*Importance of Measurement*

Some measurement techniques focus on attitudes, values and opinions, where others focus on behavior and work activities. The goal of a positive safety culture is the fostering of professional behavior in routine and emergency situations, but assessing behavior is not straightforward because:

- People have a tendency to change their behavior when they know they are being watched
- Apparent routine behavior may not be sustained in an emergency, or stressful situations
- Behavior assessment can be very time-consuming
- Behavioral assessment requires corroboration by assessments of attitudes and values.

Attitudes, values and opinions should be drawn out as they are central to most definitions of safety culture.  If direct observation of behavior is excluded, then it should be included indirectly by asking employees about their perceptions of their own and co-worker's behavior.  There may be a reluctance to comment on others behavior unless anonymity is guaranteed.

It is possible to assess safety culture with a variety of tools and techniques, but most have disadvantages. For example:

- The interview technique is time-consuming, and responding may not be accurate
- Focus groups are useful for eliciting key concepts and issues, but likewise may not be accurate
- Examination of key records can provide useful supplementary material, but it is invalid as the primary tool for safety culture as it only shows compliance
- The survey is a primary tool used as it allows the views of a large number of employees to be collected and statistically analyzed.

Each of these issues needs to be understood and addressed for any organization that undertakes a safety culture assessment.  Well-designed questionnaires can give valid and reliable quantified assessments of the attitudes, values, and perceptions throughout the organization. The questionnaire should cover the following:

- Ship safety
- Health and safety
- Demographics, and
- An opportunity for feedback about relevant issues not covered.

The questionnaire should contain questions about all of the safety factors that are pertinent to that type of operation.  Safety factors are features of a positive safety culture.

Differences between shore side operations personnel's perception of safety culture and shipboard personnel's perception of safety culture may indicate opportunities for safety improvement.  Similarly, safety culture perception within the shipboard personnel groups may also indicate an opportunity for safety improvement.  A shipping company may believe that they have developed a strong safety program and have addressed issues at every level.  However, if the safety culture perceptions are inconsistent within the organization, then most likely there are areas for this organization to strengthen its safety program.  Examples of different personnel groups which should be considered are:

- Shore side personnel
  - Position
  - Location (BU/Office)
  - Experience