The EPA is enforcing hazardous waste regulations in healthcare facilities at an alarming rate—however, many hospitals are either unaware of these regulations or simply don’t know what steps to take to comply with them. To make things even more complicated, The Joint Commission and EPA have different criteria by which they measure compliance. This complete resource helps safety officers wade through the confusion using tools, checklists, and forms. With new EPA hazardous waste regulations coming soon, the time to start preparing is now!

This book will help you:
• Navigate the EPA’s proposed hazardous waste rule changes
• Prepare for compliance with customizable tools, checklists, and forms from industry experts
• Understand all areas of hazardous waste compliance
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Acknowledgments

My younger years in life provided many challenges, and I have learned many things through much adversity. When I started coaching, I never thought that I would learn more from the youth I am coaching than I could ever teach them. However, when I look at them and their determination, I have learned that all things are possible if you believe. I also learned that family begins with forgetting about myself. So thank you for allowing me to be your coach.

I must acknowledge my family, the family I hold dear to my heart; you know who you are, and I love you and would not be half the man I am today had it not been for your involvement in my life.

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To Rebecca, my wife, I would never have completed this book without your love, support, and dedication to me; thank you. To my loving boys, Ayden and Lane: Your Dad can be called an old softie for sure, because when the light is on, you will see that there are tears in my eyes and lumps in my throat. My heart is full of pride and love for you, and I hope that I have not paved a path for you but set an example of the father that you will someday grow up to be. Thank you for inspiring me to follow my passions. To my daughter, Marcie, always follow your dreams and know that I love you.

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About the Author

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James “Jamie” Crouch has more than 20 years of experience in the field of occupational health and safety. Eight of those years were spent in the manufacturing industry, and the other 12 years were in the healthcare industry. Jamie has served in the capacity of safety officer, safety and security manager, and human resources manager. He has proven experience in building successful health and safety programs, reducing injuries, ensuring environmental compliance, and leading the charge in sustainability efforts in the West Michigan area. In the healthcare industry, Jamie was one of the first to develop an Environmental Management System and led this same hospital to be one of Michigan’s first members of its Clean Corporate Citizen program.

While working in the Occupational Health and Safety profession, Jamie has also provided more than 20 years of service as a volunteer firefighter. He has served as a member of special rescue and specialized hazardous materials response teams in the West Michigan area. He retired from his volunteer firefighting duties to focus on coaching youth football and his two sons, and he also serves as the president of the youth football league in his community.

Jamie’s educational background includes a bachelor’s degree in business management, a master’s in healthcare administration, and a Master of Science in administration of justice and security. He has been certified as a hazard control manager, healthcare safety professional, and workers’ compensation professional. He has been certified by the Department of Homeland Security to teach “Weapons of Mass Destruction” and “Personal Protective Equipment” during chemical, biological, radiological, nuclear, and explosive events.
Preface

I have been involved in occupational health and safety for many years and got started with hazardous materials when I was a firefighter. At that time, I was working in manufacturing, and the safety manager at the plant where I was working saw the interest I had and started teaching me about safety regulations. I volunteered many unpaid hours to go in and work with John so that I could gain as much knowledge as possible—it just lit a spark in me. So here I am many years later, still working in the safety profession and still loving it.

When I transitioned to the healthcare industry, I learned that there is so much more to safety. Sure, there are many regulations that are the same, but the application of these standards is significantly different. Along the way, I have been fortunate enough to go through many inspections, not only healthcare accreditation, but also Michigan Occupational Safety and Health Administration, Michigan Department of Environmental Quality, and the Environmental Protection Agency. Each inspection along the way has been very informative, and many inspectors have been impressed with the programs I have implemented. I wrote an Environmental Management System for a local hospital that was recognized by the state’s governor at that time as leading the industry.

I am sharing this with you because it is imperative to know that the information provided in this book is not just a copy of the regulations. It is a guidebook on how to implement the regulations. Many of these regulations you may not be aware of, or they may be proposed standards that you were not aware of. Either way, this book is designed for you to flag pages, mark them up, and come back to them each time you need more information on waste management regulations.

This is not only important because I see gaps in compliance but also because the EPA, according to a 2015 article published by Suzanne Murray, is taking actions targeted at waste generators, specifically hospitals and laboratories. The focus is on those generators not generating a large quantity of hazardous waste. In 2014, in EPA Region 6, which includes Texas, Arkansas, Oklahoma, New Mexico, and Louisiana, penalties ranging from $79,000 to $200,000 were assessed against small hospitals and laboratories (Murray & Tran, 2015). We shouldn’t wait for the inspector to knock on our doors to maintain compliance. This book will provide tools to assist in assessing your level of compliance, and in addition, it will help you sustain compliance.

This book will provide a basic framework to implement an Environmental Management System from the ground up. This is essential, as many hospitals believe that they are exempt from certain reporting requirements. This book will set out to provide a framework to ensure compliance.
Preface

In addition, this book will assist in navigating through all of the hazardous waste regulations and understanding the value it brings to the safety of the emergency responders.

Reference

Chapter 1

Introduction to Hazardous Waste in Healthcare

In healthcare today, you are inundated with regulations, from the Center for Medicare & Medicaid Services’ (CMS) Conditions of Participation to The Joint Commission’s Environment of Care (EC) chapter, from the Occupational Safety and Health Administration (OSHA) to the Health Insurance Portability and Accountability Act (HIPAA). How can we effectively navigate all of these regulations and effectively maintain compliance? We must first identify that we are not alone in the battle to stay compliant and second that we have resources that can help us navigate through the maze of regulations. Until now, we have not had one source to turn to so that we may navigate through all the different regulations centered around one topic.

This book will provide this resource. It will give you a regulatory overview of the applicable regulations pertaining to hazardous materials and waste, and it will also provide you with tools and resources to maintain a compliant Environmental Management System that, when implemented, can help ensure the safety of our communities.

Put Yourself in Their Shoes

In order to better understand the impact and importance of environmental compliance, you first need to remove yourself from your job at the hospital. For now, let’s pretend that you are a firefighter. It’s 3:00 in the morning, and you are fast asleep in your rack, or bed, at the fire station. Suddenly, the alarm sounds, and you hear the dispatcher announce over the loudspeaker, “Hazardous materials release, 112 Hospital Rd, your neighborhood hospital.”

I am a firefighter, and I find it amazing how a firefighter can go from a deep sleep to full response mode in a matter of seconds. You really have to be in tune with your mind and mentally repeat the dispatch information over and over a few times to really let it sink in.

My first thought as we are responding to the hospital is about the number of patients potentially involved and the number of staff members. I need to make sure of this information—and while we are en route to the scene, I will check the site plans on the truck to see whether we have any tier II reports on this location. The tier II report is a certified report that organizations and
businesses in the United States are required to file with the Environmental Protection Agency (EPA), and it contains specifics about the facility location, the owner or operator, emergency contacts, and other identifying information. It also describes each extremely hazardous material stored on-site and includes the amount that is stored on-site. Site maps and Safety Data Sheets (SDS) can be attached to the Tier II reports as well. All of this information is very useful—and is potentially lifesaving to emergency responders like myself when there is a call like the one described above in which we could be exposed to hazardous materials.

But I did not write this book to describe the hazards presented to first responders. This book is focused on healthcare facilities and the people within its walls—many of whom make up a continuing chain of responders whose purpose is to save lives. Just like the first responders who rely on information to help protect their own lives, your employees and patients should expect the same from your hospital. If your facility has extremely hazardous materials (and most hospitals do) and you are not reporting this information to the proper authorities, then you are not only putting first responders at risk, you are also placing your staff and patients at risk.

“If a hospital’s fundamental commitment is to health, then we have a unique obligation to be leaders in making positive environmental change,” says John Messervy, chair of the Healthier Hospitals Initiative (HHI) and director of facilities for Boston-based Partners HealthCare, the parent company of Massachusetts General Hospital and the Brigham and Women’s Hospital. “It means that the Hippocratic oath of ‘Do no harm’ extends beyond the operating room [and] the exam rooms, out to the communities that we are a part of and that we serve” (Wanjek, 2012).

Just like a firefighter, a healthcare worker faces risks on a daily basis. From hazardous medications and disinfecting chemicals to the hazardous materials used in laboratories, they are exposed to hazardous materials every day. Regardless of regulations that hospitals face (there are many; we will get to that), you must ensure a safe environment for staff and visitors by constantly evaluating the risk of chemicals and hazardous materials, monitoring the amount of waste generated, and learning how to safely store it and dispose of it.

**Sustainability**

It seems that in recent years, there has been a significant emphasis placed on sustainability in the healthcare industry. I can speak for my local area in West Michigan, and I can tell you that efforts were started close to 10 years ago, efforts that have not only diverted tons of plastics from the local landfills but have also reduced greenhouse gas emissions. The waste is locally sent to a trash incinerator, which converts the solid waste to energy to produce electricity and steam, thus significantly reducing the amount of waste sent to the landfill. By reducing the amount of plastics sent to this incinerator, the state has reduced the amount of greenhouse gases and thus reduced the carbon footprint of the hospitals in West Michigan.
According to the *Environmental Leader*, an environmental news publication, the healthcare industry accounts for nearly a tenth of the carbon footprint in the United States. The goal of sustainability being to reduce the carbon footprint, healthcare has taken this challenge head on (Roos, 2009).

Many healthcare organizations are focusing on the reduction of energy consumption and recycling of some medical devices. Technology and container design have come a long way as they relate to medical waste, and this is a way to also reduce the organization’s carbon footprint.

Many manufacturers have responded to the healthcare industry’s desire to be more friendly to the environment, while also protecting employees and remaining compliant with ever more stringent accreditation standards.

Take for example the reusable Medismart system, developed by Chicago-based Daniels Health, which introduced a completely bagless system for disposing of sharps and medical waste (PRNewswire, 2012).

Think of the plastic saved by eliminating the bags used in each and every shipment of medical waste. This system has greater benefits than just that of reducing the carbon footprint—it also reduces the risk of injury to employees, as the employees no longer have to change out the bags and risk needlestick injuries.

**Regulatory Compliance**

As mentioned earlier, hospitals are being held to higher standards by regulatory authorities, and knowing what those regulations are and how to stay compliant is a smart move—and a job requirement—of the proactive healthcare safety professional.

That’s not an easy task. Standards set forth by The Joint Commission, CMS, OSHA, and other regulatory bodies are not always easy to follow, and they are always changing. Understanding the standards you follow to pass your accreditation surveys requires a working knowledge of the often confusing standards set forth by state and federal agencies such as the EPA and the Department of Transportation (DOT). The Joint Commission, for example, may set requirements to have a chemical management plan and to dispose of waste; the EPA and DOT tell you how you are required to do it.

The EPA alone has many significant ramifications for lack of compliance that you may not even know about as you go about your daily routine. For example:

- **The Resource Conservation and Recovery Act (RCRA), Clean Air, and Clean Water Act**. Violations of RCRA, the Clean Air or Clean Water Act, can lead to penalties of up to $25,000 per day, *per offense*. Significant violations can include up to one year of imprisonment or a combination of the monetary penalty and imprisonment.
The type of enforcement action taken by the EPA does depend on the level of violation. Civil administrative actions are typically for situations that are less severe and are nonjudicial enforcement actions taken either by the EPA or the state authority. Administrative actions may include a notice of violation letter or may be an order (with or without penalties) directing an individual or business to take action.

Civil judicial actions are formal lawsuits filed in court by either the EPA or the state having authority. These actions usually involve a compliance issue with statutory or regulatory requirements, compliance with an administrative order, or an order to pay the costs of clean up. These cases are filed either by the U.S. Department of Justice or the State’s Attorney General.

Criminal actions can be imposed either by the EPA or the state having authority and are usually imposed for the most serious violations, such as those that are willful or that a business or person knowingly committed. These actions usually involve significant fines or imprisonment.

To give you an example of a healthcare-related incident that drew the ire of the EPA, consider this example.

According to a 2009 EPA news release, the U.S. Department of Veterans Affairs (DVA) Eastern Kansas Health Care System agreed to pay a $51,501 civil penalty for significant EPA violations. In addition, they agreed to spend nearly a half-million dollars on a plan to manage pharmaceutical and chemical wastes. This was as a result of a series of violations found during an EPA inspection of the Dwight D. Eisenhower Veterans Medical Center in Leavenworth, Texas, in January 2006 and the Colmery O’Neil Veterans Medical Center in Topeka, Kansas, in April 2006.

The violations included the following:

- One count of failure to perform hazardous waste determinations
- One count of operation of a hazardous waste treatment, storage, or disposal facility without a permit
- One count of offering hazardous waste for shipment to a transporter without a manifest and offering hazardous waste to an unregistered transporter
- Failure to properly manage hazardous waste satellite accumulation containers in the histology lab and lab storage room
- Failure to properly mark hazardous waste containers in the histology lab storage room, a paint waste storage room, and one other room
- Failure to keep proper emergency information posted near telephones
- Failure to document all weekly inspections of hazardous waste storage areas
- Failure to develop a proper emergency contingency plan
• Failure to document a personnel training plan
• Failure to store incompatible wastes without proper segregation
• Unpermitted on-site incineration of some hazardous wastes at both facilities
• Unlawful shipping of hazardous waste between the two facilities without proper manifests, including the transportation of hazardous waste from Leavenworth to Topeka by an unauthorized waste transporter

In addition to paying a $51,501 civil penalty to the U.S. Treasury, the DVA Eastern Kansas Health System will also be spending at least $482,069 on a supplemental environmental project to develop and implement a program to properly identify, segregate, and manage its pharmaceutical and chemical wastes at the Leavenworth and Topeka hospitals (EPA, 2009).

The fines imposed on the DVA could have been avoided with a properly implemented Environmental Management System and understanding the regulatory requirements. These findings are not uncommon, and the goal of this book is to provide assistance in development of a compliant Environmental Management System and to assist in avoiding these citations should the EPA show up at your hospital.

As of the printing of this book, the EPA is on the cusp of passing many new laws that will directly affect the way hospitals and ambulatory care facilities dispose of pharmaceutical and other types of medical waste as early as 2017. Noncompliance could result in high fines and other disciplinary actions, including imprisonment. The proactive healthcare safety professional needs to be aware of these proposed changes and be ready to make changes to the facility’s program as needed.

This book will not only walk you through the basics of understanding all the regulatory requirements surrounding environmental compliance but will also help you develop a compliant Environmental Management System to help keep employees and patients safer.

References


Hazardous Waste in Healthcare
A Guide to Regulatory Compliance

JAMES CROUCH, BSBM, MHA, MS/AJS

The EPA is enforcing hazardous waste regulations in healthcare facilities at an alarming rate—however, many hospitals are either unaware of these regulations or simply don’t know what steps to take to comply with them. To make things even more complicated, The Joint Commission and EPA have different criteria by which they measure compliance. This complete resource helps safety officers wade through the confusion using tools, checklists, and forms. With new EPA hazardous waste regulations coming soon, the time to start preparing is now!

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