1991

How to Handle a Complex Criminal Environmental Case

Stephen D. Brown
Alison M. Benders

Follow this and additional works at: https://digitalcommons.law.villanova.edu/elj

Part of the Criminal Law Commons, and the Environmental Law Commons

Recommended Citation
Available at: https://digitalcommons.law.villanova.edu/elj/vol1/iss1/4

This Article is brought to you for free and open access by Villanova University Charles Widger School of Law Digital Repository. It has been accepted for inclusion in Villanova Environmental Law Journal by an authorized editor of Villanova University Charles Widger School of Law Digital Repository.
Note from the Field

HOW TO HANDLE A COMPLEX CRIMINAL ENVIRONMENTAL CASE

STEPHEN D. BROWN AND ALISON M. BENDERS†

I. INTRODUCTION

In the past six years the federal government has intensified its enforcement of the environmental laws by bringing more criminal actions against individuals and corporations. In 1983, the Environmental Crimes Section of the Department of Justice brought forty indictments. In the first half of 1989 alone there were eighty-six criminal indictments alleging violations of the environmental laws. The President of the United States has directed the Attorney General and the Administrator of the Environmental Protection Agency "to use every tool at their disposal to speed up and toughen the enforcement of our laws against toxic waste dumpers." In the wake of the government's tougher enforcement policy, there is an expectation that more violations of the environmental laws will be prosecuted criminally by either local United States Attorneys' offices (with back-up from the Justice Department) or by the Environmental Crimes Section of the Justice Department. Therefore, the criminal defense bar must be

† Stephen D. Brown is a partner in the Litigation Department in the Philadelphia office of Schnader, Harrison, Segal & Lewis who specializes in federal white collar criminal defense, civil RICO and complex litigation. B.A. Williams College, 1971; J.D. Villanova University School of Law, 1976. Alison M. Benders is an associate in the Litigation Department in the Philadelphia office of Schnader, Harrison, Segal & Lewis specializing in antitrust, patent law, and complex litigation. B.A. Yale University, 1979; J.D. University of Virginia Law School, 1982.

1. Internal Justice Department Memorandum from Hutchins (staff member) to Block (Chief, Environmental Crimes Section) (July 17, 1989) [hereinafter July 17, 1989 Memorandum]. For complete statistical information, see infra note 6.

2. Id.

prepared to meet the technological and regulatory challenges of environmental cases.

The policy of President Bush's Administration is the culmination of a decade of tougher enforcement of the federal environmental laws. In 1982, the Justice Department established an Environmental Crimes Unit to centralize expertise in prosecuting these complex cases. In 1987, the Attorney General upgraded this group to an independent section within the Justice Department. The Environmental Crimes Section advises local United States Attorneys' offices about factual circumstances that warrant criminal prosecution and provides the legal and technical expertise necessary to pursue environmental criminal cases effectively.

Since the Justice Department joined forces with local United States Attorneys' offices in 1982, the government has indicted 554 individuals and corporations for environmental crimes, over 400 convictions have been recorded, nearly 92 years of actual prison time have been served, and $23.5 million in fines have been collected from those convicted. These are astonishing and sobering statistics for those who routinely handle potentially hazardous wastes, especially in light of the fact that only twenty-five

---

4. United States Department of Justice, Land and Natural Resources Division, Directive No. 2-87 (May 11, 1987).
5. Id.
6. July 17, 1989 Memorandum. Statistics reveal the growth as follows:

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Indictments</th>
<th>Pleas/Convictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 83</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>FY 84</td>
<td>43</td>
<td>32</td>
</tr>
<tr>
<td>FY 85</td>
<td>40</td>
<td>37</td>
</tr>
<tr>
<td>FY 86</td>
<td>94 (+85*)</td>
<td>67 (+83*)</td>
</tr>
<tr>
<td>FY 87</td>
<td>127</td>
<td>86</td>
</tr>
<tr>
<td>FY 88</td>
<td>124</td>
<td>63</td>
</tr>
<tr>
<td>FY 89</td>
<td>86 (half year)</td>
<td>90</td>
</tr>
</tbody>
</table>

**TOTAL** 554 415

*These numbers stem from one investigation in Texas and Louisiana involving pesticides . . . and are not included in the total.

<table>
<thead>
<tr>
<th>Fines Imposed</th>
<th>Jail Terms</th>
<th>Actual Confinement</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 83</td>
<td>341,100</td>
<td>11 yrs. 5 yrs.</td>
</tr>
<tr>
<td>FY 84</td>
<td>384,290</td>
<td>5 yrs. 3 mos. 1 yr. 7 mos.</td>
</tr>
<tr>
<td>FY 85</td>
<td>565,850</td>
<td>5 yrs. 5 mos. 2 yrs. 11 mos.</td>
</tr>
<tr>
<td>FY 86</td>
<td>1,917,602</td>
<td>124 yrs. 2 mos. 2 days 31 yrs. 4 mos. 12 days</td>
</tr>
<tr>
<td>FY 87</td>
<td>3,046,060</td>
<td>32 yrs. 4 mos. 7 days 14 yrs. 9 mos. 22 days</td>
</tr>
<tr>
<td>FY 88</td>
<td>7,091,876</td>
<td>39 yrs. 3 mos. 1 day 8 yrs. 3 mos. 7 days</td>
</tr>
<tr>
<td>FY 89</td>
<td>10,345,280</td>
<td>41 yrs. 25 mos. 26 yrs. 14 mos.</td>
</tr>
</tbody>
</table>

**TOTAL** $23,692,058 257 yrs. 44 mos. 10 days 87 yrs. 58 mos. 41 days (260 yrs. 8 mos. 10 days) (91 yrs. 11 mos. 5 days)
such cases were indicted prior to 1983.\footnote{7}  

The increasing number of criminal environmental cases brought by the government has spawned new theoretical approaches. Historically, the government only pursued criminal prosecutions against those who improperly disposed of hazardous waste deliberately, thus demonstrating an intentional disregard for human health or the environment.\footnote{8} However, the Justice Department has recently begun to prosecute criminally those who may have only negligently failed to observe safety precautions.\footnote{9}

This new approach to protecting the environment presents unique challenges to criminal lawyers encountering their first environmental case and to environmental lawyers facing their first criminal case. The marriage of these two highly specialized fields of law presents issues that lawyers would not normally confront in either a criminal case or an environmental case alone. This article will discuss some critical techniques for defending cases in this burgeoning area of the law.

\section{II. A CASE HISTORY}

A recent environmental prosecution in which we obtained a defense verdict provides a case history of the government's new approach. The government indicted a scrapyard division of a major corporation, that will be referred to as Acme Iron & Metal Co., and two of its managers for allegedly disposing of hazardous waste in violation of the Resource Conservation and Recovery Act (RCRA).\footnote{10} The charges carried potential jail terms of five years for the individuals and a $1 million fine for the corporation for each count.

The government alleged that the defendants had directed yard employees to pour hazardous wastes from 55-gallon drums, which were purchased for scrap, into a pit the size of a small swimming pool. The yard employees claimed the managers or-


\footnote{8} See Abramson, supra note 3, at B1.


ordered them to dig the pit and dump the contents of the drums. The employees also said that the defendants ordered them to cover the pit with a concrete slab when dumping was finished. The defendants maintained that no one had ordered the employees to dig a pit and that no employees disposed of hazardous waste from barrels stored in the yard.

The investigation began in the summer of 1988 when the Environmental Protection Agency (EPA) and the Federal Bureau of Investigation (FBI) appeared at the scrapyard with a search warrant to rip up a concrete slab, dig a trench, and collect water and soil samples from under the slab. Yard workers showed the investigators where the hazardous waste allegedly had been disposed. EPA spent two days carefully combing the soil and washing drains seeking evidence of hazardous waste disposal. Based on evidence gathered, Acme Iron & Metals and two of its employees were indicted for disposing of hazardous waste without a permit,11 for knowingly endangering human health,12 for violating the Clean Water Act,13 and for conspiracy to commit the substantive offenses.14

The samples taken became critical at trial. As all the experts acknowledged, today’s technology is so sophisticated that chemical analysis can identify chemicals present in water and soil samples even years after the contamination has occurred. Other than employee testimony, the samples were the only evidence of whether hazardous wastes were dumped in the yard. The government’s experts said the samples supported the claim of large amounts of hazardous waste disposal. The defense experts disagreed.

The defense of Acme Iron & Metals focused on the following strategy. Both individual defendants and a representative of the corporation testified to tell their stories. There was thorough preparation for the cross-examination of the employee witnesses by meeting with each ahead of trial. Defense counsel prepared a limited and focused cross-examination of the government’s experts with the assistance of the defendants’ expert witnesses. Moreover, defense counsel spent days refining the testimony of their own experts in order to zero in on the critical issues of the case.

---

The jury acquitted both individuals and the corporation. We attribute the acquittal to the defense making the right strategic decisions at the critical junctures of the case, which included the initial search, during discovery, and at trial. Although each case is unique, the following strategy addresses the common problems encountered with the criminal environmental case.

III. CASE STRATEGY

A. THE SEARCH

Unlike many "white collar" criminal cases which begin with a grand jury subpoena, an environmental criminal case often begins with a search warrant and physical seizure of the property. To execute a search warrant, EPA may call on its own Emergency Response Team to secure the area, to gather samples, and to ensure the safety of the workers and nearby population.

To protect Acme's interests in having the search and sampling done correctly, we tried to have a technical consultant observe the search. Because Acme did not have an in-house environmental engineer available to observe, defense counsel retained an environmental engineer with a local consulting firm specializing in environmental and hazardous waste issues. In Acme's case, the consultant asked to be present at the sampling and to videotape the sampling procedures. The government refused to allow him to observe, claiming safety reasons. Instead of observing the actual search procedure, Acme's expert took separate samples as close to the time and location of the government's samples as possible. Given this timely approach, the defense experts were able to critique the government's sampling technique. Additionally, the separate samples enabled the defense experts to demonstrate serious problems with the methodology used.

Even if the government permits the client's consultant to observe EPA sampling procedures, the consultant should take separate samples to duplicate the government's work. Defendant's samples must be analyzed according to the test methodology required by the law and EPA regulations currently in effect. The samples then serve as standards against which to evaluate a client's potential liability and as a starting point for negotiating with the government before an indictment. Quick and accurate testing of the samples also allows defense counsel to determine the strength of the government's case.

There is very little downside risk to the client if defense counsel orders separate samples to be taken. Unlike civil cases, the criminal defendant need not produce any scientific reports unless those reports relate to the testimony of a witness to be introduced at trial.\textsuperscript{16}

If the government refuses to permit the consultant to observe the sampling and to take samples, counsel should write the government a letter specifically documenting the reasons given for the refusal. In the same letter, counsel should request a split of the samples taken by the government and a specific identification of where each sample was taken. Counsel should also demand that the samples be produced immediately because, given the changeable nature of some chemicals, holding times may influence the results significantly. Once obtained, these samples should be analyzed immediately.

B. PRETRIAL DISCOVERY

1. The Government’s Responsibility

The scope of discovery in criminal cases is more narrow than that permitted in civil cases. In civil cases, the presumption is that everything that is relevant (or could lead to admissible evidence) is discoverable.\textsuperscript{17} However, the presumption in criminal cases is that nothing is discoverable except that which is specifically required by Federal Rule of Criminal Procedure 16, local rules, or \textit{Brady v. Maryland}.\textsuperscript{18} Rule 16 and \textit{Brady} dictate which items and documents the government must produce for the defendant and define a more limited discovery responsibility for a criminal defendant. Unlike civil cases, discovery depositions in criminal cases are generally not available.\textsuperscript{19}

Federal Rule of Criminal Procedure 16(a) requires the government, upon request of the defendant, to produce statements of the defendant, the defendant’s prior record, and documents and tangible objects which are material to the preparation of a defense or are intended for use by the government as evidence in the government’s case in chief. The government must also pro-

\textsuperscript{16} FED. R. CRIM. P. 16(b)(2).
\textsuperscript{17} FED. R. CIV. P. 26(b)(1).
\textsuperscript{18} 375 U.S. 83 (1963).
\textsuperscript{19} FED. R. CRIM. P. 15. \textit{See also} Y. KAMISAR, W. LAFAVE, & J. ISRAEL, MODERN CRIMINAL PROCEDURE CASES, COMMENTS AND QUESTIONS 1124 (1986) (while depositions are generally available in criminal cases for purpose of preserving testimony of witnesses who are likely to be unavailable at trial, only handful of jurisdictions authorize use of depositions for discovery purposes).
duce expert reports, if written, and the results of scientific tests or experiments, so long as these are "material" to the preparation of a defense or are intended for use by the government as evidence in its case in chief, or were obtained from or belong to the defendant.\textsuperscript{20}

In \textit{Brady}, the United States Supreme Court ruled that the United States Constitution requires the government to produce to the defendant all "exculpatory" material.\textsuperscript{21} To obtain this information, defense counsel should write to the government specifically requesting "\textit{Brady} material." In response to a request for exculpatory information, some prosecutors will simply open their files to the defendants. This avoids potential appellate issues about whether a particular document in the government's files, but only discovered later by defense counsel, was "exculpatory." Other prosecutors will review their case files and select documents they believe may be exculpatory for the defendant. In any event, the results from any sampling performed by the government or third party test results in the government's possession should almost always be discoverable, because either the results will be used at trial pursuant to Rule 16(a) or the results are favorable to the defense and, therefore, exculpatory under \textit{Brady}.

Because pretrial discovery is so limited in criminal cases, defense counsel must maintain a good working relationship with the prosecutor. Prosecutors are often willing to volunteer information to the defendant in the hopes of negotiating a plea. This volunteered information may be the only information defense counsel has about the prosecutor's evaluation of the case and possible trial tactics.

2. \textit{The Defense's Responsibility}

As a reciprocal measure, Federal Rule of Criminal Procedure 16(b) requires the defendant to produce documents and tangible objects which the defendant intends to introduce as evidence at trial. Thus, in criminal environmental cases, the defendant must produce expert reports, if written, and the scientific test results if the defendant intends to introduce the results at trial or if the results relate to the expert witness' testimony.

It is essential to recognize that neither \textit{Brady} nor Rule 16 requires the defendant or the government to obtain a written expert report before trial. Therefore, both sides usually tell their ex-

\textsuperscript{20} \textit{Fed. R. Crim.} P. 16.
\textsuperscript{21} 373 U.S. at 87-88.
experts not to write reports that ultimately would have to be turned over to the other side. Nevertheless, it is important to push the government to produce any expert reports along with scientific data, to allow defense counsel as much time as possible to prepare a defense. If the experts have not written reports, as is often the case in a criminal matter, neither side can pin down precisely the other side’s technical position until trial.

C. PRE-TRIAL PREPARATION

1. Defense Counsel Must Act Quickly to Retain Experts

It is essential for defense counsel to act as quickly as possible to retain defense experts. A case may go to trial 70 days after the indictment, under the Speedy Trial Act,22 and it will usually be tried within nine months after the indictment, when extensions are granted. For a technical environmental case with extensive scientific data, the expert witnesses and defense counsel need as much time as possible to: (1) develop the facts; (2) do whatever sampling is necessary; (3) test and analyze the samples; and, (4) evaluate the factual information. Moreover, defense counsel must be educated quickly to determine what discovery to request from the government in the Brady letter and to evaluate the case.

The range of expertise which may be needed simply to evaluate the facts in an environmental case is staggering. Therefore, defense counsel must move quickly to decide what specific types of experts are needed. A typical environmental case involving alleged disposal of hazardous waste in the ground requires: (1) an experienced sampling expert; (2) a lab chemist who can test the samples, review the government’s data, and review the defendant’s data to determine what, if any, hazardous waste is present; (3) a geologist/hydrologist who can evaluate the structure of the soil and earth below the surface to determine whether the hazardous waste has spread through the soil and possibly into the water in the area; (4) a soil chemist to determine on a microscopic level the “fate” of the hazardous chemicals in the soil;23 and, (5) a toxicologist to assess the impact of the chemicals on human health and the environment. Although these fields of study overlap significantly, each is a separate discipline. The defense lawyer must


23. The “fate” of chemicals refers to whether the chemicals have traveled through the soil, whether they have remained in place, or whether they have changed into some other form.
work with the experts both to understand the government's information and to understand the defendant's own scientific data.

One way to identify the areas of expertise needed is to request the government to provide the defense with a list of its experts and their resumes. If the government refuses, defense counsel should then ask the court to order the government to list its expert witnesses and any reports they have written sufficiently in advance of trial so the defense has adequate time to retain its own experts and to prepare them for trial.

2. Defense Counsel Must Master the Regulations

Environmental statutes are complicated. The regulations promulgated by EPA for each statute are even more intricate. Nevertheless, it is essential that defense counsel master the regulations because the regulations often directly dictate how EPA characterizes conduct. Therefore, if the situation does not fit strictly within the regulations, there may be no violation of the law.

For example, in the Acme case, the defendants were accused of violating RCRA by disposing of hazardous waste. The regulations define which wastes are "hazardous." The regulations specifically exempt from RCRA the contents of 55-gallon drums which are less than one inch (or three percent) of the volume. This regulation became the focus of one of the primary defense theories and set up the argument that the government had insufficient proof that any one drum contained more than one inch of liquid, and therefore the government had failed to show the disposal of "hazardous waste" subject to RCRA.

The regulations may also influence the credibility (or admissibility) of the government's own sampling, testing and analytical procedures or results. The regulations provide specific testing procedures which the government must follow. If the government has not complied with its own regulations for sampling or testing, the defense can move to exclude the results or, at the least, can cross-examine the government's expert on the reliability of the government's test results.

In short, it is imperative that counsel read and understand the

27. See supra note 15.
regulatory scheme. It may be the most effective tool for the defense.

D. TRYING THE CASE

1. Pick a Theme and Keep the Case Simple

A lawyer may be tempted to demonstrate to the jury how much the lawyer and the witnesses know, particularly when the lawyer has worked so hard to learn all this scientific data and law. However, the average juror obviously is not as technically proficient as the expert witness. The jury must absorb the technical information only through testimony at trial, and sometimes it is impossible to give the jury a complete scientific and technical picture of the issues. Therefore, defense counsel must select the essential facts, both technical and otherwise, which are critical to the jury's understanding of the case. The theme must be simple and make good common sense to a lay person. Moreover, the cross-examination of government, lay, and expert witnesses must fit that theme. The testimony of defense experts should be short, concise and clear. The lawyer's arguments should be direct and stated in laymen's terms.

One strategy to simplify the issues is to have the expert witnesses testify only to conclusions. A summary opinion, well-grounded in the expert's thorough review of the facts outside the courtroom, is acceptable. For example, the defense's analytical chemist may testify to chemicals found in the samples without giving details about the chain of custody, holding times, sample preparation methods and quality control procedures used by the lab. The chemist can enhance the perceived reliability of the results simply by stating that the testing procedures conformed to the government's own regulations and accepted scientific practices. Then, the opposition will have the task of wading through all the regulations and technical requirements while the jury yawns.

2. Educate the Judge

Given the legal and technical complexity of an environmental case, the judge must be educated on the substantive environmental law as early as possible. Since very few of these cases have been tried, many judges are not familiar with the substantive law.

Counsel should consider a pretrial brief to familiarize the judge with the elements of the crime which the government has to
prove. This early education serves two purposes. First, it gives the judge time to learn the law to be applied at trial. If an objection or motion is made on a technical point at trial, the judge will understand the significance of the issues and rule appropriately. Second, if the judge understands the law throughout the course of trial, it is easier to persuade the judge to adopt jury instructions more favorable to the defense position. If the judge is informed, counsel dramatically increases the chances of a clear and informed charge to the jury.

For example, in the Acme case, it was critical that 55-gallon drums containing less than one inch of residue were "empty" by regulatory definition and thus were not hazardous waste. Because the judge understood the significance of this regulation before trial, he permitted direct and cross-examination focusing on the quantity of liquid in the barrels and not just on identification of the contents. Second, he instructed the jury that it must acquit the defendants if the jury found that all the liquid poured on the ground came from the barrels containing less than one inch of liquid. The post-trial interviews with the jurors revealed that the one-inch rule was decisive during their deliberations.

3. Prepare to Cross-examine the Fact Witnesses

RCRA governs only "hazardous waste," which is a term the statute defines specifically.²⁸ In many cases, the issue is not whether something was disposed of, but rather whether that substance was hazardous waste. In some cases, the substance is easy to identify because it can be traced back to the manufacturer in its unaltered state. However, in many other instances, the history of the substance is hard to uncover. Often, fact development is difficult because many of the witnesses are no longer employees of the client and are now testifying for the government. Under these circumstances, identification of the hazardous waste requires thorough fact development and knowledgeable expert witnesses. This was illustrated in the Acme case where a number of witnesses were able to identify the labels on the barrels containing liquid, but the witnesses failed to identify the specific liquids contained in the barrels. Therefore, even though the witnesses could testify that the labels on the drums had a skull and crossbones and read "danger" and "trichloroethylene," they could not testify that the barrels contained trichloroethylene. It was only through

the witnesses' description of the liquids' odor, color, or chemical reaction when mixed with other liquids that an expert could identify the substance.

Counsel should meet with the defense experts before cross-examining the government's fact witnesses. Counsel must know what the experts need from the fact witnesses in order for the experts to render valid opinions. In this manner, counsel can prepare to cross-examine the government's fact witnesses to elicit essential information and to lay the foundation for the experts' testimony. For example, in the Acme case, even though one barrel said it contained hydrochloric acid, defense counsel was able to establish through cross-examination that the witness had touched the liquid without getting burned. Therefore, the defense expert could testify that because hydrochloric acid burns flesh, the liquid in the barrel dumped by the employee was not hydrochloric acid.

4. Prepare to Cross-examine the Government's Expert Witnesses

The most difficult aspect of an environmental case may be cross-examining the government's experts without the benefit of a report or a pretrial deposition. It is difficult because counsel must master the material and craft a cross-examination to discredit a well-trained expert without knowing the expert's opinions before trial. The problem is compounded by the fact that counsel is presenting technical information to a lay jury.

As always, preparation is critical. As with preparing a defense strategy, counsel must prepare for cross-examination by selecting a small number of discrete points. Defense counsel should pick only those points which are critical to the defense and disregard minor issues which will have no impact on the ultimate findings of the jury. For example, defense counsel should not make an issue out of the government lab chemist's failure to calibrate his instrument on one occasion where that failure did not affect the test results he obtained. However, it is significant, as in the Acme case, that the quantity of chemicals found in the samples could only have been a quart, not a "swimming pool" amount. A focused and limited cross-examination will be more appealing to the jury. Cross-examination assailing every small statement by the expert tends to discredit the examiner and, therefore, the defense.

29. The prosecutor magnified the amount to "swimming pool" proportions in his opening statement in the Acme case.
Counsel should not get trapped into asking every question the defense expert suggests. It is counsel’s responsibility to find out from the defense expert where and why the government’s expert is incorrect and, most importantly, how the error significantly affects results reported or an opinion given in court. If the lawyer does not understand the importance of the government expert’s error, he or she risks being drawn into heated scientific debate which may interest the scientific community, but has nothing to do with the case.

In short, although a defense expert is crucial in helping counsel prepare for the cross-examination of the government’s expert, counsel should understand the reason behind asking each question suggested by the defense expert. Counsel should not take chances on cross-examination of a government expert. More difficult points should be made with defense counsel’s own expert, rather than during cross-examination. Moreover, counsel should limit the technical portion of the case to the essential facts that prove the statute was not violated.

5. Points for Charge

The regulations are the key to developing effective points for charge. Counsel should ask for a separate charge for each specific point in the regulations. It is essential to use common language that the jury can understand and that tracks the exact words used by the defense expert where possible.

Furthermore, the jury will better understand the instructions by framing them with the crucial facts of the case. For example, in the Acme case, the judge charged the jury specifically, “[i]f you find that the government has not proved beyond a reasonable doubt that the drums contained more than one inch of liquid, you must acquit the defendants.” The jury understood and relied specifically on this instruction.

IV. CONCLUSION

The increased use of the criminal law to enforce environmental law presents a new challenge to environmental and criminal lawyers alike. The same basic rules of all defense practice apply, with a few unique twists.

The following steps are suggested for the defense of a criminal environmental case:
1. Participate in the sampling process to the greatest degree possible.
2. Obtain as much information from the government as early as possible.
3. Retain defense experts early and spend as much time with them as possible.
4. Know the applicable law and regulations thoroughly.
5. Keep the case simple for the jury:
   a) Pursue a theme that is easy to understand;
   b) Appeal to the common sense of the jury;
   c) Avoid technical language and complex scientific theories whenever possible; and,
   d) Adhere to the theme.