



"Safety Comes First"

Case Western Reserve University Environmental Health and Safety

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2220 Circle Drive, Service Building, 1st Floor

Phone: (216) 368-2906/2907

FAX: (216) 368-2236

Website: case.edu/ehs

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International Export Compliance Regulations

*International
Export
Compliance
Regulations*

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There's been a lot of talk on the CWRU campus about "export controls". This term refers to the federal laws that restrict the transfer of certain items, data, and technology to foreign countries, persons, or organizations. The most heavily-restricted items and technologies are military-related such as explosives and missile components, but export control regulations can also cover information and technology that we think of as commercial or research-related, such as certain radio parts or chemical compounds. The regulations require potential exporters to get specific authorization, typically in the form of a license, before sending controlled items or information overseas, or before sharing them with foreign persons or organizations.

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In order to have institutional awareness of university activities impacted by the export control regulations, and to maintain compliance with the federal regulations, CWRU leadership created the Export Management Program in the summer of 2013.

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Export control regulations can apply when regulated items are being shipped abroad. Before shipping a device, materials, or other items abroad, CWRU personnel should contact either EHS or the Compliance Office so that one of those offices can determine whether an export license, or any other form of federal authorization, is needed prior to making the shipment. The Compliance Office can be reached by contacting Boyd Kumher, University Chief Compliance, Export Control and Privacy Management Officer, at 368-0833; or Lisa Palazzo, Director of Export Control and Privacy Management, at 368-5791, or email exportcontrol@case.edu.

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For more information on export control regulations, including the full text of CWRU's Export Control Policy Statement, visit www.case.edu/compliance/exportcontrol/.

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Sharps Injuries



“Sharps injuries are typically the result of using dangerous equipment in a fast-paced, stressful, and understaffed environment.”



The Centers for Disease Control and Prevention (CDC) estimates that about 385,000 sharps-related injuries occur annually among health care workers in hospitals. More recent data from the Exposure Prevention Information Network (EPINet) suggest these injuries can be reduced, as sharps-related injuries in nonsurgical hospital settings decreased 31.6% during 2001–2006 (following the Needlestick Safety and Prevention Act of 2000). However, injuries in surgical settings increased 6.5% in the same period, where adoption of safety

devices was limited compared to nonsurgical settings. It has been estimated about half or more of sharps injuries go unreported. Most reported sharps injuries involve nursing staff, but laboratory staff, physicians, housekeepers, and other health care workers are also injured.

Sharps injuries overview

A sharps injury is a penetrating stab wound from a needle, scalpel, or other sharp object that may result in exposure to blood or other body fluids. Sharps injuries are typically the result of using dangerous equipment in a fast-paced, stressful, and understaffed environment. These strenuous demands often produce feelings of fatigue, frustration, and occasionally anger. In the operating room, for example, health care personnel do not have the luxury of "taking a break," but must continue with their duties until the procedure is completed. These conditions can increase the risk of injury and infection for health care workers.

Health care workers may also incur injuries from improper procedures, such as passing sharps hand-to-hand between team members, placing sharps in a disposal container, or failing to use a safer sharps device. A report from the Exposure Prevention Information Network (EPINet) found that nearly half of all sharps injuries occurred during use of the sharp, and of the nearly 40% of needle injuries which involved a safety designed needle, the majority occurred before activating the safety device. Moreover, the report also showed that

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many sharps injuries occurred in patient rooms among nurses and operating rooms among surgical team members.¹

The cost of a sharps injury can be a compelling reason to use safer sharps practices. One sharps injury can cause a number of direct and indirect costs for the health care facility, including:

- Loss of employee time
- Cost of tying up staff to investigate the injury
- Expense of laboratory testing
- Cost of treatment for infected staff
- Cost of replacing staff

In addition to costs incurred by the health care facility, the stress on the affected worker and the worker's family can be enormous. In addition to the initial concern, testing for bloodborne pathogens can last for months, producing feelings of anxiety and distress for an extended period of time.

How do sharps injuries occur?

In addition to the use of sharps devices, injuries are also closely associated with certain work practices that can pose an increased risk of bloodborne pathogen exposure. These work practices include:

- Disposal-related activities (11%)
- Activities after use and prior to disposal, such as item disassembly (30%)
- Recapping a used needle (3%)

“...the stress on the affected worker and the worker's family can be enormous.”



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Contractor Cited for Employee's Death



“... the skidsteer ... tipped over a ramp wall, falling more than 70 feet to the ground.”

Austin, Texas – Lindamood Demolition Inc. and Texas Cutting & Coring were both cited by the U.S. Department of Labor's Occupational Safety and Health Administration for a total of five violations, including two willful, following the death of a skid-steer loader operator during the redevelopment of Kyle Field Stadium at Texas A&M University.

OSHA's December 2013 investigation found that the Lindamood employee was operating a skid-steer loader to support a 3,340-pound concrete stub while a Texas Cutting & Coring employee used a circular saw to cut the stub from its support column. The stub caused the skid-steer to be overloaded, and it tipped over a ramp wall, falling more than 70 feet to the ground. The loader operator was ejected from the skid-steer when the machine struck a horizontal beam during its fall. The employee died when he fell four stories to the ground.

"These experienced contractors failed to provide employees with safe demolition procedures despite concerns from workers," said Casey Perkins, OSHA's area director in Austin. "Employees had to work under the load and directly beside the skid-steer where they could be struck by the equipment or heavy, concrete debris. This disregard for worker safety is unacceptable and will not be tolerated."

A willful citation, with a penalty of \$56,000, was issued to Lindamood for exceeding the operating capacity of the skid-steer loader where the equipment was routinely loaded with concrete until obvious signs of tipping were seen. Texas Cutting & Coring was also cited for a willful violation, with a penalty of \$63,000, for exposing workers to the hazard of being struck-by the skid-steer loader and concrete. A willful violation is one committed with intentional, knowing or voluntary disregard for the law's requirements, or with plain indifference to worker safety and health.

Lindamood also received a serious citation, with a penalty of \$7,200, for two violations concerning a failure to provide effective fall prevention measures and ensure that stop-logs were used to prevent equipment from falling into open holes. Texas Cutting & Coring was also issued one serious citation, with a penalty of \$4,500, for failing to provide fall protection. A serious violation

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Research Isotopes

Radioactivity emitted from an isotope allows detection useful for research involving macromolecular characterization and metabolic studies. A number of elements have radioactive isotopes that emit discrete energy particle; such as beta particle, and gamma photons.

Radioactive half-life is the time required for half of a specific radioactive isotope to decay. This property affects waste disposal requirements and useful lifetime of the isotopic labeled precursors.

Contamination monitoring depend on each isotopes' decay energy and type of radiation. Beta/gamma radiation is typically measured using a Geiger Mueller (GM) survey meter. However, some low energy isotopes; such as tritium, cannot be detected with a GM survey meter. Transfer of radioactive contamination to paper or fiber glass filters allows detection of all research isotopes (including tritium) using fluid containing chemicals in solution that fluoresce when exposed to isotopes. Specific survey techniques and contamination action levels are established depending on the isotopes used.

Waste segregation requirements depend on the radioactive half-life of the isotopes used for research. Short-lived isotopes (half-life <120 days) can be most economically disposed after decay-in-storage; after which they can be discharged as non-radioactive waste. Long-lived isotopes (e.g., tritium and C-14) require disposal when still radioactive (radioactive waste). This increases the disposal cost.

Know your laboratory's isotopic properties including; type of decay products (beta/gamma), detection (instrument and action level required), and half-life. Radiation Safety can often provide survey meters, waste collection, and training on contamination monitoring and handling radioactive material. Authorized User (AU) investigator questions regarding research isotopes should be directed to Radiation Safety 368-2906.



*“Radio-
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Sharps Injuries, cont.

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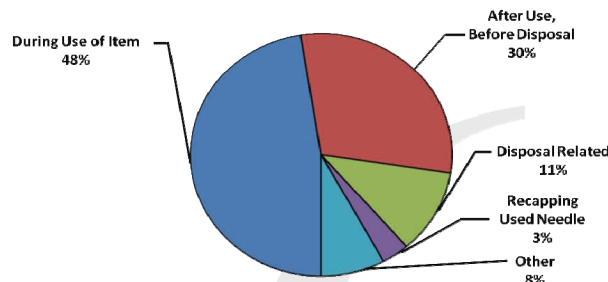


Figure 1: Activities associated with percutaneous injuries in EPINet hospitals, by % total percutaneous injuries (n= 951), 2007 (Source: [EPINet \[2009\]](#)).

What devices are involved with sharps injuries?

Injuries are also closely associated with certain devices that can pose an increased risk of bloodborne pathogen exposure. These devices include:

- Disposable Syringe (31%)
- Suture Needle (24%)
- Winged Steel Needle (5%)

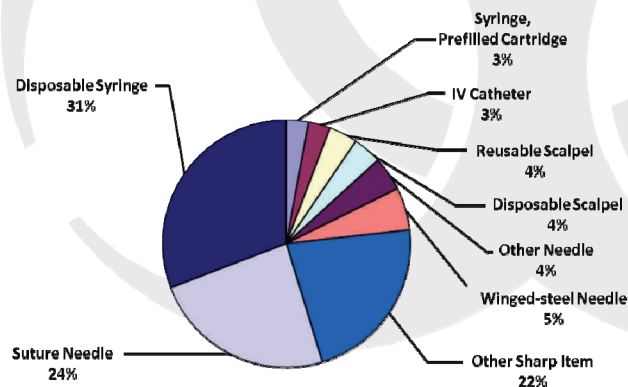
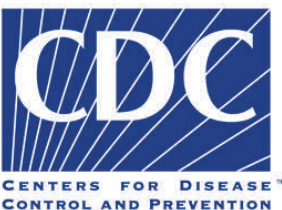


Figure 2: Devices associated with percutaneous injuries in EPINet hospitals, by % total percutaneous injuries (n= 951), 2007 (Source: [EPINet \[2009\]](#)).



¹ The EPINet report surveyed 29 health care facilities across the United States, 2007.

Contractor Cited, cont.

(Continued from page 4)

occurs when there is substantial probability that death or serious physical harm could result from a hazard about which the employer knew or should have known.

Due to the willful violation related to this fatality, Lindamood has been placed in OSHA's [Severe Violator Enforcement Program](#)*, which mandates targeted follow-up inspections to ensure compliance with the law. The program focuses on recalcitrant employers that endanger workers by committing willful, repeat or failure-to-abate violations.

Lindamood, based in Irving, employs about 80 workers, with 20 at this site. Texas Cutting & Coring, based in Round Rock, employs about 118 workers, with 12 on this demolition project. The proposed penalties total \$130,700.

The citations can be viewed at: http://www.osha.gov/ooc/citations/LindamoodDemolition_951101_0529_14.pdf* and http://www.osha.gov/ooc/citations/TexasCuttingCoring_951143_0529_14.pdf*.

The companies have 15 business days from receipt of their citations to comply, request an informal conference with OSHA's Austin Area Office, or contest the citations and proposed penalties before the independent Occupational Safety and Health Review Commission.

To ask questions, obtain compliance assistance, file a complaint, or report workplace hospitalizations, fatalities or situations posing imminent danger to workers, the public should call OSHA's toll-free hotline at 800-321-OSHA (6742) or the agency's Austin Area Office at 512-374-0271.

Under the Occupational Safety and Health Act of 1970, employers are responsible for providing safe and healthful workplaces for their employees. OSHA's role is to ensure these conditions for America's working men and women by setting and enforcing standards, and providing training, education and assistance. For more information, visit <http://www.osha.gov>.

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Environmental Health and Safety Staff

Ben ANDERSON (bla20), Safety Services Specialist Temp
Victoria COOK (vmr6), Health Physics Specialist II
Gwendolyn COX-JOHNSON (gxc13), Department Assistant II
Anna DUBNISHEVA (agd), Safety Services Specialist II
Roy EVANS (rx81), Fire and Life Safety Services Specialist I
Charles GREATHOUSE (cxg118), Analyst Programmer II
Brandon KIRK (bxk230), Safety Services Specialist I
Kumudu KULASEKERE (kck40), Health Physics Specialist II
Robert LATSCH (rnl2), Safety Services Specialist II
Tom MERK (tln8), Assistant Director of Safety Services
Yelena NEYMAN (yxt13), Health Physics Specialist II
Joe NIKSTENAS (jen), Operations Manager Specialist II, RRPT
Heidi PAGE (hep14), Assistant Director of Biosafety, BSO
Marc RUBIN (mdr6), Director of Safety Services, CSO
Dr. Mary Ellen SCOTT (mas35), Safety Services Specialist II
Dr. W. David SEDWICK (wds), Director of Radiation Safety and RSO
Felice THORNTON-PORTER (fst2), Assistant Director of Radiation Safety, ARSO
Kelci WILLIAMS, Department Assistant Temp

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Environmental Health and Safety
Case Western Reserve University
(216) 368-2906/2907 FAX: (216) 368-2236