CHANGES IN THE WORLD OF PATENT LITIGATION: NEW RULES FOR DISCOVERY AND THE EMERGENCE OF PATENT LITIGATION INVESTORS

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Introduction

How would the world of patent infringement litigation change if the federal rules of civil procedure were amended so that, instead of waiting for a request for discovery, a mandatory duty, subject to mandatory court sanctions, was imposed on parties to disclose all relevant information, soon after the suit is filed? [n.1] Couple this change, with the emergence of new business companies in America--some that invest in patent litigation by financing costs in return for 40% of the recovery, while other companies provide separate insurance policies against patent litigation liability for both the patent holder and the corporate defendant. [n.2] The former is now certain, [n.3] and the latter already exists.

There are no definite answers to how these changes will affect patent litigation. The general sentiment of the legal community is that the new duty- to-disclose discovery will substantially increase litigation costs. [n.4] These cost increases may be particularly higher in patent litigation cases, which involve complex information over long periods of time and high stakes. This may lead to a decrease in litigation activity. On the other side, the new financiers in the patent industry are predicting an avalanche of new litigation. [n.5] The net result of these opposing forces on the decision to litigate will depend on the parties' estimate of changes, associated therewith, in the expected return from the litigation. [n.6]

The focus of this paper is to examine the effects of these opposing forces on future patent litigation activity. Section I presents a brief legislative history of the discovery rules. Section II summarizes the 1993 amendments to the discovery rules, especially those which are relevant in patent litigation. This section also reports on the sentiment of the legal community to the amendments, and the current status of congressional actions that tried to prevent or modify enactment of the new rules. Section III describes the current trend by American companies to invest in patent litigation and to offer insurance policies, which cover patent litigation expenses. Section IV reveals the standards and doctrines used by courts to determine the question of patent infringement. This section demonstrates that patent litigation involves complex issues and legal determinations,

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which most often cannot be determined quickly or easily. Section V concludes with a discussion of the possible impact these new forces will have on patent litigation activity.

All discussions are not intended to be comprehensive but rather to focus on the issues, and any changes thereto, most likely to affect the litigation of patent infringement issues at the district court level.

I. A Brief Legislative History of Discovery Rules

Prior to 1938, pleadings were used by litigants to formulate issues and discover relevant facts. This method proved grossly inefficient at producing the facts necessary to execute justice. In 1938, the procedures established in Rules 26 through 37 of the Federal Rules of Civil Procedure ("FRCP") were adopted upon the principle of making the civil trial "less a game of blind man's buff and more a fair contest with the basic issues and facts disclosed to the fullest practicable extent." [n.7]

Rules 26 through 37 set forth the pre-trial deposition-discovery mechanism. These rules worked together with Rule 16, which allowed for pretrial conferences at the discretion of the court. Under the current rules, the purpose of the pretrial conference is to assist litigation management by providing for a scheduling order no more than 120 days after filing of the complaint. The scheduling order defines limits on time expended for certain litigation activities, including the completion of discovery. [n.8]

The first major change to the rules governing discovery became effective on July 1, 1970. The 1970 rules presented a list of the methods of discovery. They are identified in Rule 26(a) as: (1) Depositions; (2) Written interrogatories; (3) Production of documents or things; (4) Physical and mental examinations; and (5) Requests for admissions. With the exception of item (4), all the methods are applied in patent infringement cases. Depositions are the most common method for securing information from third persons, while all methods may and are used to obtain discovery from the opposing party. Under Rule 26(d), the methods of discovery may be used in any sequence so that one party's discovery cannot operate to delay any other party's discovery. [n.9]

In 1970, the language under Rule 26(b)(1) was changed to define the scope of discovery in general terms. [n.10] Prior to the current amendments, the rule stated:

Parties may obtain discovery regarding any matter, not privileged, which is relevant to the subject matter involved in the pending action, whether it relates to the claim or defense of the party seeking discovery or to the claim or defense of any other party, including the existence, description, nature, . . . things and the identity and location of persons having knowledge of any discoverable matter. It is not ground for objection that the information sought will be inadmissible at the trial if the information sought appears reasonably calculated to lead to the discovery of admissible evidence. [n.11]

The information sought has only to meet a general standard of relevance to the subject matter of the action, and is not limited only to the issues raised by the pleadings. [n.12]

In 1980, subdivision (f) was added to Rule 26, which requires a discovery conference before the court upon motion by the attorney for any party. This subdivision was added in response to widespread criticisms on the abuse of discovery. It provides counsel with early assistance of the court in a situation where attempts to set up a reasonable program or plan for discovery with opposing counsel have failed. [n.13]

Discovery overuse or abuse became prevalent and brought further amendments to Rule 26 in 1983. The amendments provided that under Rule 26(b)(1), discovery could be limited either by its own initiative or in response to a motion filed under Rule 26(c). Rule 26(c) enables either party to filed for a motion for "Protective Orders." Protective orders seek to "protect a party or person from annoyance, embarassment, oppression or undue burden or expense," under certain enumerated situations, including, inter alia, a requirement that "a deposition after being sealed be opened only by order of the court", and "that a trade secret or other confidential research, development, or commercial information not be disclosed or be disclosed only in a designated way." [n.14] Protective orders are often invoked during patent infringement litigation.

The 1983 amendments also imposed "an affirmative duty to engage in pretrial discovery in a responsible manner that is consistent with the spirit and purposes of Rules 26 through 37." Under Rule 26(g), each discovery request, response, or objection must be signed attesting to the fact that a reasonable inquiry has been made into the factual basis therein. The certification requirement obliges each attorney to "stop and think about the legitimacy of a discovery request, a response thereto, or an objection." Court decisions finding violations to this rule are subjected to sanctions under Rule 11. [n.15]

An important issue in patent litigation cases concerns the protection of "privileged communications." Under the current Rule 26(b)(1), discovery is limited for certain privileged communications. [n.16] Patent infringement litigation often involves shielding information from discovery which involves privileged attorney-client communications and attorney's work product. [n.17] These privileges exist to encourage full and honest communication between attorneys and their clients. The issue of privilege is more troublesome for patent infringement suits. This is because preceding such suits, there has been a long relationship between an attorney and the client, the patentee, during the prosecution of the patent before the United States Patent and Trademark Office ("USPTO").

The general rule is that "communications made in the routine course of business, such as transmittal letters or acknowledgment of receipt of letters, that disclose no privileged matters and that are devoid of legal advice, or requests for such advice, are not privileged." [n.18] The attorney-client privilege does not protect technical information such as results of research and tests communicated to the attorney, not calling for a legal opinion or interpretation, but meant mostly to assist in the completion of the patent

application. [n.19] Generally, privilege determinations in patent infringement suits are considered by the court in regulating discovery on a case-by-case basis. [n.20]

An important discovery issue under privilege concerns the disclosure of patent infringement opinions. It is common practice for companies to secure patent infringement opinions prior to producing and/or selling goods in America as a means of reducing the potential risk and liability of future patent litigation. While these opinions are privileged, [n.21] their use can be an important strategy in litigation. The fact that the alleged infringer has secured an infringement opinion is discoverable. [n.22] An early decision by the defendant to waive privilege, and disclose a legal opinion which finds for noninfringement, is to make available to opponents the mostimportant elements of your defense. This may provide your adversary with a critical advantage. In the case where the opinion finds for infringement, consistent responses of privilege will most likely lead a court to bias the results against you. Parties also consider that courts often view the relevancy and evidentiary competency of pure opinions of law as highly questionable. [n.23]

Loss of privilege can occur when, under Rule 26(b)(4)(A)(1), "[a] party may through interrogatories require any other party to identify each person whom the other party expects to call as an expert witness at trial, . . . to state the substance of the facts and opinions to which the expert is expected to testify and a summary of the grounds for each opinion." [n.24] By revealing the privileged information to a third party, privilege is said to have been waived. Also, Rule 705 of the Federal Rules of Evidence ("FRE") may make documents revealed to an expert available to opposing counsel. [n.25]

II. Amendments To The Discovery Process

Under the amendments to Rule 26, the addition of paragraphs (1)-(4) to Subdivision (a), "imposes on parties a duty to disclose, without awaiting formal discovery requests, certain basic information that is needed in most cases to prepare for trial or make an informed decision about settlement." [n.26] The scope of the information disclosure includes data on potential witnesses, documentary evidence, damages, and insurance. This duty continues throughout the litigation process, so that as relevant information becomes available, e.g., detailed statements of the testimony by an expert witness that may be offered at trial, parties have a duty to disclose it to opposing party.

The Committee Notes explain that the "major purpose of the revision is to accelerate the exchange of basic information about the case and to eliminate the paper work involved in requesting such information, and the rule should be applied in a manner to achieve those objectives . . . The litigants should not indulge in gamesmanship with respect to the disclosure obligations." [n.27] However, most representatives of the legal community are in opposition to the duty-to-disclose on the basis that its major purpose will not be realized. Instead, the new rule is predicted to lead to higher litigation costs, promote inefficient strategic behavior by the litigants, profoundly change the adversarial system and encroach upon the attorney-client relationship. [n.28]

U.S. Supreme Court Justice Scalia in his dissent [n.29] noted that he believed the changes would add a further layer of discovery. He further stated that it would increase litigation about the interpretation of what is relevant to "disputed facts" [n.30] and that "the proposed rule does not fit well into the adversary system. He also pointed out that the proposal would oblige counsel to reveal documents that damage the clients interest, thereby undercutting the attorney-client relationship." [n.31] On the other hand, federal district judge Norma L. Shapiro, who sits in the eastern district of Pennsylvania and represents the National Conference of Federal Trial Judges in the house of delegates, argued that the "world will not come to an end under the new rule. She pointed out that the rule was adopted by lawyers and judges, and that is allows district courts to opt out by local rule." [n.32] Othersfeel that mandatory disclosure of discovery information should be considered only after the results of the pilot programs conducted under the Civil Justice Reform Act ("CJRA") of 1990 are assessed. [n.33] Most of the courts participating in the CJRA experiment have implemented some form of mandatory disclosure, and the results of those programs will be available in December 1995. [n.34]

The rationale of the legal community is founded on the experience of the past. In 1938, new rules were adopted with the dual objective of: (1) providing each litigant with the fullest knowledge of the issues and facts before trial, and (2) guiding lawyers to develop a sense of self-interest in complying with the rules. The discovery process was predicted to become self-regulating, because to abuse the system would cost both parties time and money. [n.35]

Reality has fallen short of these objectives. The discovery process is routinely a part of the trial lawyer's strategy, especially in complex litigation like patent infringement. [n.36] High volume discovery activities have borne high costs to litigants and is often used as leverage toward settlement. [n.37]

The use of discovery has been very liberal. Furthermore, discovery has almost exclusively been controlled by the attorneys. Judges have taken little involvement in pretrial discovery disputes, creating more incentive for further proliferation of discovery. The idea was to support the original intent, that more information is better than less, and that judges could correct for the unnecessary excess once the trial began. Judges were also concerned that too much involvement in pretrial discovery may either directly or indirectly prejudice their judgment. [n.38]

There are several factors which explain why the discovery rules adopted in 1938 produced undesirable results. Most important is that "academic and judicial proponents of the modern rules of discovery apparently failed to appreciate how tenaciously litigators would hold to their adversarial ways and the magnitude of the antagonism between the principal purpose of discovery (the ascertainment of truth through disclosure) and the protective and competitive instincts that dominates adversary litigation." Furthermore, the courts have been reluctant to use sanctions provided under Rules 37 and 11, providing more fuel for discovery abuses. The courts reasoned that stricter enforcement of the sanctions would lead to greater use of motions thereby burdening the court's valuable

time. Finally, since the majority of cases are settled, the bulk of attorney's fees come in pretrial activities. [n.39] These factors lead to the overuse of the discovery system.

The most serious concern among litigators is the increase in satellite litigation that will result in practice under the new rule. The Committee Notes state that "[t]he initial disclosure requirement of subparagraphs (A) and (B) [under Rule 26(a)(1)] is limited to identification of potential evidence 'relevant to disputed facts alleged with particularity in the pleadings'." [n.40] What constitutes "sufficient disclosures" to comply with the language of the new rule is open to interpretation. This will lead to satellite litigation as parties file motions available under Rule 37, "Failure to Make Disclosure or Cooperate in Discovery: Sanctions." [n.41] Qualifying motions for sanctions include:

(a) Motion for Order Compelling Disclosure or Discovery.

(3) Evasive or Incomplete Disclosure, Answer, or Response.

(c) Failure to Disclosure; False or Misleading Disclosure; Refusal to Admit.

(d) Failure of Party to Attend at Own Deposition or Serve Answers to Interrogatories or Respond to Request for Inspection.

(g) Failure to Participate in the Framing of a Discovery Plan.

(New material is italicized)

A successful Motion for Sanctions under Rule 37 requires the court to impose mandatory sanctions, which can include a refusal to use as evidence at a trial, at a hearing, or on a motion any witness or information not so disclosed. In addition to or in lieu of this sanction, the court, on motion, and after affording an opportunity to be heard may impose other appropriate sanctions." [n.42] For example, if a litigant decides it is more prudent to suffer sanctions instead of disclosing information damaging to his client's case, the court, under Rule 37(c) can "declare the specified facts to be established, preventing contradictory evidence." [n.43] Other sanctions may include liability for reasonable expenses incurred in making the motion, including attorney's fees, and/or informing the jury of the failure to make the disclosure. [n.44]

Under Rule 26(a)(1), a new subsection (C) is added, to require that initial disclosures include a "computation of any category of damages claimed by the disclosing party, making available for inspection and copying as under Rule 34 the documents or other evidentiary material, not privileged or protected from disclosure, on which such computation is based, including materials bearing on the nature and extent of injuries suffered." [n.45] The Committee Notes explain that " t his obligation applies only with respect to documents then reasonably available to it and not privileged or protected as work product. Likewise, a party would not be expected to provide a calculation of damages which, as in many patent infringement actions, depends on information in the possession of another party or person." [n.46]

The new duty-to-disclose rule does not replace the traditional discovery methods, rather it adds an extra layer to the discovery process. Privileged communications remain protected from discovery under Rule 26(b)(1). Under 26(b)(2), the scope of discovery is changed to allow the court, by order or by local rule, to limit the number of depositions and interrogatories and length of depositions under Rule 30 and the number of request under Rule 36. Also, a new subsection (5) has been added under 26(b), "Claims of Privilege or Protection of Trial Preparation Materials," which requires parties to expressly claim and describe the nature of the documents, communications, or things not produced in a way that enables other parties to assess the applicability of the privilege or protection. [n.47] The provision under 26(c)(7) for "Protective Orders" remains available to protect trade secret or other confidential information not to be revealed or to be revealed only in designated way. However, if the court denies a motion for a protective order, the party may be subjected to sanctions under Rule 37(1)(4), relating to the award of expenses incurred in relation to the motion. [n.48]

The timing of the new duty-to-disclose discovery is not so clear under the rules. The new rules state that the disclosure required by 26(a)(1) are to be made at or within 10 days after the meeting of the parties under subdivision (f). Under subdivision (f), in all cases, not exempt by local rule or special order, are required to meet in person and plan for discovery. Following this meeting, the parties must submit to the court their proposal for a discovery plan and can begin formal discovery. The rules direct the meeting to take place as soon as practicable and in any event at least 14 days before a scheduling conference is held or before a scheduling order is due under Rule 16(b). Rule 16(b) requires that a scheduling order be entered within 90 days after the first appearance of a defendant or, if earlier, within 120 days after the complaint has been served on any defendant. A party can stipulate to an extension of this 10-day period, as when the defendant would otherwise have less than 60 days after being served in which to make its initial disclosure.

The amendments to the FRCP became effective on December 1, 1993. Representative William J. Hughes (D-NJ) was the lead sponsor of a proposed bill, Civil Rules Amendments Act of 1993, H.R. 2814, 103d Cong., 1st Sess. (1993), aimed at deleting the proposed mandatory disclosure procedure of proposed Rule 26(a)(1). H.R. 2814 was introduced by Chairman Hughes of the Subcommittee on Intellectual Property and Judicial Administration and the Ranking Minority Member, Mr. Moorhead, on July 30, 1993. H.R. 2814 passed the House Committee on Judiciary on November 3, 1993, and currently remains pending before Congress. Information for Public Affairs, Inc. reports that the bill has a 64% chance of passing the Senate Committee and a 60% chance of passing the Senate. [n.49]

The high profile given to discovery abuses over the past few years perhaps has lead one state court, the Washington State Supreme Court, to recently impose unprecedented sanctions on a law firm and a drug company for failure to disclose "smoking gun" documents in a malpractice suit against a physician involving a prescribed drug which resulted in permanent brain damage to a two- year-old child. [n.50] The subject documents dated back to 1981, which was four years before the child was injured, and reported that the prescribed drug was life threatening for some children who get viral infections. The damaging data was sent anonymously to the physician's attorneys a year after the case had been settled. Following the disclosure, the drug company settled with the parents for \$6.9 million. [n.51] The court reversed the lower court's decision under the abuse of discretion standard and imposed sanctions pursuant to a violation of Rule

26(g). The court remanded to the trial court for a determination of the amount and distribution of the sanctions between the law firm and the drug company.

Rule 26(g) of the Washington State statute emulates the FRCP Rule 26(g), and requires certification by the attorney that "he has read the request, response, or objection, and that to the best of his knowledge, information, and belief formed after a reasonable inquiry it is: (1) consistent with these rules and warranted by existing law or a good faith argument for the extension, modification, or reversal of existing law; (2) not interposed for any improper purpose, such as to harass or to cause unnecessary delay or needless increase in the cost of litigation . . . " [n.52] The court applied an objective standard to determine if the attorney had made a reasonable inquiry as required under 26(g). The court declared that "subjective belief or good faith alone no longer shields an attorney from sanctions under the rules." [n.53] The court rejected the trial court's reliance on legal experts to determine the legal decision to impose sanctions. It also ruled that "intent" need not be shown before sanctions are mandated and that the plaintiff is not required to file a motion to compel compliance with the rules as a prerequisite to a sanctions motion. [n.54] The court stated that " i n determining whether an attorney has complied with the rule, the court should consider all the surrounding circumstances, the importance of the evidence to its proponent, and the ability of the opposing party to formulate a response or to comply with the request." [n.55]

The result of this decision will lead lawyers to reconsider the risks and potential liability of playing the "game of discovery." This is especially true since malpractice insurance does not cover such sanctions. [n.56] Reputation is also a serious repercussion from the court imposition of sanctions.

The relevance of this decision to patent infringement determinations will depend on how broadly it is interpreted by other courts. It can be expected that losses in the quality of life will be construed differently by the courts than losses in profits and market share. Nevertheless, future litigation may see a redefinition of the traditional balance between the lawyer's professional responsibility to his client [n.57] and his duty to the court.

III. The Emergence of Patent Litigation Investors [n.58]

A separate but parallel development in the patent litigation business is the activity of a handful of U.S. companies that invest in intellectual property suits brought against large corporations. The idea is similar to personal injury cases taken on a contingency fee basis, i.e., a contract between the attorney and the client, whereby the attorney gets a certain percentage of the damage award in lieu of a retainer and/or compensation for his billable time. Intellectual property litigation has always been too time-consuming and costly to consider a contingency fee arrangement. This has left financially deprived inventors will little remedy when they believe their inventions have been infringed. [n.59]

Intellectual Property Reserve Corp. ("Intellectual Property"), a Louisville, Kentucky firm, is involved in investing in intellectual property litigation. The wisdom of their

investment is based on a reported 75.6% success rate for patent holders in litigation cases. Intellectual Property maintains a data base set up to evaluate the risks and likelihood of recovery in such cases. The data base includes approximately 7,700 patent cases brought over the last 17 years. They report that large cases can realize a 2, 5, or 10 times the amount invested returned within a year. [n.60]

WBX Partners, in San Rafael, California, is also involved in raising capital for intellectual property litigation through the organization of limited partnerships. A company in Fairfield, Connecticut, Patent Enforcement Fund, uses its capital to buy stakes in patents. "Because all these firms can claim ownership in the patents, they get around laws in some states that ban sharing proceed from suits with third parties, a practice known as champerty." [n.61]

Intellectual Property obtains as much as 40% of the recovery granted the patent owner in return for legal fees and court costs. A considerable amount of research is conducted prior to filing suit to ensure that these suits are justified and not frivolous. There is much criticism about the propriety of these practices in the judicial system, nevertheless these activities are reported to be expanding. [n.62]

Intellectual Property has also organized a separate company, Intellectual Property Insurance Services Corp., a firm that writes insurance policies triggered in the event of litigation. Patent holders pay a premium for a certain amount of coverage. Another unreported firm plans to offer corporate defendants insurance coverage by the end of the year. [n.63]

IV. The Complexity of Patent Infringement Litigation

The test for determining patent infringement has been uniformly stated in several decisions of the U.S. Supreme Court and the Court of Appeals for the Federal Circuit. [n.64] First, the language of the claims must be interpreted or construed and, second, in a case involving a compound, the determination must be made as to whether the claims, as construed, read on or cover the accused compound, either literally or under the doctrine of equivalents. If the compounds in question (i.e., Compounds A and B) fall within the words of the claims, as properly construed, then such claims are literally infringed and no further consideration is necessary, except as may be applicable to the reverse doctrine of equivalents, discussed below. A determination that a compound or an article does not literally infringe the claims of a patent does not end the infringement determination. A compound that does not literally infringe a claim can infringe the claim under the doctrine of equivalents. [n.65]

As discussed above, prior to determining infringement, the language of the claims must be construed. The CAFC has stated that "[p]roper claim construction necessarily precedes determining whether the claims in suit read on the accused device." [n.66] The CAFC has further noted that the proper interpretation of the claims of a U.S. patent always requires a consideration of the following factors: [n.67]

- (1) an examination of the claim or claims in question;
- (2) review of the patent specification;
- (3) review of the prosecution history of the patent; and
- (4) the scope of the other claims of the patent.

Claims are normally construed as they would be by those of ordinary skill in the art. Also, claims are to be read and construed in connection with other parts of the patent instrument, such as the specification. Other evidence, such as expert testimony in court, if available, may also be used to interpret claims as they would be understood by those skilled in the art. [n.68]

After the claims are properly construed, the determination is made as to whether the compounds in question (i.e., Compounds A and B) come within the literal language of the claims. Literal infringement requires that Compounds A and B include each and every element of the claimed invention, as properly construed in light of the specification and prosecution history. [n.69] Omission of a single element in a claimed device can be fatal to a charge of infringement. [n.70] If literal infringement exists and if the defense of the reverse doctrine of equivalents does not apply, there is liability for infringement.

The doctrine of equivalents comes into play when there is no actual literal infringement. It is an equitable doctrine established by case law that is designed to protect a patentee from an infringer who appropriates an invention but avoids the literal language of the claim or, in other words, makes insubstantial modifications so as to avoid the literal language of the patent claims. Under the doctrine of equivalents, there is infringement when the accused article, device, or process in a claimed invention performs substantially the same function in substantially the same way to yield substantially the same result. [n.71] The underlying rationale for this doctrine as explained by the Supreme Court in Graver Tank [n.72] is that "to permit imitation of a patented invention which does not copy every literal detail would be to convert the protection of the patent grant into a hollow and useless thing." [n.73]

Although the test of "function, way and result" mandated by the court in Graver Tank is most frequently recited in conjunction with considerations of equivalents under the doctrine, the CAFC in Atlas Powder, discussed above, also confirmed the "function, way and result" test can be satisfied by a determination that an ingredient or element in a device, article, or process in question has the same "purpose, quality and function" as the claimed ingredient or element. The CAFC quoted from Graver Tank in which a claimed mixture was compared with an accused mixture where one ingredient of the claimed mixture was changed:

Consideration must be given to the purpose for which an ingredient is used in the patent, the qualities it has when combined with the other ingredients, and the function which it is intended to perform. [n.74]

The first step in determining if there is equivalence is to establish the range of equivalents to which the claim is entitled. This must be done in light of the prosecution history, pioneer-non-pioneer status of the invention, and prior art. A pioneer invention is entitled to a broad range application under the doctrine of equivalents, whereas an invention representing only a minor improvement over the prior art can only have a more restricted, narrower range of equivalents. The reason for this latter principle is obvious. The scope of a claim cannot extend to the prior art. [n.75] Thus, if the alleged infringing article, device, or process is an equivalent of the prior art, there can be no infringement.

Once the range of equivalents to which a claim is entitled is established, and if the accused article, device, or process appears to fall within that range, the next step is to ascertain whether the entirety of the accused device or process is so substantially the same thing, used in substantially the same way, to achieve substantially the same result as to come within that range of equivalents. Equivalence is not determined merely by looking at the difference, itself, between a claimed invention and the potentially infringing article or device. For example, in Loctite, discussed above, the difference between an accused infringing composition and the claimed subject matter was that the claimed composition could rapidly cure, presumably anaerobically, only at 90 <<<dested equivalence the District Court had found that the claimed invention and the accused composition did not function in the same manner in the same way. The CAFC said, however, that such a finding:

would allow the difference itself to dictate the finding of no equivalence, and if that were the law, one could never have infringement by equivalence. The analysis must go further, and the question the District Court should consider on remand is this: given the difference, would the accused composition at 90 <<degrees>> C and the claimed invention at room temperature perform substantially the same function (e.g., filling the pores of the treated material with solid material) in substantially the same way (e.g., by rapidly curing in the absence but not in the presence of oxygen) to give substantially the same result (e.g., a filled material). [n.76]

A determination that a claim reads on an article, device or process and, thus, that there is literal infringement does not conclude the infringement determination. Liability for literal infringement is subject to the defense of the "reverse doctrine of equivalents." The reverse doctrine of equivalents is another equitable doctrine which operates to exclude an article, device or process from the scope of a claim (notwithstanding that it is within the literal scope of the claim) where the article, device, or process is so dissimilar to the subject matter of the claim that it would be inequitable to regard the former as being within the scope of claim. [n.77]

The doctrine was originated in the 19th century Supreme Court decision in Westinghouse. [n.78] The validity of the doctrine was subsequently set forth by the Supreme Court in Graver Tank, as follows:

The wholesome realism of [the doctrine of equivalents] is not always applied in favor of a patentee but is sometimes used against him. Thus, where a device is so far changed in principle from a patented article that it performs the same or a similar function in a substantially different way, but nevertheless falls within the literal words of the claim, the doctrine of equivalents may be used [in reverse] to restrict the claim and defeat the patentee's action for infringement. [n.79]

Despite the Supreme Court's expressed confirmation of the viability of the "reverse" doctrine of equivalents as a defense against a literal infringement, there was not a clear indication that the courts accepted the defense. However, the CAFC removed all doubts concerning its acceptance of the doctrine as a viable defense in SRI Int'l v. Matsushita. [n.80] The court, sitting en banc expressly confirmed that the doctrine was a viable defense that could be used to establish noninfringement. The Court reversed a summary of holding judgment by the District Court stating that the question of noninfringement under the reverse doctrine of equivalents raised a genuine issue of material fact.

V. Conclusions: The Future of Patent Litigation

The decision to invest in invention is a serious one and involves a significant commitment of resources. The expected return is the protection of unfettered profits. However, in reality this achievement is not so simple. Profitability provides the incentive for competitors to try and share in the market. This can lead to desirable and undesirable results. Desirable results occur when competitors improve or find new uses for patented inventions, which are allowed under patent laws and regulations. This can provide society with important technological developments. Undesirable results occur when competitors market an exact or essentially equivalent copy of a protected product. [n.81]

The complexity inherent in patents causes discovery in patent litigation to be a special case. The disputes usually involve complex technical information that has developed over many years. It is not so surprising that "Discovery in patent case often proves to be a source of bitterness and acrimony." [n.82] One district court succinctly stated:

So often in patent cases parties want their opponents to admit everything, to answer all interrogatories and to produce all documents, yet they themselves refuse to admit very much, to answer any significant interrogatory or to produce any telling documents without argument before a court. There is rarely a spirit of co-operation. Nothing is done voluntarily; everything requires an order of court. We realize that important rights are involved in patent suits, rights which protect the most effective stimulant to our economy-- inventiveness. To a certain extent, however, every lawsuit involves important rights; yet no other segment of cases on our docket produces such consistent examples of bitterness, stubborness and pettiness. The adversary system need not produce such constant hostility. We are well aware that attorneys are but mirrors of their clients, and we would not blame the members of the bar for the attitudes of their clients. Yet the situation exists, and lawyers must control it. [n.83]

In addition to relatively high hostility, patent litigation involves complex issues, voluminous data, high costs and high stakes. Every decision to sue for patent infringement evaluates what is expected to be won against the chances of winning, the associated costs, and alternatives to the suits, including settlement, arbitration, and letting

matters rest. [n.84] The potential litigant will also consider other risks not directly tied to the suit. For example, any effects on the goodwill of his customers, chances that the opponent, especially in the case of a large corporation, can and will damage his business in other ways.

The decision to sue for patent infringement will be affected by the significant changes to the FRCP, discussed above. The amendments to Rule 26 governing discovery will place an immediate burden on all parties to the suit. This will mean higher initial investment for all parties to the action. Higher costs are also expected to result from increases in satellite litigation, e.g., motions for sanctions under Rule 37. [n.85] The stricter rules on sanctions under Rule 37 will increase the risks in litigation, and if imposed, will affect the probability of winning. The impact of the amendments will most seriously be felt in patent infringement cases which involve the application of the doctrine of equivalents or reverse equivalents, [n.86] since these cases require detailed disclosure of each party's information in order to make a decision.

These factors will change the conditions under which parties choose alternatives to litigation, such as settlement, acquiring a license, or letting matters rest. In a situation where the stakes are the same, higher costs and risks will result in lower expected returns. This will lead some litigants to decide not to sue or to settle sooner; others may abandon certain activities which have a higher risk of infringement. U.S. companies who make agreements to indemnify foreign suppliers against litigation costs may be lead to consider changes in the terms of the contract.

Careful study of the new changes will not provide much comfort in relying on the discretion of the court to impose flexibility under the new rules. For example, while the amendments provide that district courts are allowed to opt out by local rule, [n.87] the language contained in the Committee Notes makes it clear that exemption by local rule is a narrow one -- i.e., in cases where "discovery would not be appropriate or would be unlikely." [n.88] The amendments also contain other "stop-gap" provisions. For example, the amendments to Rule 37(c) provide that for the litigant who withholds discoverable information, the court may decide not to permit the use of such information at a trial. [n.89] A litigant in possession of damaging information to his case may decide it is more prudent to suffer court sanctions than to comply with the disclosure requirements. However, as pointed out in the Committee Notes, "the rule provides the court with a wide range of other sanctions--such as declaring specified facts to be established, preventing contradictory evidence, or, like spoliation of evidence, allowing the jury to be informed of the fact of nondisclosure." [n.90]

Parallel with the amendments to the FRCP, is the emergence of U.S. companies which will finance patent litigation in return for a certain percentage of the recovery. Other companies are organized to provide insurance in the event patent litigation is triggered. [n.91] Depending on the value of the invention and other factors, such insurance may be a prudent decision by certain patent holders. Insurance gives the patent holder the opportunity to control the litigation, as opposed to the alternative of an agreement with an investment firm such as Intellectual Property. [n.92] For the potential defendant, who is

often a foreign entity in patent cases, securing insurance may prove to be a worthwhile alternative. This decision will depend on many factors, including the value and life of the protected market, the amount of the premiums, liability coverage, etc. Certainly, increases in litigation costs and in the risk of court sanctions caused by the changes in the FRCP will lead to increases in the premiums charged by insurance providers.

The new financiers in the market are predicting an avalanche of patent litigation. [n.93] However, the impact of the amendments to the FRCP will influence the investor's decision in the same way it does other litigants, as discussed above. The net result may still be an increase in patent litigation, since the emergence of these investment companies brings to the court a category of plaintiffs, who in the past, were not able to sue. The increase in litigation from the newcomers will be a function of the size of the category of patent holders who would sue "but for" the lack of financial capability, and the percentage in that category who will qualify for investment under the criteria established by these new private investment companies, which may change in view of the new rules of discovery.

[n.a1]. Varndell Legal Group

[n.1]. Order of the U.S. Supreme Court on April 22, 1993, 146 F.R.D. 401, 404 (providing amendments to the Federal Civil Procedure Rules 1, 4, 5, 11, 12, 15, 16, 26, 28, 29, 30, 31, 32, 33, 34, 36, 37, 38, 50, 52, 53, 54, 58, 71A, 72, 73, 74, 75, and 76; adding new Civil Rule 4.1; abrogating Form 18-A; amending Forms 2, 33, 34, and 34A; and adding new Forms 1A, 1B, and 35).

[n.2]. Linda Himelstein, Investors Wanted -- for Lawsuits, Bus. Wk., Nov. 15, 1993, at 78.

[n.3]. By Order of April 22, 1993, the U.S. Supreme Court approved amendments to selected Federal Rules of Civil Procedure, and forwarded them to Congress. Congress has taken no action on the new rules, so that they became effective on December 1, 1993. Under 28 U.S.C. § \$ 2071, 2073, 2077 (as amended in 1988), amendments to the Federal Rules of Civil Procedure begin in the Standing Committee on Rules of Practice and Procedure. Recommendations from the Standing Committee are submitted to the Judicial Conference of the United States, which reports to the U.S. Supreme Court. Upon review, the Court transmits the new rules proposed by the committee system to Congress. Congress may then postpone the proposed effective date of the new rules or may decline to approve them or makes changes. Chief Justice Rehnquist wrote the letter transmitting the amendments, ordered on April 22, 1993, to Congress. Justice White added a separate statement in which he explained that ". . . the Court's role over the years, it is to transmit the Judicial Conference's recommendations without change and without careful study, as

long as there is no suggestion that the committee system has not operated with integrity." 146 F.R.D. 401, 505.

[n.4]. Griffen B. Bell, Chilton Davis Varner, and Hugh Q. Gottschalk, Automatic Disclosure in Discovery -- The Rush to Reform, 27 Ga.L.Rev. 1, at 6-7 (1992).

[n.5]. Himelstein, supra note 2, at 78.

[n.6]. The condition for litigation, in the simple case where both parties are risk neutral and the stakes in the case, the costs of litigation, and the costs of settlement are the same for both parties, inter alia, stated as: (the probability of winning for the plaintiff times the estimated amount of the judgment) minus litigation costs plus settlement costs is greater than (the probability of winning for the defendant times the estimated amount of the judgment) plus litigation costs minus settlement costs. Source: Richard A. Posner, Economic Analysis of Law, 555-556, (4th ed. 1992).

[n.7]. United States v. Procter & Gamble Co., 356 U.S. 677, 683 (1958), cited in Patent Litigation: Procedure & Tactics by Ethan Horwitz and Lester Horwitz, Release No. 28, April, 1993, § 5.01[2].

[n.8]. Fed.R.Civ.P. 16.

[n.9]. Ethan Horwitz and Lester Horwitz, Patent Litigation: Procedure & Tactics Release No. 28, April 1993, § 5.01[4].

[n.10]. Federal Rules of Civil Procedure. Amended to May 1, 1993, (West 1993) p. 100, [hereinafter Fed. Rules].

[n.11]. Id. at 96.

[n.12]. Horwitz, supra note 9, at 5-12.

[n.13]. Fed. Rules, supra note 10, at 107.

[n.14]. Id. at 97.

[n.15]. Id. at 108-109. The determination of sanctions requires that all due process requirements be met.

[n.16]. Rule 206(b)(1) states that "Parties may obtain discovery regarding any matter, not privileged, . . . Fed.R.Civ.P. 26.

[n.17]. Rule 26(b)(2) states that "the court shall protect against disclosure of the mental impressions, conclusions, opinions, or legal theories of an attorney or other representative of a party concerning the litigation." Id.

[n.18]. Horwitz, supra note 9, at 5-14/15. The general elements for finding privilege are: (1) The person who asserts the privilege is, or sought to become a client; (2) The person to whom the communication was made is a member of the bar of a court or his subordinate and, is acting as a lawyer in regard to the communication; (3) The communication relates to a fact about which the attorney was formed: a) By his client; b) Without the presence of strangers; c) For the purpose of securing primarily either: 1) An opinion of law; 2) Legal services; or 3) Assistance in some legal proceeding; and not for the purpose of committing a crime or tort; and (4) The privilege has been: a) Claimed; and b) Not waived by the client. Id. at 5-18/19.

[n.19]. Id. at 5-26.7, 5.26.34.

[n.20]. Id. at 5-26.11.

[n.21]. Id. at 5-25.38/39.

[n.22]. "In patent litigation, the relevant contents of privileged communications:

1. May reveal facts relevant to issues of patent validity, patent enforceability or infringement;

2. May tend to establish the party's prior knowledge of facts, or intent or state of mind of a party;

3. May express legal opinion as to the validity or invalidity of the client's position or impose legal constructions upon facts in order to render legal advice; and

4. May reveal the strategy which the party intends to utilize in the litigation or has utilized in a past litigation., Horwitz, supra note 9, at 5- 26.38/39.

[n.24]. Fed.R.Civ.P. 26.

[n.25]. Horwitz, supra note 9, at 5-26.74/75. Fed.R.Evid. 705 discusses disclosure of facts or data underlying expert opinion.

[n.26]. 146 F.R.D. at 627-628. See 146 F.R.D. at 606-611 for the actual language of the new rule, which states:

Rule 26. General Provisions Governing Discovery; Duty of Disclosure

(a) Required Disclosures; Methods to Discover Additional Matter.

(1) Initial Disclosures. Except to the extent otherwise stipulated or directed by order or local rule, a party shall, without awaiting a discovery request, provide to other parties;

(A) the name and, if known, the address and telephone number of each individual likely to have discoverable information relevant to disputed facts alleged with particularity in the pleading, identifying the subjects of the information;

(B) a copy of, or a description by category and location of, all documents, data compilations, and tangible things in the possession, custody, or control of the party that are relevant to disputed facts alleged with particularity in the pleading;

(C) a computation of any category of damages claimed by the disclosing party, making available for inspection and copying as under Rule 34 the documents or other evidentiary material, not privileged or protected from disclosure, on which such computation is based, including materials bearing on the nature and extend of injuries suffered; and

(D) for inspection and copying as under Rule 34 any insurance agreement under which any person carrying on an insurance business may be liable to satisfy part or all of a judgment which may be entered in the action or to indemnify or reimburse for payments made to satisfy the judgment.

Unless otherwise stipulated or directed by the court, these disclosures shall be made at or within 10 days after the meeting of the parties under subdivision (f). A party shall make its initial disclosures based on the information then reasonably available to it and is not excused from making its disclosures because it has fully completed its investigation of the case or because it challenges the sufficiency of another party's disclosures or because another party has not made its disclosures.

(2) Disclosure of Expert Testimony.

(A) In addition to the disclosures required by paragraph (1), a party shall disclose to other parties the identity of any person who may be used at trial to present evidence under Rules 702, 703, or 705 of the Federal Rules of Evidence.

(B) Except as otherwise stipulated or directed by the court, this disclosure shall, with respect to a witness who is retained or specially employed to provide expert testimony in the case or whose duties as an employee of the party regularly involve giving expert testimony, be accompanied by a written report prepared and signed by the

witness. The report shall contain a complete statement of all opinions to be expressed and the basis and reasons therefor; the data or other information considered by the witness in forming the opinions; any exhibits to be used as a summary of or support for the opinions; the qualifications of the witness, including a list of all publications authored by the witness within the preceding ten years; the compensation to be paid for the study and testimony; and a listing of any other cases in which the witness has testified as an expert at trial or by deposition within the preceding four years.

(C) These disclosures shall be made at the times and in the sequence directed by the court. In the absence of other directions from the court or stipulation by the parties, the disclosures shall be made at least 90 days before the trial date or the date the case is to be ready for trial or, if the evidence is intended solely to contradict or rebut evidence or the same subject matter identified by another party under paragraph (2)(B), within 30 days after the disclosure made by the other party. The parties shall supplement these disclosures when required under subdivision (e)(1).

(3) Pretrial Disclosure. In addition to the disclosures required in the preceding paragraphs, a party shall provide to other parties the following information regarding the evidence that it may present at trial other than solely for impeachment purposes;

(A) the name and, if not previously provided, the address and telephone number of each witness, separately identifying those whom the party expects to present and those whom the party may call if the need arises;

(B) the designation of those witness whose testimony is expected to be presented by means of a deposition and, if not taken stenographically, a transcript of the pertinent portions of the deposition testimony; and

(C) an appropriate identification of each document or other exhibit, including summaries of other evidence, separately identifying those which the party expects to offer and those which the party may offer if the need arises.

Unless otherwise directed by the court, these disclosures shall be made at least 30 days before trial. Within 14 days thereafter, unless a different time is specified by the court, a party may serve and file a list disclosing (i) any objections to the use under Rule 32(a) of a deposition designated by another party under subparagraph (B) and (ii) any objection, together with the grounds therefor, that may be made to the admissibility of materials identified under subparagraph (C). Objections not so disclosed, other than objections under Rules 402 and 403 of the Federal Rules of Evidence, shall be deemed waived unless excused by the court for good cause shown.

(4) Form of Disclosures; Filing. Unless otherwise directed by order or local rule, all disclosures under paragraphs (1) through (3) shall be made in writing, signed, served, and promptly filed with the court.

New material italicized. Deleted material lined through.

[n.27]. Id. at 628,631. The Committee adopted the concepts of imposing a duty of disclosure from two law review articles: Brazil, The Adversary Character of Civil Discovery: A Critique and Proposals for Change, 31 Vand.L.Rev. 1295 (1978), and

Schwarzer, The Federal Rules, the Adversary Process, and Discovery Reform, 50 U.Pitt.L.Rev. 703, (1989).

[n.28]. Bell, supra note 4, at 6-7. See also, Federal Procedure: House Judiciary Approves Bills Deleting Discovery Provision, Requiring Arbitration, Daily Report for Executives (BNA), Oct. 7, 1993, at Regulation, Economics and Law, Section A, 193.

[n.29]. 146 F.R.D. at 507. Under 28 U.S.C. § § 2071, 2073, 2077 (as amended in 1988), amendments to the Federal Rules of Civil Procedure begin in the Standing Committee on Rules of Practice and Procedure. Recommendations from the Standing Committee are submitted to the Judicial Conference of the United States, which reports to the U.S. Supreme Court. Upon review, the Court transmits the new rules proposed by the committee system to Congress.

[n.30]. See footnote 26.

[n.31]. H.Rep. No. 103-319, 103d Cong., 1st Sess. (1993), (to accompany H.R. 2814).

[n.32]. Federal Courts, ABA Denounces New Discovery Rule: Urges Congress to Reject Amendments, Daily Report for Executives (BNA), Aug. 16, 1993, at Regulation, Economics and Law, Section A; 156, BNA,. However, the Committee Notes explain that, "Authorization for these local variations is, in large measure, included in order to accommodate the Civil Justice Reform Act of 1990, which implicitly directs districts to experiment during the study period with differing procedures to reduce the time and expense of civil litigation. . . . Section 105(c)(1) of the Act calls for a report by the Judicial Conference to Congress by December 31, 1995.," Committee Notes, 146 F.R.D. at 629.

[n.33]. See also footnote 32 for a brief explanation of the CJRA.

[n.34]. Bell, supra note 4, at 6-7. See also, Federal Procedure: House Judiciary Approves Bills Deleting Discovery Provision, Requiring Arbitration, Daily Reort for Executives (BNA), Oct. 7, 1993, at Regulation, Economics and Law, Section A, 193.

[n.35]. Bell, supra note 4, at 6-7.

[n.36]. See discussion under Section IV below.

[n.37]. Bell, supra note 4, at 8-9.

[n.38]. Id. at 7-10.

[n.39]. Id. at 12-13.

[n.40]. 146 F.R.D. at 631.

[n.41]. Id. at 682. Sanctions involving discovery are no longer available under Rule 11. 146 F.R.D. at 590.

[n.42]. Id. at 686.

[n.43]. Id. at 686.

[n.44]. Id. at 687.

[n.45]. Id. at 607.

[n.46]. Id. at 631-632.

[n.47]. Id. at 617.

[n.48]. Id. at 619.

[n.49]. Source: Lexis/Nexis, a registered copyright of Mead Data Central Corp. The information reported represents the status as reported on February 7, 1994.

[n.50]. Washington State Physicians Ins. Exch. & Assoc. v. Fisons Corp., 858 P.2d 1054 (Wash. 1993).

[n.51]. Sharon Walsh, State Court Sanctions Firm for Failure to Disclose, Washington Post, Nov. 29, 1993, at Business Section, p. 7.

[n.52]. 858 P.2d at 1076.

[n.53]. Id.

[n.54]. Id. at 1078.

[n.55]. Id.

[n.56]. Walsh, supra note 51, at 7.

[n.57]. Canon 7 of the Code of Professional Responsibility requires a lawyer to "represent his client zealously within the bounds of law." ABA Code of Professional Responsibility and Code of Judicial Conduct (1977). This duty is owed simultaneously to the client and to the legal system. See Brazil, supra note 27, at 1304, n.39.

[n.58]. Source: Himelstein, supra note 2, at 78.

[n.59]. Id.

[n.60]. Id.

[n.61]. Id.

[n.62]. Id.

[n.63]. Id.

[n.64]. The Court of Appeals for the Federal Circuit (CAFC) was formed in 1982 and has exclusive jurisdiction in appeals from United States District Court decisions in patent

cases. Its decisions, therefore, along with those of the United States Supreme Court, are controlling precedent for the lower courts.

[n.65]. These concepts were first stated in the celebrated United States Supreme Court case Westinghouse v. Boyden Power Brake Co., 170 U.S. 537 (1898), which was quoted with approval in Graver Tank & Mfg. Co., Inc. v. Linde Air Prods. Co., 339 U.S. 605 (1950). See also, Loctite Corp. v. Ultraseal Ltd., 781 F.2d 861, 228 U.S.P.Q. 90 (Fed.Cir.1985) and Palumbo v. Don-Joy Co., 762 F.2d 969, 226 U.S.P.Q. 5 (Fed.Cir.1985).

[n.66]. Lemelson v. United States, 752 F.2d 1538, 1549, 224 U.S.P.Q. 526, 532 (Fed.Cir.1984). See also Atlas Powder Co. v. E.I. DuPont DeNemours & Co., 750 F.2d 1569, 224 U.S.P.Q. 409 (Fed.Cir.1984) and Envirotech Corp. v. Al George, Inc., 730 F.2d 753, 221 U.S.P.Q. 473 (Fed.Cir.1984).

[n.67]. McGill Inc. v. John Zink Co., 736 F.2d 666, 221 U.S.P.Q. 944 (Fed.Cir.) cert denied, 469 U.S. 1037 (1984).

[n.68]. See e.g., Fromsen v. Advance Offset Plate, Inc., 720 F.2d 1565, 219 U.S.P.Q.
1137 (Fed.Cir.1983) and Carl Schinck, A.G. v. Norton Corp., 713 F.2d 782, 218 U.S.P.Q.
698 (Fed.Cir.1983).

[n.69]. Loctite Corp., 781 F.2d at 861.

[n.70]. These legal principles are well settled in law and were stated indirectly in Amstar Corp. v. Envirotech Corp., 730 F.2d 1476, 1484, 221 U.S.P.Q. 649, 655 (Fed.Cir.1984).

[n.71]. Graver Tank & Mfg. Co. v. Linde Air Prods. Co., 339 U.S. 605 (1950).

[n.72]. Id.

[n.73]. Id. at 607.

[n.74]. Id.

[n.75]. Thomas & Betts Corp. v. Litton Sys., Inc., 720 F.2d 1572, 1580, 220 U.S.P.Q. 1,6 (Fed.Cir.1983). ("Because T&B's patent is not a pioneer patent, having issued in the prior art of electrical conductors as an improvement over a prior art standard 'D' Connector, the claims should be given a range of equivalence narrow enough to distinguish over the prior art and, thus to avoid invalidity.")

[n.76]. Loctite Corp. v. Ultraseal Ltd., 781 F.2d 861, 870, 228 U.S.P.Q. 90, 95-96 (Fed.Cir.1985).

[n.77]. Studiengesellschaft Kohle m.b.H. v. Dart Indus., Inc., 726 F.2d 724, 728, 220 U.S.P.Q. 841, 843 (Fed.Cir.1984). See also, Autogyro Co. of America v. United States, 384 F.2d 391, 400, 155 U.S.P.Q. 697, 702 (Ct. Cl. 1967) (Autogyro was cited with approval by the CAFC in Fromsen v. Advance Offset Plate, Inc., 720 F.2d 1565, 219 U.S.P.Q. 1137 (Fed.Cir.1983)).

[n.78]. Westinghouse v. Boyden Power Brake Co., 170 U.S. 537, 568 (1898).

[n.79]. Graver Tank & Mfg. Co. v. Linde Air Prods. Co., 339 U.S. 605, 608-609 (1950).

[n.80]. 775 F.2d 1107, 227 U.S.P.Q. 577 (Fed. Cir.1985).

[n.81]. See discussion in Section IV above.

[n.82]. Horwitz, supra note 9, at 5-8.

[n.83]. Id. at 5-8/9 citing, Minnesota Mining & Mfg. Co. v. Norton Co., 36 F.R.D. 1, 3-4, 143 U.S.P.Q. 343 345 (N.D. Ohio 1964).

[n.84]. Fed. Rules, supra note 10, at XI.

[n.85]. H.R.Rep. No. 103-319, supra note 31.

[n.86]. See discussion in Section IV above.

[n.87]. 146 F.R.D. at 606.

[n.88]. Id. at 629.

[n.89]. Id. at 686.

[n.90]. Id. at 691-692.

[n.91]. See discussion in Section III above.

[n.92]. See discussion in Section III above.

[n.93]. Id.