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EFFECTIVE IMPLEMENTATION OF SAFEGUARDS AND SECURITY REQUIREMENTS

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ABSTRACT

The implementation of U. S. Department of Energy (DOE) Orders and Guides is a major responsibility for site personnel. With the issuance of a significant number of new safeguards and security directives within the last year, site personnel are gaining experience in assuring that the DOE objectives of a sound safeguards and security program are met. A problem that site personnel encounter is the need to implement tasks/solutions which address the new requirements in an environment where funding and personnel allocated to accomplish the tasks are decreasing. The implementation of these tasks becomes even more difficult when dealing with the insider threat. The nuclear industry has been engaged in providing protection against the insider threat since its inception. Today's upgraded clearance programs, security awareness activities, and two-person rules are evidence of continuing concern in this area. Even though these and other related activities have been fairly successful in the past, present societal conditions justify increased protection to further minimize the likelihood of the existence of an insider threat and the consequences of an insider-perpetrated incident. Procedural and/or technological means can be used to provide this increased protection.

The integration of insider protection systems with other site systems such as safety, operations and safeguards can only be achieved by effectively interacting with personnel representing each of these systems.

Effective implementation of an insider protection program in light of the new directives can be accomplished through sound planning and a strong management commitment to meaningful improvements. Good planning, with a firm set of goals and objectives that have reasonable milestones, are essential elements in the effective implementation of new requirements. This paper describes a structured approach to achieving effective and acceptable program implementation.

DISCUSSION

The DOE has in recent years issued a significant number of directives and guides to be implemented by site personnel. At most facilities, this has

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provided both Government and site personnel with a great deal of experience in trying to fulfill the objectives of a sound safeguards and security program in an environment where funding and personnel allocations are decreasing. Meeting these objectives becomes even more difficult when dealing with the insider threat.

This difficulty is created because significant economic and operational impacts can result from the integration of insider protection techniques into our administrative and operational procedures. Future increases in insider protection may result in even greater impacts, so we must proceed wisely in developing new approaches. The successful integration of insider protection systems with other site systems such as safety, operations, and safeguards can only be achieved by effectively interacting with personnel representing each of these systems.

Common management techiniques such as well defined goals and objectives with reasonable milestones all parties agree upon can be used as a tool in fulfilling the objectives of new directives or a sound insider protection program. However, devising corrective action which is acceptable to all parties is a common problem. Safety and operational constraints cannot be ignored if a new directive is to be sucessfully integrated into day-to-day operations.

A key element to the implementation of any directive is the determination of what the regulation is trying to achieve. The spirit or intent of any regulation can almost always be met through careful thought and ingenuity. However, getting all reponsible parties to agree on the definition of what was intended by a directive is not an easy task.

Implementation of the "intent" rather than the "letter" of a regulation requires site personnel to have a good working relationship with the cognizant Government representatives of the field office and/or Headquarters organization. Gaining the trust and confidence of these representatives is important to assuring that when a protection program is designed which addresses the "intent" rather than the "letter" of a directive/guide, all parties will agree.

At two of the Albuquerque Operations Office facilities, a "Task Force" approach was used to implement directives which addressed insider protection systems. The Task Force teams were able to identify corrective actions or upgrades which in the past had proven to be elusive and significantly improved the overall protectio of the assets at these facilities. Each Task Force consisted of management-appointed interdisciplinary teams with representatives from both contractors and Government. One of the reasons for the success of these teams was that representatives from all affected disciplines such as operations, safety, scurity, safeguards, and the Government were represented. The teams

also had the full support and recognition of upper management. This was achieved by having management formally recognize the problem and appoint Task Force members who not only had their confidence but were at a working level such that the operations perspective was represented. On both teams, the team leader was a representative from the contractors production or operations directorates. The appointment of the team leader in both cases proved the key element in assuring the success of the task force team's efforts. The leader understood the implications of the proposed upgrades and was often able to solicit compromises which met the needs of all task force members.

Outside experts were also used on both teams. These experts were selected from National Laboratories and used to bring in a different perspective on the problem being studied. The outside experts were an important tool in keeping the teams from becoming too limited in their approach to finding solutions.

After the interdisciplinary team was appointed, the formal study, which can be divided into well defined steps, was started . The first step was to define the problem and describe in specific terms what the team was trying to achieve. It is at this step that the intent of a directive was determined. Two studies were conducted at sites under the jurisdiction of the Albuquerque Operations Office. One of the studies addressed increasing the level of protection for a classified parts protection program which already met the letter of DOE directives. The other study addressed means for bringing a program into compliance with the special nuclear material surveillance directive requirements.

Clearly and concisely defining the objectives of the Task Force's assignment was extremely important to keeping the team on course and assuring that the objectives were met in a defined period of time. Taking the time to clearly define these objectives became invaluable later on in the study as team members would often try to stray or expand the study. In both cases, the Task Forces focused their studies an areas that were physically small enough to be carefully observed in a relatively short period of time, but were representative of other areas at the facility with similar protection problems. .

The second step was to have the team members personally observe the study areas. As any inspector will tell you, this is the only way to determine how things are really done rather than how they are supposed to be done. Observation of the work area during all shifts, as well as during normal and emergency situations is necessary to determine how the site's systems really work. Security or safeguards systems tend to break down or work differently during an emergency. Building evacuations play havoc on what are often very viable protection systems during normal day shift conditions. This step was important in determining how to upgrade the security systems so that the upgrades would be truly effective at all times.

The third step was to have the team identify those upgrades which would fulfill the true "intent" of the directive and solve the protection problem. Examples of how the approach differed for the two studies is that one study determined that adding all of the people necessary to comply with the "letter" of the "Two-man Rule" really increased the insider threat problem. The other study determined that meeting

the "letter" of the DOE directive may not provide a viable insider protection system for classified parts. Therefore, the proposed solution or upgrade must be carefully structured to assure that true protection is achieved and allow for additional expansion. The solution must then be formally validated or tested with operations personnel. This can be done by reviewing the proposed corrective action with operations and safety personnel informally. In one case, this step caused the team to reformulate their approach and try another method of implementation.

Safeguards and security personnel often forget that it is the responsibility of the operations personnel to implement safeguards and security directives. Operations personnel are the individuals who can successfully implement the upgrade or intentionally or unintentionally cause its demise. This emphasizes the need to involve these individuals in the development of methods for fulfilling the directives.

In the fourth step, the proposed solutions or upgrades were then documented in a report which was presented to the Government and plant management. Both Task Forces used a format which stated the observed problem or deficiency and then stated the proposed site specific corrective action. This approach to report writing made the proposed solutions more amenable to application throughout the plant or at other sites rather than just at the area which had been studied.

The final step used by the Task Forces was to perform a formal validation of the proposed solutions through the use of a formal analysis. This developed a quantifiable answer which allowed both plant management and the Government to clearly understand the defined threat and to determine if the cost associated with the implementation of the directive in light of the defined threat would be warranted. We will never be able to assume a zero risk posture at any nuclear facility. Therefore, in order for production or research to continue, management must be willing to assume some risk, formally and in writing.

Recommendations for upgrades that were developed using the Task Force approach were readily accepted because management had made the commitment to establish the Task Force and to implement recommended corrective action for a problem. Additionally, the proposed solutions did not have as significant of an impact on operations since both operations and safety personnel were an integral part of the team who developed the solution.

With today's shrinking budgets and tight personnel ceilings, all needed improvements, no matter how well devised, cannot be implemented at the same time. The establishment of well defined prioritized goals which can be achieved within the given budgets is a common management approach. The formulation of goals which define where a program should be rather than what one believes is possible to achieve helps to assure that a program progresses towards achieving the best protection program possible. In order for this methodology to be effective, both the Government and contractor must agree on what the protection program is trying to achieve. Long term goals for the "ideal" program can then be divided into yearly goals and six month goals which can be readily achieved. The use

of goals can be a successful method of achieving a well balanced system. The goals can be implemented through various funding options such as Line Items, capital equipment budgets, and General Plant Projects. Safeguards and security professionals must effectively use every budget means available to assure that their programs progress as rapidly as possible.

The issues which have been discussed in this paper are not unique. Certainly, clearly defined goals and objectives for any program which have been accepted by the contractor and field offices are important. These management tools coupled with a clear commitment by management to solve problems are key to the implementation of any program in today's environment.