

Motivating Investigators Toward Safety and Compliance – A New Investigator’s Perspective

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Introduction

The ability of environmental health and safety (EHS) personnel to successfully implement their programs is a function of several variables. These include the availability of suitable training materials, policies in effect to facilitate safeguards, and the ability to motivate the targeted community to comply or follow desired EHS procedures.

Motivating in this context is synonymous with bringing to action campus research personnel. The premise inherent in this paper is that EHS staff don’t capitalize on key academic motivational factors out of ignorance of such factors, convenience in not addressing them (i.e., preferring to deal exclusively with more concrete, technical considerations), arrogance, and too rigid a belief in the effectiveness of the compliance tradition typical of EHS functions.

Methods

This paper is written based on dual experiences of the author. In order to help the campus safety practitioner better understand academic elements, it is worthwhile to consider the altered perspective that comes from having been both an EHS staffer for a number of years, and then having transitioned to a faculty research and teaching position. For example, whereas it was once important to request labs be kept tidy, as a new principal investigator (P.I.) with limited funding it is more personally advantageous to hoard research items to avoid the need for buying these same items. Whereas the safety office routinely requests properly completed hazardous waste tags, the savvy P.I. may be more inclined to wait for waste “amnesty days” to receive turnkey waste pickups without perceived onerous requirements. As one who once admonished P.I.s to keep building aisles free of equipment, as a new P.I. such hallways and aisles are now considered as “no man’s land” and an area for which researchers are generally not responsible. Finally, while it is certainly important to minimize flammables on hand, the P.I. also seeks to minimize shipping expenses of such materials and so may be inclined to order a surplus of material to ensure the avoidance of more (expensive) shipping fees.

Factors

To understand motivational factors for P.I.s, it is valuable to examine pressures on this group. Staff pressures such as pleasing superiors, personal job satisfaction, ethics, and maintaining research area order, compliance, and safety have minimal importance in motivating P.I.s. Rather, academic pressures including tenure, the need to generate research based publications and grants, and be of community service are most salient to academic persons. In addition, whereas continued employment for staffers is typically based on satisfactory completion of a probationary period of 6 months – 1 year, faculty

are contracted year to year, with contract renewal decisions based on those same important elements of tenure mentioned above.

A second group of factors important to obtaining action from P.I.s has to do with where and how such persons enter the academic organization. The source is important because it offers insight to motivating factors and personality characteristics of the targeted community. There are three usual sources, and they include other institutions (especially for established investigators), new graduate Ph.D.s/M.D.s from national universities, and graduate students and new staff. For each of these three sources, salient characteristics will now be briefly mentioned. New investigators from other institutions are oftentimes tenured, making them valuable “Line” producer for organization, bringing with them grants which in turn generate the very important overhead dollars for their organization. As a group, such P.I.s may be described as worldly in that they understand the significance (or lack thereof) of proffered EHS safety actions.

In contrast, new Ph.D.s/M.D.s may be less astute but are certainly more technique proficient, will be under heightened pressure to attain tenure and grants, and may be hunting for opportunities (potentially at the cost of safety). As a group they are receptive to EHS directives but safety is seldom a priority, at least for low hazard category research.

The final group of new laboratory personnel includes graduate students and new staff. They may be more technically and politically ignorant, but are the most controllable in terms of EHS desires. Unfortunately, they are also the least capable.

Recommendations

To effectively motivate the three groups of persons described, five strategies are suggested. The various suggestions are more or less applicable to all types of researchers, but some are more pertinent to the different categories than others. The five approaches are: Forms, Forms, and Forms; What Have You Got to Trade?; The Personal Touch; My Mass Spec Cost More Than Your House!; and Never Send a Boy...(To do a Man's Job).

Starting with the Forms, Forms, Forms strategy first, it is wise to keep in mind one question: “Who's form is it, anyway?” that is being completed, and why is EHS trying to get it done by this P.I. Possible actions that may help motivate P.I.s to complete such paperwork include explaining to them that EHS function is actually part of a bigger health issue/benefit for all university personnel, providing necessary forms on web servers in PDF format, where possible providing pre-generated forms that are ready for signature, and not requiring typed forms if printed materials are legible. Best yet is to avoid the form altogether unless it is absolutely essential or necessary.

The What have You got to Trade technique acknowledges that safety services are not intangible, worthless services to most P.I.s. While outright trading of mandatory services is unethical and clearly not the mission of EHS groups, providing such services with the implication that P.I. cooperation and compliance assistance is always appreciated is entirely acceptable. Examples of such services include fire extinguisher checks/change

outs, fume hood checks and repairs, safety shower checks, wipe surveys by EHS, speedy r-DNA MUAs upon approval, provision of waste trading if acceptable, creating web server with key links to P.I. Interests (e.g., VWR, Hewlett-Packard, Cole-Parmer, etc.), and incentives such as inexpensive coco mugs or pens.

Oftentimes, scientifically trained or technically capable persons such as EHS staffers fail to succeed in laboratory safety through neglecting the importance of the personal touch. Decisions about laboratory operations, including safety, are made by people. For this reason the importance of the Personal Touch should not be ignored. Not only can including an interest in the P.I. be helpful to the EHS mission, but it costs nothing and has virtually no downside. Things EHSers might do to better facilitate P.I. relationships include developing mutual outside interest discussions, making an effort to meet new investigators and learn the details (and hazards) of their research, offering helpful advice or otherwise being a resource them on all matters (not just safety). By taking an interest in a P.I.s personal welfare and success, that individual is more likely to succeed, join or stay on the host organizations faculty, and become an EHS mission ally and supporter.

Any competent EHS director will understand the level of funding for projects in his or her research labs, for only by doing so is it possible to know the reasonableness of compliance or safety requests(My Mass Spec Cost More than your House!). Safety personnel should know costs of compliance for their recommendations, or should find out, and in all cases should endeavor to pay the organization's share of such expenses. Only after these obligations have been met will it be possible to find a truly receptive ear amongst the regulated community.

The final recommend strategy for motivating laboratory researchers toward safety goals is to know when additional assistance is needed. Some P.I.s, regardless of the number of concessions they have received from EHS, will remain recalcitrant, non-compliant or difficult. The Never Send a Boy... strategy involves steps to deal with such persons, including keeping one's superior informed early and often to ensure support if necessary, the creation of an EHS internal 'escalation' procedure to help lower EHS staff members interface and deal with such P.I.s, and the financial and off-the-job training for technicians and specialists on interpersonal communication.

Summary

EHS staff need to be cognizant of the pressures that affect the researchers in their laboratories. Only by understanding such factors can EHS be absolutely effective in accomplishing the EHS mission in all cases. Often relying too heavily on technical or regulator powers, EHS staffs should identify the three primary sources of P.I.s at their facilities and learn to practice interpersonal methods to heighten cooperation and compliance. Suggested methods in this article included efforts at minimizing the negative aspects of paperwork, providing EHS services to better anticipate reciprocity of actions on the part of the P.I.s, stressing personal relationships with P.I.s, accepting responsibility for legitimate EHS functions, and knowing when to involve higher levels of managerial support.