

Can the ALARA Principle be fully applied in Emergency Exposure Situations for the Occupationally Exposed Individuals?

- Are there steps of ALARA that cannot apply?
Or should apply differently? How differently?
 - In emergency phase may need to work under higher dose reference level to save lives or carry out other urgent tasks
 - May need to increase number of exposed individuals and collective dose if people with different skills need to enter radiation area eg scaffolder supervised by HP Monitor

- Low dose for many or high dose for few?
 - Too many variables so would need to decide on a case by case basis.
 - Eg availability of appropriate personnel
 - Staff welfare (rest breaks, working hours)
 - What particular tasks involved – complexity

- How do you know that doses are ALARA?
 - Start monitoring straight away so accurate information about actual risks is available as soon as possible
 - Concerns re internal exposures. Some may find bodily contamination more worrying than external exposure. Dosimetry more complex and time consuming. May not be able to determine dose received quickly enough

Recommendations

- For emergency planners or responders - that scenarios, potential dose rates and contamination levels are anticipated, have been rehearsed and that estimated time limits or PPE for contamination protection are known and available. Use knowledge gained in rehearsals to consider redesigning equipment and facilities in order to drive optimisation process

Recommendations

- response leaders to ensure radiation protection personnel are included in addition to process technicians in response teams so that recovery staff can concentrate on their particular task

Recommendations

- In the intermediate phase need to ensure that there are arrangements in place to identify workers, risks and necessary tasks
- That additional workers are categorised as to whether they are exposed radiation workers and identify the dosimetry required and dose reference levels they are working to.
- For all workers optimisation to be driven towards a dose limit of 20 mSv in the late phase.

Recommendations

- Specific groups (eg women of childbearing age, different age groups) may need additional information in order to be able to make informed choices about working in a high dose rate or contaminated area.

Recommendations

- Training for identified responders to fit in with established procedures and language
 - Eg emergency services (fire, ambulance) to include radiation hazard into their existing dynamic risk assessment procedures