

## Medical Physicist **OSAMA E. EL NATSHEH**

### **Introduction**

I have been working as a medical/health physicist since 1998 in the radiation field, in the following areas:

- Radiation safety and protection.
- Radioactive waste management
- Transport of radioactive materials.
- Calibration of radiation Protection instruments.
- Physical Calculation.



### **Achievements:**

- Preliminary Decommissioning Plan for the Jordan Research and Training Reactor (JRTR).
- Transport Plan for the Fresh Fuel to the Jordan Research and Training Reactor (JRTR).
- Engineered Near-Surface Plan Design for LLW Disposal.
- Site Selection Study for LILW Repository in Jordan.
- Operated the radioactive waste management storage
- Developed a handbook in Radioactive Waste Management (RWM) for Disused Sealed Radioactive Sources.
- Waste Acceptance Criteria for Storage Radioactive Waste Management.
- National Policy for Radioactive Waste Management and Spent Fuel.
- Drafted Strategy for Radioactive Waste Management and Spent Fuel.
- Radiation Protection Program for Radioactive Waste Management.
- Emergency Plan for Transport of Radioactive Materials.
- Safety Case for radioactive waste storage.
- Operating procedures for the central radioactive waste storage facility (CSF).
- Safety Assessment Report (SAR) for the Gamma Irradiation Facility.
- Established the Uranium Laboratories.
- Shielding Calculation.
- Code of Practice for the Secondary Standard Dosimetry Lab (SSDL).
- Developed a computer program (Laboratory Information Management System -LIMS) for the Uranium Analytical Lab using PHP and MySQL languages.
- Developed an analytical program (Software) for the data received from the radiation monitoring stations in Jordan using LabView program.
- Developed the Quality Assurance files related accreditation requirements for ISO 13485, ISO 9001 for the Gamma Irradiation Facility (GIF).

Information	<ul style="list-style-type: none"> <li>- Nationality: JORDANIAN.</li> <li>- Place of Birth: KUWAIT.</li> <li>- Date of Birth: 25 July. 1974.</li> <li>- Marital Status: Marred.</li> </ul>
Education	<p>1994 - 1998                      Applied Science University  <span style="float: right;">Amman, JORDAN</span></p> <ul style="list-style-type: none"> <li>- B.Sc. in Medical Physics.</li> </ul>
Certification	<p>Oct. 2022 (License No. 428038)                      BUREAU VERITAS Certification</p> <ul style="list-style-type: none"> <li>- QMS ISO 9001:2015 Lead Auditor</li> </ul> <p>Jun 2020 (License No. GDTFCKHQ)                      UDACITY</p> <ul style="list-style-type: none"> <li>- Data Analysis Track</li> </ul> <p>Apr 2017 . (License No. 520)                      World Institute for Nuclear Security (WINS)</p> <ul style="list-style-type: none"> <li>- Certified Nuclear Security Professional (CNSP) <ul style="list-style-type: none"> <li>• Radioactive Source Security Management</li> <li>• Transport Security Management</li> </ul> </li> </ul>
Volunteer	<ul style="list-style-type: none"> <li>- <b>Ambassador</b> World Institute for Nuclear Security Academy (WINS)</li> </ul>
Professional experience	<p>▶ 1 Nov. 2017 – till now      Jordan Atomic Energy Commission  <span style="float: right;">Amman, JORDAN</span></p> <ul style="list-style-type: none"> <li>- Head of Development Section, Gamma Irradiation Facility</li> </ul> <p><b><i>Responsibilities:</i></b></p> <ul style="list-style-type: none"> <li>- Safety and radiation protection in a sustainable manner</li> <li>- Follow-up with the Regulatory Body for required licenses</li> <li>- Established the safety assessment.</li> <li>- Developed the Quality Management System ISO 13485, ISO 9001.</li> <li>- Radiation calculations and economic feasibility study for switching irradiation facility from co-60 to e-beam/x-ray</li> </ul> <p>▶ 1 Jun. 2010 – 16 Sep. 2017      Jordan Atomic Energy Commission  <span style="float: right;">Amman, JORDAN</span></p> <ul style="list-style-type: none"> <li>- <b><u>Head of Radioactive Waste Management Section.</u></b></li> </ul> <p><b><i>Responsibilities:</i></b></p> <ul style="list-style-type: none"> <li>- Safety studies for radioactive waste management.</li> <li>- Dealing with the radioactive waste resulting from the peaceful uses of materials and radioactive isotopes.</li> <li>- Transport of Radioactive Materials.</li> </ul>

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- Issue Dangerous Good Certificate (DGC / IATA).
  - I did several reports regard the RWM and SNF (shown in the achievement).

▶ 22 Jan. 2009 – 31 May. 2010 Jordan Atomic Energy Commission  
Amman, JORDAN

- Head of Quality Assurance & Sample Management Section.

***Responsibilities:***

- Management and follow-up of Uranium samples.
- Develop LIMS Program.

▶ 1 July. 2001 – 21 Jan. 2009 Jordan Atomic Energy Commission  
Amman, JORDAN

- Secondary Standard Dosimetry Lab (SSDL) Supervisor.

***Responsibilities in Lab:***

- Run and Operate the Lab.
- Calibration of Radiation protection instruments (Survey Meters).
- Calibration of ionization chambers.
- Calibration of moisture density gauges instrument
- Irradiate the TLD to calibrate the TLD and the TLD reader
- Quality control of the instruments, devices and the sources, which used in the laboratory.
- generate code of practice for SSDL

***Other responsibilities in the JAEC:***

- lecturer in the radiation protection courses - level one.
- Sources storage.
- Radiation protection.
- Dealing with radioactive sources.
- Making many PC programs for SSDL and other labs.

▶ 1 Mar 1999 – 30 Jun 2001 Nuclear Medicine Center  
Amman, JORDAN

- Medical Physicist
- Nuclear Medicine Tech.

***Responsibilities:***

- Preparation of the radioactive materials in the hot lab.
- Radiation Protection.
- Quality control for the gamma camera.
- Shielding calculation.

Languages	<ul style="list-style-type: none"> <li>• Arabic (Mother Language).</li> <li>• English (Foreign Language).</li> </ul>		
Skills	<ul style="list-style-type: none"> <li>• Computer Software's.</li> <li>• Computer programmer (LabVIEW Language ).</li> <li>• WEB programmer (PHP Language, MySql Language) .</li> <li>• Structured Query Language (SQL)</li> </ul>		
Training Course & Meeting	<ul style="list-style-type: none"> <li>• 27 Nov. -1 Dec. 2023</li> </ul>	Interregional Training Course on Environmental Remediation Design and Implementation.	Nanchang China
	<ul style="list-style-type: none"> <li>• 21-25 Aug. 2023</li> </ul>	Technical Meeting on Simulations and Validation of Dose Distribution in Polymers Commonly used in Medical Devices.	Strasbourg FRANCE
	<ul style="list-style-type: none"> <li>• 22-23 Feb. 2023</li> </ul>	WINS Academy Ambassador Meeting	Vienna, AUSTRIA
	<ul style="list-style-type: none"> <li>• 24 – 28 Oct. 2022</li> </ul>	Scientific Visit to AERIAL Technological Resource Center to view and study the e-beam/x-ray irradiation specification	Strasbourg FRANCE
	<ul style="list-style-type: none"> <li>• 26 - 30 Aug. 2019</li> </ul>	Workshop on Financial and Economic Feasibility Analysis for Nuclear and Radiation Technology Projects	Vienna, AUSTRIA
	<ul style="list-style-type: none"> <li>• 15-26 April. 2019</li> </ul>	Scientific Visit on Quality management in industrial irradiation.	Lisbon, Portugal
	<ul style="list-style-type: none"> <li>• 16-18 Dec. 2018</li> </ul>	Workshop on Understanding and Mitigating the Insider Threat.	Abu Dhabi, UAE
	<ul style="list-style-type: none"> <li>• 20-23 Mar. 2017</li> </ul>	Meeting on the implementation of policies and strategies for RS and DSRS management	Vienna, AUSTRIA
	<ul style="list-style-type: none"> <li>• 6-10 Mar. 2017</li> </ul>	Workshop on the Formulation and Implementation of National Policy and Strategy for the Management of RadWastes and DSRS.	Quezon City, Philippines
	<ul style="list-style-type: none"> <li>• 24-28 Oct 2016</li> </ul>	Final Project Report Meeting on the Development of Reg. Infrastructure & Sustainable Networks for the Safe Transport of Radioactive Material, Bangkok, Thailand	Bangkok, Thailand
<ul style="list-style-type: none"> <li>• 25 – 29 July. 2016</li> </ul>	Interregional meeting on existing and new technologies for pre-disposal and disposal activities	Ljubljana SLOVENIA	
<ul style="list-style-type: none"> <li>• 27 Jun – 1July 2016</li> </ul>	Workshop on the Organization and Implementation of the Regulatory Review of the Safety Case for the Predisposal Management of Radioactive Waste	Vienna, AUSTRIA	
<ul style="list-style-type: none"> <li>• 13-17 Jun. 2016</li> </ul>	Regional Workshop on Disposal of Radioactive Waste: Options and Requirements	Dalat, VIET NAM	

• 4-8 Oct. 2015	Regional Training course on Practical Aspects of Information and Records Management for Control of Disused Sealed Radioactive Sources	Amman, JORDAN
• 7-11 Jun 2015	First Regional Meeting for Peer Review of National Self-assessments of Compliance Assurance Regime for Transport Safety, and for Establishment of On-Going Use of Network	Amman, JORDAN
• 5-7 May. 2015	Technical Visit on National Pilot Transport Security Field Exercise	Stockholm, SWEDEN
• 9-13 Feb. 2015	Meeting on Developing an Effective Compliance Assurance Regime for the Transport of Radioactive Material in Mediterranean Coastal States and Associated Shipping States.	Athens, GREECE
• 3-7 Nov. 2014	Technical Meeting on the Safe Disposal of Intermediate Level Waste	Vienna, AUSTRIA
• 8-12 Sep. 2014	Interregional Training Course on the Conditioning of High Activity Disused Sealed Radioactive Sources Using the Mobile Hot Cell	Pretoria, South Africa
• 7-11 Apr. 2014	Meeting on Regulatory Requirements to Ensure Safe Disposal of Disused Sealed Sources for Operators and Regulators	Amman, JORDAN
• 26-30 May. 2014	Regional Meeting on Measures to Enhance the Safe Transport of Radioactive Material and Sources	Dengkil Selangor, MALAYSIA
• 17-21 Mar. 2014	Workshop on Management and Safe Disposal of Radioactive Waste Management	Tunis, TUNISIA
• 3-7 Feb. 2014	Scientific Visit of Upgrading the Infrastructure for Radioactive Waste Management	Rez, Czech Republic
• 9-19 Dec 2013	Workshop on Regulatory Control for the Safe Management of Disused Sealed Radioactive Sources	Vienna, AUSTRIA
• 7-11 Oct. 2013	Regional Workshop on Borehole Disposal Concept implementation plan	Tirana, ALBANIA
• 1-5 July 2013	Regional Training Course Identification, Analysis and Presentation of Spatial Variability in Site Investigations for Radioactive Waste Repositories	Vienna, AUSTRIA
• 19-23 May 2013	Advance Topic and Search and Secure for Orphan Sources Operations Workshop.	Amman, JORDAN

• 25-29 Nov. 2012	Regional Training Course on Dosimeters Preparation and Calibration.	Amman, JORDAN
• 19-23 Nov. 2012	Regional Training Course on Lessons Learnt in the Area of Stakeholder Dialogue to Strengthen National Competencies for Radioactive Waste Disposal.	Warsaw, POLAND
• 23-27 Sep. 2012	Search and Secure Operations Workshop.	Amman, JORDAN
• 13-24 May. 2012	Regional Training Course on Compliance Assurance Training Aligned to the Regulation for the Safe Transport of Radioactive Material.	Amman, JORDAN
• 5 Sep - 14 Oct 2011	Interregional Training Course on Management of Radioactive Waste in Accordance With International Safety Standard and Best Practices.	Claustahl, GERMANY
• 13-15 Jun. 2011	Radiation Measurements Cross Calibration.	Amman, JORDAN
• 2-6 May. 2011	Consultant Meeting on Uranium Extraction from Phosphoric Acid.	Amman, JORDAN
• 27 Nov–2 Dec 2010	Training Course on Research Reactor and its Uses.	Tripoli, LIBYA
• 27-30 Sep. 2010	Technical Meeting on Safety Aspects of Research Reactor Core Management and Conversion from HEU to LEU (by IAEA)	Vienna, AUSTRIA
• 7 – 9 Jun 2010	Technical Meeting on the Establishment of a Radioactive Waste Management Organization	Paris, FRANCE
• 18 – 21 July. 2011	Foundations of Physical Protection of Nuclear Material and Facilities.	Amman, JORDAN
• 20 Sep. 2010	Awareness and Quality Objective Orientation (ISO 9001: 2008)	Amman, JORDAN
• 3 – 7 Aug. 2008	Orphan Source Search & Secure	Amman, JORDAN
• 1 Sep. – 6 Nov. 2003	Radiometry and Dosimetry .	Istanbul, TURKEY
• 3 – 9 Dec. 2002	Calibration Of Radiation Measuring Instruments at Radiation Protection Level.	Amman, JORDAN
• 4 – 8 Nov. 2001	Assessment of Occupational Exposure Due to External Sources.	Damascus, SYRIA
• 7-10 Oct. 2010	National Conference on Therapeutic and diagnostic Medical Physics.	Amman, JORDAN
• 18 – 22 Nov. 2007	Therapeutic and Diagnostic Physics: Current Practice, Recent and Future Advances	Manama, BAHRAIN

• 16 – 17 April. 2007	Technical Training on FLUKE Biomedical Products.	Amman, JORDAN
• 7 – 11 Jan. 2007	Train-the Trainer's Workshop: Radiation Safety in Industrial and Medical applications.	Amman, JORDAN
• 9 – 12 Apr. 2000	Radiation Protection	Amman, JORDAN
• 22 July. –5 Aug. 2004	First Response (Chemical Predication Group)	Amman, JORDAN