

Radiology Compliance Branch

RADIATION PROTECTION SECTION



Division of Health Service Regulation • N.C. Department of Health and Human Services

INDUSTRIAL RADIOGRAPHY INSPECTION CHECKLIST

(X-Ray machines used for Non-Destructive Testing- stationary shielded room or field use)

North Carolina Regulations For Protection Against Radiation [10A NCAC 15](#) rule references shown in brackets below.

General Documents:

- Current copy of the State Regulations [.1002(a)(1)]
- Current Notice of Registration [.1002(a)(2)]; [.0209]; [.0523(a)1(A)]
- Up to date application submitted for registration [.0203(a)(2)]; [.0203(b)(3)]; [.0510(h)]; [.0523(a)1(B)]
- Waivers on file (if applicable) [.1002(a)(2)]; [.0108(a)]
- Notice to Employees (posted in restricted area) [.1002(c)]

Radiation Safety Program / Operating & Emergency / Inspection & Maintenance:

- Inspection and maintenance procedures [.0511(a)]; [.0511(c)(1)]
- Operating and emergency procedures [.0513 (2,3,5,7,8,9,10,11)]; [.0523(a)1(C),(14)]
- Current copy of radiation protection program [.1603(a)]; [.1636]

Warning Labels & Devices /Security:

- Unit Security [.0514]; [.1622]
- Appropriate caution signs posted [.0516]; [.1623]; [.1624]
- High radiation area permanent installations have appropriate visual and audible warning signals [.0520(a)(1)]

Records:

- Radiation detection survey instrumentation calibration reports [.0506(e)]; [.0523(a)(3)]
- Utilization logs [.0509]; [.0523(a)(6)]
- Operator Training records: initial certification and periodic training (once every 12 months) [.0510(a)(1),(2),(4)]; [.0510(b)(1),(2)]; [.0510(c)]; [.0510(e)]; [.0523(a)(9)]
- Internal Audit [.0510(d)]
- Radiation Safety Officer training documentation [.0510(h)]
- Inspection and maintenance reports [.0511(a)]; [.0511(c)(1)]; [.0511(d)]; [.0523(a)(7)]
- Personnel exposure records TLD/film badge [.0512]; [.0523(a)(11)]; [.1614]; [.1640]
- Pocket ion chamber daily exposure readings and annual operability checks [.0512]; [.0523(a)(10)]; [.1614]; [.1640]
- Alarm system test for permanent radiographic installations [.0520(b) and (c)]; [.0523(a)(8)]
- Area surveys (unit in use) [.0515(e)]; [.0515(f)]; [.0523(a)(13)]
- Calibration of alarm rate meters [.0523(a)(15)]
- Operability checks of pocket dosimeters or electronic personal dosimeters [.0523(a)(15)]
- RSO annual radiation safety program review [.1603(c)]; [.1636]
- Initial survey [.1613]; [.1637(a) and (b)(1)]

Temporary Job Sites:

- Required records [.0523(b)(1-4, 6-7, 9-12)]

Other Items of Interest:

- Previous inspection reports and letters of correspondence
- Digital imaging system specification (i.e. reader/phosphor plate manufacturer)
- Film imaging system specifications (i.e. processing chemicals, film type, safelight)
- Average number of exposures per week
- Material Safety Data Sheets

