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INSIGHTS is published on an as-needed basis to inform our clients and friends in the industrial community about environmental topics of high current interest.

Basic Concepts and People Aspects of Environmental Compliance

This issue of *INSIGHTS* gives you some (probably welcome) relief from the technical information of the last several issues. It focuses on some very basic concepts for environmental management; sort of an "All I Really Need to Know I Learned in Kindergarten" discussion of the people aspects of staying in compliance with environmental rules. It is excerpted from a talk scheduled for CBIA's Environmental Summer School in June.

First Concept: Environmental compliance can be broken into four basic stages¹:

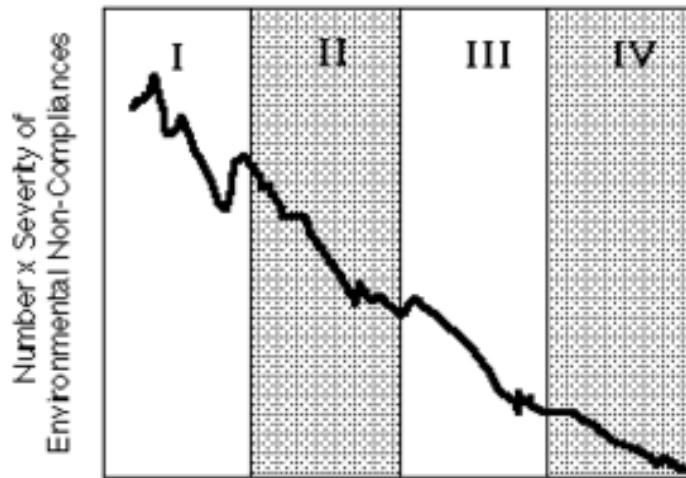
- Stage I is *insensitive* -- companies that don't know about environmental regulations and don't care about meeting the requirements;
- Stage II is *aware* -- companies that recognize the regulations are out there and make some effort to comply with those requirements that they become aware of;
- Stage III is *enlightened* -- companies that search out regulations that may apply, and make a serious effort to comply with the requirements;
- Stage IV is *certain* -- companies that are sure to meet requirements because they have put environmental regulations on the same basis as other important aspects of running the business.

1. So far as I know, most of these basic concepts were first articulated for the environmental area in 1985 by Ben Marguglio at Consumers Power in Michigan. I've lost track of him over the years, but the concepts have remained durable and are even more appropriate today. Ben was clearly ahead of his time.



Figure 1

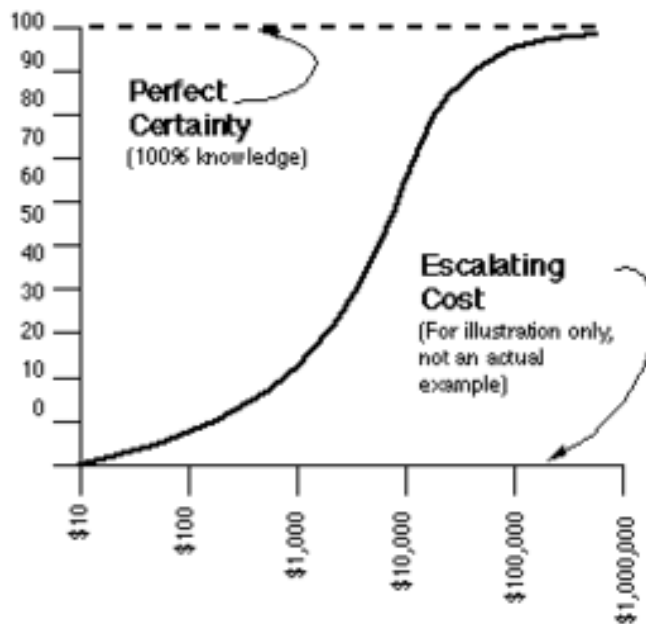
STAGES OF CORPORATE ENVIRONMENTAL COMPLIANCE
RESULTING FROM MANAGEMENT SYSTEMS IMPOSED



- I = **Insensitive** to environmental concerns
- II = **Aware** of environmental regulations
- III = **Enlightened** about meeting requirements in regulations
- IV = **Certain** to comply with requirements

Figure 2

THE COSTS OF INCREASING CERTAINTY



Second Concept: The number and severity of compliance deficiencies drops as a company evolves through the four stages. This is illustrated in Figure 1.

Third Concept: Six basic management systems are needed to assure compliance (although the degree and formality of the systems depends to some extent on the size of the company and nature of its business):

- *A company policy* on compliance with environmental regulations;
- *Mechanisms for communicating* the requirements of the regulations effectively within the company;
- *Internal procedures and practices* for complying;
- *Assessments of compliance* -- some objective way to judge performance;
- *Mechanisms for correcting problems* of non-compliance;
- *An organization* for monitoring and controlling compliance.

Fourth Concept: The stage of compliance of a company can generally be discerned by examining the presence and quality of the six management systems. This is illustrated in the matrix of Table 1.

Fifth Concept: Reality always imposes constraints, and the cost of perfect compliance can be quite high. The cost curve, naturally, runs counter to the deficiency curve. This is illustrated in Figure 2. Each company needs to consider compliance improvement in economic terms when moving through the stages of compliance.

It's very simple: *people* make management systems work or fail. The people aspects of the six management systems are just as important as the systems themselves. Here's how the people fit into the six systems:

Policy. The people aspect here is: *the chief executive* (or the general manager or whoever is the top dog *locally*). This person must state the policy clearly and in writing. He must also believe in it, care about it and preach it effectively (although not necessarily a lot) to the company. The policy needs to be specific and practical, and should strike a responsive chord at the working level. *The best way to strike that chord is to give the working level a hand in developing the policy. People with a stake in the creation of a policy have a stake in its outcome.* There will be less of a tendency at the working level to regard the policy as "more bureaucratic chickenbleep". This management system is really fundamental: if the word doesn't get out, and there isn't any buy-in at the working level, all the other management systems lose a little of their edge, no matter how good they are.



Mechanisms for Communicating. The people aspect here is: *who does the translating?* Title 40 of the Code of Federal Regulations (CFR) is presently 15 volumes and takes up 18 inches of shelf space. The Federal Register averages over 50,000 pages a year. Both publications are in small print. State regulations pile on top of that. Only a portion of the publications apply to any particular facility, of course, but who makes that determination is usually poorly defined (at least in a small company). One person (or a group in a large company) needs to be clearly tagged with the responsibility for tracking regulations, deciding if they apply and deciphering what the requirements mean in operational terms. The better this is done, the easier it is for the working level to develop whatever procedures and practices are needed for compliance.

Internal Procedures and Practices. In small companies, especially, there's a strong tendency to operate on the basis of personal knowledge, and to minimize written procedures. To a degree this is good, because there's too much paperwork around anyway. However, if an operation is written down as a procedure, then you have a consistent reference for training new people or for dealing with an emergency or other fast-moving situation when the key person is absent. The people aspect here is: *involving the working level in developing procedures that are going to affect how they do their job.* The trick is to proceduralize only those operations necessary, to make sure that the procedures are as clear and as simple as possible, and above all to be sure that they don't unnecessarily impede the job.

Assessments of Compliance. The people aspect here is: *who gets to be the policeman?* Small companies generally stay with inhouse supervisory or management staff, and a fairly informal program. In this case, the personality characteristics of the policeman become quite important. The best model for this is the stereotype of an old Irish beat cop in Boston: the authority has to be there, in a visible presence, but with a good dose of common sense about regulations and an understanding of human nature. Many good managers innately run a tight operation just by wandering around the work areas and pointing out bad habits. Large companies frequently use an outside assessor, or a group within the company that is independent of the line / operations personnel. The optimum combination is probably a high degree of ongoing assessment by inhouse management for each operation, with an occasional outside review to provide an independent check.

Mechanisms for Corrective Actions. The people aspect here is: *making sure that problems or deficiencies identified in any assessment get tagged onto the proper person, that they get corrected in a reasonable period of time and that the situation causing the deficiency doesn't recur.* This is just traditional good management practice. As a corollary, repeated deficiencies absolutely have to have consequences. Nothing undermines a policy more than persistently ignoring an identified problem. The attitude at the working level rapidly deteriorates. The carrot is more effective than the stick, but the stick has to be visible. That's why the old Irish beat cop used to twirl it on its thong.



Organization for Monitoring Compliance. The people aspect here is: *clearly identifying a person* (or group, depending on the size of the company) that has responsibility for monitoring environmental compliance. This role has to be known and accepted (or at least tolerated) by line / operations managers and the working level. The person or group should be given some clout from the chief executive, although this can take many different forms and depends on the corporate culture as well as company size and nature of operations.

Here's a useful exercise. Put a red mark on the matrix (Table 1) indicating the *present* stage of your company with respect to each of the six management systems. Then, put a blue mark on the stage you believe the company *should be*. It's most useful if you do this as a group exercise. The members of the group should be those company personnel who have some stake in environmental compliance. The average position of the red marks -- although subjective -- is usually a pretty accurate assessment of the company's stage of compliance. The differences between the red marks and the blue marks make a good focus for bringing compliance issues out onto the table for discussion.

INSIGHTS attempts to reduce complex environmental requirements to an operationally useful tool, by looking at them from the viewpoint of the average industrial plant manager. In this case, no statutes or regulations are discussed, just general principles for how people and various management systems can be integrated for better compliance. This tool may or may not be applicable to a particular facility or group of people. It is intended for general information purposes and carries no express or implied warranty. It is not a legal advisory; we're not attorneys. If you are responding to a consent order or stipulated judgment, any specific compliance management strategy should be verified with the DEP, and your lawyer should be consulted for legal implications.



Table 1

STAGES OF CORPORATE ENVIRONMENTAL COMPLIANCE

Management System	Stage of Compliance <i>(as diagnosed from the presence and quality of management systems for compliance with the requirements of environmental regulations)</i>			
	Low			High
	I	II	III	IV
A Policy on environmental regulation compliance.	No established policy.	Established policy, but doesn't explicitly demand compliance with regulations.	Established policy that demands high degree of compliance.	In addition to compliance, encourages consideration of areas for which there are no present requirements.
B Mechanisms for communicating requirements of regulations.	None, or requirements communicated to limited audience in original form (i.e., Federal Register).	Requirements in original form communicated extensively through organizations needing to know.	Requirements digested and interpreted prior to being communicated.	Requirements digested, simplified and tailored to each specific function, with feedback on personnel buy-in to the requirements.
C Internal procedures and practices for compliance.	No procedures for complying with requirements; no other administrative system for staying within regulations.	Some written procedures and a number of unwritten practices aimed at complying with regulations; some informal training.	Good written procedures for complying; appropriate formal documented training.	Procedures are clear, specific, simple and tailored; training is formal and documented; comprehension is verified.
D Assessments of compliance with requirements.	None routinely collected.	Assessments done as required by law, by line / operations personnel.	Independent assessments done in formal, structured program; feedback to line / operations personnel.	Independent assessments with objective ways to rate compliance; means for line / operations personnel to assess and improve.
E Mechanisms for corrective actions.	Corrections made only on threat of civil / criminal penalty.	Informal mechanisms for correction of non-compliance.	Formal mechanisms for timely correction of non-compliance.	Formal mechanisms for consistent correction of both non-compliance and its root cause, both on a timely basis.
F Organization for monitoring / controlling compliance.	No specific organization designated as in charge; specific compliance responsibilities not well defined.	Organization designated as in charge, with defined responsibilities, but understaffed.	Organization designated and adequately staffed, with responsibilities defined; but has only staff role and no direct or line authority.	Designated organization has appropriate level of direct or line authority and clear control over compliance within entire organization.

Management systems or controls with respect to product loss prevention or safety have been thought about and written about for over 25 years in the chemical industry. Roger Batstone of the World Bank suggested in 1988 that management systems are the most important factor in preventing major chemical accidents. Compliance with environmental regulations is conceptually no different. Stage I is insensitive to environmental concerns; Stage II is aware of environmental regulations; Stage III is enlightened about meeting the requirements in the regulations; Stage IV is certain to comply with the requirements.

