

ANALYTICAL X-RAY CHECKLIST

(A FACILITY checklist is not required with this form.)

Facility _____ Date Surveyed _____

Registration number _____ - _____ Room number _____ Control number _____ Inspector _____

Facility Email Address _____ Person Interviewed _____

Control panel manufacturer and serial no. _____

Tubehead manufacturer and serial no. _____

Handheld Open Beam

Enclosed Beam

Unit is in storage and not being used.

Facility

Circle Y for yes (compliant), N for no (noncompliant) and N/A for not applicable.

(All reg references preceded by 0400-20-)

Y N N/A

1. Copy of registration form available for this unit. (04-.11(1)(d))
2. Is the information on the registration form for this unit accurate as to address, ownership, possessor and location? (10-.24(5))
3. Are all of the units registered under this registration possessed by the registrant? (10-.24(5))
4. Are all of the units possessed at this facility registered? (10-.24(1))
5. Regulations present. (04-.11(1)(a))
6. "Notice to Employees" (RHS 8-3) posted. (04-.11(1)(g))
7. Switch at control panel and any remote switch labeled "CAUTION-RADIATION, THIS EQUIPMENT PRODUCES RADIATION WHEN ENERGIZED". (05-.111(11))

Equipment

8. Is there a warning light on the control panel labeled with the notation "X-ray On" or equivalent that lights only when the x-ray tube is activated? (06-.07(1)(c))
9. Is there a light or indicator near the tube housing indicating when the x-ray tube is on? (06-.07(1)(e))
10. Is the light or indicator near the tube housing of a fail-safe design? (06-.07(1)(e))
11. Does the equipment have a beam trap sufficient to limit the dose rate from the primary beam to less than 0.25 mR/hr at 5 centimeters (2 inches) from the primary barrier? (06-.07(1)(d))

Operation of Equipment

Y N N/A

12. Have all operators been instructed in the requirements of 0400-20-06-.07(2)(a)?
13. Is training provided and records of all user and operator training maintained? (06-.07(3)(c))
14. Operating and emergency procedures available and posted near the unit. (06-.07(2)(c))
15. Tests of all safety devices performed quarterly. (06-.07(2)(f)) [interlocks, shutters, warning lights, etc.]
16. Records of safety device tests maintained. (06-.07(2)(f))
17. Is the machine secure when left unattended? (06-.07(1)(i)5. and 06-.04(5))
18. Has a survey been performed to determine that the unrestricted area dose limits are met and records maintained of this determination? (05-.61, 06-.07(2)(h), and 05-.136)
19. Personnel monitoring provided or determination performed. (06-.07(2)(h) and 05-.71)
20. If handheld, extremity dosimeters provided or determination performed? (06-.07(3)(b))
21. Personnel monitoring records or determination records maintained properly. (06-.07(2)(h) and 05-.135)
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Notes

Definitions

Analytical x-ray equipment – Any device which utilizes x-ray for the purpose of examining the *microstructure* of materials. (06-.03(4))

Open beam x-ray equipment – An *analytical* x-ray producing device designed in such a way that the primary beam is not completely enclosed by the tube housing-apparatus complex during normal operation. (06-.03(39))