



# Creating an Environmental Management System

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## **Creating an Environmental Management System**

**So, let's say you decide to implement an Environmental Management System. You have decided to do this due to an environmental violation, internal audit, a regulatory requirement, or because you understand the cost effectiveness of having a System in place.**

The questions people often ask when faced with this task are how much will it cost to establish and maintain such a System, how long will it take and how do we start on this task.

*First establish management commitment to environmental and safety compliance.*

***Some of the worst news you can get is that you are guilty of an environmental violation. This can involve cleanup costs which can be in the millions, shutdown of your facility, fines and additional scrutiny by regulators. You then have to evaluate whether your personnel have been exposed to hazardous vapors, particulate, soil or water. If they have been exposed it could lead to lawsuits.***

An Environmental Management System will help you to avoid these concerns. It will help you to establish management commitment to environmental and safety compliance, select personnel to manage the program, develop an environmental compliance and hazardous waste management system, coordinate with regulators, and develop an inspection and audit system.

**At the earliest stages:**

- Define what your environment is.
- Plan to write an Environmental Compliance Manual.
- Establish environmental controls.
- Establish an internal audit protocol.

## **Staff Qualifications:**

Determine what personnel are needed to implement this program. For a major company with a staffing level in the tens of thousands you may have several employees dedicated to this task. For a small company with under 100 personnel or even a sole practitioner the equivalent of less than one employee may be the appropriate staffing level.

For a major company the team will likely consist of a manager, an environmental or civil engineer, regulatory compliance expert and a secretary.

The engineer needs to have a degree in engineering from a recognized university and experience in environmental management. The regulatory compliance expert should have a degree in: environmental science, biology, geology, ecology or related discipline.

Experience in team building, mentoring and other positive relational skills is beneficial.

It should be understood that there is a safety component and health component of environmental management. A release of a toxic substance can be a grave health concern with medical implications, so a Licensed Physician (MD) should be consulted when developing an Environmental Management System. The members of the environmental team should coordinate with the members of the safety management organization.

It is important to consider OSHA General Industry and Construction Safety principles. A safety incident in an environmental atmosphere can be considered an environmental violation. Close coordination with site or consultant Safety Professionals is part of running an effective Environmental Compliance Program.

**There are numerous regulations that your program must comply with. Do keep in mind that State regulations may be more strict than Federal regulations. These regulations include:**

- Resource Conservation and Recovery Act**
- Clean Water Act**
- Clean Air Act**
- Regulations that protect historic structures, facilities and lands.**
- In addition there are varied regulations that protect surface water and ground water.**

**A key component of an environmental program is the use of subject matter experts. Once you have identified the locations and quantities of chemicals used in the facilities and processes you could seek outside assistance. This assistance could be from environmental consulting firms or nearby universities. Also a consulting company that is available 365/24/7 could be enlisted to help in the event of an environmental incident.**

An effective Environmental Compliance program is developing a relationship with one or more laboratories. This will enable you to use Quality Assurance methodology such as duplicate, split, blank or spiked samples.

Much information can be gleaned from papers generated as a result of doctorate level research, and governmental agencies.

An effective program will include audits and walk-throughs. An audit is a higher level effort which can include one or more walk-throughs.

**Training is an essential part of any Environmental Compliance Program. It should basic chemistry, industrial safety, chemical safety, applicable regulations, handling of drums and containers. Personnel should be trained on handling of drums and containers, emergency protocols, recordkeeping, labeling, housekeeping and related tasks. Personnel should be trained at the start of employment, and when responsibilities**



**change. Following a significant incident the entire environmental staff should receive refresher training.**

- There should be an Environmental Compliance Manual that staff are trained on. This Manual needs to be site specific and address the waste streams specific to this facility.
- Someone on the staff should be designated as a Permit Specialist. This individual will coordinate with the applicable agencies regarding waste, soil, water and air permits.

A Civil Engineer, a Geologist, and a Geotechnical Engineer should be available to address storm sewers and soil characteristics in the event of a spill of hazardous waste.

- An Environmental Compliance Program should be established as soon as a company occupies a facility.
- Environmental Compliance Plans should be updated each time the company moves into a new facility.
- Safety Instruction should be provided each time to company moves into a new facility.

Due Diligence inspections and audits of the Environmental Compliance program shall be conducted on a regular basis. At a minimum an audit shall be performed yearly.

- Construction shall be monitored each time a new waste management facility is built.
- The best quality equipment shall be purchased to monitor air quality, and water quality.

Hopefully this information will enable you to develop and maintain an effective Environmental Compliance System. I welcome your questions and comments. [Warwick.keith@gmail.com](mailto:Warwick.keith@gmail.com).



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