Safety Questions

- What do rules have to do with safety?
- Why are requirements so different?
- How can you do?
Who Rules?

Non-Profit Groups

American Society for Non-Destructive Testing (ASNT)

Conference of Radiation Control Program Directors (CRCPD)

Organization of Agreement States (OAS)
Who Rules?

X-ray
State agency and the Conference of Radiation Control Program Directors (CRCPD)

Radioactive Materials
US Nuclear Regulatory Commission and State agency
34 Agreement States
16 NRC States
4 States with Letter of Intent
1 State planning to submit Letter of Intent
Enforcement Program

Purpose
The purpose of an enforcement program is to:

promote and protect the radiological health and safety of the public,

employee's health and safety, and

the safety of the environment
This is accomplished by:

Ensuring compliance with rules;

Obtaining prompt correction of violations and adverse conditions that may effect radiological safety;

Deterring future occurrences of conditions adverse to quality;
And by:

Encouraging the prompt identification and reporting of potential safety problems;

Promoting improvement of the regulated entity's performance.
The Basics

Compatible
The NRC categorizes rules that are adopted by states as A, B, C, D, or H&S.
Compatible

A

Basic radiation protection standard or related definitions, signs, labels, or terms necessary for the common understanding of radiation principles. The state program should be essentially identical to that of the NRC.
Program element with significant direct trans-boundary implications. The state program element should be essentially identical to that of the NRC.
Program element, the essential objectives of which should be adopted by the state to avoid conflicts, duplications, or gaps. The manner in which the essential objectives are addressed need not be the same as the NRC, provided the essential objectives are met.
Compatible

D

Not required for compatibility purposes.
H&S

Program element with a particular health and safety significance. The state should adopt the essential objectives of such program elements in order to maintain an adequate program.
Compatible

Regulation Amendment Tracking System (RATS) lists the categories for each rule part.

For Industrial Radiography the following apply:

RATS ID 1997-5*

RATS ID 2002-2

*Supersedes 1991-2 and 1995-5
<table>
<thead>
<tr>
<th>Change To NRC Section</th>
<th>Title</th>
<th>Compatibility Category</th>
<th>Summary of Change to CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>34.41</td>
<td>Conducting industrial radiographic operations</td>
<td>B</td>
<td>Sec. 34.35 is revised to read: (a) Whenever radiography is performed at a location other than a permanent radiographic installation, the radiographer must be accompanied by at least one other radiographer or....</td>
</tr>
</tbody>
</table>

nrc-stp.ornl.gov/rss_regamendents.html
Compatible

- Agreement State Approaches
  - Implemented by reference
  - Adopt NRC regulations verbatim
  - Adopt NRC regulations with embellishments*

* Can be challenged
Compatible

The Caveat:

Rules can be interpreted differently
The Basics

Adequate
NRC Inspection Manual Chapter 2800 establishes inspection frequencies

- **Office Inspections**
  - Every year if authorized temporary job sites. May include temporary job site locations.*
  - Every two years if fixed job site.
Adequate

- Performance based inspections – whatever that means
- Inspector’s equipment – varies, but in Iowa and Minnesota it is equivalent to the radiographer’s
- Licensee’s Responsibility for State Inspectors - varies, so radiographers should ask
Adequate

- Most Agreement States have a peer review process – NRC may not
- Be cautious of recommendations
- Ask questions if you don’t understand
Adequate

NRC Integrated Materials Evaluation Program (IMPEP) reviews implementation of inspections

- Conducted a minimum of every four years
The Caveats:

- The inspector may not identify a deficiency
- The inspector may not choose to cite a deficiency
- Rules can be interpreted differently

Talk to the inspector’s supervisor or manager if you disagree with a finding.
The Basics

Audits and Inspections
Program Audits

- A licensee must periodically, at least annually, review the radiation protection program content and implementation.
Program Audits

The rules do not specify who should complete the audits

A sample audit is in most Industrial Radiography Regulatory Guides.
Job Performance Reviews

Must be performed every *six months*
Radiographer Job Performance

- The radiation safety officer or designee must conduct an inspection program of the job performance of each radiographer and radiographer’s assistant to ensure that:
  - this rules,
  - the license requirements, and
  - the licensee's operating and emergency procedures are followed.
Radiographer Audits

The inspection program must include observation of the performance of each radiographer and radiographer’s assistant during an actual industrial radiographic operation, at intervals not to exceed six months.
What is Coming

National Source Tracking System
National Source Tracking System

August 28, 2006

The NRC requests that all states conduct an inventory of some sources including:

- **Iridium-192 sources - 216 mCi or more**

- **Cobalt-60 sources - 81 millicuries or more**
National Source Tracking System

December 12, 2006

The NRC completed final rulemaking for the National Source Tracking System
Increased Controls

Fingerprinting and
SUNSI
Fingerprinting

- Implemented for all NRC licensees with Increased Controls

- Some state impediments
Sensitive Unclassified Non-Safeguards Information

- SUNSI requires information management.
- Things to be controlled:
  - Licenses
  - Reports containing:
    - Addresses of storage locations
    - Source information
Precautions:

- Don’t email copies of licenses (unless the information is encrypted)
- Ensure that faxed copies go to the intended person
- Secure SUNSI information when not in use.
The Basics

Personnel Monitoring
Personnel Monitoring

• During radiographic operations, individuals must wear on the trunk of their body:
  • Direct reading dosimeter
  • Alarm ratemeter
  • Personnel dosimeter processed by a NVLAP processor