# Pages from the Past 50th Anniversary

January 21

Air France and British Airways begin the first regularly scheduled commercial supersonic transport flights.

**March 9-11** 

Two coal mine explosions claim 26 lives at the Scotia Mine, Letcher County, KY.

Haley's book **Roots** is published. April 2

Khmer Rouge leader Pol Pot becomes prime minister (and virtual dictator) of Cambodia.

February 4

An earthquake in Guatemala and Honduras kills more than 22 000

March 20

American newspaper heiress Patty Hearst is found guilty of armed robbery of a San Francisco bank

Teton Dam collapses in southeast Idaho in the U.S., killing 11 people.

June 5

# **Three Ps in Safety:** Policies, Procedures & Performance

By Ted S. Ferry

Reprinted from November

At the time this article was published, Ted S. Ferry, Ed.D., was a P.E. and CSP. He was head of the Safety Management Department of the Safety Center at the University of Southern California, and a professional member of ASSE's Los Angeles Chapter. Ferry had an undergraduate degree in business, a master's degree in system management and a doctorate in higher education specializing in safety curricula. As an active ASSE member, Ferry served on the Society's Accreditation Council in 1978-80 and was instrumental in developing ASSE's initial accreditation guidelines and standards. Before joining USC faculty, he spent 26 years in the military service with numerous safety assignments. A wellknown author and speaker on the topic of accident investigation and analysis, Ferry was named an ASSE Fellow in 1988 and twice received the Society's Scrivener Award.

THIS ARTICLE DISCUSSES the three major levels of management in terms of functional purpose. By attention to the responsibilities of different management levels, the safety professional can place safety responsibilities in the proper relationship to each other. The policies, procedures and performance levels of management can form the background for a powerful safety inspection tool. In addition, safety

#### A Test for Safety Managers

- 1) **T F** Safety performance reflects organizational procedures and policies.
- 2) **T F** Procedures are reflected by organizational policies and safety performance.
- 3) **T F** Organizational policies are reflected in procedures and safety performance.

problems at one management level telegraph management problems in another.

All three statements are true. Company policies, procedures and performance are directly related to each other. Deficiencies in one P reflect inadequacies in the other two.

#### A Basic Management Tenet

A basic management tenet states that the planning process begins with determining organizational objectives. Planning next turns to policies, procedures and performance to achieve objectives.



There are three functional levels in any organization. The policy level is associated with top management. The procedures level is a function of middle management, while actual job performance is at the lower or working level. Functional divisions by organizational level are seldom that clear-cut and are often known by other names. Policies, procedures and performance are used here, since it is easy to remember the "three Ps."

The top level of operation, where policies are formulated, is the level that provides general direction to obtaining objectives. Objectives themselves indicate the general way to proceed. Top level is a relative thing. While there is a policy level at the corporate level of operation, there is also a policy level in the regional organization and at the various plants. Thus, the top or policy level depends on where you stand. As the safety director at the Smith Canning plant in San Jose, you see your policy coming from the vice president in charge of the San Jose plant. If, by chance, you are considered in top management at San Jose and help shape policy for that plant, you may see yourself operating within policy generated by the home office in New York.

Policies are general understandings that guide decision making in subordinate organizations. They are broad guidelines for those organizations. The top management level generates basic policy—very broad in scope and affecting the entire organization. The next level, known as general policy, affects a particular part of the organization such as the San Jose plant. The San Jose level of policy becomes more specific and applies to that plant alone. It originates at the top level in San Jose and is within the framework of the basic policy put out by New York. It applies to everyday activities. In the various departments at Smith Canning, there may also be policy, even more specific, but within the general policy established by the top level at San Jose.

#### **Policy Originates Three Ways**

Policy originates three ways: originated, appealed or imposed. Originated policy is one from top management to guide themselves and their subordinates. Appealed policy comes into being when a manager appeals for guidance in a particular case. External forces such as unions or government regulations are the basis for imposed policy. Getting down to the next functional level of operation, we find procedures. Naturally, procedures allow less freedom, being built upon policies. The procedure statements are more specific and set out the steps to accomplish fairly broad action and in turn the overall objectives. A procedure will usually tell who will do something and prescribe ways for doing it. If the New York office of Smith Canning had a policy of providing operating funds in a lump sum to its var-

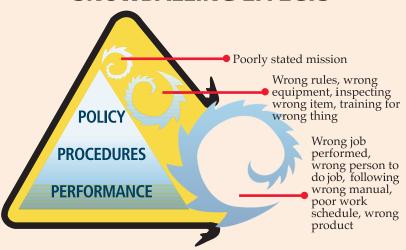
## One functional level of management feeds into another level **Policy Level** 1. Authority to hire 2. Responsibility to train 3. Plant work centers provided Performance Level 1. Improper torquing 2. Failure to use checklist 3. Low quality of work 4. Improper techniques **Procedure** Level 1. Training people 2. Inadequate supervision 3. Proper inspection 4. Poor working situation

Levels influence and build

upon one another

#### Top-level management effects lower-level management

## **SNOWBALLING EFFECTS**



- 1. Failure to properly **perform** a task reflects deficiencies in organization policy and procedures.
- 2. Inadequate *procedures* will be reflected in poor performance and were probably caused by deficiencies at the *policy* level.
- 3. Failures which originate in the top policy level of management will show up as definite procedures and finally in deficient performance.

ASSE began publishing a journal in 1956.

To celebrate 50 years of keeping SH&E professionals current in this dynamic field, each issue of **Professional** Safety in 2006 will feature an article from a past issue of the journal.

ious plants, then San Jose would develop procedures for handling and disbursing the operating funds.

Exactly how these funds might be spent at San Jose would be described by performance instruction that tells how the money is to be used and in what percentages. The performance statements, sometimes known as methods, would give the details of spending money in San Jose, usually quite in detail.

If attention is shifted to the safety manager at San Jose who, for illustration, works for the personnel director we could see this:

- 1) New York office publishes a policy statement
- 2) The San Jose vice president publishes a procedure for safety at San Jose.
- 3) The director of personnel would publish a statement on exactly how the safety director would perform.

While the forgoing example applies to the safety function, the three Ps can deal with any function in the organization. They can also deal with anything that goes wrong—from minor operational errors to severe accidents.

#### **Safety Inspections**

It is usually considered a safety function to conduct safety inspections. This may be questionable since some believe that inspections of a working place for safety deficiencies is the task of the person in charge of that workplace. Nevertheless, safety inspections must be made by someone, and this discussion applies the three Ps to inspections.

Many organizations use a checklist to conduct an inspection. Unfortunately, mere use of a checklist does little to tell how well the resources of an organization are being used. The checkmark can tell us what is wrong but not why it is wrong. Something more than an inspection checklist is needed. If we also want to find out the "whys" of deficiencies and how well organizational assets are being used to prevent accidents, the three Ps can help. These are the same three Ps that referred to functional levels of management—policies, procedures and performance. How do they apply from the inspection viewpoint?

Policy factors are normally evolved from the top level and appear as policy statements, manpower and financial allotments, centrally purchased or arranged facilities and hardware, and so forth. From this level we find:

- 1) responsibility delegations;
- 2) authority delegations;
- 3) mission or objective statements;
- 4) provision for work center organizations;
- 5) resources in the form of equipment or manpower allotments;
- 6) qualified people furnished from a central source at the top level such as might be secured through centralized recruitment and training.

Procedures concern the middle manager and the way this person handles items given to him through the first P. At this level, procedures are developed for using resources, work center organizations, responsibility, mission, authority and qualified personnel. The procedures level includes:

- 1) rules, regulations, plans and standard operating procedures;
  - 2) training of personnel to do their job;
  - 3) furnishing software to do the job;
- 4) establishing procedures and accountability to: a) maintain equipment; b) account for equipment; c) clean and maintain appearance of working area; d) supervise a task; and e) ensure inspection.

Performance as discussed here is the evaluation of individual activity, the final measure of management effectiveness. Here is where the work is actually done. Performance includes:

- 1) compliance with operating procedures and plans;
  - 2) performing under adequate superivsion;
- 3) using provided software such as data, manuals, checklists, etc.;
  - 4) quality of the work performed.

#### **Three Ps Sometimes Hard to Define**

The three Ps are broad. They overlap and are sometimes hard to define between one level of

organization and another. They do apply to all types of organizations and structure. Try this example: Suppose that during an inspection in an aircraft engine overhaul shop a mechanic is found to be improperly torquing a nut. It would be more meaningful, if instead of merely faulting the mechanic's performance, we looked at all of the three Ps. If the man were improperly torquing, we need to know why he was doing it. Assuming it was not an act of sabotage, something must be wrong with the organizational system that sets the mechanic to do the job improperly.

Look at activities associated with his performance such as inadequate supervision, a failure to use a checklist or a failure to comply with a standardized method. Suppose we find inadequate supervision. When the question, "why inadequate supervision" is asked, this leads to the next higher level of management where procedures are involved. We could look at the supervisor, the rules, the availability of needed publications, etc.

Let's suppose that this time it is found that the supervisor was spread too thin, with too many tasks to do in too little time. This means the supervisor had a job he could not handle, a job given by the middle or top level of management. Thus, improper performance has led us into procedures. When this is examined to learn why the supervisor was tasked beyond capability, there will probably be a deficiency at the top. The procedures level has to do with how well the middle manager handles the assets provided by top management.

#### **Find Out Why**

If someone at the middle level cannot provide adequate supervision at the performance level because of inadequate funds or personnel, the proper step is to find out why. Once again, asking that question will lead us to the next level, this time the policy level. Why was the supervisor not given enough funds or personnel to do his job? Why was the objective or mission requirement not clearly backed up with money and manpower? If the supervisor was given this material, then it is inferred that at the policy level someone has made a poor selection of a middle manager or not checked him closely enough. Invariably, we find that failures at the performance level lead to problems at the procedures level. When discrepancies are found at this level, then the finger is pointed at the policy level.

The message for the safety person is clear. Always explore the adjoining level of activity when investigating a deficiency. In this case, the fact that the supervisor had too much to do pointed to trouble at the asset managing level. Pinpointing this problem with middle management will disclose the potential for many other dangerous acts at the performance level.

A great number of nuts may be getting improp-

erly torqued. Suppose that the shortage of supervisory resources is caused by action at the policy or top management level. It can be seen that a deficiency here can set up the entire organization for ineffective supervision and mistakes at the performance level.

#### **Safety Problems Telegraph Management Problems (or Vice Versa)**

To paraphase what has been said before, a planning deficiency at the policy level would be reflected by problems at the procedures level and would, ultimately, show up as deficiencies at the safe performance level. Problems originating at the procedures

level will be reflected in both policy and performance. For example, inadequate supervision and inspection efforts at the procedures level will show up in low-quality work at the performance level. If there was indeed poor supervision and inspection effort at the procedures level, we can be certain there are many, many problems at the performance level. The figure on page 49 presents an example of how one functional level of management feeds into another level.

"It can be said that all levels of management interact for both good and bad performance, with the poor performance likely to result in accidents."

The three Ps will uncover reasons for unsafe performance

# INGREDIENTS FOR

#### The accident investigator looks at the following:

- 1. Performance (improper torquing)
- **2. Procedures** (poor supervision)
- **3. Policy** (no personnel)

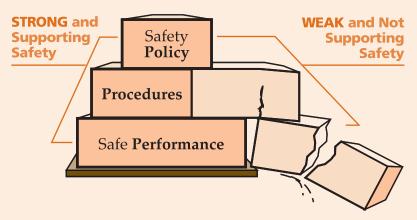
#### These failures to provide adequate supervision will also result in:

- **4. Procedures** (extensive poor supervision)
- **5. Performance** (*many other* examples of poor performance)



#### Understanding management hierarchy and language

### STRONG & SUPPORTING



Summing up this information from the safety viewpoint:

- 1) Failure to properly perform a task reflects deficiencies in organization policy and procedures.
- 2) Inadequate procedures will be reflected in poor performance and were probably caused by deficiencies at the policy level.
- 3) Failures that originate in the top policy level of management will show up as deficient procedures and finally in deficient performance.

Poor policy action at the top level has a snowballing effect on the lower levels of management. For example, if the company mission is poorly stated, it is impossible to design procedures at the middle level that will support the mission. In no way can people at the performance level support the mission when the mission itself is not clear.

Another example related to safety would be top management's failure to make its position clear through good safety policy. The result will be a lack of procedures to assure safe performance at the working level. The result is performance without safety emphasis. At the working level, this translates into a great number of expensive and time-consuming operational errors and accidents. As the figure on page 50 shows, the accident investigator using the three Ps will uncover many reasons "why" the unsafe performance existed.

#### Conclusion

In summary, it can be said that all levels of management interact for both good and bad performance, with the poor performance likely to result in accidents. The safety person seeking to promote safe performance needs to understand the management hierarchy and its language. It is not enough for the safety person to know that there are three levels of functional operation. S/he must be able to function in and between the three Ps of policy, procedures and performance.