

**INTELLECTUAL PROPERTY ALERT: June 2004 Intellectual Property
Considerations For Environmental Professionals**

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Environmental consultants and contractors often create and then give away potentially protectable ideas. Success for these environmental professionals requires understanding of a wide variety of media and conditions--air, groundwater, fresh water, soils, sediments, wetlands and coastal areas--coupled with know-how, ideas and experience. Processes and equipment to investigate, delineate, remediate, monitor and control hazardous substances and solid wastes in any of these media could serve as the basis for intellectual property protection. However much of the environmental professionals' work quickly becomes public knowledge through various proposals and public reports that they are obliged to file. This represents a challenging ambience for intellectual property protection.

Why Seek Intellectual Property Protection?

Environmental professionals seek intellectual property protection to enhance their business prospects. Protected ideas can be used in proprietary fashion, to charge a premium for work performed using those ideas, and to obtain a competitive advantage in the marketplace. Also, they can be used in advertising to promote the credibility, creativity and standing of their owners. Moreover, since environmental professionals tend to develop their ideas as part of their current paid projects, intellectual property protection can be a relatively inexpensive way to achieve these goals.

Trade Secret Or Patent?

In most fields the initial question in protecting an important development is whether to keep the idea a trade secret or to protect it by patent. Environmental professionals in many cases will not have this choice. A trade secret must be kept secret. It can not be kept secret if it must be disclosed in public reports or proposals without confidentiality provisions.

Even seeking patent protection requires diligence. A United States patent application for an invention must be filed within one year of the first public divulgation, use or offer for sale of the invention. The basic idea is that an inventor who discloses or commercially benefits from his invention has only one year to file a patent application. One should assume that any report to a governmental agency might be held a public disclosure. Moreover, professionals with an international practice should note that most foreign countries have no comparable grace period--once an invention is divulged to the public it is too late to file abroad.

Who Owns The Invention?

In the United States a patent application is presumed owned by the inventor. In the absence of an agreement to assign inventions, an employer owns an employees invention only if the employee was specifically hired to invent. This is difficult to prove in most instances. So it is important what agreements say about the duties of the consultants and the ownership of their inventions.

Is It Patentable?

As a rule of thumb, inventions are patentable if they are novel (new) and unobvious. Inventions in patent law are defined by "claims" at the end of a patent or application which recite the features of the invention. As a practical matter, a claimed invention is novel if no single piece of prior art (prior patent, publication or product) has all of the recited features in the claim. However even a novel claimed invention must be unobvious. Unobviousness means that the claimed invention should not be obvious to one of ordinary skill in the pertinent technical art. If claimed features are not present in the best prior art reference, it should not be obvious to add the missing features. As a practical matter, novelty is relatively straightforward. Unobviousness is complex and may depend on things like the precise wording of the prior art references, whether it is appropriate to combine their teachings and whether they include teachings which would direct one away from the invention. As a general rule, if an invention is novel and commercially valuable, then it is probably worthwhile to consider filing a patent application.

Is The Idea Patentable Subject Matter?

Patents can be sought for any new and useful product, process or composition of matter. "Process" now includes a process performed by a programmed computer and, in the United States, it also includes computer-assisted methods of doing business. Much of the work of environmental professionals concerns designing control apparatus to comply with permits, monitoring compliance, modifying equipment to comply with stricter limits or to permit increased production, and delineating and remediating pollution. Many of these activities can involve patentable methods or apparatus. Environmental professionals also design models to simulate complex environmental systems. Many of these models follow set protocols, but they can also involve novel applications of a set model or the creation of whole new models, each of which can be the subject of patent protection.

What Kind Of Patent Application Should Be Filed?

Most early stage patent applications fall within three categories: 1) provisional applications, 2) nonprovisional applications, and 3) Patent Cooperation Treaty (PCT) applications. Provisional applications are informal applications that obtain a filing date for what they disclose. They are not examined, and the filing date they obtain disappears unless a formal nonprovisional application claiming their benefit is filed within one year. They are viewed as inexpensive "placeholders," but they are risky because they may omit material important to describing or claiming the invention. Nonetheless, a well-written provisional application can provide an early filing date that permits investigation of the commercial prospects for an invention before going to the greater expense of filing a nonprovisional application.

Nonprovisional applications are what most people think of when they speak of patent applications. They are drafted as formal documents complying with the rules of the Patent Office (USPTO) and they are examined by the USPTO for patentability. Unlike a provisional application, a nonprovisional can be prosecuted to become an enforceable issued patent.

A PCT application is typically filed by those seeking international patent protection. It can be filed up to one year of the filing of a U.S. application and preserves the right

to file abroad in most industrial countries for another 18 months. Like the provisional, the PCT application requires further filings to actually obtain patents.

What Should A Patent Application Contain?

To be effective, a patent must be one that will appeal to a judge and/or a jury. The application should describe a problem, the significance of the problem and a solution for the problem in terms that can be understood by a lay person. After the description in lay terms, the invention should be thoroughly described (for those who are technically trained in the art) and concisely defined by appended claims (for those trained in patent law). The application must describe the best mode of making and using the invention contemplated by the inventors at the time of filing. All parts of the application (title, summary, and description) should support the claims. To enhance the presumption of validity, as much relevant prior art as known should be cited to the Examiner during the prosecution.

What Happens To An Application After It Is Filed?

A few weeks from filing, the USPTO issues a filing receipt giving the filing date and a serial number. Several months later an Examiner (of a nonprovisional) studies the application, searches for prior art and issues an Office Action. Typically the first Office Action corrects any informalities and rejects the application based on the best prior art located by the Examiner. The inventor's attorney responds by an Amendment correcting informalities and either distinguishing the claimed invention from the prior art or amending the claim language to distinguish the prior art. This process of search, Office Action and Amendment can be repeated a number of times until either the Examiner is satisfied and allows the case or an impasse is reached requiring Appeal. For more information on the issues presented in this alert, please contact Glen E. Books.