

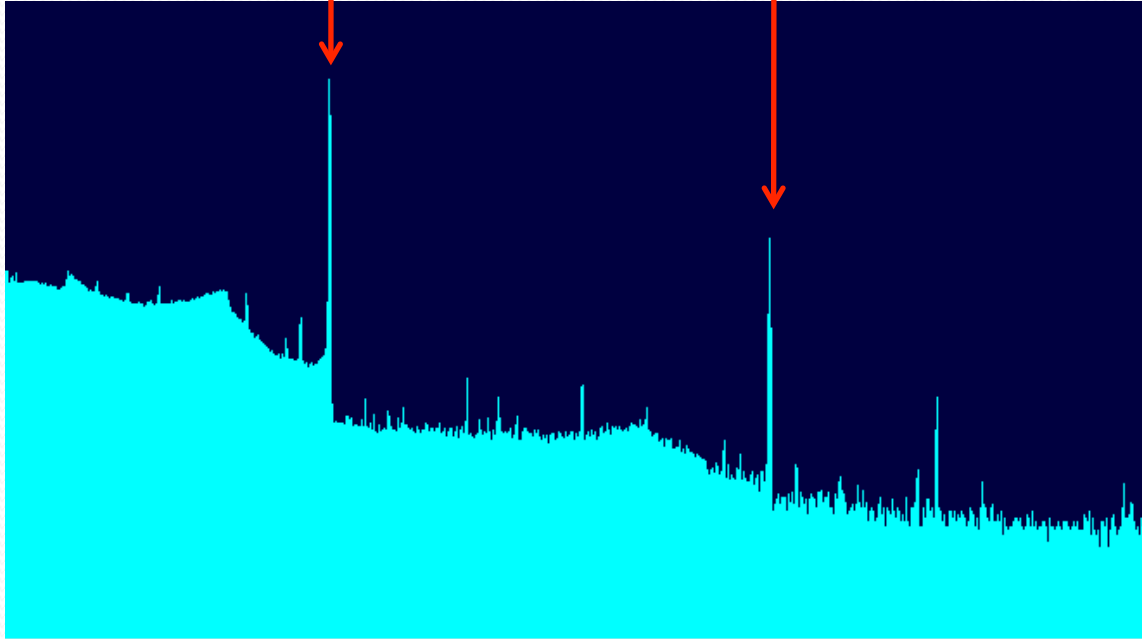
Radioactive Waste Management in Kuwait

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Nov 4, 2015

Cs-137
662 keV
~50000
counts !!

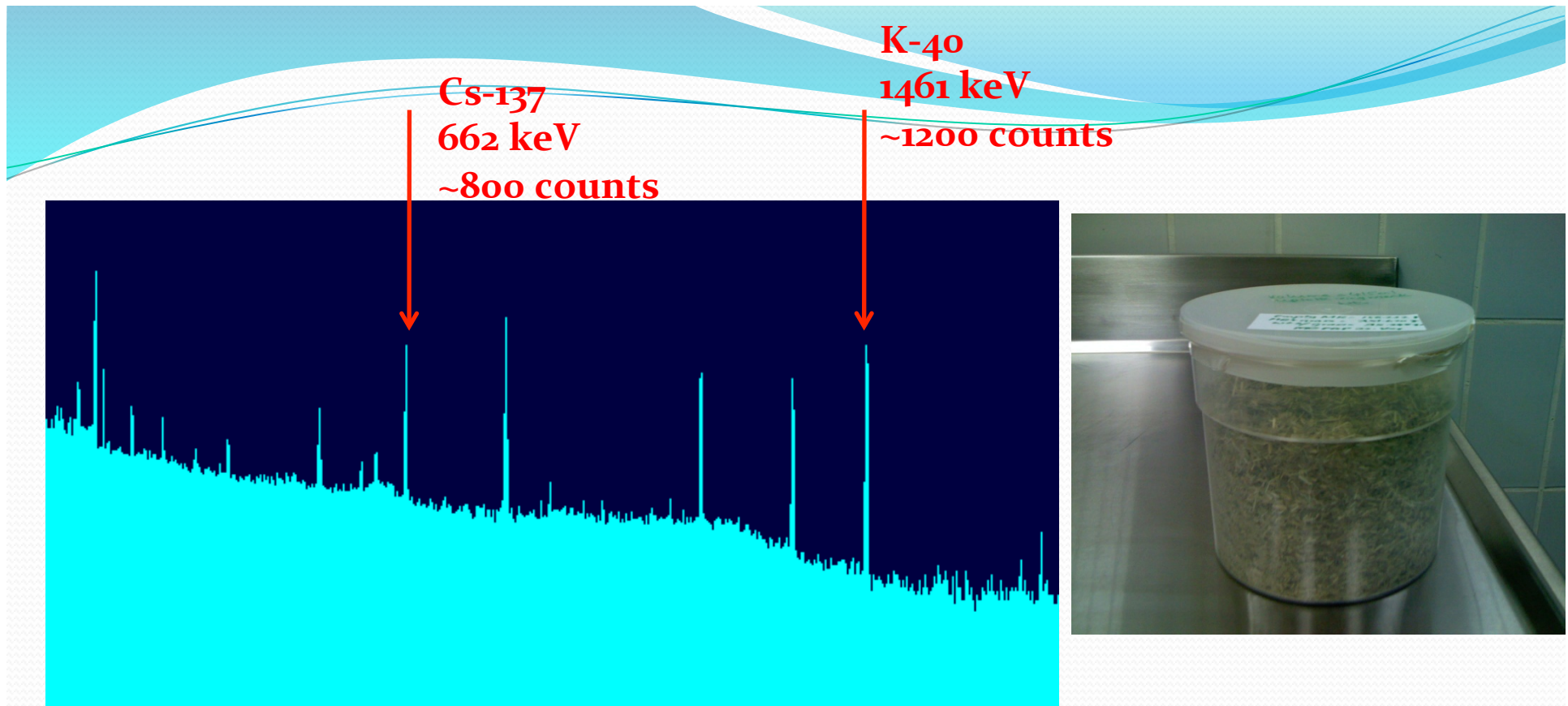
K-40
1461 keV
~2500 counts



Milk sample obtained from the IAEA.

Produced from cows that had grazed on land contaminated with radioactive fallout resulting from the Chernobyl accident.

Measurements were taken at the Center for Research in Environmental Radiation – Kuwait University



Grass sample obtained from the Mixed Analyte Performance Evaluation Program (MAPEP) of the US Dept. of Energy.

Measurements were taken at the Center for Research in Environmental Radiation – Kuwait University

Current Status

- No National Depository (Due to lack of land area)
 - Disused sources and RW have to be exported => high cost !!

Radioactive Waste Sources

- Research
 - Sealed Sources
 - Reference Materials
 - Calibration purposes
- 

Radioactive Waste Sources

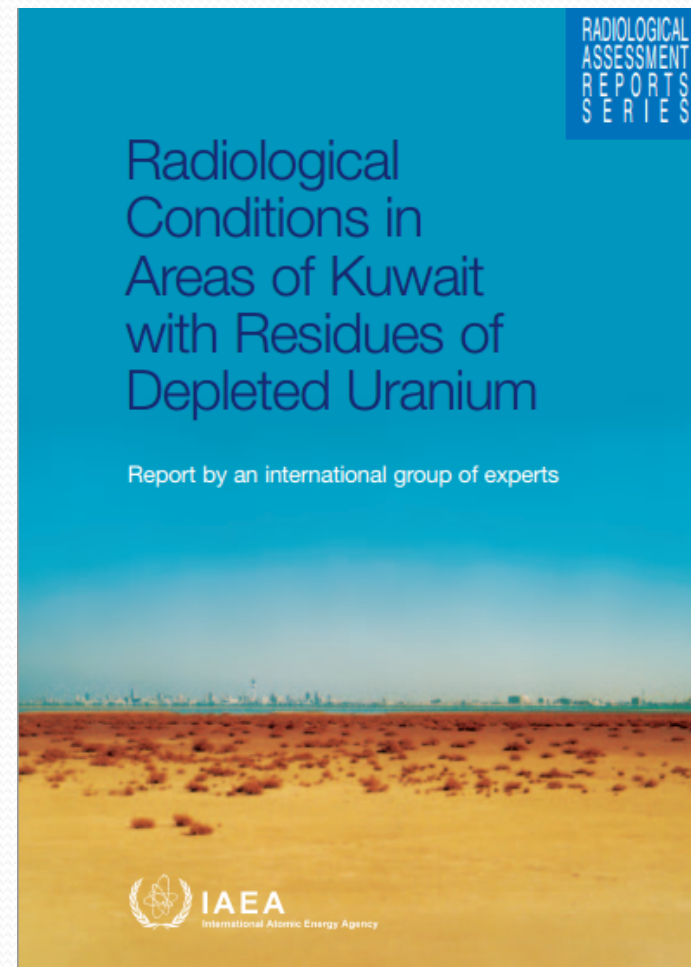
- Oil Industry
 - NORM – TENORM
 - Sealed Sources (flow meters)

Radioactive Waste Sources

- Medicine
 - Nuclear Medicine
 - Lab prepared (^{99m}Tc)
 - Cyclotron Produced
 - ^{18}F
 - ^{13}N
 - Radiotherapy
 - Sealed Sources

Radioactive Waste Sources

- Depleted Uranium



Regulator

- Radiation Protection Department (Ministry of Health)

Challenges

- Lack of Land !
 - 17000 km² country
- Lack of Knowledge !
 - Low number of professionals.

Remedies

- Reach out to experts (IAEA)
 - Start Educational / Career Programs in Nuclear / Radiation Physics
 - Start Regional Networks

Thank you 😊