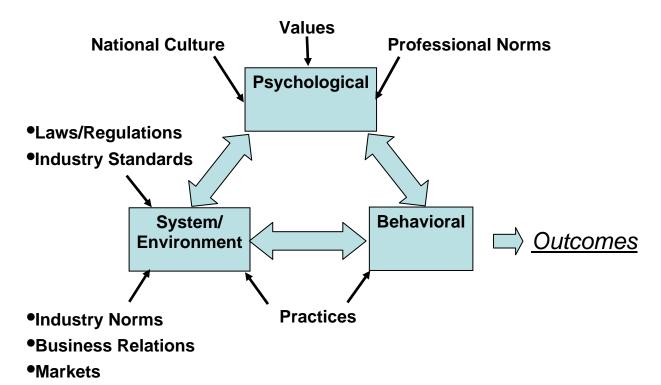# A MODEL of ORGANIZATIONAL CULTURE

By Don Arendt – Dec. 2008

In discussions on the subjects of system safety and safety management, we hear a lot about "safety culture," but less is said about how these concepts relate to things we can observe, test, and manage. The model in the diagram below can be used to illustrate components of the system, psychological elements of the people in the system and their individual and collective behaviors in terms of system performance.

This model is based on work started by Stanford psychologist Albert Bandura in the 1970's. It's also featured in E. Scott Geller's text, *The Psychology of Safety Handbook*. Bandura called the interaction between these elements "reciprocal determinism." We don't need to know that but it basically means that the elements in the system can cause each other. One element can affect the others or be affected by the others.

System and Environment

The first element we should consider is the system/environment element. This is where the processes of the SMS "live." This is also the most tangible of the elements and the one that can be most directly affected by management actions. The organization's policy, organizational structure, accountability frameworks, procedures, controls, facilities, equipment, and software that make up the workplace conditions under which employees work all reside in this element. Elements of the operational environment such as markets, industry standards, legal and regulatory frameworks, and business relations such as contracts and alliances also affect the make up part of the system's environment. These elements together form the vital underpinnings of this thing we call "culture."

Psychology

The next element, the psychological element, concerns how the people in the organization think and feel about various aspects of organizational performance, including safety. Some of the factors that affect the psychological element are brought to the organization by its members. The national cultures, professional cultures and industry norms are among these factors. These, and the tone set by management, combine to

affect the organization's values. However, some of the factors in this element, such as those related to national and professional cultures will be highly resistant to change and may be shared across other organizations of the same type, location, etc.

The psychological element is one of the most powerful in making up the unique "culture" of the organization but is the one that is the least tangible as well as being the one least under direct control of management. You can't make how people think and feel a matter of policy although policies can affect how people think and feel.

Behavior
The last element, behavior, concerns how people act. Policies and procedures can affect how people in the system behave but their behavior is also affected by the way they think and feel (psychology) and the resources they're given to do the job (system/environment). Thus, there may be a difference between the way the system is designed and how employees function in actual operations.

While management can observe employee behavior, they can't do this all the time. Also, management behavior and the behavior of other employees can affect the way people think and feel, and subsequent behavior. Both the psychological and behavioral elements can also affect the future of the system/environmental element in ways such as changes in procedures, procurement of equipment, design of training, policy changes, etc.

Measurement
Measurements of the three elements differ. The system/environmental area is the one for which we can most easily set standards which can subsequently be audited. We can set requirements for policy, processes, procedures, and resources and we can determine if these standards have been met in a rather straightforward manner.

The behavioral element can also be measured although mostly through sampling such as is done in traditional surveillance activities. However, while we can see what employees are doing while being observed, behavioral audits only provide a snapshot and there is no guarantee that the behavior is the same when people aren't being observed. This is one reason that employee reporting systems are very important to SMS – they provide a means of finding out "what's really going on."

Even though the psychological element is neither auditable nor directly observable, various tools exist for sampling this element, such as interviews and surveys. If survey tools are constructed properly and the data are analyzed carefully, we can obtain insight into factors underlying behaviors that wouldn't be readily available otherwise.

Concluding Thoughts
The three elements of culture constantly interact and are very instrumental in safety outcomes of the organization's operations. It's important to realize that there's no such thing as a "good" or "bad" safety culture it isn't something that an organization "has" or "doesn't have." Every organization has a culture, if that's the term we choose to describe the cluster of factors we've just discussed. The important thing is in how we manage, measure, and constantly adapt the system to get the safety outcomes that we want.

Source Material notes from Don Arendt;

Dr. E. Scott Geller, from Virginia Tech, also uses a similar model in his book, The Psychology of Safety Handbook. It's, in turn, based on the work of Albert Bandura, a Professor and Social Psychologist at Stanford who has worked with social-cognitive psychology for a number of years and has published landmark work in a number of areas. I think that Bandura's model makes the subject of culture more understandable.