In response to the request made by the Government of Costa Rica, the IAEA organized and carried out this evaluation on occupational radiological protection from December 12 to 20, 2016. The national technical counterpart of the mission was the Ministry of Health (Directorate of Protection of the Human Environment - UASSAH) and the national coordination also of the mission of the Ministry of Health through its Unit for International Affairs in Health - UAIS.

The mission was conceived to independently study and evaluate the occupational radiation protection program at end-user facilities, technical services, as well as the national regulator.

The purpose of the mission was to support the institutions to evaluate their occupational radiological protection program and, if necessary, provide them with guidelines for its improvement.

**REGULATORY BODY**

- Ministerio de Salud, Dirección de Protección al Ambiente Humano – UASSAH (Ministry of Health, Directorate for the Protection of the Human Environment)
- Unidad de Asuntos Internacionales en Salud – UAIS (International Health Affairs Unit)

**END-USERS**

- Ministerio de Salud – UASSAH (Ministry of Health)
- Caja Costarricense de Seguro Social - CCSS (Costa Rican saving bank)
- Hospital San Juan de Dios
- Hospital México
- Hospital Nacional de Niños
- Hospital Clínica Bíblica
- Holcim
- ICE-MET
- UCR - Cicanum
- Proxtronics

Below are the conclusions and recommendations drawn from the results of the evaluation and in relation to the application by the participants of the international safety standards in the field of occupational protection. The conclusions and recommendations presented in this report have been made in a general way, considering the most repeated observations and without proper names to protect the confidentiality of the information.
To consider the possibility that the UASSAH - Administrative Unit of Health Services in the Human Environment, regulatory authority in matters of control of ionizing radiation, be administratively hierarchized within the Directorate for the Protection of the Human Environment - DPAH of the Ministry of Health and that it be considered the possibility that its regulation and control functions are exclusive for the control of ionizing radiation and especially occupational protection.

The regulatory authority fulfills its functions as of the date of this ORPAS mission based on regulations in force from 1995. However, the new Radiological and Physical Safety Regulations, which were designed in line with the new regulations, are pending signature by the authorities. IAEA Safety Recommendations – GSR Part 3. Therefore, it is recommended that they be signed and implemented as soon as possible.

Strengthen the regulatory authority in terms of its human and financial resources to fulfill its licensing and control functions more efficiently, maintaining its continuous training to meet the growing demand of its graduates and the vertiginous development of technology, fundamentally in medical practice.

It is recommended that the Regulatory Authority compulsorily require the providers of personal dosimetry services to present the respective reports that they periodically send to their users, as the beginning of the constitution of a National Dose Registry. This procedure will be a requirement to grant or renew operating licenses.

It is recommended that the Ministry of Health consider Requirement 27 of the new IAEA International Safety Standards published in July 2014, as GSR Part 3.

End users are recommended to have a specific Occupational Radiological Protection Manual or Program, either independent or included in the Radiological Protection and Safety Procedures Manuals.

Technical service providers are recommended to always have a contingency plan designed in the event of unexpected loss of information.

At a general level, the implementation of quality management systems in institutions necessary to guarantee the constant availability of appropriate systems and procedures is recommended.

It is recommended that the country adopt the IAEA recommendations regarding the education and training of exposed workers in radiological protection, especially occupational protection.

End users are recommended to establish a radiological monitoring program for workplaces, which must be duly scheduled in terms of its frequency and recorded, including plans with control points and values found, to guarantee the safety of exposed workers.

It is recommended that end users periodically review the classification of their supervised and controlled areas according to the design of their respective services and signal them in accordance with international safety standards.
Considering the availability of adequate equipment, it is recommended to start a pilot program to measure the internal incorporation of radionuclides by personnel working with open sources.

It is recommended to establish a procedure or simple instructions for the prior review of the correct operation of radiation protection monitors. It is recommended that the respective emergency plans, in addition to being included in the Procedures or Radiological Protection Manuals, be in the form of clear and precise instructions in visible places for the direct operators of the equipment.

It is recommended to place an environmental dosimeter in the irradiation rooms dedicated to interventional procedures.