

# Environmental Support and Outreach To The Small Campuses Statewide

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## Presentation Outline:

- A. Just what is out there?  
Do we have a responsibility to support sites outside of the main campus?
- B. A closer look at the dynamic work between sites
- C. Environmental, health and safety support that is available
- D. Assessment of the sites/Roadmap for improvements
- E. Communications-The key to program success
- F. Programs Implemented for Site Support
- G. Budget considerations
- H. Process improvement
- I. Questions

## **A. Just what is out there?**

### **Do we have a responsibility to support sites outside of the main campus?**

*(PP-Shots of outlying sites, word slides and examples)*

I have been part of the University System of Georgia for 7 years, having spent 4 years serving the main campus in Athens, GA and 3 years working with the outlying sites. Sites outside of the main campus were always referred to as “B” budget and received a fraction of the funds and resources of the main campus. However, the work produced from these outlying sites is outstanding and very critical in the universities overall approach to being a top research university in the country. In fact, some of the researchers are world renown.

For years, the Environmental Safety Division attempted to initiate an effort to reach out to the outlying facilities, but did not get university support. Because of the lack of support, the extent of help/service was often limited to a once a year inspection. As the upper administration changed over the years, the attitude for support began to improve. About three years ago, the “first-of-a-kind” program for support to the University System of Georgia’s outlying sites began. It is referred to as “Support and Outreach to the Outlying Facilities.”

## **B. A Closer Look at the Dynamic Work Between Sites**

*(PP-Shots of water, crops, variations, and word slides and examples)*

The University of Georgia has about 50,000 faculty, staff and students at its main Athens campus location. The University of Georgia has a strong research history. In the outlying areas, the research falls into two main categories, marine and agriculture. Some of the sites are as small as 5 people, located on remote islands off the coast of Georgia. Other sites have upwards of 300 people and are located in the agricultural area of the state. The distance from the main campus to these sites ranges from 50 to 300 miles.

With the uniqueness of the sites, each environmental program is tailored to meet the need of that particular site. An example would be training. Sites were identified as having weak or non-existent programs for training. Annual training was developed for some of the larger sites, which captures a majority of the site personnel with a couple of classes annually. ESD develops and presents the classes. The smaller sites seem to find it better to train their people by way of the Internet. The main advantage to training the large sites in person is the opportunity to meet more people and open the door to better communications. Often times I have people come up after class to talk, and ultimately I end up in their lab looking at their specific concerns within their particular lab environment. The classes also make people aware of my presence, and make them more comfortable in talking with me or asking questions. As a result of the class, the

labs are safer and more regulatory compliant, including the great advancement in communications at each site.

Another example of the varying needs of the sites would be in their needs for hazardous waste disposal. Some sites will have a small box of waste, while others will have a truck-load. What can complicate this situation even more are the costs that are frequently charged to a small site to just have the truck show up. Though the chemical costs might be small, the trucking costs can be higher than the actual chemical disposal. As you will see later, the Environmental Safety Division's management of the entire hazardous waste process has eliminated this problem.

As you can tell by some of the examples, each site had to be tailored for the environmental health and safety needs that would best suit them. Though all the sites have the same basic foundational programs, they are adjusted to best support them in safety and regulatory matters.

### **C. Environmental, Health and Safety Support that is Available**

*(PP-Shots of labs during inspections, classes, equipment, etc.  
Additionally, text slides)*

The University of Georgia, being a very large campus with plenty of resources (the school started in 1785) has much to offer to the smaller and poorer funded sites. One of the greatest helps we can provide is the experience of laboratory safety and regulatory guidance. Considering UGA has thousands of research labs that are inspected yearly by the Environmental Safety Division at the main campus, we can use that expertise to help the outlying sites. What has resulted from the foundation of communication set up in the first year with the outlying sites is good feedback concerning questions about lab safety and regulatory guidance. By phone, fax and e-mail, I frequently get questions that range from general safety inquiries to complex questions concerning determination of a hazardous waste. If I do not know the answer at that point, in most cases I can find the answer through the resources within ESD or the university system. Also, our contacts with the state and federal regulatory agencies are strong, and they can be used as a resource, too. In more recent times, ESD has been instrumental in identifying equipment that would normally be discarded from the main campus, but is sorely needed at an outlying facility. Due to this effort, equipment has been located and transported to outlying sites. In the process, it continues to build stronger the relationship with the outlying sites. We help them in physical and financially ways, and they see that we really are there to help in any way possible. Two years ago this salvage effort was not in sight, but it is one of the blessings reaped from the effort to build a relationship with the sites. It is one of the hidden rewards of the job. (An example of this effort was the location of 3 fume hoods, that were ultimately transported to a site on the coast, about 200 miles away, at a time when a long needed renovation was beginning. The site had wanted fume

hoods but did not have money at the time. Now they have the equipment and are thrilled about the acquisition. I am also their best friend.)

It is interesting to note that the main campus does create programs and processes that are not of interest to the smaller sites. For years the main campus has been attempting to install a chemical tracking system that will track all chemicals, including hazardous waste. This is a very complicated system and would have to be installed at each site to allow it to function. None of the outlying sites have been interested in system. On the other hand, there are processes that are developed for an outlying site, and are well received by another site. With the use of the web site, it is easier to promote and provide information on any new ideas, processes or procedures.

#### **D. Assessment of the sites/Roadmap for Improvements**

(PP-Shots of labs during inspections, word slides)

- ❖ Evaluation of labs
- ❖ Evaluation of training requirements
- ❖ Evaluation of waste activity and disposal requirements  
(*PP-Word slides and example*)

Evaluation of Labs - In the old way of business, laboratories were evaluated on a yearly basis. The previous organization of environmental safety was considered to be environmental police. They visited the sites once per year, leaving behind a massive report of any “deficiencies” that were found in the lab. There were no real efforts to help the labs, and no real significant contact with labs at any time during the year. It was very clear that this type of system had to go. A good working relationship did not exist.

The new way of business - I wanted to make it clear from the start that I was there to help and support, not to police. I was there to help identify items of safety and regulatory compliance that the lab might be doing incorrectly or might not be aware. I also make it clear that it is up to them as to their intent and application concerning safety and regulatory compliance.

As an offshoot of an NOV that the main campus recently received, a self-check for each lab was created. This form is required to be filled out by each laboratory each month, and must be available for the Environmental Safety Division to review. This process has been added to the outlying facilities responsibilities because it will require the labs to self-check and not to just rely on the once per year inspection from the Environmental Safety Division.

Annual lab inspections comprise a visit to each lab, notifying them of any problems, concerns, or recommendations that I discovered. A few changes that I made from our pre-outreach program were:

- Work more directly with the researcher and the lab personnel rather than the dean. The list ultimately provided to the dean would be a simple summation of the site inspections, (actually a graph of the items found to be out of compliance) not a multitude of data from individual lab inspections. I believe the focus is where it has the most effect. The labs get the information they need to keep their shop in order, and the dean gets an overview and trend of the progress. This move helped relations between ESD and the sites and started to build a foundation of trust. Unless a lab is negligent of their responsibilities, they should have the knowledge to keep their area in order and the report to the dean concerning their area will indicate their effort. Labs that continue to be difficult are reported to the dean.
- If I find a problem or concern, and it can be corrected during my visit, I will not mark it down on the list of concerns. I will spend the time necessary, and help the lab personnel to understand why the item is a problem. In working with the researcher or lab supervisor, I earn their trust and it shows them that I am not out to police them, but rather to help.

Evaluation of Training Requirements - Sites that are large enough are perfect for annual on-site training. Usually there are two classes that are presented to try to accommodate everyone on site. If someone can't attend, I will either give a small group session or I will require them to take the course on line. The focus of these classes is not only to complete the requirements for training from the Code of Federal Regulations, but also to help the sites understand their relationship to the federal and state agencies. Too often personnel have no idea of what to expect from the state and federal agencies, or they misunderstand them completely. I have found it to be successful to use the class time to educate on some important areas:

- ❖ Who is the EPA (in our case in Georgia, the EPD)?
- ❖ What is their interaction with the campus or research site?
- ❖ What might they look for on a visit?
- ❖ What can they do to better prepare for a visit?

I have found it valuable to advise these facilities, "If you keep your lab organized in relation to chemical compatibility, waste containers closed, proper personnel safety, etc., you will be well along the way to being regulatory compliant." Everyone needs to know that the environmental protection agencies are there for a reason, and how they must learn to interact with them. Do not let the sites depend

totally on you to “teach them” all there is to know about regulatory agencies? The individual sites need to take responsibility in this area.

Evaluation of Waste Activity and Disposal Requirements - As I stated earlier, the top item on the list for, “area of biggest concern” was hazardous waste disposal. I was blessed to have had plenty of experience in the area of hazardous waste disposal and contracts, especially when I managed the hazardous waste program and Hazardous Materials Treatment Facility for UGA. In 2001 I spoke at this conference concerning hazardous waste and selection of vendors. In my evaluation of the sites, I found internal problems in addition to vendor related problems. First of all, the people responsible for determining which vendor would be chosen were all at a great disadvantage, in most cases having no credible experience to make such a selection. Often times selection of a vendor and frequently the whole process, was an addition to their regular responsibilities. Once the vendor was selected, frequently on a low bid, (considering how most procurement offices at universities operate) it was normal for the vendor to take advantage of the site. On sites that are very small, the cost to just show up was horrendous. The typical abuses were also evident upon a review of past disposals, i.e., extra fees after the waste was already been removed (remember in my 2001 lecture that where I stated that we required “a chemist from the vendor for all shipments” and that “a company may test or analyze at their own cost for determination, however, once the chemical is removed, there will be no additional costs.”) Also, the common problem of pricing items low to get the bid, and then find items in labs that became extreme emergencies or so they said. The vendor would gladly offer to remove it for an astronomical price. (Remember in my 2001 lecture that I purposely ask for a bid on dry Picric Acid, and got a range from \$50 to \$6000) These are just a few of the abuses suffered by the sites, not to mention that these problems caused the sites to shy away from frequent removals, leading to excesses of chemicals and too infrequent hazardous waste shipments. Overall safety and regulatory compliance suffered greatly.

Having gone through the exercise for years to determine a vendor for hazardous waste, I already knew the vendor that I wanted to perform the work. The next step was to work with the vendor to see what we could arrange for such a wide variety of sites. The answer was a contract that provided the same prices that had been established for the main campus by the already proven and reliable vendor, applied to all the sites, regardless of size or waste amount. How did this work? It worked by planning a “milk run,” that allowed the vendor to make a swing by all the sites, a round trip of about 500 miles over the period of about 3-4 days. This not only allowed the prices to be the same from site to site, the service equally exceptional, but very importantly insured that hazardous waste removal was available at every site in a consistent time frame. Already we were moving in a far superior direction, having solved numerous problems. These are just some of the items that are vast improvements over the old process:

- Sites do not have to have any involvement in the determination of hazardous waste vendors, which removed the hassle of the process, the cost of time, and the results of a decision that frequently went bad
- All sites now have a great pricing scheme, which was far better than they had ever experienced, with no concern about being hit with surprise pricing
- In most cases, the sites provide me with a list of their hazardous waste and I get the items priced. I return the information to the sites and all they have to do is cut the PO
- I work with the vendor and the site to determine a suitable date and coordinate any plans
- All sites are getting superior service, with the consistency of knowing what to expect every time
- Sites were having shipments on a regular basis, which not only made them more regulatory compliant, but put the responsibility on them to ensure that they regularly performed chemical inventory and moved out the hazardous, old, unknown, and unnecessary chemicals
- Having this system in place, upper administration became very supportive in putting the pressure on all researchers to get rid of your waste and chemicals.
- During my inspections, I look to see if the waste is moving in a timely manner
- Lab closures can work smoothly and helps to truly dispose of chemicals before the researcher leaves
- With the known vendor and reputation, sites won't be taking a chance of being part of a Superfund clean up
- Ultimately, the lab is a safer place to work.
- Response to emergencies are greatly reduced

#### **E. Communications-The key to program success**

(PP-Shots of labs during inspections, word slides)

I had the opportunity to begin this program with an audience that was in great need or help and attention. In the very beginning, I went in asking what I could do for them.

I remember that my first question, rather than going in with a wonderful plan, was to ask, “What is your greatest need that is outside of your control, which I can help you solve?” In my particular case, every site had the same answer, which happened to be the whole process of hazardous waste disposal.

There was a great deal of time spent with the dean and associate dean for each site. For the larger sites, I sent out web information concerning my work with the site. As classes were identified, especially those that made the site more regulatory compliant, it became evident that I could help protect them and it gave me the face time with all those who attended class. During the class, I made it very clear that I was not there to enforce rules, but to work with them and help. The idea I was there to help was not completely accepted, but over time most have become comfortable with the idea. They also understood that it was really up to each site and facility to operate in a safe and regulatory compliant condition. I really wanted them to understand that their intent would be the driving force behind the quality of their program. As a whole, most facilities are very proactive and operate safe labs.

#### **F. Programs Implemented for Site Support**

(PP-Shots of labs during inspections, word slides)

The plan for site support of the outlying facilities is comprised of many areas. With the wide range of functions across the many sites, no two sites have the same support. There are areas of support that occur at every site and those that only apply to some sites. Within each area of support, the degree of involvement also varies for each site. There is an ongoing review utilizing process improvement that allows the degree of involvement to adjust for the current need. Listed below are the two areas of support functions:

##### **Support Provided for Every Site:**

- Laboratory inspections
- Fume hood flow testing
- Eye wash and shower testing
- Regulatory guidance

##### **Additional Support for Selected Sites:**

- Radiation safety inspections
- Identification, development and presentation of training

- Respiratory protection fit testing
- Coordination and management of the entire hazardous waste disposal process
- Web site information and updates
- Supply of surplus equipment
- Support in site improvements and repairs
- Support in adopting and implementing main campus environmental policies

**G. Budget considerations**

(PP-Shots of labs during inspections, word slides)

The job of assessment, development and implementation for the outlying facilities was initially created as a one-person job. Part of that decision was to see just what success could actually be attained in this groundbreaking position. At this point, 3 years into the project, the results have been great. There is nothing your boss likes better than to have someone who works very independently and receives great feedback from multiple sites. I believe that there were questions concerning the value of the program, but I think the program has made a strong statement concerning its very positive impact to warrant longevity of the program.

In the area of actual costs, it is amazing what can be done with a small budget. There is, of course, the cost of the salary for the person managing the program. In our case, I was already on the staff, and had been the manager of the hazardous materials treatment facility. Additional costs fall primarily into travel costs. On a typical overnight trip, I usually spend approximately \$100, not counting gas. We fill up at the university main campus and then use a gas card for fuel on the road.

In my case, there are sites that are less than 100 miles away, and they are day trips. The rest of the sites are 200-300 miles away, and comprise the overnight trips. However, to make the most of the money, I usually combine trips. With this plan, I will travel to a site, perform my work, and then travel to the second site by the end of the day. The next day I work with the second site, and return home. My total overnight trip might cover 600 miles, but I have visited two sites in the process. Other costs, i.e., the operation and maintenance of the web site are built into the operating expenses of the division.

If I have the opportunity to request any additional funds, it is usually for events like this conference or training.

## **H. Process improvement**

(PP-Shots of labs during inspections, word slides)

- Adjustments over the first three years

I believe that everything should be approached from the process improvement standpoint. Starting the “Support and Outreach for the Outlying Facilities” Program from its inception has allowed me the luxury of seeing its entire growth. The foundation stones still remain as the focus and basis of the program, but other support mechanisms have been added over the years. It is as if plans for the building of a house have been modified, but the foundation has remained the same. Some of the changes have come from adapting to changes in the administration while others have been driven by changes in the environmental field.

Because of the solid planning originally that was built on communications, the process has been able to flow and improve. Communications not only means to contact people and let them know who you are, more importantly it means to ask the sites to tell you what they need. What a big difference there is in giving something to the sites that you think they should have rather than just asking the sites what that really need. Surprisingly when I ask the question to the sites, “what is the biggest problem you have,” the reply was the same for every site. What makes the same response even more amazing was that even with the vast difference in site size, location, and research, their need was the same. With this simple approach, knowing that it was about their need rather than what I thought they needed, I found a common problem that I was able to help with special expertise because of my past work history. In addition, once that problem was under control, it solved the problem at every site. That was a lot of bang for the buck. We are still rolling along with the process and the sites are all very happy. I continue to have a great number of calls and e-mails thanking me for the hazardous waste disposal process.

## **I. Questions**

This final segment will be questions from the audience.