

An outline of HSE Regulations of State of Kuwait - Pre-recorded Webinar



By



Ashok Garlapati, CSP,QEP,CMIOSH
ASSE Ambassador for ME, India and SE Asia

Bala Siva Srikanth Adivi CSP, CMIOSH
Publications Chair
ASSE International Practice Specialty

Presentation outline..

- Introduction
- HSE Regulatory framework of State of Kuwait
- Industrial Safety, Traffic & Fire regulations
- OH and Environmental Regulations
- On-line resources
- Concluding Remarks



Introduction

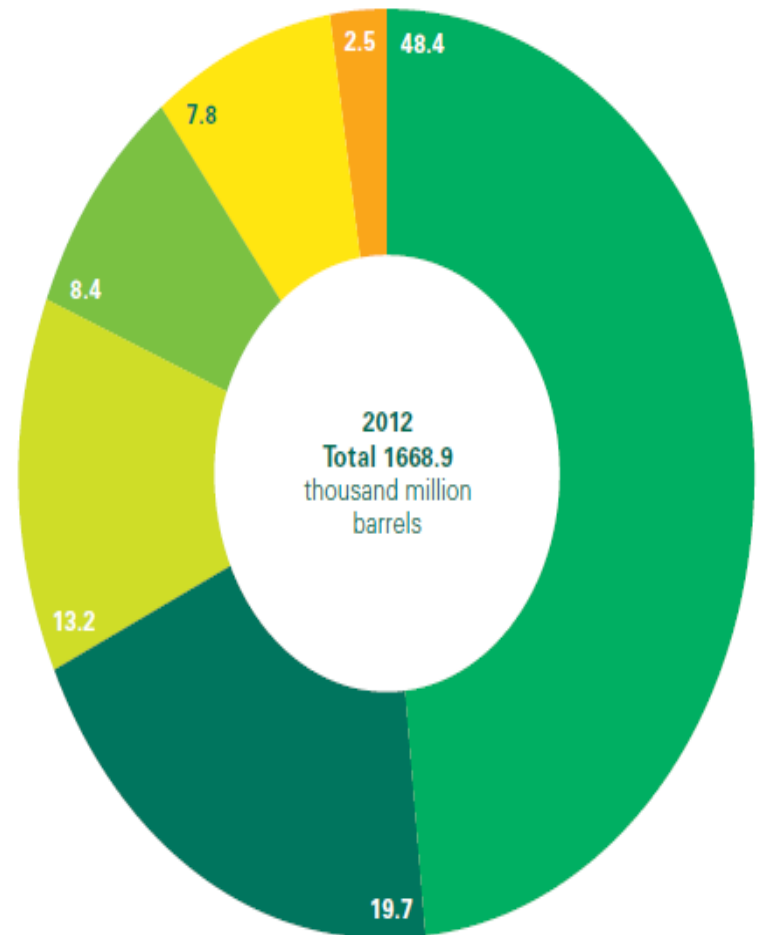
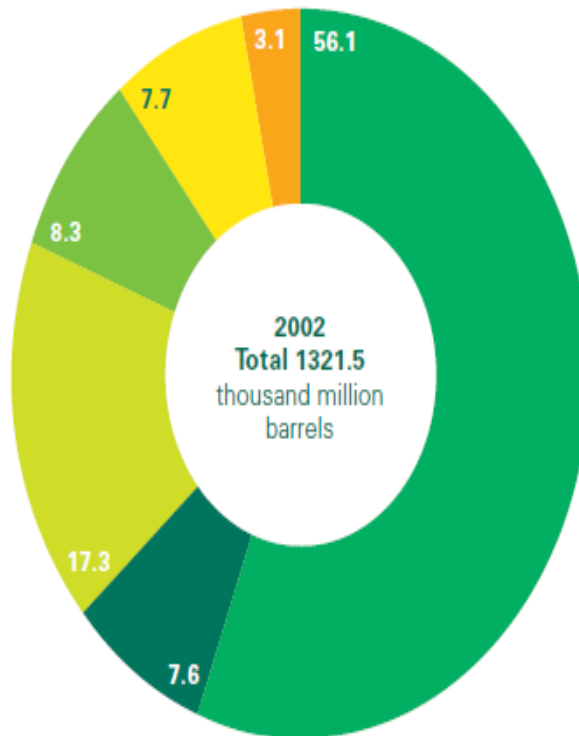
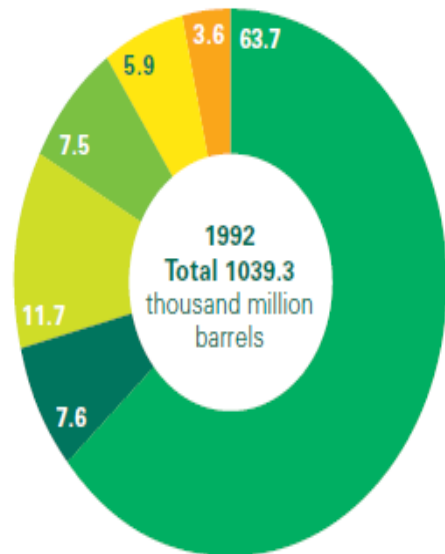


Distribution of proven oil reserves

Distribution of proved reserves in 1992, 2002 and 2012

Percentage

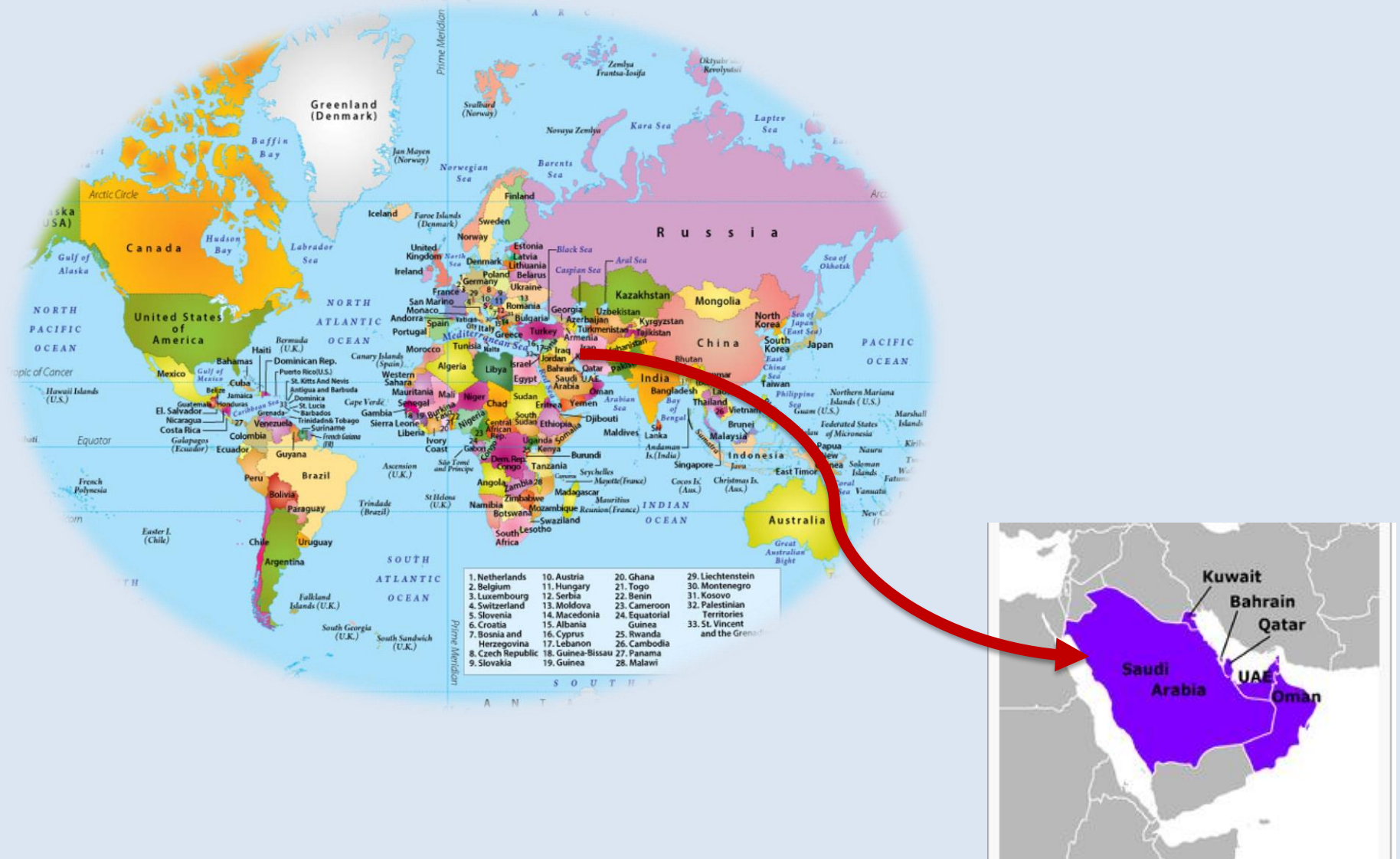
- Middle East
- S. & Cent. America
- North America
- Europe & Eurasia
- Africa
- Asia Pacific



BP Statistical Review
of World Energy
June 2013

bp.com/statisticalreview

Introduction



State of Kuwait- Country profile

- Population: 3.5m, around 2.4m non-Kuwaiti citizens
- Capital: Kuwait
- GDP per capita: US\$57,400*
- Religious mix: 85% Muslims, other 15% include Christian, Hindu and Parsi *
- Ethnic mix: 45% Kuwaiti, 35% other Arab, 9% South Asian, 4% Iranian and 7% other *
- Languages: Arabic, English, various guest worker languages such as Hindi and Tagalog



* CIA World Fact book

State of Kuwait- Country profile

- The oil industry is an essential element of the State of Kuwait's economy, and it is vital to the region's financial health and welfare

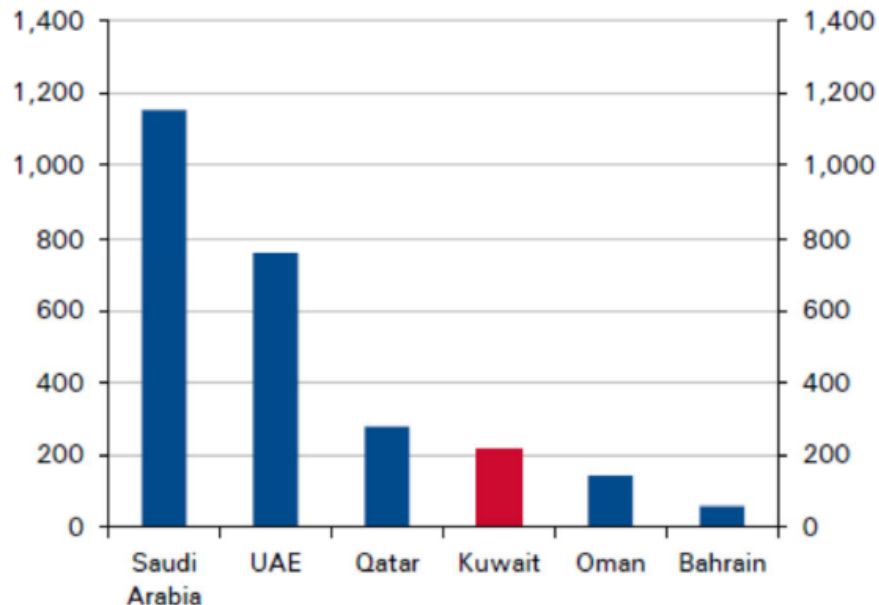


Growth in the GCC Region

- Due to increase in petroleum products demand, multi fold growth of O&G industry observed in the GCC region as well as in Kuwait

Chart 1: GCC projects market

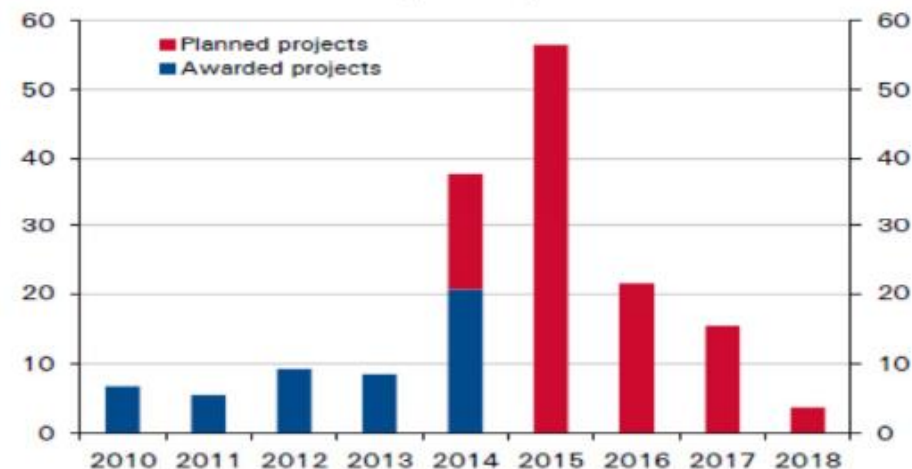
(\$ billion)



Source: MEED Projects / NBK

Chart 2: Awarded and planned projects

(\$ billion)



Source: MEED Projects / NBK

PROJECTS IN KUWAIT

Overcoming HSE Challenges in the GCC Region

- At the same pace of industrial growth, HSE challenges are increasing in GCC as well as in Kuwait
- Many companies in the GCC region are adopting international standards such as ISO 14001- Environmental Management System and OHSAS 18001 standard in developing the HSE Management system.
- Local Governments are in the process of enactment of HSE Regulations in line with international protocols, treaties etc.

HSE Regulatory framework of State of Kuwait



HSE Regulatory Framework of Kuwait



Environmental Regulations

Occupational Health Regulations

Safety Regulations

Fire Regulations

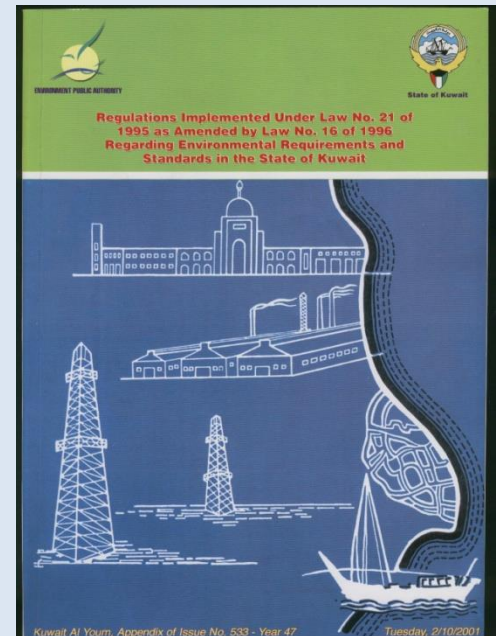
Traffic Safety Regulations

Environmental & OH Regulations



EPA Bylaw

- Outline the way in which parties share the responsibility for the environment and includes various standards and requirements
- Streamlined to deal more effectively with today's increasingly complex and far reaching environmental problems



EPA Regulations

- **EPA Law No.21 of 1995**
 - Concerned with environmental criteria and standards
 - Consists of 9 Chapters with 89 Articles and 20 Appendices

EPA Requirements & Standards

General guidelines Articles 1-89



Specific Limits Appendices 1-20

Development of the EIA

The work and indoor
environment

Chemical resource
management

Management of health care
and industrial wastes/sludge

Protection of the marine and
coastal environment

Protection of the ground/soil

Protection of the air

Biodiversity

Prosecution, fines and
compensation

Sector specific engineering and
environmental requirements

Occupational chemical exposure limits

Noise limits

Temperature, fresh air, light, vibration,
UV rays and magnetic fields

Waste (Process and Medical)

Managing chemicals

Water quality

Air quality

Impact assessment

Development & Environment

(Chapter I)

- The environmental impact of the Development Projects to be assessed
- Five articles which deal with preparation and submission of EIA Study Report
- Initial EIA Study Report
- Final EIA Study Report

The work environment and indoor environment (Chapter II)

- Occupational exposure
- Air quality
- Noise levels
- Ultra-sonic waves
- Temperature and Humidity
- Ventilation
- Lighting
- Vibrations
- Ultra-violet rays
- Laser Rays

Chemical Resources Management (Chapter III)

- Classification of dangerous chemicals as per Appendix 10-1
- License to be obtained from concerned authorities for production, import and export of chemicals after taking consent of K-EPA
- Maintain records with regard to raw material used and chemicals produced
- Requirements to be met for construction of warehouse for hazardous chemicals and license to be obtained from K-EPA

Management of Household, Hazardous, Healthcare and Sludge wastes (Chapter IV)

- Hazardous Waste and dangerous waste disposal need consent from K-EPA
- Identification number, certified transfer document and security data form, burial data form(11-6) shall be maintained.
- Hazardous waste transportation vehicle must comply with norms specified by K-EPA for transportation
- Incinerators to comply with norms specified by K-EPA for the purpose.

Protection of Marine & Coastal environment (Chapter-V)

- Liquid effluent quality to conform to K-EPA norms (appendix 13) for discharging in to sea
- Discharge of treated effluent in marine environment at a distance no less than 500 mts. From the coast.
- Jetty construction needs prior approval from authorities.
- Coastal installations must be minimum 150 mts away from coastal sand line and around the bay at a distance of 50 mts from stable coast.

Protection of earth crust from Pollution (Chapter VI)

- Protection of earth crust and desert areas
 - Obtain prior approval from municipality
 - Select a location far from residential
 - No change shall be done for natural surroundings
- Exploitation of land irrigated farming
 - Refrain from usage of DDT/Aldrin
 - suspended matter not to exceed 1 cu.cm/lt

Protection of Ambient Air from Pollution (Chapter VII)

- Air pollutants emitted should be within the limits as per K-EPA norms as per Appendix (17-1) (17-2)
- Noise levels should not exceed levels specified in (18-1)(18-2)(18-3)(18-5)
- Vehicle exhaust shall comply with the norms specified in Appendix (19-1)(19-2)
- Pollutants emission from fixed facility shall be within the limits specified App.20

Biodiversity Diversification (Chapter VIII)

- Articles 80-85 of K-EPA regulations deal with this law and following activities are governed:
 - National conservation of Land
 - Preservation of endangered species
 - Damage to ecological environment
 - Trading with primitive extinct creatures

General provisions (Chapter IX)

- Legal Control: Employees mandated by General Manager of K-EPA shall have the capacity to execute the provisions of law No. 21/1995
- Reconciliation Rules: Same as above
- Indemnity for Environmental Damage
- Penalties

Appendixes (Chapter X)

- Appendix 1: List of Projects that need EIA
- Appendix 2: Engg & Env requirements of Ind. Sector
- Appendix 3: Occupational exposure to chemicals
- Appendix 4: Allowable Noise Limits
- Appendix 5: Limits allowed for ultra sound waves
- Appendix 6: Limits allowed for Heat Stress in Industry
- Appendix 7: Working environment Light
- Appendix 8: Exposure of hands to vibrations
- Appendix 9: Skin or Eye exposure to Ultra violet rays
- Appendix 10: Chemical materials Management

Appendixes (Chapter X)

- Appendix 11: List of Hazardous characteristics-Basel
- Appendix 12: Ambient Sea Water Quality Criteria
- Appendix 13: Industrial waste water discharge in to Sea
- Appendix 14: Treated waste drainage water discharge in to Sewer
- Appendix 15: Treated drainage waste water used for irrigation
- Appendix 16: Un-bottled potable water
- Appendix 17: Ambient Air Quality Standards
- Appendix 18: Community noise levels
- Appendix 19: Pollutant emissions from vehicle exhausts
- Appendix 20: Air Pollutant emissions rates from Fixed sources

ii. Occupational Health Regulations



OH Regulations addressed in:

- Ministry of Social Affairs & Labor
- Ministry of Health Regulations
- Environment Public Authority
- KPC HSE Standards-Oil & Gas Sector
in line with international standards

Ministry of Social Affairs

- Private sector labor law, Compensation for accidents & occupational diseases (Res. No. 38), 1964
- Workers in oil industry amend. to law no.38 (Law no.43), 1968
- Occupational diseases (Res. 17), 1973
- Contents of First Aid Kits (Res. 19), 1973
- Precautionary measures to protect workers from danger of accidents and occupational diseases (Res.22), 1974
- Competent authorities to monitor enforcement of labor laws ()
- Medical Arbitration in work accidents and occupational diseases (Res. 23), 1974
- Permanent committee for coordination M-L&S, MOH and SIA in Occupational Health (Res. 49), 1983
- Evaluation of disability in accidents & occupational diseases (Res. 66), 1983

occupational Health Law

Societal response to ensure workers' Health, Safety & Welfare

Employers' Duties

- Safe system of work
- Safe work environment
- Information, training and Supervision on H & S.

Employee Protection

- Unfair dismissal
 - Ill-health
- Compensation - NO burden of proof
 - Injury / Occupational Disease
- Discrimination
- Welfare

Health provisions:

Private sector Labour Law (no.38 of 1964)

- **Scope** : Labourer : employee, performing any manual or mental work in consideration for a wage
- Applicable to private labor only
- **Excludes:**
 - Workers subject to Government sector laws
 - Casual laborers less than 6 months duration
 - Domestic servants
 - Workers in business concerns not mechanically operated if they are less than five
 - Sea workers – special laws apply

Health provisions:

Private sector Labour Law (no.38 of 1964)

- Employment of children, women – age, health, work timings and health
- Wages, gratuity
- Working hours and leave
- Labor conditions: conditions at the place of work, pertinent medical care, provision of stay and means of transportation

VIII. Work hours & Leaves

- **Article 33:**

- Work no more than 8 hrs a day; 48 hrs a wk.
- Overtime work in dangerous situations- 2 hrs – paid overtime

- **Articles 36 & 37**

- Public holidays 8
- Sick leave :
 - 6 days – full wages
 - 6 days – $\frac{3}{4}$ wages
 - 6 days – $\frac{1}{2}$ wage
 - 6 days – $\frac{1}{4}$ wage

IX. Work conditions

- **Article 40:** Protection of workers against accidents.
- **Article 42:** Cleanliness, ventilation, lighting and drainage.
- **Article 44:** One First Aid kit for every 100 workers; One trained nurse in-charge of each kit.

Chapter XII: Compensation for labor accidents & Occupational diseases

Injuries:

- **Article 64:** Wages of injured worker during the period of treatment – Full during first 6 months, half only later.

Occupational diseases

- **Article 66:** List of occupational diseases, causal industries
- **Article 68:** Shared Responsibility of all employers - as determined in the light of the medical report. Employer Liability in proportion to period of employment

Workers in the oil industry

- Law no.43, 1968 amending law no.38, 1964
- Article 105: protection during sickness
 - sick leave (sickness testified by a physician)
 - Pay protection
 - Protection from termination
 - 6 months- full pay
 - 4 months- $\frac{3}{4}$ pay
 - 2 months- $\frac{1}{2}$ pay
 - One month- $\frac{1}{4}$ pay
 - One month- without pay

Medical services

- **Article 107:** oil industry employers with **>200 workers**
- One or more physicians & clinic: to treat workers and their families – free of charge

Occupational diseases

(Ministerial resolution no. 17 of 1973)

- **Article 1:** Appointment of one or more **physicians** to examine workers exposed to occupational hazards- **Periodical Medical Exam**
- **Article 2:** **Content** of periodical examination
- **Article 3:** **pre-employment** examination- prior to the commencement of work- every worker exposed to hazards at work.
 - To determine fitness to handle the job
- **Article 4:** Registration of the results in relevant **record**
- **Article 5:** Necessary further tests
- **Article 6:** Re-examination wherever required

Intervals of periodical medical exam

6 monthly (4 exposures)

- Lead fumes
- CS₂
- Radio activity
- Petroleum by-products

Annually (15 exposures)

- A list of 15 toxic exposures
- Pb poisoning –non fume
- Chrome, by-products, sulphates
- Hg, Antimony, Arsenic, Phosphorous, Manganese, sulfuric, Nickel compounds, petroleum- gases or by products Chloroform and CCl₄, Ethyl Cl₄, Ethylene Cl₃, , Ethylene Cl₃, other halogenic derivatives of aliphatic HCNs
- Asbestos dust exposure
- Chronic skin and eye eruptions affections' due to heat and light
- Occupational cancer agents

2 Yearly (25 exposure situations)

- Lead poisoning and complications
- Hg poisoning and complications
- Arsenic poisoning and compli
- Antimony poisoning & its complicatins
- Phosphorous
- Benzol, its isomers, amido and nitro compounds
- Manganese
- Chromium
- Sulphur
- Nickel
- CO
- HCN
- Cl, Fl, Br
- Chloroform, CCl₄
- Ethyl Cl₄, Ethylene Cl₃, halogens deri
- Radium, Radio active material
- Occupational dermatitis
- Eye disorders due to heat, light and compli
- Lung dust diseases: silica, Asbestos, cotton fibre
- Anthrax, glanders, TB, Infections diseases
- Occupational Deafness

Occupational diseases

(Ministerial resolution no. 17 of 1973)

- **Article 7:** suspension of work by the physician, if the worker's continuation constitutes a danger to his health
 - Not to be reinstated unless medically fit to rejoin
 - Recommendation of another job suitable to his medical condition
- **Article 8:**
 - All medical expenses – medicines, treatment, transportation – by the employer
 - Worker suffering from Occu disease: Full pay throughout the duration of illness, 6 months; later, half the pay

Minimum contents of First Aid Kits

(Min. Resolution 19/1973)

- Muslin bandages 10 cm...10 rolls
- Muslin bandages 5cm... 10 rolls
- Medical cotton wool.....1 kg
- Box- antiseptic muslin dressing..1
- Mercurochrome water soln. 500 cc
- Pure alcohol..... 100 cc
- Alco.mercurochrome soln..500 cc
- Iodine tinc.....500 cc
- Picric Acid water soln. 500 cc
- Antiseptic vaseline 5 tubes
- Boric acid slon 100 cc
- Eye bath 2 nos

- Tourniquet 2 nos
- Thigh side splint 2 nos
- Let back splint 2 nos
- Forearm side splint 2 nos
- Shoulder splint 2 nos
- Arm angular splint 2 nos
- Stretchers 2 nos

Min. Resolution 22 of 1974

- Precautionary measures to protect workers from danger of accidents and occupational diseases
 - Article 1: drawings, inspection
 - Article 12: Ventilation and natural lighting
 - Article 15: Dust
 - Article 17: cool, clean drinking water
 - Article 18:
 - Water closets: 1 for every 25 workers; 1 for 15 women
 - One urinal for 15 workers
 - 1 Wash basin for 10
 - 1 bath for 10
 - Article 19: change rooms with lockers/ cup boards - where body/clothes are likely soiled
 - Article 22: Worker education about occupational hazards and preventive measures to be taken

Min. Resolution 22 of 1974

- **Article 21: First Aid Room / Clinic**
 - > 50 workers
- **Article 26: Registers**
 - Sick workers
 - Injured workers
 - Those with occupational diseases
 - Details of periodical medical examination (workers exposed to occupational hazards)
 - Ministerial resolution No. 66 of 1983
 - % of disability in cases of accidents & occupational diseases.
 - Table of % of permanent disability

Medical Arbitration in work accidents and occupational diseases

- Ministerial resolution No. 23, 1974
- Article 1: Constitution of a committee
- Article 2-4: procedures
- Article 5: Authority

OH Coordination committee

- Permanent committee for coordination among M-L&S, MOH and SIA in Occupational Health (**Min. Resolution No. 49, 1983**)
- **Article.1:** Composition
- **Article. 2-4:** scope:
 - Plan of action
 - Measures
 - Reports
 - Analysis of reports
 - Training & Research

Industrial Safety, Traffic & Fire regulations

By

Bala Siva Srikanth Adivi CSP, CMIOSH

Publications Chair

ASSE International Practice Specialty



Industrial Safety Regulations

Applicable Legislations

- ✓ Ministry of Social Welfare & Labor, which includes Pvt Sector Labor Law
 - Stipulates various regulations Health & Safety, Compensation for accidents and Occupational Diseases.
- ✓ Precautionary measures to protect workers from danger of accidents and occupational diseases (Res.22), 1974
- ✓ Ministry of Oil – Stipulates various regulations with respect to ‘Safety’
- ✓ Kuwait Municipality Regulations
 - Stipulates various regulations with respect to ‘ Construction Safety’
- ✓ Kuwait Civil Aviation Safety Regulations –These are covered in 27 parts



Traffic Regulations

Applicable Legislations

- ✓ Kuwait Traffic Laws by Ministry of Interior, State of Kuwait

Why it is necessary ?

- ❖ Breaking Rules/Laws is a rejected matter which leads chaos and accidents.
- ❖ People are different in nature, behavior so they differ by the degree of following laws and rules.
- ❖ To stop people from breaking rules & laws, it is necessary and a must to define laws and their related penalties.



Traffic Regulations

✓ Law No.52 for year 2001, amended by the law amendment No.67 for the year 1976 concerning traffic.

❖ Number of Articles are published

(For e.g. Article 8 - The Minister of Interior issues a decision stating the types and standards of metallic plates and their due fees

❖ Traffic Contravention is issued citing Point system, Imprisonment and Fines

http://www.moi.gov.kw/portal/venglish/storage/other/E_mokhlafat.pdf

For latest traffic laws and codes,

Please check with Traffic Department, Kuwait and Ministry of Interior,
Kuwait website

www.moi.gov.kw

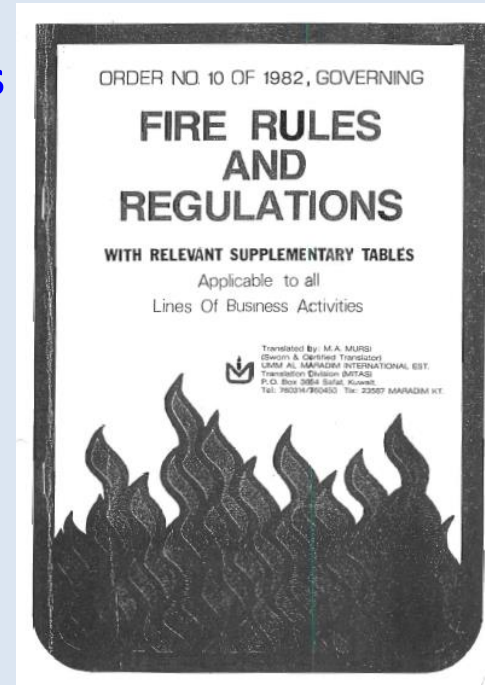


Fire Regulations

Applicable Legislations

✓ Fire Rules and Regulations

- Part 1 - Building Fire Prevention Code
- Part 2 – Special Requirement for Firefighting & Alarm Systems
- Part 3 – General Specifications for Engineering Services
- Part 4 - Hazardous Materials Regulations

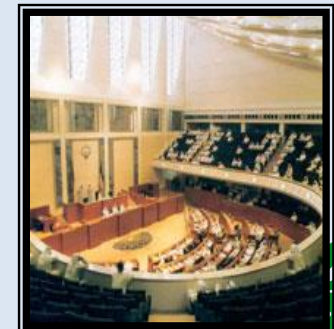
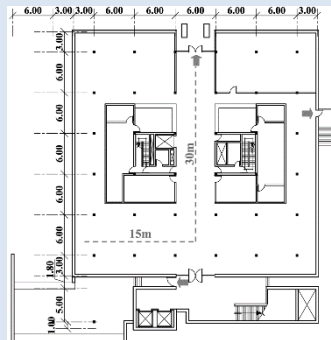


Fire Regulations

Part 1 – Building Fire Prevention Code

✓ Consists 11 Chapters

- Chapter 1 – General requirement for fire protection in the Building
- Chapter 2 – General requirement for firefighting and alarm Systems
- Chapter 3 – General Requirement for Means of Egress
- Chapter 4 – General Requirement for Engineering Services
- Chapter 5 – Fire Prevention Requirement for Assembly Buildings



Fire Regulations

- Chapter 6 – Fire Prevention Requirement for Educational Building
- Chapter 7 – Fire Prevention Requirement for Care Building
- Chapter 8 – Fire Prevention Requirement for Residential Building
- Chapter 9 – Fire Prevention Requirement for Commercial Building
- Chapter 10 – Fire Prevention Requirement for Industrial Building
- Chapter 11 – Fire Prevention Requirement for Warehouses & Car Park



Fire Regulations

Part 2 – Special Requirement for Firefighting & Alarm Systems

✓ Consists 5 Chapters

- Chapter 1 – Fire Equipment Materials Specifications
- Chapter 2 – Water Supply for Firefighting Systems

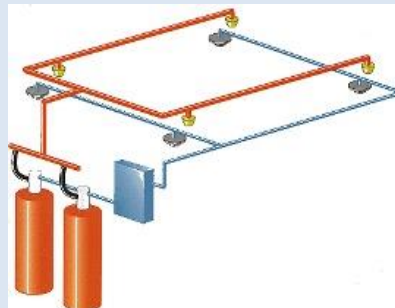
Section 1 – Water Resources & Sec 2 – Fire Pumps

- Chapter 3 – Manual Equipment

Sec 1 – Portable Fire Extinguishers, Sec 2 – Hose Reels,

Sec 3 – Interior Landing Valves, Sec 4 – Fire Hydrants

- Chapter 4 – Fixed Automatic Suppression Systems (9 Sections)
- Chapter 5 – Fire Alarm Systems

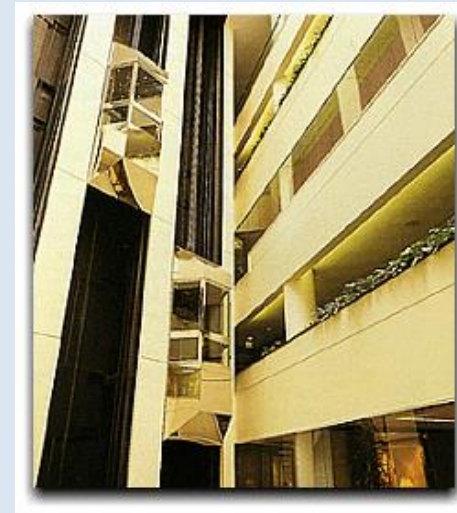


Fire Regulations

Part 3 – General Specifications for Engineering Services

✓ Consists 5 Chapters

- Chapter 1 – Electrical and Hydraulic Elevators and Escalators
- Chapter 2 – Smoke Ventilation System
- Chapter 3 – Air Pressurization System
- Chapter 4 – Water Boilers
- Chapter 5 – Emergency and Exit Light



Fire Regulations

Part 4 – Hazardous Materials Regulations

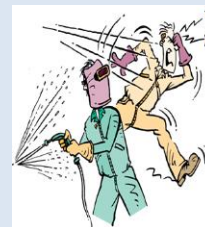
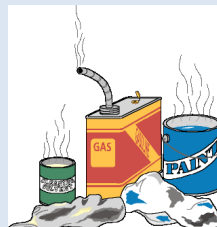
✓ Consists 2 Chapters

- Chapter 1 – Activities relating to Transportation, Handling and Storage of Hazardous Material
(Radioactive materials, Explosives, Dangerous Chemicals, Fire Works)



- Chapter 2 - Practices of Activities constituting a Potential Danger of Fire to Life and Properties

(Painting & Coating, Insecticides & Pesticides, Cutting & Welding, Fuel Ignition devices, Dust Explosion hazards, Fire prevention in laboratories, Commercial cooking appliances, etc)



On-line resources



On-line resources on HSE Regulations of Kuwait

- <http://assekuwait.org/files/>
- http://www.asse.org/assets/1/7/Kuwait_Profile.pdf
- <http://www.kwtfire.gov.kw>
- <http://www.moi.gov.kw>
- <http://www.epa.org.kw/en-us/>
- <http://www.moh.gov.kw/>
- <http://www.moi.gov.kw/portal/venglish/>
- <http://www.kuwaitlaborlaw.com/wp-content/uploads/2012/01/Kuwait-Labor-Law-2010-Detailed.pdf>
- http://www.e.gov.kw/sites/KGOEnglish/Portal/Pages/Business/LawsAndRegulations_Information.aspx



Concluding Remarks



For more information



Ashok Garlapati, CSP,QEP,CMIOSH
ASSE Ambassador for ME, India and SE Asia
e-mail: ashokcpcl@yahoo.com



Bala Siva Srikanth Adivi CSP, CMIOSH
Publications Chair
ASSE International Practice Specialty
e-mail: abssrikanth@gmail.com

Thank you