may decide to use that program on their toner cartridges. However, even if Static develops an original program that does not infringe Lexmark's programs, the act of selling that chip to a remanufacturer with that new program embedded in it would not qualify as a "use" of the Printer Engine Program -- either infringing or noninfringing -- because Static would not be using the Printer Engine Program in any way. It would simply be selling a microchip that its customers intend to install on a cartridge that is designed to work with Lexmark's laser printer.

This issue may have some bearing on a question that Ms. Douglass asked during the hearing. She noted that § 120 1 "talks about adverse effects on users," and therefore she wanted to know whether that section would "encompass use by remanufacturers . ." (May 9th Hearing at 69.) I responded to Ms. Douglass' insightful question by saying that this possible reading of the statute had not occurred to me.

Having given the matter further thought, I respectfully submit that her question implicates two levels of subtlety. First, the cartridge remanufacturers do not qualify as "users" of the copyrighted works that are at issue in this proceeding, because they

do not use those works in any way -- as the term "user" is understood in § 1201 and as the Copyright Office has interpreted that term. Second, even more clearly, Static does not qualify as a user, because it is one step further removed from the actual use of the program than the remanufacturers.

In the 2000 rulemaking the Librarian explained that the purpose of this rulemaking is to determine whether technological protection measures are "adversely affecting the ability of *individual* users to make lawful uses of copyrighted works," or if they are diminishing the ability of libraries and educational institutions to make those works available to individual users. (See 65 Fed. Reg. at 64,558, 64,563 (emphasis added).) As Lexmark explained in its reply comments, the Printer Engine Program is the operating system for Lexmark's T-series laser printers. It controls a number of printer functions, such as paper feed, paper movement, motor control, fuser operation, and voltage control. The only people who use that copyrighted work are the people who own a Lexmark printer, and who use the Printer Engine Program to operate that device. So even if the Printer Engine Program does fall within "a particular class of works," neither Static nor the remanufacturers would qualify as "users" under § 120 1 (a)(l)(A), because they do not use the Printer Engine Program in any way.

Therefore, Lexmark respectfully submits that the relevant question is (1) whether the *end users'* use of a remanufactured cartridge that contains an original, noninfringing toner loading program would qualify as a noninfringing use of the Printer Engine Program, and, if so, (2) whether Lexmark's technological measure would have a substantial' adverse effect on the *end user's* ability to engage in this noninfringing use over the next three years. Lexmark's response to that question is set forth below.

- *The End User's Use of a Cartridge Containing an Original Noninfringing Toner Loading Program May Qualify as a Noninfringing Use of the Printer Engine Program*

It is difficult to respond to this question, because Lexmark is not aware of any remanufacturers that have introduced or are likely to introduce a noninfringing toner loading program within the next three years. Moreover, only a handful of end users

5. During the last rulemaking, the Librarian concluded from the statute and the legislative history that a decision to exempt a class of works "must be based on a showing that the prohibition [on circumvention] has a substantial adverse effect on noninfringing uses of a particular class of works." (67 Fed. Reg. at 63,579.) "De minimis or isolated problems would be insufficient to warrant an exemption for a class of works." *(Zd.* at 63,580.)

submitted comments in this proceeding, and none of them said anything about their ability to use a third-party toner loading program with a Lexmark printer. Thus, there is no evidence to suggest that Lexmark's technological protection measures have prevented or are likely to prevent a substantial number of end users from accessing the Printer Engine Program in the hypothetical situation that has been presented . (See 65 Fed. Reg. at 64,558 ("individual cases do not rise to the level of a substantial adverse impact").)

However, if we assume that Static creates a microchip that contains a truly original toner loading program that does not infringe any of Lexmark's computer programs, and if we assume that some remanufacturers use Static's microchip on their remanufactured cartridges, then the end user's use of those cartridges in a Lexmark printer would not infringe Lexmark's copyright in the Printer Engine Program. Under this hypothetical -- and again, I stress that the question presented is purely hypothetical -- the end user would be using the Printer Engine Program in the manner in which it was intended to be used, and, thus, would not violate any of Lexmark's rights under § 106. However, these activities could violate Lexmark's rights under the DMCA. After all, if Static creates a chip that circumvents the technological protection measure that controls access to Lexmark's Printer Engine Program, and if the remanufacturers make that chip available to the public, then Static and the remanufacturers would violate the anti-trafficking and access-control provisions set forth under §§ 1201(a)(1) and (a)(2).[6]

That raises the following question: Would the access-control provision set forth under § 120 1 (a)(1) have a substantial adverse effect on the end user's ability to engage in a noninfringing use of the Printer Engine Program within the next three years? In our view, it would not.

- *Lexmark's Technological Protection Measure Does Not Have A Substantial Adverse Effect on the End User's Ability to Make Noninfringing Uses of the Printer Engine Program*

  OPTION #1 : The End User Can Use the Printer Engine Program with Lexmark's Toner Loading Program by Using a Non-Prebate Cartridge

As Lexmark explained in its Prepared Remarks and throughout the hearing, Lexmark's technological measure prevents the end user from using the Printer Engine Program under some circumstances. Specifically, it prevents the end user from using that program with an unauthorized cartridge, such as a counterfeit

6. As the Copyright Office explained in its Notice of Inquiry, the anti-trafficking provision is not at issue in this proceeding. *(See infra* at pp. ___.)

cartridge or a refilled or remanufactured Prebate cartridge.[7] However, it does not prevent the end user from using the Printer Engine Program with refilled or remanufactured non-Prebate cartridges.

Lexmark's technological protection measure is embedded in a microchip that is attached to Lexmark's toner cartridges, and in a microchip that is attached to one of the circuit boards within Lexmark's printer. These chips perform a secret handshake whenever the printer is turned on, and whenever the printer is opened and closed.

When the end user places a refilled or remanufactured non-Prebate cartridge into his or her printer, the Lexmark microchip that is attached to that cartridge performs a secret handshake with the Lexmark chip that is attached to the printer. When this operation is complete, the printer will access the Printer Engine Program that is stored in the printer's memory. Then the printer makes a copy of the Toner Loading Program that is stored on the microchip that is attached to Lexmark's non-Prebate cartridge, and stores that copy in the printer's memory. At that point, the end user can use the Printer Engine Program to operate the printer, and can use the Toner Loading Program to monitor the status of the toner cartridge.

In other words, the secret handshake allows third parties to refill and remanufacture non-Prebate cartridges, and it allows the end user to use (and reuse) those cartridges with the Printer Engine Program over and over again. Thus, Lexmark's technological protection measure does not have an adverse effect -- substantial or otherwise -- on the end user's ability to make a noninfringing use (and reuse) of the Printer Engine Program or Lexmark's Toner Loading Program, because those programs are readily accessible and useable in an "unprotected" format when the end user reuses a non-Prebate cartridge.

> OPTIONS #2, #3, & #4: The End User Can Use the Printer Engine Program with a Prebate or Non-Prebate Cartridge that Contains an Original, Noninfringing Toner Loading Program.

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7. Prebate cartridges clearly indicate that non-Prebate cartridges are also available. The brochure that comes with the cartridge states, in six languages, that "Non-Prebate cartridges offered at regular prices without these terms are also available." Likewise, the exterior packaging for a Prebate cartridge contains a large label stating, in six languages, that "[a] regular price cartridge without these terms is also available." Finally, the cartridge itself contains at least three prominent labels in multiple languages which indicate that non-Prebate cartridges are also available, along with the reorder number for those cartridges. End users should have no trouble obtaining non-Prebate cartridges, because Lextnark's customers usually order their cartridges from distributors who are familiar with the various cartridge alternatives (including, in many cases, the relevant reorder numbers).

General Observations

Static recognizes that end users can use the Printer Engine Program with Lexmark's Toner Loading Programs. In fact, Mr. Greenstein admitted that end users and remanufacturers can refill and reuse Lexmark's non-Prebate cartridges over and over again until the cartridge wears out. (May 9th Hearing at 83.) (The cartridges are designed to last for several years.) Instead, Static claims that Lexmark's technological protection measure would prevent the end user from using the Printer Engine Program with a cartridge that contains an original, noninfringing toner loading program, and that end users should be allowed to circumvent Lexmark's secret handshake in order to engage in this type of noninfringing activity.

This argument is based on a flawed premise. It assumes that the end user would have to circumvent Lexmark's technological protection measure in order to use a third-party toner loading program with a Lexmark printer. In fact, it is possible to use the Printer Engine Program with a Prebate or non-Prebate cartridge that contains a third-party toner loading program -- as long as the remanufacturer doesn't remove the Lexmark microchip that is attached to the cartridge.

Option #2: Placing an Original, Noninfringing Toner Loading Program on Lexmark's Microchip

Static claims that remanufacturers would like to erase the Toner Loading Program that is stored on the microchip that is attached to Lexmark's toner cartridges, and reprogram the chip with their own toner loading programs. However, Static claims that remanufacturers can't do this, because Lexmark's microchips are non-rewritable. As Mr. Greenstein explained,

> [T]he toner loading program could be replaced . . or it could be all zeros. There could be no toner loading program there at all as long as you properly set other information elsewhere in the chip that would compensate for that. Or you could set a bit in the toner cartridge that would basically tell the printer not to pull in and use the toner loading program that's on the chip. Those things can be done if you do it at the point of manufacture. You cannot do it after the chips are already in the marketplace. You cannot change them. Those are non-rewritable pieces of information on the Lexmark chip.

(May 9th Hearing at 80.) In fact, the Toner Loading Program that is found on Lexmark's microchip is primarily stored in read/writeable memory.[8] Thus, a remanufacturer could replace Lexmark's Toner Loading Program with an original, noninfringing toner loading program. When the end users places that cartridge into his or her printer, the Lexmark microchip that is attached to the cartridge would perform a secret handshake with the Lexmark chip that is attached to the printer. When the handshake is complete, the remanufacturer's toner loading program would be sent over to the printer. When that operation is complete, the Printer Engine Program would activate and the printer would function normally.

Option #3: Adding Another Microchip to the Toner Cartridge

Likewise, the remanufacturer could create a microchip that contains an original toner loading program, and could attach that chip onto a Prebate or non-Prebate cartridge. When the end user places that cartridge into his or her printer, the Lexmark microchip that is attached to the cartridge would perform a secret handshake with the Lexmark chip that is attached to the printer. When the handshake is complete, the remanufacturer's microchip would send the printer a copy of the third-party toner loading program that is stored on that chip, instead of sending a copy of the Toner Loading Program that is stored on Lexmark's microchip. When that operation is complete, the Printer Engine Program would activate, and the printer would work normally.

Option #4: Adding Another Microchip to the Printer

Likewise, the remanufacturer could create a microchip that contains an original toner loading program, which could be attached to one of the circuit boards within the end user's printer. When the end user places a remanufactured Prebate or non-Prebate cartridge into the printer, the Lexmark microchip that is attached to that cartridge would perform a secret handshake with the Lexmark microchip that is attached to the circuit board. When the handshake is complete, the printer will make a copy of Lexmark's Toner Loading Program, and store that program in the printer's memory. At that point, the remanufacturer's microchip could provide the printer's microprocessor with a copy of the toner loading program that is stored in the remanufacturer's microchip -- instead of the copy of Lexmark's Toner Loading Program which is stored in the printer's memory. When that operation is complete, the printer would function normally, and the end user would have gained unfettered

8. Lexmark's microchip contains four portions of memory, which are referred to as Pages O-3. These memory Pages vary in their ability to alter the data that is stored therein. In particular, Page 0 is read-only (memory data cannot be altered), Page 1 is write once (memory can be altered only one time), and Pages 2 and 3 are read/write (memory can be altered any number of times). The Toner Loading Program primarily resides in Pages 2 and 3 of Lexmark's chip.

access to the Printer Engine Program and the remanufacturer's toner loading program.

Summary of Options

In each of these options, the Lexmark microchip that is attached to the Prebate or non-Prebate cartridge, and the Lexmark microchip that is attached to the circuit board would remain intact. Thus, the end user would be able to perform the secret handshake that controls access to the Printer Engine Program. Under Option # 1 the end user would be able to use Lexmark's Toner Loading Program with the Printer Engine Program without having to bypass Lexmark's technological protection measure. Under Options #2, #3, and #4 the end user would be able to use a third-party toner loading program with the Printer Engine Program, and again, would be able to run these programs without having to circumvent the secret handshake. Thus, if the end user would prefer to use Lexmark's Toner Loading Program with his or her Lexmark printer, or if the end user would prefer to use a third-party toner loading program, Lexmark's technological protection measure would not have a substantial adverse effect on his or her ability to make noninfringing use of the Printer Engine Program, because end users could obtain access to that program through one of the four options discussed above.

At Best, the Difficulty of Using a Third-Party Toner Loading Program would be a Minor Inconvenience

Static may argue that it would be inconvenient to add a microchip to a Lexmark toner cartridge (Option #3) or to one of the circuit boards within a Lexmark printer (Option #4) without interfering with the Lexmark microchips that perform the secret handshake. As the Copyright Office reminded us in the 2000 proceeding, § 1201(a)(1)(C) does not guarantee that end users will have the most desirable access to a copyrighted work. Nor does it guarantee that end users will be able to use that work in a specific format or with precisely the kind of machine, platform, or device that they might prefer. (See 65 Fed. Reg. 64,556, at 64,569.) It only guarantees that end users will have reasonable access to copyrighted works so that they will be able "to engage in the lawful uses of copyrighted works that the public had traditionally been able to make prior to the enactment of the DMCA." (*Id.* at 63,579.)

In this case, it may take a bit of extra engineering to use a third-party toner loading program with a Lexmark printer, because Lexmark's technological protection measure effectively controls access to the Printer Engine Program. However, the fact remains that end users can access the Printer Engine Program, and can use it with a third-party toner loading program -- as illustrated in Option # 2, #3, or #4 discussed above. This indicates that the problem associated with Lexmark's

technological protection measure -- if there is a problem -- would be one of personal preference and convenience. And the inconvenience, if any, to Static or the remanufacturers would be nothing more than having to add another microchip to the side of the toner cartridge or to the circuit boards within the printer.

Benefits Associated with Lexmark's Technological Measure

Finally, any restriction that the technological protection measure may have on the end user's ability to use the Printer Engine Program is outweighed by the benefits associated with Lexmark's Prebate program.

As Lexmark explained in its Prepared Remarks, the secret handshake benefits the user by making Lexmark's printers, cartridges, and computer programs available at a lower cost than if the technological measures were not in place. Specifically, it encourages the end user to return the Prebate cartridge to Lexmark when it runs out of toner. This provides Lexmark with a constant supply of cartridges for its own remanufacturing program, which lowers Lexmark's manufacturing costs, which in turn lowers the cost of the cartridges that Lexmark offers to its customers. Lexmark's technological protection measure also prevents remanufacturers from buying used Prebate cartridges, and selling them in unfair competition with Lexmark's cartridges. If Lexmark could not prevent this type of cream-skimming, it would be unable to sell its Prebate cartridges at a discounted price. Thus, Lexmark's secret handshake actually benefits the end user by making its products available at a lower cost than if this measure were not in place, while at the same time giving the user the added peace of mind that comes with Lexmark's guarantees of quality and compatibility.

- *A Few Words on Trafficking*

Throughout the hearing Mr. Greenstein argued that Static would like to sell microchips that contain original, noninfringing toner loading programs, but in order to use those programs with a Lexmark printer, the chip would have to contain a device that would allow the end user to circumvent Lexmark's technological measure. In other words, Static intends to traffic in a device that is primarily designed to circumvent a technological measure that controls access to Lexmark's copyrighted work.

In our view -- and in the view of the District Court -- this activity would violate § 120 l(a)(2) of the Copyright Act. In Static's view, this activity should be permissible under the exemption set forth in § 120 l (f)(3). Lexmark respectfully submits that these issues are not relevant to this proceeding, and should not be considered in the Copyright Office's recommendation to the Librarian of Congress, or in the Librarian's Final Rule. As the Panel reminded us during the hearing, the

Librarian only has the authority to create an exemption to the access control provision set forth in § 1201 (a)(l)(A). He does not have the authority to create an exemption to the anti-trafficking provisions or copy control provisions set forth in §§ 1201(a)(2) and 1201(b). (*See* 67 Fed. Reg. at 63,579; May 9th Hearing Transcript at 125.)

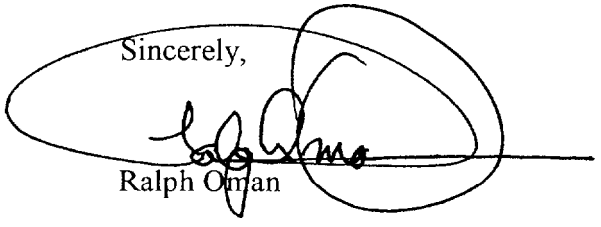
During the hearing, Mr. Greenstein admitted that even if the Librarian creates an exemption that would allow Static to circumvent Lexmark's technological measure for the purpose of gaining access to the Printer Engine Program -- that exemption would not give Static the right to distribute its microchips to the public. At best, it would only give Static the right to access Lexmark's computer program for its own internal use. However, Static already has the ability to access Lexmark's computer programs for its own internal study and analysis, because they are available in an unprotected format.

In effect, Static is asking the Librarian to issue a policy statement concerning "the propriety of the particular uses at issue, and the propriety of applying the DMCA in these circumstances." (Greenstein Testimony, May 9th Hearing at pp. 125-26.) Lexmark respectfully submits that Congress did not delegate to the Librarian the authority to issue broad policy statements under § 1201(a)(l). As the Copyright Office observed during the last rulemaking, such arguments "are more appropriately directed to the legislator rather than to the regulator who is operating under the constraints imposed by section 1201(a)(l)." (65 Fed. Reg. at 64,562.) Nor did Congress delegate to the Librarian the authority to conduct a general antitrust inquiry. Issues of competition in the marketplace and the application of the rule of reason are best left to the courts.

* * * *

I would be happy to respond to any additional follow-up questions that the Panel may have.

Sincerely,



Ralph Oman

cc: Joseph M. Potenza, Esq
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