



Health, Safety & Environment Services at Kuwait University Health Sciences Center– KUWAIT

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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

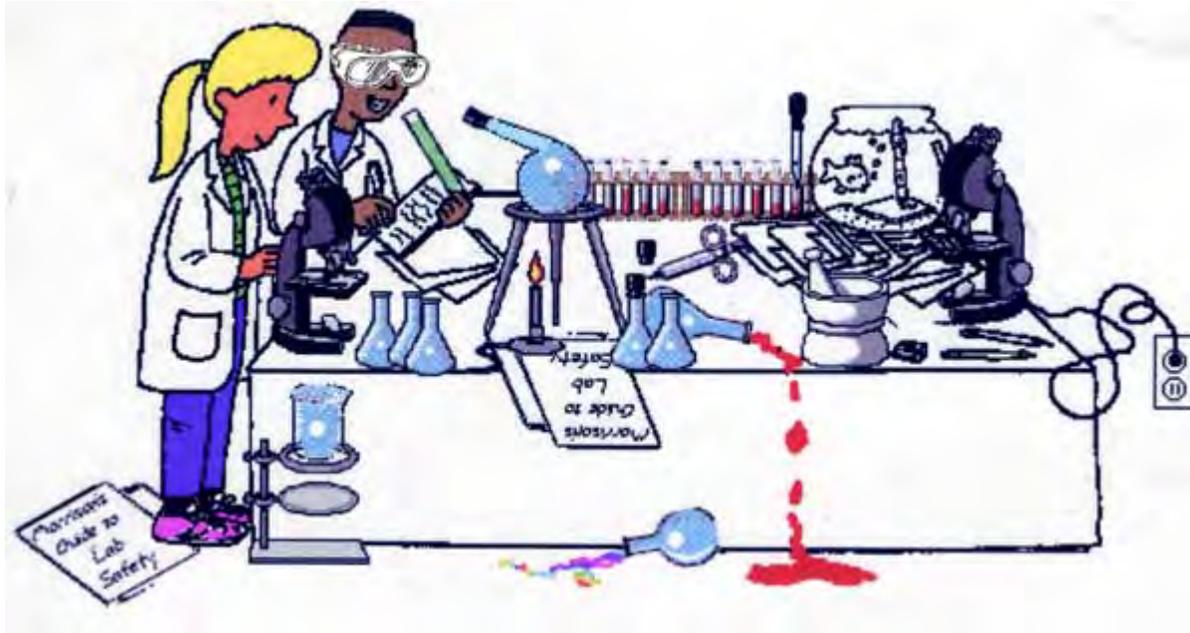
HSC serves as the medical campus for KU. It includes KU health sciences related faculties in addition to administrative and services facilities:

- Faculty of Medicine
- Faculty of 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

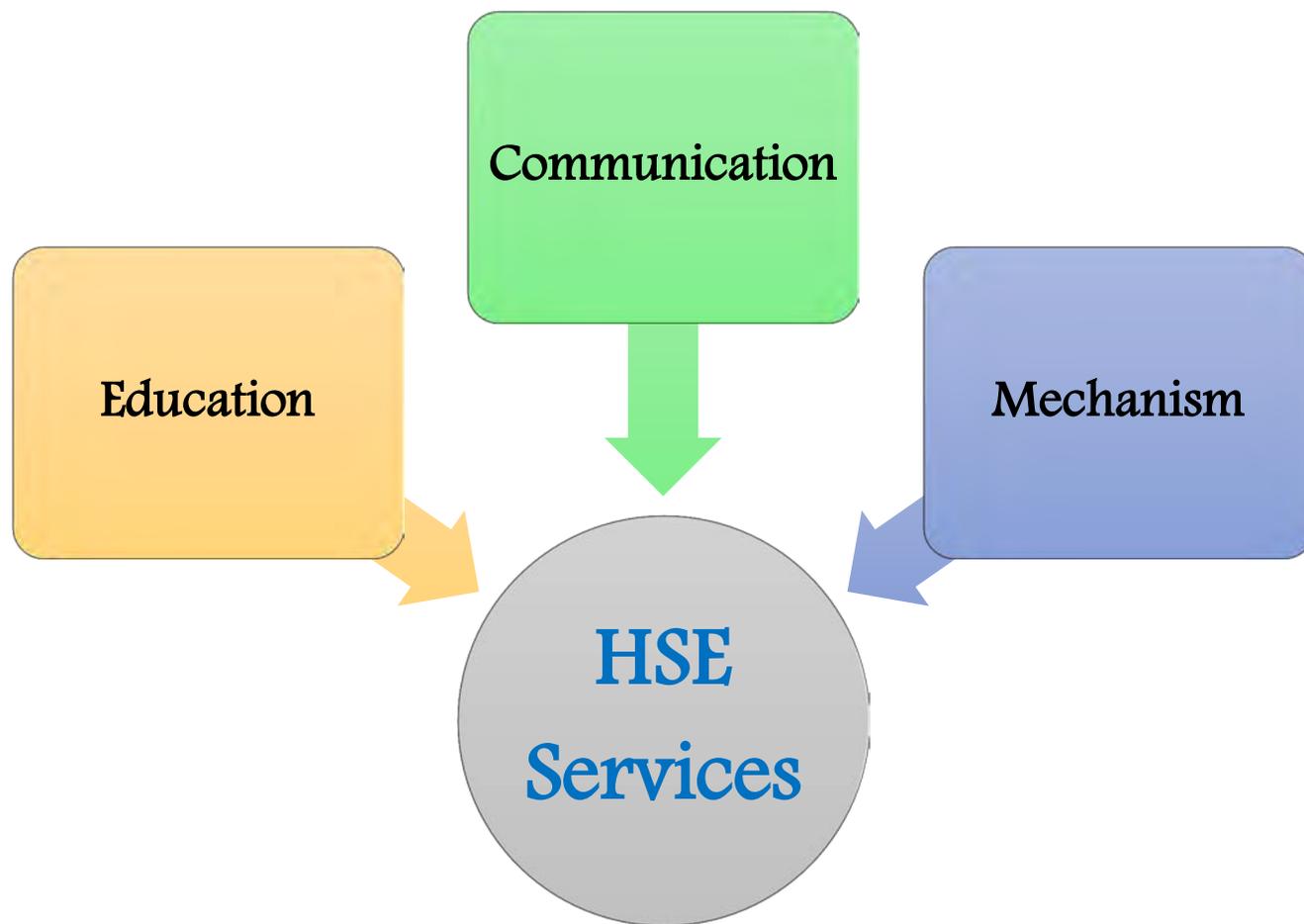
Cont.,

❑ 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

HSC Medical Waste Management

Incident Report

Medical Waste Manifest

Safety Audit

E-Services

Code of Conduct (FUTURE)

Education

HSE Training Programs

HSE Lecture Series

E-Services

Online Certification (FUTURE)

HSE Awareness Campaign
(FUTURE)

Communication

Incident Report

Open Communication

E-Services

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
 - Dental
 - Glassware (& Plasticware)
 - Expired Dry-cell Batteries
 - Others

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**

KUWAIT UNIVERSITY HEALTH SCIENCES CENTER

Medical Waste Manifest Form

Select your HSC Faculty or Facility

FOM

FOAHS

FOP

FOD

RCF

Department

Month/Year

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

Day	Chemical		Pharmaceutical		Biological		Decayed Radioactive		Dental		Animal (Kg)	Glassware (Kg)	Expired Cell Batteries (Kg)	Others	
	Solid (Kg)	Liquid (L)	Solid (Kg)	Liquid (L)	Solid (Kg)	Liquid (L)	Solid (Kg)	Liquid (L)	Solid (Kg)	Liquid (L)				Solid (Kg)	Liquid (L)
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
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

	Chemical		Pharmaceutical		Biological		Decayed Radioactive		Dental		Animal	Glass	Battery	Others	
	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



Kuwait University
 Health Science Center
 29 January – 1 February, 2012



Kuwait University
 Health Sciences Center
 Vice President Office for Health Sciences



Training Workshop on

Medical Waste Management



Kuwait University
 Health Sciences Center
 Vice President Office for Health Sciences



The HSC Laboratory & Environmental Safety Committee invites you to attend

DATE:
SESSION A Sunday-Monday Jan. 29-30, 2012
 and
SESSION B Tuesday-Wednesday Jan. 31-Feb. 1, 2012

TIME:
 08:30 AM - 01:00 PM

VENUE:
 HSC Auditorium
 All is cordially invited

Refreshments are served

- NOTE:**
- Attendance, in either session, of all chief technicians, senior technicians, assistant technicians, scientific assistants, research technicians, researchers and graduate students in HSC is **OBLIGATORY**. Sessions are identical.
 - For queries, please contact 24986620.

The HSE Lecture Series

October 2013

LECTURE No. 1 Risk Assessment of Chemicals in Laboratories Monday October 07, 2013 12.30 PM – 01.30 PM	LECTURE No. 2 Occupational Hazards in Laboratories Tuesday October 08, 2013 12.00 NOON – 01.00 PM
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VENUE: HSC Auditorium
TARGET AUDIENCE:

- HSC Staff: Academic; Supporting Academic, Technical
- HSC Students. MS & PhD

QUERIES: Contact hse@hsc.edu.kw

Refreshments are served

Examples of Communication

- E-Announcements
- E-Newsletter (Monthly Safety Tips)
- Continuous Education
- E-mail
- Webpage
- Plasma TVs
- Official & Verbal Communication
- Brochures & Leaflets



HSC Safety Tips No. (14)

1. 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.
2. 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 accidentally 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. 
5. 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



- Vice President's Office
- Administration
- Counselling & Guidance Office
- Technical Support Administration
- English Language Unit
- HSC Library Administration
- Medical Principles and Practice
- Research Core Facility

Vice President's Office

Health, Safety and Environment

The Vice President Office for Health Sciences is keen on enhancing environmental health and safety at HSC through:

- + HSC Medical Waste Management System
- + Environmental and Occupational Health
- + Facility Safety
- + Laboratory Safety



e-Resources



Training & Continuous Education



Events & News Calendar						
Sep	October 2013					Nov
Sun	Mon	Tue	Wed	Thu	Fri	Sat
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2
3	4	5	6	7	8	9

Events & News

Health Sciences Center
 Date: May 6 - 8, 2014

Health, Safety & Environment Webpage
http://www.hsc.edu.kw/vpo/Health_Safety_and_Environment/

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
Vice President Office for Health Sciences
Health Sciences Center- KUWAIT UNIVERSITY
P.O. Box 24923
Safat 13110, KUWAIT

e-Mail Address:

hse@hsc.edu.kw

URL:

http://www.hsc.edu.kw/vpo/Health_Safety_and_Environment/