What constitutes a good approach to radiation safety culture?

The following points could be used to incorporate suitable questions into general inspection regimes, to develop metrics for inclusion in Standards, and to input into training at all levels. Each 'Culture factor' has a number of suggested performance indicators that might be used to assess it.

1. Engagement of Management
    - Senior management understand their role and responsibility in relation to radiation safety
    - There exists a clear management structure for radiation safety with link to Executive Board (or equivalent)
    - The radiation safety policy contains clear descriptions of management responsibilities and how these are audited
    - Evidence of clear communication between staff on radiation safety issues

2. Appropriate Training
    - Appropriate radiation safety training/qualifications are included in relevant job descriptions
    - Induction training contains appropriate level of radiation safety training – including general awareness training for non-radiation workers
    - Radiation workers and individuals with recognised roles under any radiation legislation have documented update training at specified intervals
    - Evidence that training complies with best practice guidelines if/when available from professional bodies
    - There exists a programme of appropriate refresher training at specific time intervals e.g. every 3 to 5 years

3. Regular audit/inspection of radiation safety procedures/practices
    - Schedule of in-house audits including internal compliance audits with Local Rules and legislation
    - Schedule of in-house inspections of radiation facilities and practices
    - Review of recent audit results of Local Rules and legislative compliance
    - Review of recent inspection results and legislative compliance
    - Schedule of RP audits by 'independent' RPE or other suitable recognised expert including a review of the top level policies and procedures and how they match against sector best practice and/or legislative requirements.

4. Appropriate management of radioactive materials and radiation generating equipment
    - Documented management system in place
    - Evidence of equipment replacement programme
    - Evidence of Service/Maintenance contracts
    - Evidence of QA (both equipment & standard operating procedures)
    - Evidence of action on QA results
    - Evidence of audit of RAM policy & procedures
    - Disposal records
    - Compliance with Permits or equivalent RSA compliance schedules
    - Non-compliance notices from external inspections recorded and made available on company/university intranet.
    - Documented use of appropriate guidelines
    - Evidence of culture where by staff/students are given the authority to challenge inappropriate actions and stop using ionising radiation where they feel it is unsafe.

5. Appropriate appointment & use of Recognised Experts & Officers
    - Policy level statement of their appointment and proper consultation with them
    - Evidence of appointment of suitable numbers of qualified RPA/RWA/MPE
    - Evidence of Action following reports from Experts
    - Evidence of appointment of Radiation Protection Committee
    - Appointment of suitable number of Radiation Protection Supervisors

6. Management of staff doses
    - Policy of endeavouring to optimise staff doses to ALARP
    - There exists a defined management system for the personal dosimetry
    - Number of incomplete dose records (i.e. lost/damaged dosimetry)
    - Evidence (e.g. in written reports) of routine checking of doses against investigation levels and any unexpected doses
    - Typical and maximum doses for different staff roles
    - Results of audit of use, checking, and storage of PPE
    - Audit of compliance with Local Rules

7. Appropriate Incident handling
    - Documented procedures for handling radiation incidents
    - Evidence of rehearsals and training for dealing with incidents
    - Evidence of timely reporting & investigation of incidents
    - Evidence of involvement of appropriate managers
    - Actions plans for lessons learned and implementation of any new procedures
    - Evidence of culture of 'openness' in reporting

8. Effective Communication

    - RP issues are on agenda of staff meetings – 'learning from experience' is shared
    - Staff have access to managers to raise concerns
    - Staff have access to union safety officers to raise concerns
    - Staff have access to 'mentors/guardians' to raise concerns
    - Management and advisers regularly communicate RP performance to relevant staff
    - Radiation safety newsletter for all staff – to which staff can contribute
    - Good practice is proactively shared and celebrated
    - A system is in place to ensure effective communication with external employers e.g. suppliers of outside workers or host organisations.
    - Social media (Twitter) usage to share opinions and feedback on radiation safety issues as long as such communications do not conflict with matters of security

9. Resources

    - There is evidence that radiation safety practices and reasonably foreseeable interventions are suitably resourced in terms of equipment and manpower

10. Professional Societies

    - Members of staff are encouraged to join relevant radiation-related professional societies