

PUBLISHED

**UNITED STATES COURT OF APPEALS
FOR THE FOURTH CIRCUIT**

HOECHST DIAFOIL COMPANY,
Plaintiff-Appellee.

v.

No. 98-1030

NAN YA PLASTICS CORPORATION,
Defendant-Appellant.

Appeal from the United States District Court
for the District of South Carolina, at Greenville.
Henry M. Herlong, Jr., District Judge.
(CA-96-2799-6-20)

Argued: January 28, 1999

Decided: April 6, 1999

Before WILKINS, MOTZ, and KING, Circuit Judges.

Remanded by published opinion. Judge King wrote the opinion, in
which Judge Wilkins and Judge Motz joined.

COUNSEL

ARGUED: Thornwell Forrest Sowell, III, SOWELL, TODD, LAFFITTE, BEARD & WATSON, L.L.C., Columbia, South Carolina, for Appellant. Jesse C. Belcher, HAYNSWORTH, MARION, MCKAY & GUERARD, L.L.P., Greenville, South Carolina, for Appellee. **ON BRIEF:** J. Calhoun Watson, William R. Harbison, SOWELL, TODD, LAFFITTE, BEARD & WATSON, L.L.C., Columbia, South Carolina; Michael A. Pollard, BAKER & MCKENZIE, Chicago, Illinois,

for Appellant. Keith Wixler, HAYNSWORTH, MARION, MCKAY & GUERRARD, L.L.P., Greenville, South Carolina; Herbert F. Schwartz, Kenneth B. Herman, Glenn A. Ousterhout, Lianna C. Calmar, FISH & NEAVE, New York, New York, for Appellee.

OPINION

KING, Circuit Judge:

Hoechst Diafoil Company sued Nan Ya Plastics Corporation in the District of South Carolina, alleging that Nan Ya had misappropriated certain of Hoechst's trade secrets. When Nan Ya found a description of these trade secrets in an unsealed court file, it moved for summary judgment, arguing that public disclosure had destroyed the information's trade secret status. Nan Ya now appeals the district court's orders denying Nan Ya's summary judgment motion and granting Hoechst an injunction that, inter alia, required Nan Ya to return to Hoechst all copies of the relevant document. Although we refuse to exercise pendent jurisdiction over Nan Ya's summary judgment appeal, and although we reject certain of Nan Ya's challenges to the injunction order, we must remand for further proceedings because the district court (1) failed to fix an appropriate bond as required by Federal Rule of Civil Procedure 65(a) and (2) failed to properly explain its injunction order pursuant to Rule 52(a).

I.

Hoechst manufactures polyester film. Part of its manufacturing process requires it to apply certain coatings to these films. Over the years, Hoechst has developed a technique known as "in-line coating," which it regards as a valuable innovation in this process.

Hoechst has sought to preserve this "In-Line Technology" as a trade secret. For example, it has required its employees to execute confidentiality agreements prohibiting disclosure of the technology. One such employee was John Rogers, who worked at Hoechst's plant in Greer, South Carolina from 1978 to 1988. Rogers has conceded that he gained his expertise in the polyester film business from his years at Hoechst.

After Rogers left Hoechst in 1988, he established his own consulting firm to advise other polyester film manufacturers. In 1992, he entered into consulting relationships with two such manufacturers: Cheil, a Korean company, and Nan Ya, a Taiwanese corporation. He advised both companies regarding business and technical matters. At the time, though, only Cheil was producing in-line coated films; Nan Ya was not.

In 1994, Rogers allegedly entered into an agreement with Nan Ya under which he agreed to provide, among other things, consulting with respect to in-line coating. For its part, Nan Ya purportedly agreed to pay Rogers \$250,000 for his services.

In 1992, Hoechst sued Rogers in South Carolina state court for breaching his confidentiality agreement by selling the In-Line Technology to Cheil. Hoechst eventually won its suit against Rogers, securing an injunction preventing Rogers from further disseminating the In-Line Technology. In 1994, Hoechst sued Cheil in the District of South Carolina, at Greenville, alleging that Cheil itself had misappropriated Hoechst's trade secrets by acquiring them from Rogers. That suit settled in 1996, with Cheil agreeing to change its film-coating process.

To prevent disclosure of the In-Line Technology during the course of the Cheil litigation, Hoechst secured a protective order that required all documents relating to the In-Line Technology to be filed under seal. At the end of that case, the district court ordered the attorneys for Cheil and Hoechst to remove from its files all documents that had been filed under seal. The remainder of the record then was to become public, according to the district court's order. The parties did remove from the files all documents that had been filed under seal, and the court then opened the remaining files to the public.

However, one document containing a twenty-eight page description of the In-Line Technology (the Cheil Document), had been inadvertently filed, unsealed, as an attachment to one of Cheil's motions. Each page of the Cheil Document bore the following heading: "CONFIDENTIAL INFORMATION, HOECHST DIAFOIL V. SAMSUNG & CHEIL." But because this document had not been filed under seal, it was not identified and removed by either party when the case file

was reviewed. As a result, it inadvertently remained in the court's public files.

Based on information that had surfaced in the Rogers and Cheil suits, Hoechst sued Nan Ya on September 16, 1996. The complaint alleged that, by hiring Rogers as a consultant in September of 1994, Nan Ya had misappropriated the In-Line Technology in violation of the South Carolina Uniform Trade Secrets Act, S.C. Code Ann. §§ 39-8-1 to -11 (Law. Co-op. 1996) (repealed 1997). In October 1996, one of Nan Ya's attorneys went to the district court in Greenville to review the court's file from the Cheil case. The attorney found the Cheil Document and sent a copy of it to Nan Ya. Another attorney from the same firm returned to the clerk's office in April 1997 and again retrieved a copy of the Cheil Document.

Having found this information in a public file, Nan Ya moved in August 1997 for summary judgment, arguing that public disclosure had destroyed the In-Line Technology's trade-secret status. When it received Nan Ya's motion, Hoechst immediately requested an emergency telephonic hearing with the district court. During this hearing on August 27, 1997, in which Nan Ya's attorneys participated, Hoechst requested an injunction directing Nan Ya to name all parties to whom it had distributed the Cheil Document.

The district court granted Hoechst's motion, awarding it an "injunction," and directed the parties to submit proposed orders. They did, and over Nan Ya's objection, Hoechst's draft order not only required Nan Ya to name those who had received the Cheil document, but further directed that Nan Ya return to Hoechst all copies of the Cheil Document. The district court adopted Hoechst's proposed order, which it entered on August 29, 1997. Nan Ya then moved the district court to reconsider its injunction, arguing that the remedy granted was overbroad because it exceeded the remedy Hoechst had requested during the hearing. The district court denied this motion.

The district court then heard the parties' arguments on Nan Ya's motion for summary judgment, and the district court ruled from the bench in favor of Hoechst. The district court refused to certify for immediate appeal, pursuant to 28 U.S.C. § 1292(b), its denial of Nan Ya's summary judgment motion.

Nan Ya now appeals the district court's injunction order and the denial of its summary judgment motion.

II.

As a preliminary matter, we must determine whether, and to what extent, we have jurisdiction over Nan Ya's appeal. Nan Ya appeals two of the district court's orders. First, it appeals the order granting Hoechst's motion for an injunction. We have jurisdiction over Nan Ya's appeal of this order under 28 U.S.C. § 1292(a)(1): "[T]he courts of appeals shall have jurisdiction of appeals from . . . [i]nterlocutory orders of the district courts . . . granting . . . injunctions"

Second, Nan Ya seeks to appeal the district court's denial of its summary judgment motion. Nan Ya correctly acknowledges that this order is neither a final order (and thus appealable under 28 U.S.C. § 1291) nor a "collateral order" (and thus appealable under Cohen v. Beneficial Industrial Loan Corp., 337 U.S. 541, 546 (1949)). The district court also refused to certify this interlocutory order for immediate appeal under 28 U.S.C. § 1292(b). Nan Ya instead asks that we review the order denying summary judgment under the doctrine of pendent jurisdiction. We have held that when we have jurisdiction over one issue in an appeal, we may also, if we choose, review separate, otherwise non-appealable issues in that case "which are reasonably related [to the appealable order] when that review will advance the litigation or avoid further appeals." O'Bar v. Pinion, 953 F.2d 74, 80 (4th Cir. 1991). The decision to exercise pendent jurisdiction over such issues is purely discretionary. DiMeglio v. Haines, 45 F.3d 790, 808 (4th Cir. 1995).

More recently, our ability to exercise pendent jurisdiction has come into question. See Garraghty v. Commonwealth, 52 F.3d 1274, 1279 n.5 (4th Cir. 1995) (noting that Swint v. Chambers County Commission, 514 U.S. 35 (1995), makes it "unclear whether an appellate court has any 'pendent appellate jurisdiction' over claims like [those presented in Garraghty]"). We need not resolve this question today; given our disposition of the appealed injunction order, additional review of the summary judgment order would neither "advance the litigation" nor "avoid further appeals." O'Bar, 953 F.2d at 80.

Accordingly, even if we may exercise pendent jurisdiction over Nan Ya's appeal of the summary judgment order, we decline to do so.

III.

Nan Ya argues that the district court erred in granting the injunction because Hoechst has no chance of succeeding on its underlying misappropriation claim. More specifically, Nan Ya contends that Hoechst's misappropriation claim must fail because: (1) the In-Line Technology is no longer a trade secret and (2) the claim is barred by the statute of limitations. We review the district court's injunction order for abuse of discretion. Lowery v. Circuit City Stores, Inc., 158 F.3d 742, 766 (4th Cir. 1998).

Well-established rules guide a district court's decision as to whether to issue an injunction. In reaching this decision, the district court must balance the hardships likely to befall the parties if the injunction is, or is not, granted. Blackwelder Furniture Co. v. Seilig Mfg. Co., 550 F.2d 189, 196 (4th Cir. 1977). Proper balancing of hardships requires the district court to weigh the relative importance of four factors:

- (1) the likelihood of irreparable harm to the plaintiff if the preliminary injunction is denied;
- (2) the likelihood of harm to the defendant if the requested relief is granted,
- (3) the likelihood that the plaintiff will succeed on the merits, and
- (4) the public interest.

Manning v. Hunt, 119 F.3d 254, 263 (4th Cir. 1997) (quoting Rum Creek Coal Sales, Inc. v. Caperton, 926 F.2d 353, 359 (4th Cir. 1991)).

Comparing the first two of these factors is the crucial first step in this analysis. Blackwelder, 550 F.2d at 196. If, after making this com-

parison, the district court concludes that the balance of potential hardships favors the plaintiff, then "it is enough that grave or serious questions are presented; and plaintiff need not show a likelihood of success." Id. Nevertheless, where it is legally impossible for a plaintiff to succeed on the merits of its underlying claim, the district court may not grant the requested injunction, no matter how severe or irreparable an injury the plaintiff may otherwise suffer. Texas v. Seatrain Int'l. S.A., 518 F.2d 175, 180 (5th Cir. 1975). This concept is the cornerstone of Nan Ya's first argument.

A.

Nan Ya maintains that Hoechst's misappropriation claim is doomed because Hoechst's In-Line Technology lost its trade-secret status when the Cheil Document was inadvertently filed unsealed and remained in the district court's public files for several months. We disagree with Nan Ya's premise that the Cheil Document's presence in the district court's public files necessarily destroyed its secrecy. As a result, we reject Nan Ya's conclusion that the injunction was, for this reason, improper.

South Carolina's version of the Uniform Trade Secrets Act (the Act) permits the owner of a "trade secret" to seek an injunction and other remedies against any person who "misappropriates" that secret. "Trade secrets" include:

[I]nformation . . . that (i) derives independent economic value . . . from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

S.C. Code Ann § 39-8-1 (Law Co-op. 1996) (repealed 1997).¹

¹ The operative version of the Act, which applied to violations occurring between June 15, 1992 and June 30, 1997, was replaced by a revised version that was effective as of July 1, 1997. Because Hoechst alleges that its claim arises from acts that occurred in 1994, the now-repealed version of the Act is applicable.

A trade secret can be "misappropriated" in various ways. Here, Hoechst claims that, because Nan Ya knew that Rogers had a duty not to disclose the In-Line Technology, Nan Ya's use of that information after buying it from Rogers was a misappropriation under § 39-8-1(2)(ii)(B)(III). This provision defines misappropriation as follows:

use of a trade secret of another without express or implied consent by a person who . . . at the time of . . . use, knew or had reason to know that his knowledge of the trade secret was . . . derived from or through a person who owed a duty to the person seeking relief to maintain its secrecy or limit its use

In response, Nan Ya argues that the In-Line Technology cannot be a trade secret because the Cheil Document, which described this technology, was filed unsealed and remained in the district court's public records. Nan Ya contends that the In-Line Technology thus became "readily ascertainable by proper means," including by copying the Cheil Document from the district court's files.

No South Carolina court has addressed the question of whether the unsealed filing of a document automatically destroys the trade-secret status of any information it contains. Accordingly, in predicting how the South Carolina Supreme Court would decide this matter, we may seek guidance from all available sources, including decisions from other jurisdictions. Stephan v. Rocky Mountain Chocolate Factory, Inc., 129 F.3d 414, 417 (7th Cir. 1997). While a number of cases have dealt with the disclosure of trade secrets in public court files, none holds that such disclosure, when unaccompanied by evidence of further publication, automatically destroys the "secrecy" of that secret.

There is no doubt that, in order to be protected as a trade secret, the information in question "must be secret, and must not be of public knowledge or of a general knowledge in the trade or business." Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 475 (1974). Still, most courts and commentators have not treated the secrecy requirement as an absolute, but as a relative concept. Plastic & Metal Fabricators v. Roy, 303 A.2d 725, 731 (Conn. 1972) ("absolute secrecy is not essential"); 1 Roger M. Milgrim, Milgrim on Trade Secrets § 1.07[2] (1998) ("The prevailing . . . school is that secrecy need be

but relative."); Richard E. Day, Protection of Trade Secrets in South Carolina, 42 S.C. L. Rev. 689, 696-97 (1991) ("Absolute secrecy is not required to preserve a trade secret . . ."). As a result, courts addressing this fact-intensive issue have regarded the unsealed filing of a document as a single, non-dispositive factor to be weighed in determining whether the document's contents remain a trade secret. E.g., Jackson v. Hammer, 653 N.E.2d 809, 816 (Ill. App. 1995) (attaching customer list as exhibit to unsealed affidavit is one of several acts that destroyed trade-secret status of customer list).

With these principles in mind, some courts have embraced the rule that disclosure of information solely in a court's records will not, absent evidence of further publication, destroy the trade-secret status of that information. Gates Rubber Co. v. Bando Chem. Indus., Ltd., 9 F.3d 823, 849 (10th Cir. 1993); Religious Technology Ctr. v. Netcom On-Line Comm. Servs., Inc., 923 F. Supp. 1231, 1255 (N.D. Cal. 1995); see also Roy, 303 A.2d at 731 (attaching copy of trade secret to filed, unsealed affidavit did not, by itself, destroy secrecy). As one court explained, this is a common-sense rule grounded in the practicalities of trade secret litigation:

The contrary result would mean that if documents were ever filed without a sealing order, even for a short time, the court would not be able to decide that they should be sealed because the documents would have lost their potential trade secret status by virtue of the temporary unsealing. The only fair result would be to allow trade secret status for works that are otherwise protectable as trade secrets unless they were somehow made generally available to the public during the period they were unsealed, such as by publication.

Netcom, 923 F. Supp. at 1254; see also Jochims v. Isuzu Motors, Ltd., 151 F.R.D. 338, 342 (S.D. Iowa 1993) ("[T]he public good would be substantially disserved if the introduction of a document in a civil trial deprived it of its otherwise confidential status.").

The district court for the Eastern District of Virginia reached a decision consistent with this rule in Religious Technology Center v. Lerma, 908 F. Supp. 1362 (E.D. Va. 1995). In Lerma, a company affiliated with the Church of Scientology sued the Washington Post

for misappropriating and publishing portions of that church's "Advanced Technology Works," which the church claims contained its trade secrets. In response, the Post argued that the Advanced Technology Works were not trade secrets when it obtained copies of them, because (1) they had been in a public court file for twenty-eight months and (2) they had been published on the Internet. Id. at 1368.

In holding that the Advanced Technology works were not trade secrets when the Post acquired them, the court specifically relied on both of these factors. First, it noted that the documents' extended presence in the court's public files--from which the Post had obtained its own copy--made them no longer secret. Id. Importantly, though, the court reasoned that the documents' posting on the Internet was "[o]f even more significance" than their extended presence in public records: "'posting works to the Internet makes them 'generally known'" at least to the relevant people interested in the news group." Id. (quoting Netcom, 923 F. Supp. at 1256). As a result, the court correctly found that information which had been both disclosed in public court files and made "generally known" by Internet publication had lost its trade secret status. Id.

In this case, there is no suggestion that the Cheil Document was published, only that it was present in the district court's public files. We hold that, under the Act, this presence in the district court's public files, in and of itself, did not make the information contained in the document "generally known" for purposes of the Act.

Neither did the filing of this document render the In-Line Technology "readily ascertainable by proper means," as that phrase is used in the Act. The comment to § 39-8-1 of the Act suggests the types of disclosures that render information "readily ascertainable": "Information is readily ascertainable if it is available in trade journals, reference books, or published materials." § 39-8-1 cmt. Such widely-disseminated sources are, we believe, qualitatively different from the files of a single district court. Further, commentators suggest that a lone competitor's discovery of a trade secret through proper means does not automatically render that secret unprotectable. 1 Milgrim on Trade Secrets, at § 1.07[1] (That information may be identified in public domain or reverse-engineered does not revoke its status as a trade secret); Day, Protection of Trade Secrets in South Carolina, at

697 ("[P]rotection is not lost simply because one, among many competitors may learn the secret by proper means . . .").

Accordingly, the public filing of the Cheil Document does not necessarily destroy the secrecy of the In-Line Technology, even though Nan Ya properly discovered that document in preparation of this lawsuit. We emphasize, that, in so ruling, we do not conclusively determine the ultimate issue here: whether the In-Line Technology remains a trade secret. This is a fact-intensive question to be resolved upon trial. We simply hold that Hoechst is not legally precluded from succeeding on the merits of its misappropriation claim solely because the Cheil Document was publicly filed.

B.

Nan Ya next argues that Hoechst cannot succeed on the merits of its misappropriation claim because it is barred by the applicable statute of limitations. Consequently, Nan Ya contends that the district court's injunction order was substantively improper. Because Hoechst's claim was not time-barred, we reject this argument.

The Act requires plaintiffs to bring their misappropriation claims "within three years after the misappropriation is discovered or by the exercise of reasonable diligence should have been discovered." S.C. Code Ann. § 39-8-6 (Law Co-op. 1996) (repealed 1997). As discussed above, actionable misappropriation includes not only the direct, improper acquisition of a secret, but also the use of that trade secret by a third party who knows or should know that the person from whom he or she learned the trade secret had disclosed it in violation of a duty to keep the secret confidential. § 39-8-1(2)(B)(III). Reading these two sections of the Act together, a plaintiff wishing to sue for misappropriation under § 39-8-1(2)(B)(III) must sue within three years after receiving actual or constructive notice that the defendant, who acquired the secret through another's breach of confidentiality, had used the trade secret.

Here, Hoechst alleges that Nan Ya misappropriated Hoechst's In-Line Technology by using that technology after acquiring it from John Rogers, who, Hoechst claims, sold the information to Nan Ya in violation of his confidentiality agreement with Hoechst. If Nan

Ya's alleged misappropriation occurred less than three years before September 16, 1996--the date on which Hoechst filed its complaint against Nan Ya--then the complaint was filed within the Act's limitations period. Hoechst claims that Nan Ya paid Rogers for this information in 1994; if this is true, Nan Ya could only have used, and thereby misappropriated, the technology less than three years before Hoechst filed its complaint.

Nan Ya challenges this conclusion, arguing that the period of limitations began running when Hoechst became aware of the injury for which it is suing, not when it learned that Nan Ya was a potential defendant. See Tollison v. B&J Machinery, 812 F. Supp. 618, 620 (D.S.C. 1993) (under South Carolina law, "the important date under the discovery rule is the date that the plaintiff discovers the injury, not the date of the discovery of the identity of another alleged wrongdoer"). The relevant injury, Nan Ya argues, is misappropriation of the In-Line Technology. Because Hoechst sued Rogers for his alleged misappropriation of this technology on October 26, 1992, Nan Ya argues that Hoechst was aware of the injury caused by the misappropriation of the In-Line Technology no later than that date. Thus, Nan Ya contends that the statute of limitations expired on October 26, 1995, more than ten months before Hoechst filed its complaint against Nan Ya.

While Nan Ya's argument would be persuasive if Hoechst were suing Nan Ya based on the injury caused by Rogers's initial misappropriation of the In-Line Technology, that is not the basis of Hoechst's current suit. Instead, Hoechst alleges that Nan Ya itself misappropriated the technology by buying it from Rogers in 1994 and using it, thereby causing a second, statutorily-recognized injury. See § 39-8-1(2)(b)(III). Accordingly, Hoechst's awareness of Nan Ya's own alleged misappropriation, not Rogers's misappropriation, triggered the limitations period.

Similar facts arose in USM Corp. v. Tremco Inc., 710 F. Supp. 1140, 1143 (N.D. Ohio 1988). In that case, USM sued Tremco for trade secret misappropriation, alleging that Tremco had acquired USM's trade secrets from USM's former employees. In response, Tremco argued that Ohio's applicable limitations period--four years--began running when the former employees themselves misappropriated

priated the trade secret, not when the employees passed it on to Tremco. Because the employees' original misappropriation occurred more than four years before USM filed suit against it, Tremco urged that USM's complaint was time-barred.

The district court disagreed. It held that, under Ohio law, misappropriation occurs when a third party acquires a trade secret that it knows has been misappropriated by the person from whom the third party acquires it. Id. at 1143. Accordingly, the court concluded that Tremco's own acquisition of the trade secret had started a new limitations period: "The wrong occurred when Tremco knowingly acquired USM's alleged trade secrets" Id.

Like the Ohio law at issue in USM, the Act recognizes that a third party's use of a trade secret acquired through the discloser's breach of confidentiality is a separate, actionable wrong. § 39-8-1(2)(ii) (B)(III). Consistent with the USM court's reasoning and the text of the Act, then, we reject Nan Ya's argument that the only injury for which Hoechst could sue occurred when Rogers himself misappropriated the In-Line Technology. Instead, Nan Ya's own receipt and use of the In-Line Technology would constitute a separate, actionable injury, thus would trigger an independent, three-year limitations period when Hoechst "knew or had reason to know" of this transaction.²

Consequently, we reject Nan Ya's contention that Hoechst's complaint is time-barred, thus could not support its motion for an injunction.

² Nan Ya also points out that, in the Rogers pleadings, Hoechst alleged that Rogers had disclosed the In-Line Technology to Nan Ya, as well as Cheil, in 1992. Nan Ya cites this as an additional reason why the statute of limitations should have expired against it in 1995. Hoechst argues that, during discovery in the Rogers matter, it found out that Rogers simply had not disclosed the technology to Nan Ya in 1992. Thus, Hoechst points out, its suit against Rogers went to trial on the theory that Rogers had disclosed the information only to Cheil in 1992. Furthermore, Nan Ya does not admit receiving the In-Line Technology from Rogers in 1992, and all evidence submitted in this case suggest that Rogers disclosed the In-Line Technology to Nan Ya, if at all, no earlier than 1994. As a result, Hoechst's retracted allegation that Nan Ya had received the technology in 1992 is of no significance here.

IV.

Nan Ya next argues that the injunction must be vacated because the district court (1) failed to fix a bond and (2) did not follow proper procedures in connection with issuing the injunction. Because we agree with Nan Ya that the district court erred in failing to fix a bond, we remand the case for further proceedings, with instructions for the district court to fix an appropriate bond. Further, if the district court sees fit to continue the injunction as a preliminary injunction, it must support any ensuing order with appropriate findings and conclusions, as required by Federal Rule of Civil Procedure 52(a).

A.

Nan Ya first protests the district court's failure to require Hoechst to post a bond as security for the injunction. As Nan Ya points out, the district court not only failed to require a bond, it ignored altogether the issue of security for the injunction.

A district court must fix a bond whenever it grants a preliminary injunction or restraining order:

No restraining order or preliminary injunction shall issue except upon the giving of security by the applicant, in such sum as the court deems proper, for the payment of such costs and damages as may be incurred or suffered by any party who is found to have been wrongfully enjoined or restrained.

Fed. R. Civ. P. 65(c). This rule is mandatory and unambiguous. District 17, UMWA v. A&M Trucking, Inc., 991 F.2d 108, 110 (4th Cir. 1993). Although the district court has discretion to set the bond amount "in such sum as the court deems proper," it is not free to disregard the bond requirement altogether. In view of the clear language of Rule 65(c), failure to require a bond upon issuing injunctive relief is reversible error. Id.

Should the district court, on remand, grant Hoechst's request to

continue injunctive relief, it must require Hoechst to post an appropriate bond.³

B.

Nan Ya further challenges various procedural and substantive aspects of the injunction order.⁴ These challenges include Nan Ya's contention that by granting Hoechst relief that was broader in scope than the relief requested by Hoechst and addressed by the parties during the emergency hearing, the district court violated Nan Ya's due process rights. While we need not resolve the constitutional aspects of this issue, Nan Ya's argument does highlight a set of procedural errors--and related substantive errors--that the district court should address on remand.

³ In fixing the amount of an injunction bond, the district court should be guided by the purpose underlying Rule 65(c), which is to provide a mechanism for reimbursing an enjoined party for harm it suffers as a result of an improvidently issued injunction or restraining order. The amount of the bond, then, ordinarily depends on the gravity of the potential harm to the enjoined party:

[T]he judge usually will fix security in an amount that covers the potential incidental and consequential costs as well as either the losses the unjustly enjoined or restrained party will suffer during the period he is prohibited from engaging in certain activities or the complainant's unjust enrichment caused by his adversary being improperly enjoined or restrained.

11A Charles Alan Wright et al., Federal Practice & Procedure § 2954, at 292 (2d ed. 1995). Where the district court determines that the risk of harm is remote, or that the circumstances otherwise warrant it, the court may fix the amount of the bond accordingly. In some circumstances, a nominal bond may suffice. See, e.g., International Controls Corp. v. Vesco, 490 U.S. 1334 (2d Cir. 1974) (approving district court's fixing bond amount at zero in the absence of evidence regarding likelihood of harm).

⁴ Nan Ya contends that the injunction order is erroneous because it (1) fails to properly balance the hardships between the parties, (2) granted relief beyond that requested by Hoechst or discussed by the parties during the emergency hearing, (3) denied Nan Ya its due process rights by granting relief that the parties did not request or discuss, and (4) is against the public interest.

The appropriateness of procedures followed in issuing injunctive relief depends on the specific type of relief being granted. Specifically, Federal Rule of Civil Procedure 65(a)(1) prohibits the issuance of a preliminary injunction "without notice to the adverse party." Although Rule 65(a)(1) does not specify what length of notice is required, the Supreme Court has explained that the defendant must be "given a fair opportunity to oppose the application and to prepare for such opposition." Granny Goose Foods, Inc. v. Brotherhood of Teamsters & Auto Truck Drivers Local No. 70, 415 U.S. 423, 433 n. 7 (1974). Notice on the day of the preliminary injunction hearing itself does not satisfy Rule 65(a)(1). Id. By contrast, temporary restraining orders may be issued without full notice, even, under certain circumstances, ex parte. Fed. R. Civ. P. 65(b).

This difference in procedure derives from the different functions performed by temporary restraining orders and preliminary injunctions. While a preliminary injunction preserves the status quo pending a final trial on the merits, a temporary restraining order is intended to preserve the status quo only until a preliminary injunction hearing can be held: "[U]nder federal law [temporary restraining orders] should be restricted to serving their underlying purpose of preserving the status quo and preventing irreparable harm just so long as is necessary to hold a hearing, and no longer." Granny Goose, 415 U.S. at 439.

Consequently, temporary restraining orders are of limited duration, not--like preliminary injunctions--of indefinite duration. The usual rule, then, is that if a temporary restraining order is continued indefinitely, it will be evaluated on appeal as if it were a preliminary injunction. National Mediation Bd. v. Airline Pilots Ass'n Int'l, 323 F.2d 305 (D.C. Cir. 1963); Sims v. Greene, 160 F.2d 512 (3d Cir. 1947). If it does not meet the requirements of a preliminary injunction--for example, if it is not supported by factual findings and legal conclusions as required by Federal Rule of Civil Procedure 52(a)--it will be invalidated on appeal. Granny Goose, 415 U.S. at 443 n. 17; National Mediation Board, 323 F.2d at 306.

In this case, neither the district court nor either party has specifically identified the August 29, 1997 order as either a temporary restraining order or as a preliminary injunction; the order itself is simply entitled "Order and Injunction." But the notice procedure that the

district court required here--telephonic notice, apparently on the day of the hearing itself--ordinarily would be proper only for a temporary restraining order. See Granny Goose, 415 U.S. at 433 n.7 ("[I]nformal, same-day notice, desirable though it may be before a restraining order is issued, is no substitute for the more thorough notice requirements which must be satisfied to obtain a preliminary injunction of potentially unlimited duration."). Accordingly, the "Order and Injunction" was valid only if issued as a temporary restraining order.

As explained above, restraining orders may be issued only for a limited duration. The August 29, 1997, order specifies no such duration and has now been in effect for over eighteen months, far beyond the permissible duration for a restraining order. See Fed. R. Civ. P. 65(b). As a result, we must, for purposes of this appeal, evaluate the order as if it were a preliminary injunction. See National Mediation Board, 323 F.2d at 305 (treating over-extended restraining order as a preliminary injunction).

As a preliminary injunction, the August 29, 1997, order is subject to Federal Rule of Civil Procedure 52(a). This rule requires a district court to give a full, written explanation supporting its preliminary injunction order: "[I]n granting or refusing interlocutory injunctions the court shall . . . set forth the findings of fact and conclusions of law which constitute the grounds for its actions." Requiring trial courts to explain their injunction orders serves at least two important purposes. First, it allows the parties to better understand the reasons for the court's actions. See Public Serv. Comm'n v. Wisconsin Tel. Co., 289 U.S. 67, 69 (1933) (statement of grounds for a decision is important "as an aid to litigants").

Second, a written explanation of the district court's reasoning permits an appellate court to meaningfully review that decision. We have echoed the Supreme Court in emphasizing this critical policy: "It is of the highest importance to a proper review of the action of a court in granting or refusing a preliminary injunction that there should be fair compliance with Rule 52(a) of the Rules of Civil Procedure" Mayo v. Lakeland Highlands Canning Co., 309 U.S. 310, 316 (1940); accord First Citizens Bank & Trust Co. v. Camp, 432 F.2d 481, 484 (4th Cir. 1970) (quoting Mayo on this point). In the absence of the

explanation required by Rule 52(a), we will normally be unable to determine whether the district court, for example, properly balanced the parties' probable hardships or whether it carefully tailored its remedy to protect only against the particular, threatened injury it had identified.

The August 29, 1997 order does not measure up to the requirements of Rule 52(a). In fact, the order makes no significant factual findings and states only that the court deems the issuance of the injunction "necessary and proper." J.A. 116. The order addresses none of the relevant hardship-balancing factors.⁵ Because the district court's order is not properly supported, it cannot be further extended. See Granny Goose, 415 U.S. at 443 n.17 ("Where a temporary restraining order has been continued beyond the time limits permitted under Rule 65(b), and where the required findings of fact and conclusions of law have not been set forth, the order is invalid.").

On remand, then, the district court must, after conducting a hearing in accordance with Rule 65(a), issue a properly-supported decision, as required by Rule 52(a).

C.

Although we must remand this case for various additional proceedings, we leave the injunction intact pending the district court's decision on remand. See United States v. Cohen, 152 F.3d 321, 326 (4th Cir. 1998) (leaving defective injunction order intact on remand to permit further fact-findings); Rosen v. Siegel, 106 F.3d 28, 33 (2d Cir. 1997) (same). We do not intend this measure as a suggestion as to how the district court should rule on remand; we simply conclude that it is prudent to maintain the status quo pending the district court's reconsideration of its injunction ruling.

⁵ The district court's analysis in support of its decision denying Nan Ya's request for a stay of the injunction pending appeal cannot serve as substitutes for the findings required by Rule 52(a). As we have explained in Blackwelder, the standard applicable in a decision granting or denying an injunction is different from that applied to a request for stay pending appeal. 550 F.2d at 193-94.

V.

We reject Nan Ya's argument that the public filing of the Cheil Document, in and of itself, necessarily destroyed the trade secret status of all information disclosed in that document. Additionally, the record does not support Nan Ya's contention that the statute of limitations has run as to Hoechst's misappropriation claim. However, because the district court (1) failed to fix a bond as required by Rule 65(c) and (2) failed to comply with the requirements of Rule 52(a), we must remand this appeal for further proceedings consistent with this opinion.

REMANDED