



## The Art of Biosafety Auditing in Industry

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The goals of any Biosafety Program are:

- to prevent employees and their families from acquiring laboratory-associated infectious diseases;
- to prevent contamination of the environment and promote environmental quality;
- to comply with all national, international, and local regulations for the use of biohazards; and
- to conform to prudent biosafety practices.

Each of these components are equally important to maintain a comprehensive and effective program. It has long been recognized that safety plays a critical part of conducting business, not only in maintaining a safe environment for the employees, but also in protecting the interests of stockholders and the surrounding community. More and more companies are realizing just how important safety is to their business, and this is becoming evident in the emphasis, which companies are placing on safety to ensure that safety issues are rated with the same importance as profits and quality.

This article will attempt to illustrate the differences between inspections and program audits. It will also provide some insights into how Management Systems can be used to ensure that a site's programs are not only effective, but also that the programs are maintained in a robust state.

First, what is the difference between an inspection and an audit. An inspection is a snapshot of the physical conditions observed at the site at a particular point in time. A physical conditions inspection is a useful tool for identifying noncompliance issues occurring at the time of the inspection. It may not, however, identify the underlying causes for the noncompliances observed. Inspections are usually carried out with the assistance of a checklist that lists various categories of safety-related issues, such as fire safety issues (e.g., location and state of fire extinguishers, blocked emergency

exits). An inspection may be used to record observations regarding how biohazards are used at the site (e.g., proper use of PPE, proper storage of biohazards, proper disposal techniques, etc.).

Several types of inspections can be conducted. "Informal Inspections" are conducted during the normal workday by the employees or supervisor within the department. This type of inspection is useful but may be limited in its effectiveness. Because it is usually conducted by individuals within the area, it may not be totally objective. A checklist may or may not be used, and documentation of these "Informal Inspections" are usually inconsistent and sketchy. It is also more difficult to identify potential deficiencies if the "inspectors" are too close to the source and do the same things over and over again. Additionally, an "Informal Inspection" may also miss things that take extra effort to find (Byrd & Germain, 1985). Another type of inspection is known as a "Planned Inspection." These inspections are generally more comprehensive than "Informal Inspections" and are planned well in advance. Announced "Planned Inspections" take place at designated times within predetermined areas. An announced planned inspection will provide a good demonstration of ongoing compliance with regulations and company policies. However, one drawback of announced planned inspections is that employees are usually aware that the inspection will be conducted and may then be prepared for it and may do things they do not normally do. This is not necessarily a bad thing, since it forces the employees to reevaluate their actions on an ongoing basis, but it may not present an accurate account of what is actually happening. "Unannounced Inspections" can also be conducted. "Unannounced Inspections" usually present a good picture of the employees' level of compliance with site rules and regula-

tions. "Routine Announced Planned Inspections" and "Unannounced Inspections" should be used together to ensure that employees and supervisors are complying with set rules. Inspections can also be carried out by various levels within the organization. Inspections can be conducted at the departmental level and include employees and supervisors, they may be conducted by a site safety committee (or site Biosafety Committee for biosafety inspections), or they may even be conducted by a site management team consisting of senior-level management staff. This management inspection team is very powerful. "Management Inspections" allow senior management to stay abreast of current activities at the site and, at the same time, demonstrate their commitment to safety.

An audit is a comprehensive evaluation of the entire program that reviews the current arrangements that are in place to ensure that the program is operating effectively. A physical inspection is actually conducted as a component of a comprehensive audit. An audit is also very paperwork-directed. In other words, documentation plays a very important role in the conduct of an audit. Another aspect of an audit is that many more interviews are conducted than during an inspection. Extensive interviews with employees, supervisors, and, especially management, are conducted by the auditors. A typical audit consists of reviews with personnel involved in all aspects of the site safety programs including the safety manager, industrial hygienist, the occupational physician(s) and nurse(s), fire specialist, maintenance workers, engineering staff, human resources, purchasing and procurement, warehouse manager and staff, emergency response coordinator, training coordinators, area supervisors, line personnel, and senior site management. Conversely, during an inspection some employees or supervisors may be questioned during the course of the inspection, but only those individuals who may be present at the time of the inspection are normally questioned. An inspection does not usually involve senior site management, since they are usually not present during the inspection. In addition, an audit requires that a significant number of employees, supervisors, and management be interviewed so that the results are statistically valid at 90%, 95%, and 98% statistical significance. To achieve a 95% statistical significance at a site with 300 employees, 66 individuals at various levels and job tasks would have to be inter-

viewed to verify that the program is implemented properly.

Many companies have embraced the International Organization for Standardization (ISO) standards which cover quality (ISO 9001 series), and environment (ISO 14001 series). In addition, OHSAS 18001, the Occupational Health and Safety Assessment series of guidelines developed by the British Standards Institute to establish health and safety specifications to manage safety issues, has been developed to be consistent with ISO 9001 and ISO 14001 specifications, although it is not currently accepted as a British Standard. ISO is a non-governmental organization whose membership is drawn from 110 countries. Adherence to ISO standards is completely voluntary, and ISO has no authority to enforce the implementation of its standards; however, various certification bodies have been empowered by ISO to assess compliance with ISO standards, make recommendations to determine whether a specific site or company is adhering to the standards, and certify them as ISO compliant with ISO 9001, and ISO 14001. Non-adherence to ISO standards would result in a site or company not receiving or losing its ISO certification. ISO standards consist of requirements for the implementation of a Management System that may be objectively audited. A Management System is a collection of procedures that describe how a specific operation is to be conducted, who is responsible, what steps are to be taken, and when. The ISO standards by themselves are not considered a Management System. Rather, ISO requirements set forth specific required elements of a Management System to ensure that quality, environment, and safety issues are adequately managed within the organization.

There are benefits for becoming ISO certified as well as negative consequences. Many companies will do only what is necessary to maintain compliance with regulatory requirements. Regulatory requirements, however, vary significantly depending on the country and even within a country. A company located in a country with few safety regulations would not feel compelled to be proactive in its approach to safety issues. Many international or global companies recognize this deficiency and have developed safety standards for their organizations that ensure an equality of safety protection for their employees world-wide, no matter what the regulatory requirements are in a specific country.

These companies have established minimum standards based on accepted best practice within their industry. Of course, where regulatory requirements are more stringent than company standards, the former would be followed. Effective Management Systems are being recognized as an investment not only to improve safety performance but also to improve business performance. Effective Management Systems have been shown to reduce injuries and therefore reduce the associated cost of lost-time and workers' compensation to the company, reduce the cost of training, reduce legal costs, and limit litigation. Management Systems have also been shown to have positive results by demonstrating increased job performance, increased productivity, increased employee morale, improvement in staff recruitment, as well as increased public image. There is a down side to Management Systems, however. Management Systems are very paper intensive. They require procedures describing each program. In many cases multiple procedures are required to describe the operations of each program. Implementation of the written procedures requires time, resources, and staff. Management Systems also require constant monitoring and updating to remain current. The results, however, will be an effective, efficient, and robust program ensuring ongoing compliance regardless of who is running the program.

A Biosafety Program is one component of a Management System. There are many other components that affect the operation of the Biosafety Program (e.g., the Emergency Response Program, the Accident Investigation and Reporting Program, the overall site Training Program, the Maintenance and Engineering Program, to name a few). Elements within the Biosafety Program are as follows:

- appointment of a competent coordinator;
- conducting a comprehensive risk assessment;
- ensuring the establishment of appropriate Biosafety Committee(s) as necessary;
- conducting an inventory of biohazards and developing a registration process;
- ensuring that appropriate training is provided and documented;
- establishing adequate standard operating procedures for the work being conducted;
- developing and implementing emergency response procedures;

- ensuring that appropriate medical surveillance and vaccinations are provided; and
- ensuring that there is a method for evaluating the program's effectiveness (through inspections and audits).

Once the components of the Biosafety Program are defined, the next phases of implementing the program, conducting inspections to ensure continuous compliance with the established program elements, and auditing the program to evaluate its effectiveness can begin.

A comprehensive audit of a safety program can be broken down into steps.

### **Step 1: Pre-planning**

Many items that need to be taken care of before the audit takes place. Pre-planning is essential to ensure a smooth and efficient audit process. The first task is to determine the resources required to conduct the audit. The number of auditors and any specific qualifications required to conduct the audit will depend on several factors including the size of the site being audited, the number of employees located there, the complexity of the site operations, the hazards associated with the operations, the quantities of hazardous materials, the local regulatory complexities, and any other special requirements particular to the site (e.g., use of radioactive materials, biohazards, presence of on-site waste-water treatment plant, on-site incinerator, etc.).

A lead auditor needs to be identified who will coordinate all aspects of the audit. Initial contact needs to be established with the site manager and safety representative to alert them of the intent to audit. This may be done through either a memo or personal contact. The lead auditor then needs to establish a time frame for the audit and coordinate scheduling with any co-auditors. Contact with the site can then be reestablished and proposed dates for the audit provided to the site management. It is important to provide the site with optional dates so that personnel feel that they have some control over the timing of the audit. Once a date has been agreed upon, a confirmation memo should be sent to the site manager with copies to other interested parties (site safety coordinator, up the line of command to the site managers boss, and to co-auditors). This memo should contain the date of the proposed audit, a detailed agenda, the goals and objectives, and any expectations. As a follow-up, a detailed

agenda may be needed to ensure that the appropriate individuals are available for interviews, although the agenda may be changed once the audit starts based on the progress of the audit and the availability of the staff. The lead auditor should contact the site manager or safety coordinator the week before the audit to ensure that all is prepared and there are no surprises or last minute changes.

Before the auditors leave for the audit, the lead auditor should prepare the following and ensure that all auditors have the material in enough time to review and prepare in a timely fashion:

- a copy of the previous audit report;
- any available regulatory standards or requirements;
- the audit checklist (see pages 150-154); and
- any available additional background information (e.g., accident reports, OSHA log, first-aid log, any enforcement proceedings or reports).

In addition, it is the lead auditor's responsibility to ensure that all travel arrangements are made and communicated to co-auditors (airline reservations, hotel reservations, local transportation), and any necessary requirements are met (e.g., passports, visas, required travel vaccinations). It may be useful to use a pre-audit checklist to ensure that all appropriate preparations are completed (see page 155).

## Step 2. Conducting the Audit

### Opening Meeting

The audit team should plan to arrive at the site at least 15 to 30 minutes prior to the scheduled meeting time and ensure the following steps are done:

- reconfirm the availability of an overhead projector for the opening presentation;
- reconfirm the attendee list for the opening meeting (e.g., site Manager and management team representatives);
- let the Site Manager open the meeting and present an overview of the site operations;
- start the meeting for the audit team and introduce the audit team to the attendees;
- inform the attendees on how the audit will be conducted (e.g., via inspections, record reviews, and personal interviews) to ensure they are prepared to schedule time for themselves and whoever else may be deemed appropriate;

- review the agenda for the week including establishing times for a pre-closeout meeting with the site Safety Coordinator (to allow for a review of audit findings for factual content and to ensure that there are no surprises for the Safety Coordinator during the closeout meeting with management) and the management closeout meeting (which follows the pre-closeout meeting); and
- allow time for questions and answers after the opening meeting.

### Interview Schedule

A tentative schedule for Environment and Safety reviews and interviews may have been developed before the audit in conjunction with the site Safety Coordinator. If a schedule was not set before the audit, it is completed after the site tour and is reviewed at the end of each day. The auditors should adhere to this time schedule. Requests for additional time should be scheduled if required.

### Site Tour

The site auditors should review the site plot plan and any facility maps prior to the tour. The auditors must wear the appropriate Personal Protective Equipment (PPE) during the tour. A site representative guides the tour of the site's operations.

The following issues should be reviewed or noted where appropriate:

- Allow the site representative to guide the tour, but keep in mind the goals of the tour, which are to:
  - obtain an overview of the site's operations;
  - examine the process flow of the site operations;
  - verify the existence of environment and safety programs;
  - verify the use of required PPE and appropriate environment and safety controls;
  - see where more emphasis may be required in specific areas later in the audit;
  - determine the Safety Coordinator's knowledge and understanding of site operations;
  - determine site management's commitment to the safety program; and
  - determine how large the operation/site is to help evaluate the time it takes to complete the audit.
- Take notes during the tour detailing the following:
  - Observations: both positive and negative;

- location where the observations were noted;
- areas where further investigation may be required;
- names of specific individuals within various areas for future interviews or document checks (e.g., training records); and
- any regulatory issues for further investigation.

Note: If there is an immediate threat to human life, or risk of serious injury, or risk of an imminent environmental disaster, then the issue/observation must be remedied immediately, or as soon as possible.

A post-tour discussion should be held with the other assessor(s) to exchange observations. After this discussion, a meeting may be held with the site Safety Coordinator(s) to adjust the schedule, schedule interviews, or clarify observations.

### **Document Review and Physical Inspection**

Before the Performance Assessment (PA) team arrives, the site Safety Coordinator(s) should have gathered all of the site's documentation that was listed in the confirmation letter in a central location area for ease of review. The PA team should review all appropriate documentation and conduct a physical inspection to verify implementation of the procedures and document the findings.

The Lead Auditor should schedule time at the end of each day to:

- review progress of the audit;
- make any schedule changes;
- schedule additional physical inspections for areas identified during the site tour;
- schedule additional interviews; and
- obtain additional required documentation necessary to complete the audit.

Ensure that the Safety Coordinators have time at the end of the day to review their e-mail, check and answer phone mail, and obtain any additional information you have requested.

### **Pre-closing Meeting Conference**

The Lead Auditor should:

- confirm the pre-closing meeting time during mid-audit;
- ensure that the Safety Coordinator(s) and any other individual requiring knowledge and input regard-

ing all audit findings is present at the pre-closing meeting (the Site Manager may choose to sit in on this meeting or wait until the closing meeting to hear the results); and

- review all findings and proposals at the pre-closing meeting.

### **Management Closing Meeting**

The Lead Auditor should ensure that:

- time of the closing meeting is reconfirmed with management prior to the last day of the audit to ensure that all appropriate personnel are present for the meeting;
- the closing meeting reviews all major findings and proposals; it may present some detail but does not have to be as detailed as the pre-closing meeting;
- the report format is shown and site management receives a description of how the draft and final reports will look; and
- management knows what post-audit tasks are expected from them and review the time frames for these tasks.

## **Step 3. Post-audit Tasks**

### **Draft Report**

You're back at the office, the audit is over, and you can relax...wrong! There is still a lot of work to be done. All of the auditors must now write up their observations and recommendations, including additional verification, as necessary. Sometimes, regulatory findings need to be researched further to ensure that the findings are justified. The number of auditors involved in the preparation of the draft determines the complexity of collating the comments into one report. Once the draft report is written and all of the proposals are added, the lead auditor must ensure that the comments and proposals are balanced against what was said at the site. The final check is a spell-check for spelling and grammatical errors.

### **Peer Review**

Now it is time for a peer review. After the draft has been reviewed by another Safety professional, changes need to be made and a final draft prepared.

### Site/Legal Review

The final draft is now ready to go to the company Law Department for a legal review, and it should also be sent back to the audited site for a verification of facts.

### Final Report

When the draft report returns from the legal and site review, you can then review the comments. All of the comments don't necessarily have to be incorporated into the final report, you just need to review and evaluate them. If they make sense, you can either accept them, call the legal/site reviewer back to clarify and/or negotiate, or reject the comments (just be prepared to defend your stance). The final report can then be compiled along with any graphs or data and distributed to the appropriate individuals within the organization. Remember, the higher within the organization it goes, the more serious it will be taken. Again, you need to make sure it has an Executive Summary section (since this is all the executive management will read) along with some simple summary graphs (which can be supplemented with more extensive graphs of individual performance).

### Action Plan

Now it's all over and you can relax...wrong again! Now you need to make sure that the final report is used to develop an action plan. This action plan should contain all of the proposals in the final report along with major milestones noted, assign a responsible individual, and note total time and resources necessary, a target completion date, and the actual completion date. This action plan should be submitted for review by the audit team to ensure that it adequately addresses the deficiencies and issues noted and that the timeframe is reasonable. For example claiming that a regulatory deficiency will be corrected in five years might not be ac-

ceptable. The action plan can then be approved for site implementation. Progress against this action plan should be checked at least semi annually.

### Follow-up

There are several options for follow-up. The first is the use of an action plan update to ensure that items are progressing. Another might be a site visit follow-up focused only on the proposals and action items from the audit. If another EHS professional needs to visit the site for another reason (e.g., training or attending a local meeting), he or she should provide assistance in some specific area, they can also check on the progress of the action plan. In any event, the next scheduled audit, whenever the audit cycle is, should be the final check on the action plan. The previous Audit Action Plan should be used as one of the auditing criteria, with any unresolved issues becoming a new action item proposal on this audit. Mention should be made in the report that it was an unresolved action item from the previous audit for extra emphasis.

### Conclusion

Auditing is an art. You have to be a diplomat, an expert, a friend, a colleague, and sometimes the bad guy. Remember, the point of this whole exercise is to protect the employees, the environment, the surrounding community, and the company's interests. The audit is a tool to ensure that the Biosafety Program is running as it was intended to run.

### Reference

Byrd, F. E. Jr., & Germain, G. (1985). *Loss Control Leadership*, Loganville, GA: International Loss Control Institute.

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<b>Audit Checklist</b>				
	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Comments</b>
<b>1. Designation of a Biosafety Coordinator</b>				
Has a qualified Biosafety Coordinator been designated?				
Are the responsibilities of the Biosafety Coordinator included in his/her job description?				
Is the Biosafety Coordinator provided with an opportunity for further training?				
<b>2. Risk Assessment</b>				
Is there a documented inventory of all biohazards onsite?				
Have all biohazards been classified into the appropriate Biosafety Levels (BSL-1, BSL-2, or BSL-3)?				
Is there a documented risk assessment indicating the risk the identified hazards represent?				
Are there appropriate controls in place to minimize/eliminate the risks?				
<b>3. Posting/Labeling</b>				
Is there any work in the micro lab with BSL-2 or BSL-3 microbes?				
If yes, are Biohazard signs posted on all entrances to the micro lab?				
Are all refrigerators/freezers containing biohazards labeled with a biohazard sign?				
Is all lab equipment that may be contaminated labeled with a biohazard sign?				
Are all containers holding biohazards labeled with a biohazard symbol?				
Are MSDS's available for any biohazards used in the lab? (available from CE&S or Health Canada)				
Are MSDS's available for any hazardous chemicals used in the lab?				
<b>4. Training</b>				
Has a training needs assessment been conducted for all required training for the micro lab employees?				
Have all employees attended orientation training?				
Have all lab employees attended Chemical Hygiene or Hazard Communication training?				
Have all employees been provided with training on how to read an MSDS (Material Safety Data Sheet)?				

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	Yes	No	N/A	Comments
Have employees been provided with task specific training by the lab supervisor?				
Was all training provided adequately documented?				
Was a training syllabus available for each training course detailing contents of training provided?				
<b>5. Engineering Controls</b>				
Are BSL-2 agents used in the lab?				
Does the lab contain a sink for handwashing?				
Is the lab under negative pressure in relation to the entry corridor?				
Are there laminar flow hoods located in the lab?				
Are the laminar flow hoods used for any work with biohazards?				
Are there Biosafety Cabinets (BSCs) available in the lab (Class I or Class II)?				
Are any hazardous chemicals, volatile solvents, or radioactive materials used in the BSC?				
If yes, is the BSC one of the following (Class I, Class II B1, Class II B2, or Class II B3)?				
Are BSCs located away from laboratory doors or other sources of airflow disruptions?				
Are the front grills of the BSCs blocked or covered?				
Are BSCs installed directly opposite one another?				
If yes to above 3 questions, has any smoke testing been conducted to identify airflow problems?				
Are the BSCs certified at least annually?				
<b>6. Personal Protective Equipment</b>				
Has a Personal Protective Equipment risk assessment been conducted, documented, and certified?				
Are lab coats worn in the lab work area?				
Are latex gloves worn when handling biohazards?				
Are HEPA respirators used in the lab?				
Are the respirators used for culturing bacteria? Decontamination?				
Are the respirators used for biohazard spill clean-up and decontamination?				
Is there a written Respiratory Protection Program at the site?				

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	Yes	No	N/A	Comments
Does it include medical evaluation for the use of respirators?				
Does it include fit-testing of the respirator?				
Does it include training in the use, care, and decontamination of respirators?				
Are safety glasses with permanently affixed side-shields required to be worn?				
<b>7. Biosafety Manual</b>				
Is there a Biosafety Manual located in the lab area? Are there written standard operating procedures (SOPs) for tasks involving biohazards? Are all lab personnel familiar with the location and content of the Biosafety Manual/SOPs?				
<b>8. Bloodborne Pathogens (human blood, body fluids, or tissues)</b>				
Does the lab process or handle human blood or body fluids?				
Does the lab culture human cell lines (primary or established)?				
Does the lab culture clinical samples from humans (e.g., throat cultures, skin swabs)?				
Has training in Universal Precautions been conducted and documented?				
If yes, are Universal Precautions for work with human materials followed?				
Is there an Exposure Control Plan (ECP) for Bloodborne Pathogens?				
Have lab personnel working with human materials been offered the Hepatitis B vaccine?				
Are there procedures in place detailing what to do in the event of an occupational exposure to biohazards?				
Does the micro lab use needles or other sharps?				
If yes, has the micro lab evaluated the use of safer medical devices and documented this evaluation?				
Does the micro lab address the safe handling and disposal of needles and sharps in their ECP?				
Does the micro lab maintain a needlestick injury log?				
If yes, does the log contain the type of device involved, and where and how the incident happened?				
<b>9. Biohazardous Waste Disposal</b>				
Are there Biohazardous Waste Disposal Procedures in place and implemented?				
Are Biohazardous Waste Disposal records maintained?				

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	Yes	No	N/A	Comments
Are BSL-2 agents used in the lab?				
If needles/sharps are used, are they placed into leak-proof puncture resistant containers?				
Are autoclave test strips included in every load (to demonstrate attaining 121 deg.C)?				
Are biological indicators used to verify decontamination?				
Are autoclave records maintained?				
<b>10. Biohazard Spill Management</b>				
Are there written spill and decontamination procedures for accidental biohazard releases?				
Are there adequately stocked and prominently labeled biohazard spill kits in the lab area?				
Are contents of biohazard spill kits inspected and restocked as necessary?				
Have all employees been provided with biohazard spill clean-up/decon training?				
Is the biohazard spill/decon training adequately documented?				
Are there procedures detailing medical response for exposed employees?				
<b>11. Transportation of Biohazards</b>				
Are there written procedures in place for onsite transportation of biohazards?				
Are there written procedures in place for offsite transportation of biohazards?				
Are receiving personnel trained in the receipt of biohazards?				
Are lab personnel trained in the opening of packages containing biohazards?				
Are written procedures in place for handling leaking or damaged packages containing biohazards?				
Are spill kits available in receiving for biohazard spills?				
<b>12. Medical Surveillance</b>				
Is there a medical management program for biohazards?				
Are medical records involving employee exposure to biohazards appropriately maintained?				
<b>13. Accident/Incident Investigation and Reporting</b>				
Is there a process for reporting and investigating injuries/illnesses involving biohazards?				

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	Yes	No	N/A	Comments
Are accident/illness investigation reports maintained?				
<b>14. Inspection Program</b>				
Do lab personnel conduct self-inspections of the micro lab area?				
Are the micro lab inspections adequately documented and records maintained?				
<b>15. Behavioral Observations:</b>				
Are lab doors closed?				
Is signage appropriate for the lab (e.g., Biohazard symbol, "Caution Biohazard" with identity of biohazard)?				
Are all employees wearing safety glasses in the lab area?				
Are employees wearing gloves when handling biohazardous materials?				
Are employees washing their hands frequently and after handling samples?				
Any evidence of eating, drinking, or applying of cosmetics in the lab area?				
Are there automatic pipettors available for use in the lab?				
Are any food items stored in the refrigerator/freezer labeled with a "Biohazard" symbol?				
Are all biohazard waste receptacles closed/covered when not in use?				
Are spill kits visibly labeled, readily available, and fully stocked?				

**Pre-audit Checklist**

1. Confirmation memos (Site General Manger and Environment/Safety Representative)
2. Audit Checklist (blank)
3. Previous Performance Assessment/Audit Report
4. Previous Site Action Plan and Implementation Schedule and any updates
5. Other pertinent information regarding site (e.g., any regulatory citations, accident/incident reports, violations/citations, accident/illness statistics, required immunizations)
6. Travel arrangements (airline tickets, itinerary, hotel/limo/car rental confirmations)
7. Directions to site, local maps
8. Local currency (if required)
9. Company Standards and current regulations as needed
10. Personal Protective Equipment (safety glasses, safety shoes, other PPE as required)
11. Prior to leaving for the audit ensure that the following computer equipment is available: 
  - Laptop computer
  - Appropriate electrical converter for country being visited
  - Appropriate computer accessories as required (e.g., CD drive and floppy disk drive)
  - Blank diskettes
12. Ensure that appropriate files are available on the laptop computer's "C" drive including: 
  - Audit Template
  - Audit Score Template
  - Previous audit write-ups for the site visited (if available electronically)
13. Obtain safety equipment, as required (e.g., noise meter, velometer, smoke tubes, and Draeger tubes/pump)
14. Insurance Fire Reports (when available)
15. Medical considerations (e.g., site and country requirements)
16. Medical Trip Pack (contains OTC medicines, band-aids for emergencies)
17. Facility profile for site
18. Opening and Closing Meetings slides