



New Approaches to Safety Management

Safety management has been regulated throughout many segments of the maritime industry, though it has not been made mandatory for domestic passenger vessels. The crash of the *Andrew J. Barberi* into a Staten Island Ferry maintenance pier in October 2003 has led the National Transportation Safety Board to recommend to PVA that voluntary compliance be encouraged for each of its members that operate ferries.

Safety management principles provide a common-sense approach to managing any business of any size. To obtain the greatest benefit, the principles should be considered as management tools rather than safety-focused requirements. Choosing the most appropriate principles and beneficial approaches to implement them, will lead to returns for any passenger vessel operator that may include bettering the bottom line.

The foundation for effective safety management has already been defined for the maritime industry within existing regulations including the *Rules for the Safe Operation of Vessels and Safety Management Systems*—33 CFR Part 96. The functional requirements or “nuts and bolts” of a management system are described in the rules including:

- ⇒ Statement of the operator’s mission including its commitment to safety & pollution prevention;
- ⇒ Instructions & procedures to provide for safe vessel operations & pollution prevention;
- ⇒ Job descriptions, levels of authority and lines of communication between the operator’s vessel and shore-based personnel;
- ⇒ Procedures to prepare for and respond to emergency situations;
- ⇒ Procedures for reporting problems and implementing corrective action; and
- ⇒ Procedures for self-assessment and management review of arrangements to accomplish mission and improve operations.

These functional requirements could be applied as a model framework for any organization or business. The terms “safety” and “pollution prevention” could just as easily be replaced with “quality” or “customer satisfaction”.

Any vessel operator should agree that adoption of these requirements would contribute to the success of their operations and managing their business.

The extent to which these requirements should be adopted and integrated into an operator’s business depends on multiple factors that can only be determined on an individual basis.

Four Principles

Regardless of the approaches taken to implement management system requirements, four key concepts should be kept in mind and applied to all aspects of managing the business.

Practicable—Approaches should be appropriate to the business and capable of being implemented consistently with existing personnel.

Proactive—Approaches should anticipate where the most significant risks or problems to the business are likely to occur and to provide for their prevention through adequate controls (e.g. procedures, equipment, training, etc.).

Performance-Based—Approaches should be based on targeting specific goals whenever possible. Performance should be tracked, monitored and where appropriate—measured.

Plan-Do-Check-Act—Approaches should be coordinated to follow the PDCA Cycle to ensure that change within the business is properly managed through a continuous cycle that requires frequent internal verification and checks that can lead to improvements as necessary or desirable.





It's About Management

System-Based Approach

All personnel within an organization should have a clear understanding of their role and responsibilities with respect to assisting the operation to achieve its mission and goals.

Vessel operators who “compartmentalize” safety management concerns to a designated person or department within their organization run the risk of wasting resources by duplicating tasks and not keeping requirements aligned with legitimate concerns for running a profitable business. Unfortunately this is how most companies function. Safety management doesn't concern most personnel until only after losses have occurred and resources have been expended.

Functional requirements need to be integrated within an organization from top management down. For the system-based approach to work, the term “safety” should be avoided as a convenient “label” attributed to specialized functions.

The system-based approach operates by integrating and involving personnel to manage an operation's effectiveness and profitability. This approach calls for shifting the way an organization views its operation as illustrated by examples of traditional versus system-based approaches in this table.

Traditional Approaches	System-Based Approaches
Unsafe acts and conditions	Substandard acts and conditions
Job safety procedures	Standard job/task procedures
Safety inspections	Planned inspections
Hazard report form	Condition report form
Unsafe act correction	Commendations and correction
Frequency and severity rates	Individual and system performance
Job safety instruction	Proper job/task instruction
Accident investigation report	Investigation report

Frank E. Bird Jr. and Ray J. Davies *Safety & the Bottom Line* (Institute Publishing Incorporated, 1996) 12.

Risk-Based Approach

Safety management needs to be relevant to the potential risks and problems that are unique to individual operators. To get the important concerns into focus, vessel and shore-based personnel must assess how and where operations are most likely to fail.

The *PVA Risk Guide* is an effective tool that should be used as often as necessary to determine the severity and likelihood of particular operational concerns that may be adversely impact the business.

Objectively assessing risk to determine where the greatest potential problems lie and implementing appropriate controls is the best method to prevent accidental loss.

Incremental Approach

Each of the functional requirements for safety management systems as detailed in 33 CFR Part 96 can contribute to the effectiveness of any operation. Regardless of the size and complexity of a vessel operator's business, an incremental or step-by-step approach is strongly recommended to achieve the best results.

As arrangements to support each of the functional requirements have been identified, they should be supported by adequate documentation. A concise system for organizing documents in support of the management system should be determined in the early stages to support an incremental approach to defining various aspects of the management system over time.

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