



Compliance Help

by John S. Schroeder

**If you can't afford an on-staff environmental engineer,
consider using an outside consulting service.**

A California printed circuit board (PCB) plater was closed for over a month, and paid over \$75,000 in civil and criminal penalties. Another board manufacturer was forced to install water treatment systems in less than three weeks to avoid a shutdown; nonetheless he paid nearly \$20,000 in fines and penalties.

Are these examples of heartless polluters who paid no attention to the environment, the laws, and the health of their employees? No, they are just hard-working managers who were complying with the regulations as they understood them. Problems started with the inability to keep up with ever-changing environmental regulations and the regulatory agencies that issue them, many of whom they did not even know existed. Problems also stemmed from their inability to interpret the regulations.

A PCB manufacturer in California is regulated in environmental, health, and safety matters by a minimum of six different local, state, and federal agencies. The activities of these agencies often overlap, but there is little, if any, interagency communication.

Such a harsh regulatory environment puts considerable strain on the manpower and financial resources of any manufacturer. How can a small- or medium-sized operation stay on top of these complex compliance issues and continue to make boards? For many manufacturers, a compliance office is not in the budget, and existing staff have neither the time nor the aptitude to stay current and accomplish all the necessary work. The use of an outside consulting service may provide the most economical means to stay in compliance in such cases.

COMPLIANCE ACTIVITIES

Before a compliance program can be started, the shop must be aware of the current regulations that govern their operations. The shop should be aware of proposed new or changing regulations to influence the regulations to their best advantage. Staying current requires exten-

sive reading of trade publications such as *Printed Circuit Fabrication*, news releases and notifications from the regulatory agencies, local newspapers, and newsletters. Generally, a library of published regulations must be maintained. Attendance at public hearings and industry association meetings is another means of obtaining this information.

Any shop wishing to stay in compliance should maintain a good working relationship with the various regulatory agencies. This helps obtain information and creates goodwill. Maintaining this relationship requires continuous effort.

It is not the job of these agencies to help a shop comply — only to regulate the shop's compliance. Often these agencies view it as their job to find infractions. When violations do occur, the agencies can become hostile and very uncooperative.

A good compliance program must include the maintenance of good paperwork (complete files, permits, manifests, etc.). For example, many shops do not have a written program to minimize waste. Often operators do not even know a particular permit is required until they are cited for its absence. Obtaining permits often involves complex engineering calculations and drawings. Also, in California, there are at least three environmental management reports that must be filed annually. Such reports require recording information on waste production levels and disposal actions, programs to reduce waste production and detailed hazardous material inventories.

A further requirement for the bareboard fabricator is the installation and maintenance of control and treatment equipment. Before purchasing such equipment, one must think ahead. What is the best type of equipment to accomplish the goal? Can current equipment meet regulations when they tighten? What if there is an equipment failure? Is there a way to reduce the operating costs associated with the equipment?

Salesmen are a good source for this kind of information, but can often confuse issues since they want to sell their

particular equipment. And the regulatory agencies themselves often do not know which equipment will achieve the levels they require.

Of course, all the requirements must be considered while the company continues to produce boards profitably — not an easy task for the shop with few employees and no engineering personnel. The cost of these activities in management time and energy can be tremendous. While it may not be a full-time job, environmental, health, and safety compliance can be a full-time mental preoccupation (i.e., headache). It is in this context that a consultant can provide an economical means to achieve total compliance.

CONSULTANT ADVANTAGES

The advantages of using a consultant fall into three basic areas. First, because a consultant can perform the same activities for several clients, you receive the benefit of experience acquired at the expense of others. Also, the time and expense of monitoring regulatory activity and maintaining relationships with the regulators will be shared. Second, the consultant will be performing many of the required activities on a repetitive basis. Therefore, the time required to accomplish a given task can be reduced significantly. Finally, a competent consultant can give shop managers the peace of mind they need to concentrate on their main duties — the production of boards.

Consultants, by the very nature of their activities, are plugged into channels of information which are vital to staying informed. Consultants maintain good relationships with the regulators through the normal course of their activities. They make it their business to attend public hearings and subscribe to all appropriate periodicals. Because it is the lifeblood of their business, a consultant will maintain an up-to-date library of all pertinent rules and regulations.

Because these activities are a part of normal operating procedures, they become a part of the consultant's overhead and, thus, the cost is spread

among all clients. Hence, any given client will bear only a portion of the cost for these activities rather than paying all costs, which would be the case if the company were undertaking those activities on their own.

In a similar vein, the consultant also stays current on developments in equipment and technology and is in the position to recommend changes. Once again, the cost of staying up-to-date is shared within the client base of the consultant.

Anyone who has ever tried to obtain an environmental permit or file a SARA Title III report knows what a trying experience it can be. A consultant performs such tasks on a routine basis. As a result, the consultant has the specialized technical knowledge and experience to accomplish such matters quickly and efficiently.

CONSULTING SERVICES

Consultants typically offer a number of services to aid the PCB manufacturer. Most often, unfortunately, consultants are not engaged until there is a crisis — often in the panic that follows a citation. It is in these situations that the consultant is most expensive. Demand is high and so is cost. Because crisis intervention requires a great deal of the consultant's time on an immediate basis, they must be compensated for time lost on other ongoing activities. It is to the operator's benefit to have a consultant's services contracted before there is a crisis.

Another service consultants typically offer is assistance in obtaining regulatory permits. There are several advantages to using a consultant for this purpose. Many have already been discussed. But another is that the consultant can give the client a good estimate of the cost to acquire the permit and therefore allow the client to budget that cost effectively. Consultants generally will assist with the purchase and installation of treatment and control equipment. In so doing, the consultant relieves the organization of the resulting strain on operational personnel that such new projects generally produce.

The most economical way to take advantage of the benefits a consultant has to offer is to place that consultant on a retainer. The retainer assures the client of ready access to the consultant's time to handle any compliance issues that may arise. With the appropriate retainer relationship, the consultant can be counted on to routinely take care of the necessary reports, permits, and other paperwork. The shop gains a compliance engineer and manager, but pays only for the time and energy required. This is often less expensive than hiring full-time personnel.

CONSULTANT'S QUALIFICATIONS

Finally, be sure to ask the right questions about a consultant's qualifications. Do they offer a full line of services? If not, you may have to retain several consultants and may forfeit many of the cost advantages of a consulting arrangement. Is the consultant experienced in your industry? If they are not familiar with your processes, they may not have the background to offer good alternative solutions to your problems. Do they have good references? There is no better measure of the quality of service the consultant offers. References should always be checked when hiring a consultant. Do they represent a particular equipment manufacturer? It is in your best interest to seek objective information. Finally, is this someone who will fit into your existing management team? Communication is the key to the effectiveness of the relationship and should not be overlooked.

In summary, a consultant offers a number of advantages in managing environmental, health, and safety issues and maybe the most cost-effective means to accomplish regulatory compliance. There are a number of qualified consultants. Contact several and become familiar with the services they offer. M

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