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Viva : radiation protection
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Question no 1
Answer:
A Radiation Protection Officer (RPO) is a specialist in radiation safety and compliance matters and is an appointed position within University Health and Safety Services.
The role of the RPO is to support the University's work with ionising radiations by ensuring arrangements are in place to manage radiation risks, so that work is carried out safely and in compliance with Regulations and so that University employees and the public are protected from harmful effects.

The role involves:

1. Acting as the point of contact within the University for the external Radiation Protection Adviser (RPA).

2. Acting as the point of contact within the University for Regulators relevant to ionising radiations compliance i.e. the Environment Agency (EA) and the Health and Safety Executive.

3. Preparing periodic status reports on radiation safety and management for purposes of University governance.

4. Managing Environment Agency Permits including:
• Make application for new or variation to existing EA Permits.
• Manage the collation of waste records and make Pollution Inventory returns to EA on behalf of the University.
• Advise on the use of Exemptions under the Environmental Permitting Regulations 2011.
• Advise on routes of radioactive waste disposal.

5. Monitoring site activity against Environment Agency Permit conditions; including
• Expert inspection and auditing of storage and disposal facilities.
• Auditing holdings and usage records.
• Auditing waste accumulation in stores.
• Performing waste sampling when required by the Regulator.
• Performing measurements to check radiation doses, dose rates and activity.

Question no :2
Answer:
1:Time

2: shielding
3: distance
4:Alara
1:Minimize time spent in areas with elevated radiation levels. ...
2:Maximize distance from source(s) of radiation. ...
3:Use shielding for radiation sources (i.e., placing an appropriate shield between source(s) of radiation and workers).

Question 3
Answer:
Exposure to very high levels of radiation, such as being close to an atomic blast, can cause acute health effects such as skin burns and acute radiation syndrome (“radiation sickness"). It can also result in long-term health effects such as cancer and cardiovascular disease. Exposure to low levels of radiation encountered in the environment does not cause immediate health effects, but is a minor contributor to our overall cancer risk.
1:Somatic effects
2:Genetic effects

Question no: 4
Answer:
Understand and apply the cardinal principles
1:time
2: distance
3: shielding

- Wear gloves
- Wear lead apron
- Collimate to the smallest field size
- Use mechanical restraining
- Wear goggles

Annual occupational dose:
Dose limits are recommended by the International Commission on Radiological Protection (ICRP).
They are in place to ensure that individuals are not exposed to an unnecessarily high amount of ionizing radiation.
Dose limits are the fundamental component of radiation protection.

End of assignment!!