



# Health, Safety & Environment Services at Kuwait University Health Sciences Center- KUWAIT Hanan A. Al-Awadhi The HSC Laboratory & Environmental Safety Committee

November 2013





#### Outline

- Overview of Kuwait University Health Sciences Center
- □ The Safety Concept
- □ Health, Safety & Environment Services





#### Kuwait University Health Sciences Center

- HSC serves as the medical campus for KU. It includes KU health sciences related faculties in addition to administrative and services facilities.
- □ Faculty of Medicine
- **Given Service Allied Health Sciences**
- Faculty of Pharmacy
- □ Faculty of Dentistry
- □ Vice President Office for Health Sciences (VPO, HSCLA, TSA, MPP, ELU)





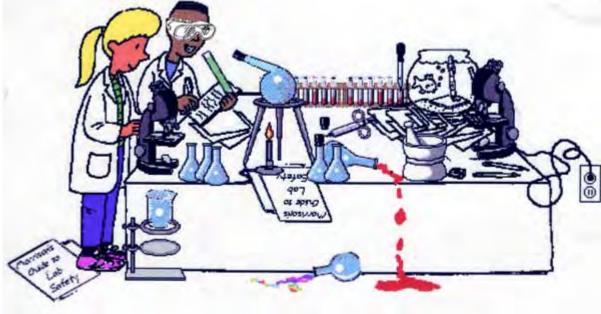
HSC has long-standing commitments to quality of research and education in health sciences. These commitments can only be honored when our staff, students and visitors are kept safe and healthy every day during their pursuit of knowledge breakthroughs







#### Safety Matters!!









#### The Safety Concept

- Snapshot of Environmental Health & Safety at HSC prior to 2009.
- □ No proper records of medical waste streams production
- □ No clear environmental health & safety guidelines and services
- □ No proper records of occupational injuries
- Individual efforts at departmental level and/or faculty level to enhance safety
- Safety as an occupational health concept was missing







#### 2009 Onwards

□ The Vice President for Health Sciences formed the HSC Laboratory & Environmental Safety Committee in January 2009 to.

- Provide systematic solutions for medical waste management
- Unify laboratory safety and environmental health guidelines across HSC
- Enhance environmental health & safety at HSC

□ The Committee has representation of all HSC faculties and reports directly to the Vice President for Health Sciences

□ From 2009–2011, the Committee was working on setting the foundations for a comprehensive medical waste management services at HSC





#### Cont.,

Up to January 2011, medical waste management services at HSC were limited to collection and on-site treatment of biological waste before disposing them in Shuaiba landfills

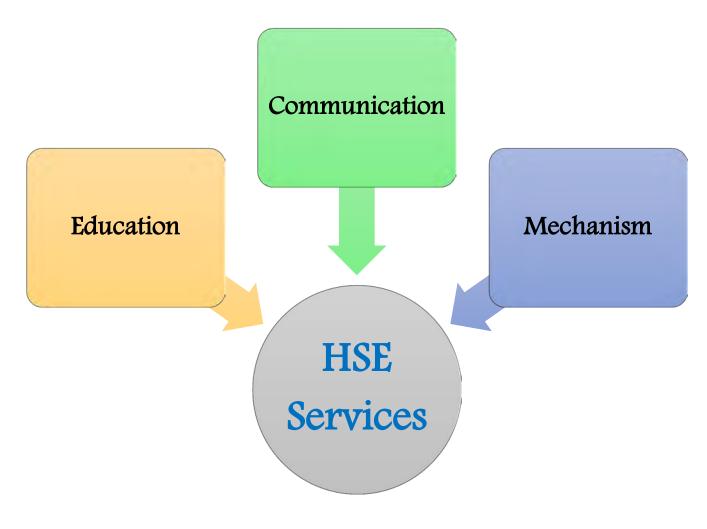


In February 2011, the HSC Medical Waste Management System became effective





#### Health, Safety & Environment Services at HSC



The HSE services, current and future, are based on 3 principles.

- **Education**
- Communication
- □ Mechanism





Mechanism	Education	Communication
HSC Medical Waste Management	HSE Training Programs	Incident Report
Incident Report	HSE Lecture Series	
Medical Waste Manifest	E-Services	Open Communication
Safety Audit		E-Services
E-Services	Online Certification (FUTURE)	
Code of Conduct (FUTURE)	HSE Awareness Campaign (FUTURE)	HSE Awareness Campaign (FUTURE)





#### Examples of Mechanism. HSC Medical Waste Management System

□ It is a system that manages hazardous and nonhazardous medical wastes produced within the HSC faculties and facilities

#### □ Medical waste streams that are covered by the System include.

- Biohazardous/Biological
   Chemical
   Pharmaceutical
- Decayed Radioactive
   Animal
- Glassware (& Plasticware)
- Expired Dry-cell Batteries Others

• Dental



#### The System Functions

Containment Provision	Provide HSC staff & students with color-coded waste bags & containers
Collection	Wastes are collected on scheduled basis and on demand
Treatment	Wastes are treated either on-site where applicable and off-site
Validation	Treatment methods are validated
Transport	Proper transport of treated and non-treated wastes from HSC to treatment facilities and/or safe disposal
Safe Disposal	Safe disposal of all waste streams in designated areas approved by local authorities (MOH, EPA & PAI)
Records Keeping	Maintaining proper records/ log system





### A Closer Look on Operations

- The producer of medical wastes (i.e. staff or student) places segregated waste streams in designated color-coded containers
- The System operator (i.e. contractor) then collects wastes from pre-defined waste collection points either on scheduled basis or on demand
- Operations are supervised by the HSC Laboratory & Environmental Safety Committee







#### Medical Waste Manifest Form

Select your HSC Faculty	or Facility			4 <u></u>	
FOM	FOAHS	FOP	FOD		RCF
	Department			 Month/Year	

Waste Production in L or Kg (Number Format: ##.#)

Day	Che	mical	Pharma	aceutical	Biolo	ogical		ayed bactive	De	ntal	Animal	Glassware	Expired Cell Batteries	Oti	hers
	Solid	Liquid	Solid	Liquid	Solid	Liquid	Solid	Liquid	Solid	Liquid	(Kg)	(Kg)	(Kg)	Solid	Liquid
	(Kg)	(L)	(Kg)	(L)	(Kg)	(L)	(Kg)	(L)	(Kg)	(L)	202 20224	10 A 10 A 10 A	53 - 1054	(Kg)	(L)
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12															-

Everyday and on a monthly basis, each chief technician fills out the Medical Waste Manifest recording his/her department production of each stream of medical waste by weight or volume. Completed manifests are then forwarded to the Committee





#### Why Manifest? Medical Waste Production at HSC

	Cher	nical	Pharma	ceutical	Biolo	gical	Deca Radio	•	Dei	ntal	Animal	Glass	Battery	Oth	ers
	S (Kg)	L (L)	S (Kg)	L (L)	S (Kg)	L (L)	S (Kg)	L (L)	S (Kg)	L (L)	S (Kg)	S (Kg)	S (Kg)	S (Kg)	L (L)
2011	803.0	3,035.2	89.3	0.0	6,614.7	84.0	0.0	0.0	168.3	278.0	0.0	148.8	3.0	2.0	12.0
2012	1,134.1	2,421.3	40.0	47.4	10,656.2	514.0	10.0	60.0	176.0	60.0	315.0	658.7	0.8	5,618.6	0.0





### Examples of Education. HSE Trainings

- Orientation on the System operations, 2011
- Medical Waste Management Training Workshop, 2012
- ☐ Health, Safety & Environment Webpage, 2012
- Laboratory Safety Training Workshop, 2013
- □ HSE Lecture Series, Academic Year 2013/2014





### Training on Medical Waste Management in Collaboration with Al-Essa Medical & Scientific Equipment Co. W.L.L

#### Environmental Health & Safety Issues



Health Science Center









DATE:

TIMES

VENUE:

SESSION A

SESSION B

Kuwait University Health Sciences Center Vice President Office for Health Sciences



Medical Waste Managen

Medical Waste Management

Sunday-Monday

and Tuesday-Wednesday Jan. 31-Feb.

08:30 AM - 01:00 PM



**Kuwait University** Health Sciences Center Vice President Office for Health Sciences



The HSC Laboratory & Environmental Safety Committee invites you to attend



#### October 2013

LECTURE No. 1 **Risk Assessment of Chemicals** in Laboratories Monday October 07, 2013 12.30 PM - 01.30 PM

Occupational Hazards in Laboratories Tuesday October 08, 2013 12.00 NOON - 01.00 PM

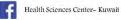
LECTURE No. 2

VENUE TARGET AUDIENCE

- HSC Auditorium HSC Staff. Academic; Supporting. Academic, Technical HSC Students: MS & PhD
- Contact hse@hsc.edu.kw

Refreshments are served





November 2013

H.A.A.

All is cordially invited

#### Refreshments are served

NOTE:

- · Attendance, in either session, of all chief technicians, senior t technicians, assistant technicians, scientific assistants, research a technicians, researchers and graduate students in HSC is OBLI sessions are identical.
- For queries, please contact 24986620.

**HSC** Auditorium

Jan. 29-30, 20







#### **Examples of Communication**

- **E**-Announcements
- □ E-Newsletter (Monthly Safety Tips)
- Continuous Education
- 🖵 E–mail
- U Webpage
- 🗖 Plasma TVs
- Official & Verbal Communication
- Brochures & Leaflets





#### **Combined Examples**

The Incident Report provides a mechanism for our staff, students and visitors to communicate and address risk

The input we receive from our staff and students help us design training and education programs that fit their needs

н	Kuwait University lealth Sciences Center				φ£.
Base Street Trans	NCIDENT REPORT				-
PART I: PERSON INVOLVED Name:	Supervisor:				
Faculty/Department:	Occupation:				
	Staff		C Stud		
	Uisitor		C Othe	r	
ncident Location:	Incident Date & Tim				
nouent Locator.					AM / PM
(e.g. FOD 1-37)	(e.g. 20/09/2013	2)		1.09:20	
1. Describe what happened. In your	description, include answers to the	followin	IQ:		
<ul> <li>What were you doing before the</li> </ul>					
What were the conditions of y					
Was that a routine operation?					
How did you respond?					
	and the second se	1.11			
<ul> <li>Describe any equipment, mail</li> </ul>	chinery, or instruments in use at t	he time	or the in	cident	and the
<ul> <li>Describe any equipment, main potential contribution to the initial contribution to the initial contribution.</li> </ul>		he time	or the in	cident	and the
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How do you perceive to be the causal factors behind this incident?     Inadequate management oversight      Lack of appropriate safety policy     Proper equipment not used or not supplied     Inadequate training     Lack of PPE     Poor work environment     Other     What are the immediate corrective actions you have taken?      How do you plan to prevent future recurrence of this incident? What is your exp     Implementation?     NAME     DATE & SIGNATURE Person Involved:     Supervisor:	PART II: SUPERVISOR 1. How did you learn at	hout the Incident?	
Inadequate management oversight     Proper equipment not used or not supplied     Inadequate training     Inadequate training     Inadequate training     Other     Other     Minimum content of PRE     Poor work environment     Other     Minimum content of the immediate corrective actions you have taken?     Immediate corrective actions you have taken?	i. How did you reall a		
Proper equipment not used or not supplied in adequate training     Lack of PPE Poor work environment     Other .     What are the immediate corrective actions you have taken?  4. How do you plan to prevent future recurrence of this incident? What is your exp Implementation?  NAME DATE & SIGNATURE Person Involved: Supervisor.	2. What do you percely	e to be the causal factors behind	I this incident?
Lack of PPE     Poor work environment     Other     Other     What are the immediate corrective actions you have taken?      How do you plan to prevent future recurrence of this incident? What is your exp     implementation?      NAME     DATE & SIGNATURE Person Involved: Supervisor:			
Other What are the immediate corrective actions you have taken?  How do you plan to prevent future recurrence of this incident? What is your exp Implementation?  NAME DATE & SIGNATURE Person Involved: Supervisor.			
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Implementation?  NAME DATE & SIGNATURE Person Involved: Supervisor.			aken?
Person Involved: Supervisor:	implementation?	to prevent future recurrence of	this incident? What is your expec
		AME	DATE & SIGNATURE
NOTE: COMPLETED REPORT SHOULD BE DELIVERED TO YOUR FACULTY REPRESS IN THE HSC LABORATORY AND ENVIRONMENTAL SAFETY COMMITTEE	NOTE: COMPLETED R	EPORT SHOULD BE DELIVERE IC LABORATORY AND ENVIRO	ED TO YOUR FACULTY REPRESENT NMENTAL SAFETY COMMITTEE







HSC Safety Tips No. (14)

- Biological safety cabinets should NOT be confused with clean benches which are not suitable for work with infectious or toxic materials, and with conventional fume hoods that DO NOT filter microorganisms.
- The biological safety cabinet SHOULD be turned on for at least 10-15 minutes prior to use, if the cabinet is not left running. Furthermore, the manipulation of materials SHOULD be delayed for approximately one minute after placing the hands and/or arms inside the cabinet.
- 3. While using biological safety cabinets, use a clean to dirty layout, with clean items at one side of your work area and dirty items at the other. DO NOT block the front or rear grille with papers, equipment, etc. All operations SHOULD be performed on the work surface at least 10 cm from the front grille. Minimize reaching in and out of the cabinet and move arms in and out slowly, perpendicular to the cabinet face opening. This will reduce the risk of disrupting the cabinet air barrier.



- 4. DO NOT use an open flame in biological safety cabinets. It can create turbulence that disrupts air flow. If the gas to a Bunsen burner is accidently turned on without the burner being lit, the concentration of gas will build up due to recirculation of the cabinet air. The fan motor can act an ignition source resulting in a serious explosion and fire. Instead, use sterile disposable supplies, an electric incinerator, a pilotless burner, or a touch-plate micro-burner to provide flame on demand.
- Be very careful when using small pieces of materials such as Kim wipes inside biological safety cabinets. These can be blown into the cabinet and disrupt the motor operations.

The HSC Laboratory & Environmental Safety Committee http://www.hsc.edu.kw/vpo/Health\_Safety\_and\_Environment/ e-mail: hse@hsc.edu.kw/

An example of the monthly HSC Safety Tips

Started in September 2012, the monthly e-newsletter "HSC Safety Tips" is a means to educate our staff and students about safety practices in academic health centers. The newsletter is sent electronically to all HSC staff and students and is available online too





HSC Home Vice President's Office Faculty of Medicine Faculty of Allied Health Sciences Faculty of Pharmacy Faculty of Dentistry KU Website

Vice President's Office	Vice President's Office						
Administration							
Counselling & Guidance Office	Health, Safety and Environment						
Technical Support Administration	The is Vice President Office for Health Sciences is keen on enhancing environmental health and safety at HSC through:	1					
English Language Unit	HSC Medical Waste Management System						
HSC Library Administration	Environmental and Occupational Health	Eve	ents	& Ne	ws Ca	lenda	an
Medical Principles and Practice		Sej	P	Octob	er 201	3	Nov
Research Core Facility	G Facility Safety	Sun 29	Mon	Tue V	Ved Th 2 3	u Fr 3 4	i Sat 5
	C Laboratory Safety	6	1	8	9 1	2.0	1 12
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#### **Future Services**

- Online Certification (EDUCATION)
- □ HSC Safe Laboratory Practices Code of Conduct (MECHANISM)
- Health, Safety & Environment Awareness Campaign (EDUCATION & COMMUNICATION)





## THANK YOU!

You are welcome to reach us at.

Postal Address.The HSC Laboratory and Environmental Safety Committee<br/>Vice President Office for Health Sciences<br/>Health Sciences Center- KUWAIT UNIVERSITY<br/>P.O. Box 24923<br/>Safat 13110, KUWAIT

e-Mail Address.

hse@hsc.edu.kw

URL:

http://www.hsc.edu.kw/vpo/Health\_Safety\_and\_Environment/