25% to 50% of the overall cost of the project, which carries with it an annual operating budget of $8 million.

The board last week also gave its first, tentative endorsement of plans to renovate the South Pole station. The new station would replace a deteriorating, 20-year-old facility with one that can handle the increasing opportunities for scientists from several fields to do world-class research at the bottom of the world (*Science*, 24 June, p. 1836). Last summer, an outside panel called the new station essential for continued progress in some areas of astronomy, astrophysics, and geophysics, and Cornelius Sullivan, head of the Office of Polar Programs, was optimistic that plans might move ahead quickly. But last week the board asked for a better explanation of how the station meets both the nation's national security requirements and its scientific agenda before agreeing to spend serious money on the renovation.

"Everybody wants the United States to demonstrate world leadership in science, and a new South Pole station would go a long way toward doing that in a very visible fashion," says Sullivan, who estimates the renovation will take 6 to 8 years. "The panel identified the opportunity to do world-class science, and it'll be too late if we wait until the current station starts to fall apart."

Although Lane admits that the new projects "might mean a squeeze" in existing programs, he hopes that a new accounting device might ease the pain and make it easier for Congress to support such projects. This year's NSF budget contains a separate account for major research equipment that isolates the cost of building big-money items from the rest of NSF's programs. LIGO and the twin 8-meter Gemini telescopes are already being funded from this pot of money, as would MMA and the South Pole station if they are built. Because the account is reserved for construction, which is spread over several years, its immediate impact on the federal deficit is reduced. But a staff member of the Senate appropriations committee warns that such an arrangement is only a temporary fix. "Frankly, I think the arguments [for budget increases that take advantage of different funding rates among programs] are specious," he says. "Even when you outlay funds slowly, you will spend the money eventually. And there are statutory ceilings on budget outlays through 1998."

NSF may therefore be faced with paying for these projects from a budget that is likely to grow slowly, if at all. And that prospect will require some tough administrative decisions down the line. LIGO offers "terrific science, a valuable resource for the community, and topnotch management," says Fox, who supports the project. But those issues often took a back seat during last week's meeting. "The most gut-wrenching aspects of the discussion," she recounts, "were entirely about money."

–Jeffrey Mervis

SCIENCE AND THE LAW

Court Says No to Copying Articles

Thinking of photocopying an article from your favorite journal? Think again. Last month a three-member federal appeals court in New York ruled that a Texaco Corp. scientist violated copyright laws by making one copy each of eight articles in a scientific journal and placing them in his files. The 2–1 ruling dramatizes the uncertainty over what constitutes fair use of copyrighted material, say lawyers familiar with the case, adding that the ruling should prompt companies and universities to review their policies toward copying.

The suit was filed in 1985 by a group of scientific organizations and publishers, led by the American Geophysical Union (AGU). (The American Association for the Advancement of Science, which publishes *Science*, was one of more than 80 plaintiffs in the case.) The publishers alleged that Texaco violated U.S. copyright law by copying and distributing hundreds of scientific articles to hundreds of its researchers. To simplify the case, the parties agreed to focus on just one example of this alleged wholesale copying—the actions of Texaco chemist Donald Chickering, who made one copy each of eight articles that appeared in *Catalysis*, an AGU journal.

Although copyright law allows "fair use" of published material, the court ruled that Chickering's actions did not fit that category because, rather than using the articles, he simply copied them and filed them in his office. "It was as if he created his own personal library," says Paul Berman, a lawyer with the Washington, D.C., firm Covington & Burling who has followed the case. The court may have viewed the matter differently if the researcher had made immediate use of the material, Berman added, referring to a recent Supreme Court case upholding the use of copyrighted material that the defendant had transformed through satire.

The court also ruled that Texaco should have ordered more subscriptions to the journal or bought a license from the Copyright Clearance Center, which sells a range of photocopy rights for publications. The court considered only the fair-use aspect of the case and therefore did not rule on the statutory damages requested by AGU. It did not, however, issue an injunction for Texaco to halt such practices.

The dissenting judge in the case, Dennis Jacobs, wrote that Chickering had copied the articles to aid his research and was therefore engaging in fair use. The court's decision, he warned, could lead to lawyers hovering over every copy machine.

Several lawyers following the case said the judge's comment should be taken with a grain of salt. In their view, the court was simply upholding existing laws designed to protect the value of intellectual property.

"I don't find it overwhelming, remarkable, or terribly disruptive for a court to say that before making copies, [Texaco] should have sent a check to the Copyright Clearance Center," says Berman. But Joseph Mello, a lawyer with the New York firm of Reid & Priest, says, "This will cause a lot of scientists to re-examine their policies" about photocopying. Many companies do not have policies about how, when, and whether to make copies of copyrighted material without purchasing the rights, he says, and few forbid it entirely.

Chickering declined to discuss the ruling, but Texaco spokesperson Cynthia Michener says the decision "would seriously impair the ability of researchers to make copies." Texaco has requested a rehearing of the case before a larger audience of appellate judges. AGU is pleased with the decision, says Judy Holoviak, director of the organization's publications division, adding that it upholds longstanding organizational practice. "We have always had a strong sense of abiding by copyrights, since we are both a user and producer of materials." Although AGU does not prohibit its staff from making copies of copyrighted materials, she says, "we try to be very careful and set a good example" for others. AGU also has a license from the Copyright Clearance Center that covers photocopying of copyrighted material, Holoviak said.

AGU's lawyer in the case, Jon Baumgarten of Proskauer, Rose, Goetz & Mendelsohn in Washington, believes the case is too narrowly drawn to clarify definitively what constitutes fair use. Although the fair-use doctrine makes greater allowances for the actions of researchers and teachers in making photocopies of published material, he says, "this doesn't mean all educational use is fair use." And Baumgarten has a warning for academic researchers: "Consult with your university counsel before making copies."

Berman says common sense and the Golden Rule are good guides when navigating the complex waters surrounding copyright laws. His advice: "Treat other people's intellectual property as you would have them treat yours."

–Andrew Lawler