In recent years, the obligation to fully disclose all gem treatments has changed from a mere ethical responsibility to a legal one. The U.S. Federal Trade Commission Guides for the gem and jewelry trade, which were fairly simple rules in the early 20th century, now require disclosure of any treatment to a gem material that substantially affects its value. In addition, all state deceptive trade practice regulations in the U.S. require that vendors not mislead customers as to the treatment status of gems they sell. Finally, vendors should also be aware that insufficient disclosure can subject them to substantial civil liability for fraud by nondisclosure. Several case studies demonstrate the serious risks involved in not complying with this body of rules and regulations. Suggestions for avoiding legal problems are provided.
THE EVOLUTION OF THE FTC DISCLOSURE RULES

The deceptive alteration of gem materials dates as far back as recorded history. It was enough of a problem even two thousand years ago that Pliny, the great Roman naturalist, could call it the most profitable fraud in existence (Ball, 1950). However, the distinction between the idea that one should not falsely sell a treated, less valuable stone (e.g., dyed, quench-crackled quartz) as a more valuable gem material (e.g., emerald) and the idea that a buyer is entitled to know what alterations have been performed on a gem material sold under its proper identity (e.g., oil-treated emerald) is one that did not evolve until the 20th century. Even as late as 1892, an editorial in the Jeweler’s Circular would say no more than “[e]very jeweler . . . knows that it is to his own disadvantage to misrepresent the quality of his goods” (“How to run . . .,” 1892, p. 31).

When the FTC was established in 1914, movement began toward a uniform national code for the U.S. gem and jewelry industry. The FTC’s charter included a charge to prevent “unfair methods of competition” (U.S.C. title 15, section 45). Among the first industry groups it met with was the Good and Welfare Committee of the National Jewelers Board of Trade [NJBT], the forerunner of the Jewelers Vigilance Committee (“JVC’s history,” 2002), and within a few years it adopted the NJBT’s recommended standards for gold-marking of jewelry (“For honest marketing,” 1919). However, because of disagreements over what constituted an acceptable trade practice, not until 1929, at a conference of the National Wholesale Jewelers’ Association in Chicago (see figure 2), did the trade agree on a comprehensive set of rules that were accepted by the FTC (“Great trade gathering . . .,” 1929). These rules, which became official in October of that year, contained a number of elements that would be familiar even today, including prohibitions on misuse of the words diamond, synthetic, genuine, and pearl, among others (“Federal Trade Commission . . .,” 1929). Absent, however, was any requirement for treatment disclosure. The rules were revised and expanded in 1931, though again without adding any disclosure requirements (“New trade practice rules . . .,” 1931).

Following passage of the New Deal–era National Industrial Recovery Act in 1933, trade groups across the country were called on to prepare codes of fair competition (“National Industrial Recovery Act,” 1933). For the jewelry industry, the end result was the Code of Fair Competition for the Retail Jewelry Trade (referred to hereafter as “the Code”), which was signed by President Roosevelt in November 1933 and thereafter administered by the National Recovery Administration [NRA; see “Hearing on code . . .,” 1933; “Code of Fair Competition . . .,” 1934]. [Unlike FTC rules, compliance with the
various NRA codes was voluntary, though there was strong social pressure for businesses to adhere to their terms.)

Although the Code supplemented FTC rules rather than replacing them, it nevertheless tracked them closely, adding some details on proper nomenclature but again not requiring any treatment disclosure. Here, the U.S. was lagging behind a similar movement in Europe. As the Code was being drafted, European jewelers at the fourth International Congress of BIBOA [Bureau International des Associations de la Bijouterie, de l’Orfèvrerie et de l’Argenterie; called CIBJO since 1961] enacted a rule requiring members to disclose the use of dye to color gems (“Important jewelry standards. . . .,” 1933; see also figure 3). Although this rule drew positive commentary from organizations in the U.S. such as GIA (see, e.g., Shipley, 1935), no such regulation was forthcoming from either the NRA or the FTC. Three years later, at the 1936 BIBOA congress in Berlin, the rule was expanded to state that “[s]tones which are coloured, or improved in colour, by a colouring agent, or by chemical treatment, must be so designated that the artificiality of the colour is clearly indicated” (Selwyn, 1945, p. 261).
While BIBOA’s actions at the very least represented a first step forward, they also marked the first appearance of a distinction that was to complicate disclosure efforts well into the 1990s—that between treatments considered “trade accepted” and those that were not. Only the latter had to be disclosed. (And since lobbying by those who disagreed over what was or was not considered trade accepted often could be successful in changing the practices included [R. Naftule, pers. comm., 2004], this was a significant distinction.)

After the National Recovery Administration was dissolved by the U.S. Supreme Court in 1935, trade representatives spent several years trying to convince the FTC to resurrect the Code of Fair Competition in some form. In 1938, Congress expanded the FTC’s mandate to prevent “unfair or deceptive acts or practices,” and the FTC was empowered to promulgate rules defining specific acts as unfair trade practices (U.S. Code, title 15, section 41). Following input from the JVC and GIA, among others (see “Diamond terminology . . .” 1938; Shipley, 1938; “JVC’s history,” 2002), the FTC issued a revised set of rules that largely duplicated the Code (“New FTC jewelry trade rules,” 1938)—including its absence of disclosure requirements. These rules would not be revised for almost two decades.

In the early 1950s, the JVC began a campaign to update the rules (“JVC submits . . .,” 1954), and after several years of hearings and trade conferences, the FTC and trade groups finally agreed on a set of revisions that were issued in early 1957 (“FTC proposes . . .,” 1957). The new rules were known as the Guides for the Jewelry, Precious Metals, and Pewter Industries (referred to hereafter as “the Guides”). While the revisions were mostly aimed at combating abuses in advertising, quality marking, and pricing (“Jewelers Vigilance Committee . . .,” 1957), they finally included a meaningful element of treatment disclosure (figure 4). After a preamble prohibiting any conceivable sort of misrepresentation as to gem materials, Rule 36 offered one specific interdiction:

The sale, or offering for sale, of any diamond or other natural precious or semi-precious stone which has been artificially colored or tinted by coating, irradiating, or heating, or by use of nuclear bombardment, or by any other means, without disclosure of the fact that such natural stone is colored, and disclosure that such artificial coloring or tinting is not permanent if such is the fact [is an unfair trade practice] (“Jewelry industry . . .,” 1957, p. 123).

When Jewelers’ Circular-Keystone published the new rules with commentary in its August 1957 issue, it said, “If a diamond or other natural stone has been artificially colored . . . that fact must be disclosed” [Jewelry industry . . .,” 1957, p. 123]. Simple enough.

Some minor revisions to the Guides (though not the disclosure rules) were enacted in 1959, but after that, they would not be changed for over 35 years. In the interim, it appears that enforcement of Rule 36 was almost nonexistent, and few jewelers felt the need to disclose treated color that was not at risk of fading. JCK reported in 1979 that “the rule has been consistently ignored” [Federman, 1979, p. 125], while William Preston Jr. of the JVC lamented in a panel discussion at the 1983 Jewelers of America meeting that “little attention has been paid to [Rule 36] by the industry” [Huffer, 1983, p. 110]. Even Gems & Gemology published the following sentiment in the mid-70s: “In most [cases of heated and/or irradiated gems], the color is indistinguishable from equivalent untreated material, and is just as stable to light, etc. Accordingly, the treatment is not cus-
tomarily referred to and the simple designation ‘natural’ is used” [Nassau, 1974, p. 322].

In 1978, the FTC announced that many of its guides had become redundant and would be retired [Huffer, 1980]. The JVC immediately objected, and the FTC agreed to consider retaining a revised version of the Guides if the JVC was able to produce one. This was a task that would prove far more difficult than anyone expected, and it would occupy much of the JVC’s attention for the next 18 years.

The most contentious dispute proved to be over whether to disclose laser drilling of diamonds (figure 5), which many argued was a trade-accepted practice (“Lasering . . .,” 1980). The JVC’s initial proposal required such disclosure, but this rule encountered substantial opposition from manufacturers and diamond dealers due to the practical difficulties of detecting and disclosing the treatment with melee-sized stones [Huffer, 1980]. In mid-1979, the JVC removed the requirement from its proposed rules, but this reversal itself drew criticism from industry observers (“Lasering . . .,” 1980). When the JVC finally submitted its first draft of the new Guides to the FTC in 1981, it essentially split the difference by requiring disclosure of laser drilling, but only for stones of 0.20 ct and up (“JVC’s history,” 2002).

Behind the storm over laser drilling, a more substantial change went little noticed. The proposed new Guides contained a significant weakening of Rule 36 [Federman, 1983; “Gem treatment . . .,” 1985]. Where before the rule required disclosure both of alterations to gem color and whether such treatments were permanent, the new rule combined these two requirements into a single rule requiring disclosure only when the alteration was not permanent. In addition, disclosure would not be required if the treatment was not detectable, even if the seller had actual knowledge of it (“Gem treatment . . .,” 1985).

Not all parties agreed on what treatments were reliably detectable, which made disclosure requirements for irradiation and heating unclear [Federman, 1983; Huffer, 1983]. In addition, these and other discussions published in the trade press revealed almost no consensus on the proper scope of disclosure, nor on what was—and was not—trade accepted [see, e.g., Federman, 1979; Huffer, 1980; “Gem treatment . . .,” 1985]. At the first World Congress of the International Colored Gemstone Association (ICA) in 1985, several prominent gemologists drew a distinction between treatments that duplicated natural processes and those that did not (Everhart, 1985). They maintained that treatments such as heat that “complete . . . what nature left unfinished” need not be disclosed, whereas those such as diffusion and oiling, which introduced foreign substances into the gem, should be (Everhart, 1985; pp. 1, 14). These arguments did not sway some gem dealers, who still considered oiling a trade-accepted practice that did not require disclosure [R. Naftule, pers. comm., 2004]. In contrast, Robert Crowningshield of GIA and C. R. “Cap” Beesley of the American Gemological
Laboratory argued for full disclosure of all treatments (Federman, 1983; “Gem treatment . . . ,” 1985), as did the American Gem Trade Association (AGTA), which began development of its Gemstone Information Manual during this period (R. Naftule, pers. comm., 2004).

In 1985, the JVC submitted to the FTC its “final” recommendations, which contained few changes to the disclosure rules from those offered four years previously despite these raging controversies (“JVC’s history,” 2002). The FTC promised to publish the new Guides in 1987, but did not. Instead, continuing disputes in the trade would delay release for another 10 years.

In the ensuing decade, Rule 36 remained in force, requiring disclosure of neither laser drilling nor a new treatment that was now spreading throughout the diamond trade: the filling of fissures with a colorless substance to enhance apparent clarity. By the time the FTC issued the new Guides in 1996, the industry had been rocked by several embarrassing incidents involving inadequate disclosure of fracture filling and laser drilling of diamonds, and clarity enhancement of emeralds (see, e.g., Everhart, 1993a,b,c; Rapaport, 1993; Federman, 1998a,b; see also figure 6). Guides or no Guides, the momentum toward full disclosure was accelerating.

In the 1996 revisions, the FTC adopted the proposed rule on permanence but not the considerations of detectability. Rule 36’s preamble on misrepresentation was severed from disclosure and moved to the beginning of the Guides; the requirement to disclose artificial coloration was replaced with the following:

It is unfair or deceptive to fail to disclose that a gemstone has been treated in any manner that is not permanent or that creates special care requirements, and to fail to disclose that the treatment is not permanent, if such is the case. The following are examples of treatments that should be disclosed because they usually are not permanent or create special care requirements: coating, impregnation, irradiating, heating, use of nuclear bombardment, application of colored or colorless oil or epoxy-like resins, wax, plastic, or glass, surface diffusion, or dyeing. (16 C.F.R. 23.22, 1996)

This new rule required disclosure of clarity enhancement, as it was not considered a permanent treatment. The FTC, however, was still not ready to require disclosure of laser drilling. It based this decision on its opinion that laser drilling was a permanent treatment with no care requirements and that left visual traces that were little different from natural inclusions. The FTC would later describe opinion on disclosure of laser drilling as being in “conflict” (FTC, 2000a, p. 78739).

Many in the industry were not happy with this decision because of the ethical implications (see, e.g., Denenberg, 1998; Parker, 1998a,b,c; Rapaport, 1998). Meanwhile, the arguments continued to mount, both over laser drilling (see, e.g., Parker 1998a) and emerald clarity enhancement (see, e.g., Federman, 1998a). In 1998, in hopes of restoring the industry’s damaged reputation, the JVC and the Diamond Manufacturers and Importers Association of America asked the FTC to reconsider its rule on laser drilling. The FTC agreed to do so (FTC, 2000a).
The 2001 Amendments, and the Current State of the FTC Guides

After the scandals and embarrassments of the 1990s, public comment submitted to the FTC (43 formal comments from individuals, companies, and trade groups) was nearly unanimous in favor of the disclosure of laser drilling (42 out of 43 supported it). The FTC (2000a) thus had little problem with a rule requiring such disclosure, which it agreed to promulgate, effective April 2001 (see 16 C.F.R. 23.13; the full text of the 1957, 1996, and 2001 rules with respect to disclosure are available in the G&G Data Depository at www.gia.edu/gemsandgemology; see also figure 7).

The JVC, however, had also asked the FTC to reconsider the degree of disclosure required for gem treatments in general, although it also wanted an exemption absolving a jeweler of legal liability if he or she did not know, and should not reasonably have known, a gem was treated [Nestlebaum, 1998]. The FTC agreed with the JVC’s first suggestion but rejected the second. It declined to include a knowledge requirement because it was concerned that it could provide cover for unscrupulous vendors, who might falsely profess that they were unaware of a treatment [FTC, 2000a]. It asked the trade, essentially, to trust it: “The Commission’s ability and willingness to exercise prosecutorial discretion in such situations should alleviate retailers’ concerns that they would otherwise be held accountable for others’ illegal conduct” (FTC, 2000a, p. 78742).

The final rule required disclosure if the treatment had a significant effect on the gem’s value:

[a] The treatment is not permanent. The seller should disclose that the gemstone has been treated and that the treatment is or may be permanent;

[b] The treatment creates special care requirements for the gemstone. The seller should disclose that the gemstone has special care requirements;

[c] The treatment has a significant effect on the stone’s value. The seller should disclose that the gemstone has been treated. (FTC, 2000a, p. 78743; 16 C.F.R. 23.22).

Several comments—that of the AGTA, for one—objected to the limitation of “significant effect” (the AGTA, which had continued to lobby for full disclosure, argued that all treatments are intended to have a significant effect on value). The FTC responded that it was necessary to establish a “practical, common sense limitation on when disclosures should be made” (FTC, 2000a, p. 78741). The rules do not define what is meant by “significant,” but the FTC’s comments in the official publication of the changes do provide some guidance. “[F]ailure to disclose a gemstone treatment is deceptive only if absent disclosure would cause the consumer to falsely believe that the treated gemstone is as valuable as a similar untreated gemstone” (FTC, 2000a, p. 78743).
effect on value, but whether this exception truly exists is unclear based on further statements from the FTC: “If, in fact,” a footnote to the comments states, “all treatments have [a significant] effect on the value of gemstones, then all treatments will need to be disclosed” [FTC, 2000a, p. 78741].

Subsequent FTC publications have not entirely cleared up the confusion. Its informal guide to jewelry advertising explains “significant” this way: “Consider whether the treatment makes the product less valuable than if it contained an untreated stone. Think about value from the customer’s perspective and ask yourself how your customer would react if he learns about the treatment after leaving the store” [FTC, 2001, p. 3].

The comments in the December 2000 Federal Register also contain what amounts to a fairly important limitation on the scope of the required disclosure. They state that the FTC is “aware” of several methods of general disclosure, such as counter placards directing customers to “ask a salesperson for more information,” pamphlets summarizing gem treatment information, and Internet hyperlinks to Web pages containing “more information about gemstone treatments” [FTC, 2000a, pp. 78742–78743]. Such disclosure methods, the comments say, “comply with the Jewelry Guides and can be used to disclose gemstone treatments that significantly affect the value of gemstones” [FTC, 2000a, p. 78743; however, see FTC, 2000b, for more specific guidance on Internet disclosure]. Based on these comments, it is not clear—except for impermanent treatments and those having special care requirements—that the Guides require direct, point-of-sale disclosures about specific stones without customer inquiries. [However, other state and local regulations may have more stringent requirements, as discussed in the section on civil fraud, below.]

HOW THE FTC ENFORCES THE GUIDES

The FTC is empowered to issue rules on its own initiative, but it has also done so in response to petitions by industry and consumer groups. The FTC is required to issue advance notice of any proposed rules, and to allow a period for public comment and sometimes a public hearing. Over the years, the FTC has promulgated several dozen formal sets of rules defining unfair trade practices in various industries and situations (see Code of Federal Regulations, Title 16, for a full list).

One of the most common questions regarding FTC rules is “Are they the law?” [see, e.g., Retailers Legal Handbook, 2002]. The answer, despite some contrary statements in the trade press [see Beard, 2001], is indeed, “Yes.”

The confusion on this point most likely stems from the fact that FTC rules are found not in the United States Code but in the Code of Federal Regulations. The distinction is essentially the same as that between a criminal prosecution and a civil lawsuit: It is the mechanism of enforcement that differs, not the enforceability. The FTC Act—which is part of the U.S. Code—declares that “unfair or deceptive acts or practices in or affecting commerce” are unlawful [U.S.C., title 15, section 45(a)(1)], and it is the FTC that has the authority to define what those unlawful practices are. Since the U.S. Supreme Court has held that the FTC’s judgment “is to be given great weight by reviewing courts” [FTC v. Colgate-Palmolive Co., 1964; see the G&G Data Depository for descriptions of this and other cases cited in this article], one cannot dismiss FTC rules as mere “suggestions” or uninformed opinion that can be freely ignored.

When the FTC becomes aware of an unfair trade practice, it will typically approach the offending party informally and seek a consent agreement to end the behavior at issue [see FTC, 2002; U.S.C. title 15, section 45–49; information in this section is drawn from these sources]. Most actions begin and end with such an agreement. If a consent agreement cannot be reached, the FTC can serve an administrative complaint. Such complaints are handled much like civil lawsuits, although they are heard in a special court before an administrative law judge, and differ from a full-blown court case in that they tend to be much simpler and faster. If the administrative law judge finds a violation, he or she may issue a cease and desist order against the offending party. This order can be appealed to the local circuit court of appeals and from there to the U.S. Supreme Court. If not appealed, or if appealed and upheld, the order binds the offending party to cease the unfair trade practice at issue. Violating the order can result in further court action, injunctions against the practice, and monetary damages.

In cases of serious and/or ongoing unfair trade practices, the FTC may bypass the administrative action altogether and go directly to federal district court to seek an injunction or damages. If the court agrees with the FTC, each violation of an FTC rule can result in a penalty of up to $11,000.

In practice, at least with respect to the gem and
jewelry industry, the vast majority of infractions are handled administratively, and the FTC also commonly refers complaints to the JVC for informal resolution (C. Gardner, pers. comm., 2004). Formal litigation to enforce the Guides appears to be so rare that—as of late 2003—the author was able to find only one published federal case interpreting them (see Manning International v. Home Shopping Network, 2001, available in the G&G Data Depository), and even that case was not an FTC enforcement action. Whether this is because the industry adheres closely to the Guides, because the FTC enforces them only sporadically, or because enforcement targets readily enter consent agreements to avoid bad publicity, is not easy to determine—in large part because many infractions are handled confidentially [FTC, 2002; C. Gardner, pers. comm., 2003].

Public statements from the FTC indicate that the last possibility—the aversion to bad publicity—may be the best explanation (see Beard, 2001). Given the importance of a good reputation in the gem and jewelry trade, this is not hard to understand. It is worth pointing out as well that, even if the complaint is handled confidentially, an FTC investigation can be an enormous distraction to an ongoing business. The FTC is empowered to subpoena business records, physically search both home and store premises, and compel testimony from owners, employees, and customers [FTC, 2002]. Given that the FTC uses the Guides to decide whether to bring such an action, the best practice is to treat them with the healthy respect they deserve.

STATE REGULATION OF UNFAIR TRADE PRACTICES

The FTC is not the only agency with which gem and jewelry vendors must concern themselves. All U.S. states and the District of Columbia have some form of legislation governing unfair trade practices, and these rules typically carry the full force of law. The worst the FTC can do to an unscrupulous vendor is levvel a heavy fine; a number of these state laws can send the same offender to jail.

The structure, scope, and enforcement methods, as might be expected, vary widely from state to state. Twelve states have adopted a model set of rules known as the Uniform Deceptive Trade Practices Act (UDTPA), and a number of others have patterned their laws after it to some extent. Some states restrict enforcement to state or local prosecutors, but most (e.g., New York, Texas, California, and those following the UDTPA) allow private suits by individuals who can prove injury from an unfair trade practice (for one recent example, see Sanfield v. Finlay Fine Jewelry, 1999; note also that California does not currently require proof of injury, although the state legislature is considering a change to this provision).

Some states specifically define prohibited acts, sometimes in voluminous detail (e.g., California, whose definitions are spread across thousands of code sections). Others (e.g., Florida, Massachusetts, and South Carolina) simply direct the state courts to follow FTC interpretations, which means that the 2001 disclosure rules in the Guides are enforceable as state law in those jurisdictions. In New York, by contrast, the FTC Guides are used as a ceiling—compliance with them is a complete defense to any action for deceptive trade practices [New York General Business Law section 349d].

Members of the trade who violate these laws can and have faced criminal charges (see, e.g., Everhart, 1993c). In practice, however, because of the specialized nature of the industry and the complicated gemological issues that often are involved, such prosecutions tend to be difficult, complicated, and relatively rare.

A few statutory examples are worth exploring. In states having adopted the UDTPA, “a person engages in a deceptive trade practice when, in the course of his business, vocation, or occupation, he . . . represents that goods or services are of a particular standard, quality, or grade, or that goods are of a particular style or model, if they are of another” [1966, section 2[a]]. This is potentially broad enough to encompass the sale of treated gem materials without disclosure, especially with treatments such as dyeing and diffusion that involve the introduction of foreign substances or otherwise greatly alter the nature of the gem material. North Carolina, by contrast, has a much more specific prohibition:

It is an unfair trade practice for any member of the diamond industry . . . [to] use, or cause or promote the use of, any trade promotional liter-

1 A “published” case is one appearing in the official records of federal court decisions, in this case the Federal Supplement. Not all court decisions are published. Only those that the federal courts believe to have good precedential value appear in the reports; this includes all Supreme Court cases and most cases from the circuit courts of appeal, but only isolated cases and rulings at the trial court level (as was the ruling in Manning International).
nature, advertising matter, guarantee, warranty, mark, brand, label, trade name, picture, design or device, designation, or other type of oral or written representation, however disseminated or published, which has the capacity and tendency or effect of misleading or deceiving purchasers or prospective purchasers with respect to the type, kind, grade, quality, color, cut, quantity, size, weight, nature, substance, durability, serviceability, origin, preparation, production, manufacture, distribution, or customary or regular price, of any diamond or other product of the industry [italics added], or which has the capacity and tendency or effect of misleading or deceiving the purchasing or consuming public in any other material respect. (North Carolina General Statutes section 66-74[1])

This is a regulation that, in the author’s view, calls for full good-faith disclosure of any treatments, especially given that violation is a class 1 misdemeanor punishable by up to 45 days in jail [see North Carolina General Statutes section 15A-1340.23].

Two states also have laws that specifically govern elements of gem treatment disclosure: New York prohibits the sale of artificially colored diamonds without disclosing their treated nature [see New York General Business Law section 229-j], while Arkansas requires full disclosure of any clarity-enhanced diamonds [see Arkansas Code section 4-101-201].

A list of specific statutes governing unfair trade practices for the 50 states and the District of Colombia is available in the Gems & Gemology Data Depository.

DISCLOSURE AND CIVIL FRAUD

A vendor’s disclosure obligations, however, do not end with state unfair trade practice regulations and the FTC Guides. One fundamental problem is not, as is often supposed, confusion over whether the Guides are enforceable or constitute the law, as discussed above. The more important question—and one that is almost never asked—is whether strict compliance with the FTC Guides is enough to fully insulate a vendor against legal action for insufficient disclosure. The answer to this question is, in fact, no. As discussed below, a vendor can follow the letter of the Guides and still be sued for fraud by an aggrieved buyer—and lose.

Nor do the Guides cover every conceivable sale that may take place in a jewelry store or between a gem dealer and a buyer. For example, it is not clear that the Guides cover sales of mineral specimens and rough gem material, since the definition of gem in section 23.25 is limited to products possessing the “beauty, symmetry, rarity, and value necessary for qualification as a gem.” Though somewhat circular, the intent of this definition is made clear in the commentary: “Not all diamonds or natural stones, including those classified as precious stones, possess the necessary qualifications to be properly termed ‘gems’” (e.g., figure 8). Thus, one could fail to disclose treatment of certain gem rough and not run afoul of the Guides. It is equally arguable, however, that such actions would be fraudulent.

Fraud is typically a matter of state law; federal jurisdiction exists only when the act occurs in interstate commerce, when some federal entity is involved, or if a particular federal law is implicated. As with deceptive trade practices, the precise legal definition varies from state to state, but there are some generally accepted principles that can be examined here.

The traditional concept of fraud encompasses a number of different torts [tort is the legal term for a wrongful act creating civil liability for damages, and not all conceivably “wrongful” acts are torts; the act must be one for which the court system has recognized a remedy; Black, 1968]. One of these is fraud by nondisclosure, the classic elements of which are (a) failing to disclose a fact (b) that one
knows may justifiably induce another to enter or refrain from entering a business transaction [c] where there exists a duty to disclose before the transaction is consummated [American Law Institute, 1977; information in this section is drawn from that source unless otherwise noted].

**Failing to Disclose.** Straightforwardly enough, this means failing to communicate or otherwise make known the relevant facts, in a manner that they can be understood by the other party. This failure, of course, must be knowing—it is not fraudulent for a vendor to fail to disclose facts of which he or she is unaware. [Note that this is in contrast to the standard under the FTC Guides, which, as discussed above, does not include an exemption for a lack of knowledge. Note also that a lack of knowledge and proof of a lack of knowledge are two very different things, so while it may be a defense to fraud, it is a risky one.]

**Justifiable Inducement.** How does a vendor know whether the fact of treatment would cause a buyer to enter or refrain from entering the transaction? This is easy if it is the vendor's standard practice to discuss treatments when a buyer is considering a purchase; it is more difficult if the vendor relies on the sort of generic disclosures sanctioned by the FTC, or worse, is gambling on making as little disclosure as possible. It is, however, reasonable to assume that treatment is a matter of concern for many buyers, and it is certainly reasonable for a buyer to consider the fact of treatment in weighing a purchase. While it may be true that many retail customers do not care much about gem treatment, and that a vendor might come to believe that the fact of treatment does not enter into their purchase decisions, in practice testimony to that effect in a suit for nondisclosure would likely be viewed as highly self-serving by the court and jury. Since it is rarely the average buyer who files a lawsuit, basing disclosure decisions on what the average customer may believe is inadvisable.

**A Duty to Disclose: Five Basic Rules.** The ancient rule of *caveat emptor*—let the buyer beware—has not yet been consigned to the dustbin of legal history, but it has long been circumscribed by the understanding that there is a difference between placing responsibility on the buyer for what he buys and allowing the vendor to use superior knowledge to defraud, that is, to sell the buyer something substantially less than what he reasonably expects to get [Black, 1968]. The precise existence of a duty to disclose material facts to a transaction is the subject of centuries of litigation, but several basic rules are recognized by legal authorities. The first four are relatively straightforward; the fifth can be quite tricky. Note that in all cases, the duty must exist before the transaction is consummated; once the deal is closed, any further developments are irrelevant to the question of whether fraud has been committed.

1. **A duty may exist because of a fiduciary or other similar relationship of trust and confidence between the parties.**

   A fiduciary relationship is one where the law recognizes a greater level of responsibility, such as that between a trustee and a beneficiary, a bank and its depositors, and the like. It does not exist in the average vendor-buyer relationship. However, where the parties have known and dealt with each other for long periods, they may have developed a relationship of special trust and confidence if they have come to rely on each other's integrity and honesty as part of doing business. Such a state of affairs is hardly unknown in the gem and jewelry trade. This is a highly fact-specific element, and disputes are typically resolved on a case-by-case basis.

2. **A duty may be created by partial or ambiguous statements that require the full truth to make the matter clear.**

   This rule recognizes the reasonable proposition that when vendors make factual representations about their products, they cannot give only half the truth; they must disclose as much information as is necessary to prevent their representations from being misleading [see, e.g., Baskin v. Hawley, 1986]. For example, were a vendor to extol the quality of color in an orange sapphire (figure 9), he or she would be creating a duty to disclose that the color resulted from beryllium diffusion, if that was the case.

3. **A duty may arise through subsequently acquired information showing previous statements to be false, though they were believed to be true when made.**

   This means that a vendor cannot take advantage of his own mistakes. Suppose a vendor were to offer a diamond in good faith as untreated, only to discover later—but before closing the sale—that it had been subjected to HPHT treatment to change the
color. In that case, a duty arises to correct the earlier, erroneous statement. Such a discovery that occurs after the sale normally incurs no liability, provided there was a genuine lack of knowledge at the point of sale—something that does not include mere inventory mistakes or misreading of product tags.

4. A duty may arise where false statements have been made without expectation that they would be acted on, if in fact they are subsequently relied on.

This situation is not likely to arise often, but suppose a vendor, without meaning to be taken seriously, declares that all his gems are untreated when this is not the case. Should he be approached by a customer in response to this statement, the vendor must correct any misconceptions.

5. A duty to disclose “facts basic to the transaction” may arise if one party knows the other is operating under a mistake as to them and would reasonably expect disclosure because of their relationship, the customs of the trade, or some other objective circumstances.

It is this situation that is most likely to occur in the average retail transaction. At the outset, it must be recognized that possessing superior knowledge of one’s products and superior business training does not create any sort of duty to equalize the buyer’s bargaining position; such imbalances are nothing more than life in a free-market economy. At the same time, the law has increasingly frowned on attempts to take advantage of the other party’s ignorance (see, e.g., American Law Institute, 1977; Brass v. American Film Technologies, 1993).

A “fact basic to the transaction” is not merely one that may be relevant to it; it must be a fundamental and important part of what is being bargained for. Whether that includes a gem treatment surely depends on the circumstances. Between trade professionals, any fact of treatment will almost always be basic to the transaction. At the retail level, many in the industry believe that consumers are unconcerned with treatment disclosure (Genis, 1998); if such was indeed the case, treatment of a gem would not be a basic fact. However, as a practical matter, any buyer aggrieved enough to file a lawsuit is surely going to allege that he or she considered treatment a basic element of the gem, and such an allegation could be very hard to rebut.

Knowing whether a customer is operating under a mistake as to facts basic to the transaction can be very difficult, especially if it is not common practice to discuss treatments. While one might be tempted to avoid the entire issue in hopes of maintaining one’s ignorance as to a customer’s assumptions, remember that in the event of a lawsuit, every decision and action will be reviewed with perfect hindsight (see, e.g., Everhart, 1988). Courts in general, and juries in particular, tend to take a dim view of “policies of silence,” especially when that silence is intended to create a business advantage or preserve a customer’s ignorance.

An expectation of disclosure on the part of the buyer must be objectively reasonable. In a general sense, the reasonableness of such an expectation can be somewhat nebulous and difficult to establish. However, in light of the most recent amendments to the FTC Guides and the widespread industry attention to the issue of full disclosure—as such becomes the “custom of the trade”—it has now become more than reasonable for a customer to expect full disclosure of gem treatments.

A final question the court will look at is whether the undisclosed facts could be discovered by ordinary investigation; this is where the old principle of caveat emptor still comes into play. In a transaction where the customer could correct his own mistake and obviate disclosure by his own investigation, dis-
The laws governing fraud can be better understood by reviewing a few hypothetical situations. The reader should keep in mind that the discussions are confined to the specific question of liability for fraud, not general moral obligations, state laws, or the FTC Guides (although most, if not all, of the situations described here would indeed violate the Guides). They are also mainly the author’s opinions and should not be taken as the final word on the subject.

1. A gem dealer offers a parcel of heat-treated sapphires to a retail jeweler. The two have never done business before, and the gem dealer is under the mistaken impression that the jeweler is an experienced gemologist who is capable of recognizing heat treatment when she sees it. The dealer does not disclose the treatment. The jeweler, believing the sapphires to be unheated but saying nothing, purchases them after an inspection. The gem dealer is not liable to the jeweler because he is unaware of the jeweler’s assumption. (See Rule 1 in “A Duty to Disclose” in the main text.)

2. Same scenario as 1, except the jeweler and gem dealer have done business for over 10 years, the jeweler has come to rely on the gem dealer’s honesty and integrity, and she has previously told him she intends to sell only unheated sapphires in her store. The gem dealer is liable to the jeweler, as he knows she cares about heat treatment and she is relying on a relationship of trust and confidence. (See Rules 1 and 5.)

3. A retail jeweler sells a variety of jade jewelry in her store, all of which is dyed (see, e.g., figure A-1). A customer asks if all her jade is “natural.” She replies that she sells no synthetic stones in her store. The customer replies “That’s good, because I’ve heard about all the things they’re doing to jade these days, and I only want the natural stuff.” The jeweler says nothing, and the customer buys a jade ring. The jeweler is liable to the customer because she failed to correct the misconception created by her earlier statement (even though what she said was the truth). (See Rules 2 and 3.)

Figure A-1. The pieces in this collection of jadeite carvings owe their color to dye. Failure to disclose the dye could be fraudulent. Courtesy of John Ng; photo by Robert Weldon.
CASE STUDIES ON DISCLOSURE

The brief capsules that follow here are meant as illustrations of the potential pitfalls of inattention to proper disclosure, not as judgments on the actions of the participants. In all cases, the descriptions are based on reports in the public record.

Kawin Chotin Jewelers, St. Louis, 1993. In the summer of 1993, Jody Davis, an investigative reporter at St. Louis, Missouri, television station KSDK, received two telephone calls a few weeks apart. Both were from consumers complaining that they had been sold fracture-filled diamonds (see,
e.g., figure 10] without having been told about the treatment, only to discover the truth when they had the diamonds appraised elsewhere. Both complaints concerned the same store: Kawin Chotin Jewelers [Bates 1993a; Everhart, 1993a]. Mr. Davis filmed an exposé on the subject, which aired August 27. Other customers came forward, and Mr. Davis eventually broadcast four follow-up reports. It would come out that Kawin Chotin had apparently sold hundreds of filled diamonds without disclosure, and former employees even stated on camera that they were instructed not to tell customers about the treatment [Everhart, 1993a]. The incident caused an explosion of press coverage, both on television and in trade and consumer publications. The local jewelry industry was thrown into chaos for months afterward as panicked consumers rushed to have their diamonds checked for filler [Bates 1993b, 1994c; Everhart, 1993b]. The Missouri state attorney general fined Kawin Chotin $50,000 for violating the state deceptive trade practice laws, and co-owner Rick Chotin, trying to make good on his mistake, spent almost $1 million in an effort to refund his customers’ money or replace their diamonds [Everhart, 1993c; Bates, 1994a]. The financial stress became so great that Kawin Chotin was forced to file for bankruptcy protection and, in early 1994, Rick Chotin committed suicide [Bates, 1994b,c].

One interesting element of this unfortunate saga was that Kawin Chotin was arguably complying with the FTC Guides in force in 1993, which did not specifically require disclosure of “fracture filling,” only that customers not be misled about the quality of the product. The only specific disclosure required by the 1957 Guides—then still in effect—was of artificial coloring. In addition, from the reports in the trade press, it appears that customers were being charged fair prices for the filled diamonds; they simply weren’t being told about the treatment.

Whether or not it violated the Guides, this nondisclosure of fracture filling was a clear case of fraud. The angry reactions from Kawin Chotin customers leave little room for argument that the treatment was both an element on which they might have based their purchase decisions and a fact “basic to the transaction.” To the extent that Kawin Chotin made any representations about the clarity of their diamonds—say, in an appraisal concurrent with the sale—that would have created a duty to disclose the treatment. Even absent that, Kawin Chotin clearly knew their customers had no knowledge of the filler, and the customs of the trade required disclosure, especially since they had a written agreement with their supplier, Diascience (now Yehuda Diamonds Co.), to do just that [Bates, 1993a].

Diamonds International/Almod Diamonds, 1997. In November 1997, a woman from Long Island, New York, while on vacation with her family in Barbados, purchased an attractive round brilliant diamond from a store run by Diamonds International, a chain owned by Almod Diamonds of New York City [Parker, 1998a]. The stone was reportedly a well-cut, good-looking 1.02 ct E–SI2, and the woman was initially very happy with it. What she had not been told—since the FTC Guides did not require it at the time—was that the diamond had been laser drilled. On her return home, she had the diamond appraised for insurance purposes, and the appraiser immedi-
ately pointed out the laser drilling. Shocked and disillusioned, she began a three-month crusade to get her money back (Parker, 1998a).

Almod’s initial response was that, while they were sorry for her disappointment, the Guides did not require disclosure of laser drilling, so they would not refund her money. Rather than accept that explanation, she responded with a telephone and letter campaign to convince Almod to change its mind. She contacted the JVC, the FTC, the New York Department of Consumer Affairs, the New York State Attorney General’s office, the local Better Business Bureau, the New York Consumer Protection Board, and trade publications such as Rapaport Diamond Report (Parker, 1998a). When the Department of Consumer Affairs contacted Almod in response to her complaints, the company finally gave in and refunded the money.

This case is an excellent example of the risks in using the FTC Guides as a ceiling for one’s level of disclosure. According to published reports, Almod had actually been disclosing laser drilling prior to the 1996 revisions, but when the new rules were issued, they stopped requiring their salespeople to do so. The FTC in fact responded to the woman’s complaint with an opinion that Almod’s policy was not unfair or deceptive (Parker, 1998a). Thus, although Almod might have been safe from an FTC enforcement action, its unfortunate change in policy resulted in months of public embarrassment and unwelcome attention from state regulators.

Fred Ward and Blue Planet Gems, 1994–1999. This case between well-known gemologist and author Fred Ward and one of his customers is probably the most prominent lawsuit dealing with treatment disclosure in the past few decades. Although the case also turned on complicated insurance coverage issues [discussed in more detail in Federman, 1998b], for many in the industry it has come to symbolize the stakes involved in treatment disclosure. Many of the facts of this case are in dispute, but some elements are not. Mr. Ward sold a wedding ring set with a 3.65 ct Colombian emerald to a long-time friend in 1994 for $38,500 (Ward, 1997a,b; figure 11). The emerald had been examined by an independent appraiser, but was not sold with a report from a gemological laboratory. [Mr. Ward suggested getting one after the sale, but the customer declined.] However, Mr. Ward did provide her with a copy of his book on emeralds (Ward, 1993), which discusses emerald treatment extensively.

Shortly afterwards, the customer struck the emerald on her kitchen counter, and a large fracture became apparent. The customer’s insurance company refused to replace the emerald, alleging that the fracture was pre-existing (but concealed by filler) and not the result of the impact—a question that became the central dispute in the case [Federman, 1998b]. The customer sued her insurance company and Mr. Ward. After several years of litigation, a jury found against Mr. Ward and awarded treble damages for fraud, with an additional $160,000 for the plaintiff’s attorney’s fees (Ward, 1997b).

This verdict is troubling on a number of levels, not in the least because the customer testified repeatedly that Mr. Ward had in fact discussed [though not in writing] the clarity enhancement of emeralds during their negotiations, as well as his belief that this emerald had been subjected to light oiling [Federman, 1998b]. The Guides in effect in 1994 did not even require this much, so such a discussion was certainly enough to satisfy the 1957 rule on treatments. Compliance with the Guides, however, was not enough to keep Mr. Ward out of court.

The definition of fraud by nondisclosure in the District of Colombia (where the trial took place) tracks the classic definition closely enough: There must be knowing nondisclosure of a material fact that should have been disclosed, as well as reliance on that nondisclosure (see Feltman v. Sarbov,
The allegedly undisclosed material fact here was that the emerald contained a large fracture that was filled with an artificial resin such as Opticon. Given that the customer admitted being told about some level of clarity enhancement, the jury must have believed that Mr. Ward knew the emerald was filled with resin but chose only to disclose the use of oil. This is problematic given that, even as late as 1999 when the case finally ended, most experts felt that identifying emerald fillers was difficult and required sophisticated laboratory equipment [see, e.g., Johnson et al., 1999; McClure et al., 1999]. Such logical inconsistencies in the verdict are likely why the judge threw out the treble damages during post-trial litigation [Ward, 1997b], and why Mr. Ward’s law firm ultimately paid the remaining damages for him as part of a malpractice settlement. Testing conducted for his appeal (which was never filed) indicated that the emerald had been broken by the impact [F. Ward, pers. comm., 2004], although this development could not undo nearly five years of difficult litigation and all its negative consequences.

Methods that jewelers can use to protect themselves from such personal and professional misfortunes will be discussed in the next section, and in Box B, which provides some practical guidance on disclosure for the retail jeweler.

THE FUTURE OF DISCLOSURE, AND SOME SUGGESTIONS

As should be clear by now, good intentions and minimal compliance with the Guides are not enough to protect a vendor from legal action. The author cannot stress too much that the legal framework for disclosure should be viewed as a minimum, one that is not necessarily adequate protection in the event of a lawsuit. It takes only one unhappy buyer to file a complaint, and, no matter the outcome, it likely will result in an expensive defense and substantial bad publicity.

It is important to remember that the rules discussed in this article—FTC Guides, state laws, and civil fraud—do not exist in isolation. In a disclosure dispute that reaches the point of litigation, it is likely that all three will come into play. A buyer can file suit for both fraud and violation of a state unfair trade practice law. The Guides can be used as evidence of the customs of the trade, even if the FTC has no involvement in the case (this occurred in both the Sanfield and Manning International cases cited above; see also Beard, 2001). Both unfair trade practice laws and the Guides can be used to establish that a buyer has a reasonable expectation of disclosure in a suit for fraud. Taken together, this overlapping set of regulations leaves very little room for vendors who are looking for ways to avoid making full disclosure.

And what of those vendors who practice full disclosure in their sales presentations? While it should be standard procedure to discuss all treatments in a positive way with every buyer, this alone is not enough. Without physical evidence of disclosure, a court—and jury—are reduced to weighing competing testimony. Furthermore, in any suit where there are significant technical issues to resolve, as would be the case in a disclosure dispute, the litigation frequently becomes a “battle of the experts”—a battle in which expert witnesses often deliver diametrically opposed opinions to the jury. This is one of the things that occurred in the Ward emerald trial described above, and the outcome of such a case can be highly unpredictable.

It has been the author’s experience, as a practicing attorney, that lawsuits thrive on paperwork. The more pre-litigation documents a vendor has to support his or her good-faith efforts at full disclosure, the better. The vendor who has no such evidence of disclosure runs the risk that the jurors will be more inclined to identify with the aggrieved consumer, regardless of what actually happened.

At a bare minimum, all necessary disclosure information should be printed on the invoice and/or receipt for the gem or item of jewelry and explained at the point of sale.

The use of independent appraisals, independent laboratory reports, and photomicrographs can also be helpful, to the extent warranted by the value of the stone. Any additional paperwork or other evidence documenting the state of the gem should be physically attached (e.g., by stapling) to the invoice and/or receipt such that post-sale removal will leave detectable traces. Obviously, the vendor should retain copies of all these documents in a secure location, preferably off-site.

For Internet sales, disclosure information should be included in any receipt provided with the transaction, whether e-mailed or generated on-screen for printing. All such transactions should be logged, Internet protocol [IP] addresses recorded,
and the records preserved for at least several years, both digitally and as off-site hard copies. Separate “gem treatment information” Web pages should be simple, straightforward, and uncluttered with extraneous information. They should not require any great effort to find, nor should they be the only means of disclosure. The best practice is to describe treatments clearly and list them as prominently as carat weight, clarity, and similar information, preferably hyperlinking any treatment text to more detailed discussions for interested buyers both during shopping and at the point of sale. The construction of the Web site should not be susceptible to accusations that treatment information is being deliberately obscured or concealed, or that the vendor is trying to “disclose without disclosing” through ambiguous or factually deficient discussions (e.g., bare statements that most gem materials are treated or simple lists of commonly treated materials, without any other information). The FTC (2000b) offers excellent guidance on how to properly construct a commercial Web page, including a number of examples of sufficient and insufficient methods of disclosure (again, see figure A-2).

Both Internet and traditional storefront vendors should have written disclosure policies that comply with all applicable federal and state laws. All employees should be trained in the company policy and required to sign a statement that testifies to their receipt and understanding of it. Such documents must be turned over to the opposing party in the event of a lawsuit, so they should be carefully reviewed for legal compliance and possible errors well before any problems arise. Although this point might seem self-evident, vendors must ensure that written policies are actually followed. Having a disclosure policy that employees routinely disregard is probably worse than having none at all.

Most major trade groups have some sort of guidelines for disclosure [see, e.g., AGTA, 1999; “Promoting disclosure,” 2002; see also figure 12]. These guides are also admissible as evidence of the customs of the trade, so vendors who belong to one or more trade groups should be careful to maintain scrupulous compliance with their disclosure guidelines and ethics policies, as any deviations are sure to be highlighted in the event of a lawsuit. In most cases, these trade guidelines exceed legal requirements, though this will depend on where the vendor is operating. As with the FTC Guides, while they may be an excellent starting point, formulaic adherence rather than a conscientious good faith effort is a road to trouble. Where trade guidelines use a system of coding to represent treatments, such codes also should be fully explained during the transaction (codes should be used only within the trade; their use with consumers is inadvisable and may violate association guidelines).

If one believes that there is nothing to disclose, the best practice is to ensure that one has solid evidence of a lack of treatment, especially with sales of expensive goods, which are more likely to result in litigation should problems arise later. If there is no way to prove an absence of treatment, that fact should be discussed with the buyer and documented in writing.

As a final point, to disclose a treatment properly, one must be aware of it. In an era when full understanding of some treatments may require a degree in solid-state physics, sound gemological expertise and ongoing education are more important than ever. Where any doubt may exist, suspect stones should be submitted to an independent gemological laboratory for an identification report.

Figure 12. Shown here is the verbiage required on all invoices and receipts issued by members of the American Gem Trade Association (AGTA, 1999). Various treatment disclosure methods are required of members of AGS, CIBJO, and ICA, among others. Members who fail to comply with these guidelines may encounter legal problems distinct from any disciplinary action taken by the association. Codes such as these should only be used within the trade. Reprinted with permission of AGTA.

<table>
<thead>
<tr>
<th>Gemstone Enhancement Codes*</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = NOT ENHANCED</td>
</tr>
<tr>
<td>E = ROUTINELY ENHANCED**</td>
</tr>
<tr>
<td>B = BLEACHING</td>
</tr>
<tr>
<td>C = COATING</td>
</tr>
<tr>
<td>D = DYING</td>
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<tr>
<td>F = FILLING</td>
</tr>
<tr>
<td>H = HEATING</td>
</tr>
<tr>
<td>HP = HEAT &amp; PRESSURE</td>
</tr>
<tr>
<td>I = IMPREGNATING</td>
</tr>
<tr>
<td>L = LASERING</td>
</tr>
<tr>
<td>O = OILING/RESIN</td>
</tr>
<tr>
<td>R = IRRADIATION</td>
</tr>
<tr>
<td>U = DIFFUSION</td>
</tr>
<tr>
<td>W = WAXING/OILING</td>
</tr>
<tr>
<td>IN OPAQUE STONES</td>
</tr>
</tbody>
</table>

* Codes must appear in a column next to all gemstone descriptions, with a noticeable reference or label, at the bottom or back of invoices and memorandums. Codes and type of treatments must only be used as directed in the Gemstone Information Manual (GIM), 7th Edition, available from the American Gem Trade Association (AGTA), PO Box 420643, Dallas, Texas 75342-0643. Phone: 800-972-1162 × 214-742-4367.

** "The "E" code must only be used according to Gemstone Information Manual (GIM) instructions.
How can jewelers comply with so many legal requirements when their sales associates are neither attorneys nor, in many cases, gemologists? While it is impossible to anticipate every disclosure situation, a few simple rules can go a long way toward avoiding trouble.

**Terminology is less important than understanding.** While the FTC Guides do provide specific language for describing synthetics and simulants and the terminology that is appropriate for certain gem materials, unfortunately they do not provide similar guidance for gem treatments. There is no clear way to know, for example, whether “fracture filled” is preferable to “clarity enhanced” or whether either term, standing alone, is sufficient. No specific treatment disclosure language is sanctioned or prohibited by the FTC Guides or other regulations. The primary goal with each sale should be to ensure that the buyer has a clear understanding of the treatment(s) issue and any special care requirements that may exist. If buyers understand what they are buying, the legal requirements should be satisfied.

**Understanding must flow in all directions.** Anyone selling gem materials must know what he or she is selling. Vendors must demand full and clear disclosure of all treatments from their suppliers, and must understand what is being disclosed to them. A jeweler who does not understand a treatment cannot make a customer understand it. In larger stores and chains, where it may be impractical to train all sales associates in the details of gem treatments, a manager should intervene at some point before the sale is closed to properly explain the treatment (and, at a minimum, sales associates should be trained not to close such a sale without manager assistance). Given the number of treatments that may be encountered in the current market, reference materials should be kept close at hand. Some potentially useful sources are AGTA (1999), McClure and Smith (2000), Smith and McClure (2002), and *Diamonds: . . .* (2003). Some commonly encountered gem treatments (adapted from Smith and McClure, 2002), with some suggested retail sales approaches, are presented in table B-1.

**Put it in writing!** No matter what may be said during the sales transaction, a clear written description of the treatment (and special care requirements, if any) must accompany every invoice and/or receipt [see, e.g., figure B-1]. This point cannot be overemphasized. Where justified by the value of a stone, reports from recognized gemological laboratories are also very useful. Without written evidence of disclosure, proving compliance later may be impossible. Copies of these written records should be stored in a safe, organized manner for later retrieval.
TABLE B-1. Commonly encountered gem treatments and suggested disclosure language.

<table>
<thead>
<tr>
<th>Gem material</th>
<th>Frequently encountered treatments</th>
<th>Examples of suggested retail sales approaches&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Examples of suggested language for retail receipts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beryl</td>
<td>Clarity enhancement, Dyeing, Surface coating, Thermal enhancement, Irradiation</td>
<td>“Emeralds typically have naturally occurring eye-visible fissures. As a result, they have traditionally been oiled or treated with a resin filler to make these fissures less visible. Your emerald has been oiled or resin-filled to improve its appearance. This may not be a permanent treatment, so do not subject the stone to ultrasonic cleaners or harsh chemicals. In most cases, however, if the fissures become visible again, the original appearance can be restored through re-treatment.”</td>
<td>“An oil or resin has been added to the emerald to make natural fissures less visible. Do not clean with harsh chemicals or ultrasonic cleaners.”</td>
</tr>
<tr>
<td>Corundum</td>
<td>Dyeing, Surface coating, Thermal enhancement, Diffusion treatment, Irradiation</td>
<td>“Because the finest colors of ruby and sapphire are so rare, heat treatment has traditionally been used to improve the color of less remarkable stones. This treatment is similar to natural processes, and many gem dealers refer to it as ‘completing what nature left unfinished.’ Your blue sapphire has been heat treated, but this is a permanent enhancement and the color should not fade in conditions of normal use.”</td>
<td>“The sapphire has been heat-treated to enhance the blue color.”</td>
</tr>
<tr>
<td>Diamond</td>
<td>Clarity enhancement, Dyeing, Surface coating, Laser drilling + chemical bleaching, HPHT annealing, Irradiation, Irradiation + heating, Ion implantation of boron</td>
<td>“Some colors are extremely rare in natural diamonds but can be duplicated through irradiation, irradiation and heating, or high-pressure/high-temperature processing. Your diamond owes its color to such a treatment, but the color change is permanent and should not fade in conditions of normal use.”</td>
<td>“The diamond has been subjected to irradiation to create the green color.”</td>
</tr>
<tr>
<td>Jadeite</td>
<td>Dyeing, Surface coating, Chemical bleaching, Impregnation</td>
<td>“To achieve the appearance of the much sought-after fine Imperial jadeite, some jadeite needs treatment, which often involves bleaching to remove stains and subsequent filling with a polymer to strengthen the jade [or dye to improve the color]. Your jade bangle has been [bleached and polymer impregnated/dyed] to give it this fine appearance. Although this treatment is typically stable under conditions of normal use, it may not be permanent. You should use care in cleaning and avoid methods such as ultrasonic cleaners and harsh chemicals.”</td>
<td>“The jadeite has been bleached to remove natural stains and polymer impregnated. Do not clean with harsh chemicals or ultrasonic cleaners.”</td>
</tr>
<tr>
<td>Pearl</td>
<td>Dyeing, Chemical bleaching, Irradiation, Oiling, Filling</td>
<td>“Black cultured pearls are some of the most highly prized gems in the world, but it is possible to create affordable black cultured pearls through the use of dye, as is the case with this strand. This is not necessarily a permanent treatment, so you should avoid prolonged exposure to sunlight and, as with all pearls, use care in cleaning and handling.”</td>
<td>“The cultured pearls have been dyed to create a black appearance. Protect from sunlight. Do not clean with harsh chemicals or ultrasonic cleaners.”</td>
</tr>
<tr>
<td>Topaz</td>
<td>Surface coating, Chemical treatment, Thermal enhancement, Irradiation, Irradiation + heating</td>
<td>“While natural blue topaz does exist, it is rare and expensive. Virtually all blue topaz on the market today owes its color to irradiation in combination with heat treatment. While it is generally not possible to detect this enhancement, it is best to assume this stone has been irradiated to produce the fine blue color. This is a permanent treatment and should not fade in conditions of normal use and care.”</td>
<td>“The topaz may have been irradiated and heated to create the blue color.”</td>
</tr>
<tr>
<td>Tourmaline</td>
<td>Clarity enhancement, Surface coating, Thermal enhancement, Irradiation</td>
<td>“Many tourmalines are heated to improve their color. While there is currently no reliable method to detect whether a tourmaline has been heat-treated, it is possible that this stone has been heated. This is a permanent treatment, and the color should not fade in conditions of normal use and care.”</td>
<td>“The tourmaline may have been heat-treated to enhance the color.”</td>
</tr>
<tr>
<td>Turquoise</td>
<td>Dyeing, Impregnation, Zachery treatment</td>
<td>“Because turquoise is very porous, the color may change over time from exposure to skin oils or other substances. The Zachery treatment not only enhances the blue color, but also makes the turquoise less porous so the color is less likely to change under conditions of normal wear and care.”</td>
<td>“The turquoise has been treated by the Zachery process to enhance the blue color and reduce porosity.”</td>
</tr>
<tr>
<td>Zoisite</td>
<td>Thermal enhancement</td>
<td>“The vast majority of tanzanite is actually brown when it comes out of the mine. Bringing out the fine violet-blue color you see here requires careful heat treatment, and without it, stones of this color would be exceedingly rare. This is a permanent treatment and should not fade in conditions of normal use and care.”</td>
<td>“The tanzanite has been heat-treated to create the violet-blue color.”</td>
</tr>
</tbody>
</table>

<sup>a</sup> Note that these are merely suggested means of verbally explaining the treatment to a potential customer. They should not be the only means of disclosure, which, as discussed in the text, must also be delivered in writing.
CONCLUSION
In the second issue of Gems & Gemology, GIA founder Robert M. Shipley set out what he believed to be the essentials of a “diamond man’s” equipment [1934]. He listed only a 10x triplet loupe, a diamond scale, a Moe gauge, and a good diffused light source. Those who believe that trade in diamonds and colored stones should focus on their beauty and uniqueness can be forgiven some disillusionment at the prospect that such a list now seems to require an attorney as well. They can take solace in the fact that the gem and jewelry trade is not alone in facing this dilemma.

The amazing advances in gem treatment methods over the past few decades have dramatically expanded the availability of beautiful gem materials, and made it possible for average consumers to possess attractive ornaments that were once reserved for the wealthy. The dark side of such progress is the added responsibility to ensure that these consumers are not misled about what they are buying. Similar technological advances in other industries have led to increased government oversight and regulation of those fields, and it is naive to think the gem and jewelry trade should somehow be immune. While the legal requirements discussed in this article are fairly broad, meeting them is not beyond the means of any vendor. A continuing commitment to ethics, careful attention to detail, and a healthy dose of foresight should be enough to keep most members of the gem trade out of trouble.

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