

NOTE: The standard citations included in Appendix C are currently under revision. Not all regulations reflected in the citations are current. However, the citations included in this Appendix can be used as guidance in constructing appropriate citations. Users should review the latest version of 10 CFR to ensure that they are using the most current version of the regulation.

## APPENDIX C STANDARD CITATIONS

---

---

This Appendix includes standard citations to be used in preparing enforcement actions. These standard citations are available as a computer file and can be electronically transmitted either from the Office of Enforcement or from the Regional Enforcement Coordinators.

Requirement sections are identified by bold type and are followed by one or more examples of violation ("contrary to") sections.

The following is a key to the notation used in the standard citations:

Symbol	Meaning
(____) or _____	Fill in the blank with the appropriate information
( )	Text within parentheses indicates the optional use of an alternative word or an optional choice or the plural form of the word preceding the parentheses.
[ ]	Text within brackets indicates narrative guidance that should be followed in terms of addressing specific elements that should be included in the particular document.
" "	Text within quotes indicates a suggested sentence or language.

## - INDEX -

10 CFR Part 19	NOTICES, INSTRUCTIONS, AND REPORTS TO WORKERS .....	1
19.11	Posting of Notices to Workers .....	1
19.12	Instructions to Workers .....	1
10 CFR Part 20	STANDARDS FOR PROTECTION AGAINST RADIATION .....	3
20.1201	Occupational Dose Limits .....	3
20.1301	Dose Limits for the Public .....	3
20.1501	Surveys .....	4
20.1502	Personnel Monitoring .....	5
20.1601	Control of Access to High Radiation Areas .....	5
20.1801	Security of Stored Material .....	6
20.1902	Posting Requirements .....	6
20.1904	Labeling Containers .....	7
20.1906	Procedures for Receiving and Opening Packages .....	7
20.2001	Waste Disposal .....	8
20.2103	Records of Surveys .....	8
20.2106	Records of Individual Monitoring Results .....	8
20.2108	Records of Waste Disposal .....	9
20.2206	Reports of Individual Monitoring .....	9
10 CFR Part 30	DOMESTIC LICENSING OF BYPRODUCT MATERIAL .....	11
30.3	License Required .....	11
30.9	Completeness and Accuracy of Information .....	11
30.34	Terms and Conditions of Licenses .....	13
30.35	Financial Assurance and Recordkeeping for Decommissioning .....	13
30.36	Expiration and Termination of Licenses and Decommissioning of Sites and Separate Buildings or Outdoor Areas .....	13
30.41	Transfer of Byproduct Material .....	16
30.51	Records of Receipt, Transfer, and Disposal .....	16
10 CFR Part 31	GENERAL DOMESTIC LICENSES FOR BYPRODUCT MATERIAL .....	17
31.5	Certain Measuring, Gauging, or Controlling Devices .....	17
31.11	Certain <u>in vitro</u> Clinical or Laboratory Testing .....	19

<b>10 CFR Part 34</b>	<b>RADIOGRAPHY</b>	<b>21</b>
34.11	Inspection Program	21
34.22	Locking of Radiographic Devices	21
34.24	Radiation Survey Instruments	21
34.25	Leak Testing, Tagging, Repair and Modification	22
34.26	Quarterly Inventory	22
34.27	Utilization Logs	22
34.28	Inspection and Maintenance	22
34.29	Permanent Installations: Access Control	23
34.31	Training Required	23
34.33	Personnel Monitoring	25
34.41	Site Surveillance	25
34.42	Posting Required	26
34.43	Radiation Surveys Required	26
34.44	Supervision of Radiographer's Assistants	27
<b>10 CFR Part 35</b>	<b>MEDICAL USE OF BYPRODUCT MATERIAL</b>	<b>29</b>
35.24(a)	Licensee Management Approvals	29
35.24(b)	Radiation Safety Officer	29
35.24(f)	Radiation Safety Committee	29
35.24(g)	Radiation Safety Officer Responsibilities	30
35.24(h)	Records	30
35.27(a)(1)	Supervision - Instruction	30
35.27(a)(2)	Supervision - Follow Instruction	30
35.27(b)(1)	Supervision - Instructions - Preparing Byproduct Material	31
35.27(b)(2)	Supervision - Following Instructions	31
35.41(a)	Written Directives	31
35.41(c)	Records	31
35.60(a)	Measurement of Byproduct Material	32
35.60(b)	Instrument Calibration	32
35.60(c)	Records	32
35.61(a)	Survey Instrument Calibration	32
35.63(a)	Dosage Records	33
35.63(b)	Unit Dosage Measurement	33
35.63(c)	Other Than Unit Dosage Measurement	33
35.615(a)	Access Control	33
35.615(b)	Interlock System	34
35.3045(a)	Event Reporting	34
35.3045(c)	Notification	35
<b>10 CFR Part 71</b>	<b>PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL</b>	<b>37</b>
71.3	Requirement for License	37
71.5	Transportation of Licensed Material	38
71.12	General License: NRC Approved Package	38

49 CFR Part 172 HAZARDOUS MATERIALS .....	39
172.200 Applicability .....	39
172.201 General Entries .....	39
172.202 Description of Hazardous Material on Shipping Papers .....	40
172.203 Additional Description Requirements .....	40
172.310 Radioactive Materials .....	41
172.312 Liquid Hazardous Materials .....	41
172.403 Radioactive Material .....	41
172.502 Prohibited Placarding .....	43
172.504 General Placarding Requirements .....	43
172.600 Applicability and General Requirements .....	44
172.602 Emergency Response Information .....	44
172.604 Emergency Response Telephone Number .....	45
172.702 Responsibility for Training and Testing .....	46
172.704 Training Requirements .....	46
49 CFR Part 173 SHIPPERS: REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS .....	47
173.25 Authorized Packages and Overpacks .....	47
173.411 Industrial Packagings .....	47
173.415 Authorized Type A Packages .....	48
173.421 Additional Requirements for Limited Radioactive Materials .....	49
173.422 Additional Requirements for Excepted Packages .....	49
173.424 Exceptions for Instruments and Articles .....	50
173.425 Transport Requirements for LSA Radioactive Materials .....	50
173.427 Low Specific Activity and Surface Contamination .....	51
173.448 General Transportation Requirements .....	53
173.466 Additional Tests for Type A Packagings for Liquids and Gases .....	53
173.475 Quality Control Requirements Prior to Shipment of Radioactive Materials .....	53
173.476 Approval of Special Form Radioactive Materials .....	54
49 CFR Part 177 CARRIAGE BY PUBLIC HIGHWAY .....	55
177.817 Shipping Papers .....	55
177.834 General Requirements .....	55
177.842 Radioactive Material .....	55

10 CFR Part 150 EXEMPTIONS AND CONTINUED REGULATORY  
REGULATORY AUTHORITY IN  
AGREEMENT STATES AND IN  
OFFSHORE WATERS  
UNDER SECTION 274 ..... 57

30.3 Reciprocity ..... 57

---

---

**10 CFR PART 19  
NOTICES, INSTRUCTIONS, AND  
REPORTS TO WORKERS**

---

---

19-10 **10 CFR 19.11(a) and (b) require, in part, that the licensee post current copies of Part 19, Part 20, the license, license conditions, documents incorporated into the license, license amendments and operating procedures; or that the licensee post a notice describing these documents and where they may be examined. 10 CFR 19.11(c) requires that a licensee post Form NRC-3, "Notice to Employees."**

Contrary to the above, on (date), the licensee did not post any of the required documents (or specify which document were not posted) or notices.

This is a Severity Level    violation (Supplement VI).

**NOTE:** 10 CFR 19.12 pertains specifically to training to protect personnel working in or frequenting a restricted area from exposure to radiation. There must be a relationship between the lack of training and the potential exposure of personnel to radiation before this citation can be used.

19-20 **10 CFR 19.12 requires, in part, that all individuals working in a restricted area be instructed in the precautions and procedures to minimize exposure to radioactive materials, in the purpose and functions of protective devices employed, and in the applicable provisions of the Commission's regulations and licenses.**

Contrary to the above, as of (date), individuals who were working in \_\_\_\_\_, a restricted area, had not been instructed in the applicable provisions of the regulations and the conditions of the license. Specifically, \_\_\_\_\_.

This is a Severity Level    violation (Supplement VI).

THIS PAGE INTENTIONALLY LEFT BLANK

10 CFR PART 20  
STANDARDS FOR PROTECTION  
AGAINST RADIATION  
PERMISSIBLE DOSES, LEVELS  
AND CONCENTRATIONS

---

---

- 20-10 **10 CFR 20.1201(a)(1)(i) requires, with exceptions not applicable here, that the licensee control the occupational dose to individual adults to an annual dose limit of 5 rems total effective dose equivalent.**

Contrary to the above, the licensee did not limit the annual occupational dose to an adult            (identify the worker, e.g., "technologist") to 5 rems, total effective dose equivalent. Specifically, the individual received      rems, total effective dose equivalent, for the period      (date) to      (date).

This is a Severity Level      violation (Supplement IV).

- 20-11 **10 CFR 20.1201(a)(1)(ii) requires, with exceptions not applicable here, that the licensee control the occupational dose to individual adults such that the sum of the deep-dose equivalent and committed dose equivalent to any individual organ or tissue other than the lens of the eye does not exceed an annual dose limit of 50 rems.**

Contrary to the above, the licensee did not limit the annual dose to the            (identify the organ or tissue) of an adult            (identify the worker, e.g., "technologist") to 50 rems. Specifically, for the period      (date) to      (date), the individual received      rems deep-dose equivalent and      rems committed dose equivalent to the            (identify the organ or tissue) for a sum of      rems.

This is a Severity Level      violation (Supplement IV).

- 20-15 **10 CFR 20.1201(a)(2)(ii) requires, with exceptions not applicable here, that the licensee control the occupational dose to the skin or to any extremity of individual adults to an annual dose limit of 50 rems shallow-dose equivalent.**

Contrary to the above, the licensee did not limit the annual dose to the      (skin) /      (extremity) of an adult            (identify the worker, e.g., "technologist") to 50 rems shallow-dose equivalent. Specifically, the individual received      rems shallow-dose equivalent to the            (identify the site, e.g., "skin", "left hand", etc.) for the period      (date) to      (date).

This is a Severity Level      violation (Supplement IV).



- 20-25 **10 CFR 20.1301(a)(2) requires that the licensee conduct operations so that the dose in any unrestricted area from external sources does not exceed 2 millirem in any one hour.**

Contrary to the above, on (date), licensee operations resulted in a dose of    millirem in one hour in (identify the area, e.g., "an employee lunch room"), an unrestricted area.

This is a Severity Level    violation (Supplement IV).

#### CITATIONS FOR FAILURE TO MAKE SURVEYS

**NOTE:** Citations against 10 CFR 20.1501 should include, in the first paragraph, the definition of survey in 10 CFR 20.1003. Use the paragraph below. Then list the specific citations as subheadings, without repeating the initial paragraph. (Note: All survey citations issued under §20.1501 are contingent on referencing some other section of the Part 20 regulations. This does not mean that noncompliance with that other section is necessary.)

- 20-30 **10 CFR 20.1501 requires that each licensee make or cause to be made surveys that may be necessary for the licensee to comply with the regulations in Part 20 and that are reasonable under the circumstances to evaluate the extent of radiation levels, concentrations or quantities of radioactive materials, and the potential radiological hazards that could be present.**

**Pursuant to 10 CFR 20.1003, *survey* means an evaluation of the radiological conditions and potential hazards incident to the production, use, transfer, release, disposal, or presence of radioactive material or other sources of radiation.**

- 20-30a Contrary to the above, as of (date), the licensee did not make surveys to assure compliance with 10 CFR 20.\_\_\_\_, which limits radiation exposure to (specify). Specifically, (briefly describe the specific circumstances<sup>1</sup>).

This is a Severity Level    violation (Supplement IV).

- 20-30b Contrary to the above, as of (date), the licensee did not make surveys to assure compliance with 10 CFR 20.\_\_\_\_, which limits radiation levels in (specify). Specifically, (briefly describe the specific circumstances<sup>1</sup>).

This is a Severity Level    violation (Supplement IV).

- 20-30c Contrary to the above, the licensee did not make surveys to assure compliance with 10 CFR 20.2001(a), which describes authorized means of disposing of licensed material. Specifically, on (date), the licensee did not perform a survey before disposing of (specify), which contained (nuclide(s)) as normal, non-radioactive waste.

This is a Severity Level    violation (Supplement IV).

---

<sup>1</sup>If specific dates are known or can be determined, they should be included in the description of the circumstances.

20-30d Contrary to the above, as of (date), the licensee did not make surveys to assure compliance with 10 CFR 20.2003(a), which limits the disposal of licensed material by release into a sanitary sewerage system. Specifically, (briefly describe the specific circumstances<sup>2</sup>).

This is a Severity Level \_\_ violation (Supplement IV).

20-40 **10 CFR 20.1502(a)(3) requires, in part, that each licensee supply and require the use of individual monitoring devices by individuals entering a high or very high radiation area.**

20-40a Contrary to the above, on (date), the licensee did not (supply) / (require the use of) an individual monitoring device by a (identify the worker, e.g., "technologist") who entered the (identify the area), a high radiation area with a radiation dose rate of approximately \_\_ rem in one hour at 30 centimeters from the (radiation source) / (surface that the radiation penetrated).

This is a Severity Level \_\_ violation (Supplement IV).

20-40b Contrary to the above, on (date), the licensee did not (supply) / (require the use of) an individual monitoring device by a (identify the worker, e.g., "technologist") who entered the (identify the area), a very high radiation area with a radiation dose rate of approximately \_\_ rads in one hour at one meter from the (radiation source) / (surface that the radiation penetrated).

This is a Severity Level \_\_ violation (Supplement IV).

20-45 **10 CFR 20.1601(a) requires, with exceptions not applicable here, that the licensee ensure that each entrance to a high radiation area has one or more of the following features: (1) a control device that, upon entry into the area, causes the level of radiation to be reduced below that level at which an individual might receive a deep-dose equivalent of 0.1 rem in one hour at 30 centimeters from the radiation source or from any surface that the radiation penetrates; (2) a control device that energizes a conspicuous visible or audible alarm signal so that the individual entering the high radiation area and the supervisor of the activity are made aware of the entry; or (3) entryways that are locked, except during periods when access to the areas is required, with positive control over each individual entry.**

**10 CFR 20.1601(b) provides that, in place of the controls required by 10 CFR 20.1601(a) for a high radiation area, a licensee may substitute continuous direct or electronic surveillance that is capable of preventing unauthorized entry.**

Contrary to the above, as of (date), the entrance to the (identify the area, e.g., by room number, location, etc.), a high radiation area with a radiation dose rate of approximately \_\_ millirem in one hour at 30 centimeters from the (radiation source) / (surface that the radiation penetrated), was not controlled by any of the methods described in 10 CFR 20.1601(a) or (b).

This is a Severity Level \_\_ violation (Supplement IV).

---

<sup>2</sup>If specific dates are known or can be determined, they should be included in the description of the circumstances.

## SECURITY

- 20-60 **10 CFR 20.1801 requires that the licensee secure from unauthorized removal or access licensed materials that are stored in controlled or unrestricted areas. 10 CFR 20.1802 requires that the licensee control and maintain constant surveillance of licensed material that is in a controlled or unrestricted area and that is not in storage. As defined in 10 CFR 20.1003, *controlled area* means an area, outside of a restricted area but inside the site boundary, access to which can be limited by the licensee for any reason; and *unrestricted area* means an area, access to which is neither limited nor controlled by the licensee.**

Contrary to the above, on (date), the licensee did not secure from unauthorized removal or limit access to (specify the type and amount of licensed material) located in (identify the area), which is (a controlled area) / (an unrestricted area), nor did the licensee control and maintain constant surveillance of this licensed material.

This is a Severity Level \_\_ violation (Supplement IV).

- 20-65 **10 CFR 20.1902(a) requires that the licensee post each radiation area with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, RADIATION AREA."**

Contrary to the above, as of (date), the (identify the area), a radiation area with a radiation dose rate of approximately \_\_ millirem in one hour at 30 centimeters from the (radiation source) / (surface that the radiation penetrated) was not posted with a sign bearing the radiation symbol and the words "CAUTION, RADIATION AREA."

This is a Severity Level \_\_ violation (Supplement IV).

- 20-70 **10 CFR 20.1902(e) requires that the licensee post each area or room in which certain amounts of licensed material, specified in §20.1902(e), are used or stored, with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, RADIOACTIVE MATERIAL(S)" or "DANGER, RADIOACTIVE MATERIAL(S)."**

Contrary to the above, on (date), the (identify the room), an area or room in which (specify radionuclide and approximate quantity) was (used) / (stored), was not posted with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, RADIOACTIVE MATERIAL(S)" or "DANGER, RADIOACTIVE MATERIAL(S)."

This is a Severity Level \_\_ violation (Supplement IV).

- 20-75 **10 CFR 20.1904(a) requires the licensee to ensure that each container of licensed material bears a durable, clearly visible label bearing the words "CAUTION, RADIOACTIVE MATERIAL," or "DANGER, RADIOACTIVE MATERIAL." The label must also provide sufficient information (such as the radionuclide(s) present, an estimate of the quantity of radioactivity, the date for which the activity is estimated, etc.) to permit individuals handling or using the containers, or working in the vicinity of the containers, to take precautions to avoid or minimize exposures.**

Contrary to the above, on (date), a container of (specify the licensed material) did not bear a label that identified the radionuclide(s) or the quantity of radioactivity, nor did it otherwise bear sufficient information to permit individuals handling or using the container, or working in the vicinity of the container, to take precautions to avoid or minimize exposure.

This is a Severity Level    violation (Supplement IV).

- 20-76 **10 CFR 20.1904(b) requires that, prior to removal or disposal of empty uncontaminated containers to unrestricted areas, each licensee remove or deface the radioactive material label or otherwise clearly indicate that the container no longer contains radioactive materials.**

Contrary to the above, on (date), the licensee transferred empty uncontaminated containers labeled as containing (specify the licensed material) to the non-radioactive trash without first removing or defacing the radioactive material label or otherwise indicating that the containers no longer contained radioactive material.

This is a Severity Level    violation (Supplement IV).

- 20-80 **10 CFR 20.1906(b) and (c) require that each licensee monitor the external surfaces of a package labeled with a Radioactive White 1, Yellow II, or Yellow III label for: (1) radioactive contamination, unless the package contains only radioactive material in the form of a gas or in special form as defined in 10 CFR 71.4; and (2) radiation levels, unless the package contains quantities of radioactive material that are less than or equal to the Type A quantity, as defined in 10 CFR 71.4 and Appendix A to Part 71. This monitoring shall be performed as soon as practicable, but not later than 3 hours after receipt of the package during the licensee's normal working hours, or not later than 3 hours from the beginning of the next working day if it is received after working hours.**

- 20-80a Contrary to the above, on (date), the licensee received a package labeled with a Radioactive (White I) / (Yellow II) / (Yellow III) label (during working hours) / (after working hours), the package was not exempt from the monitoring requirement for (radioactive contamination) / (radiation levels), and the licensee did not perform the required monitoring. Specifically, the package received by the licensee contained (specify the radionuclide and approximate quantity) in (specify) form.

This is a Severity Level    violation (Supplement IV).

20-80b Contrary to the above, on (date, time), the licensee received a package labeled with a Radioactive (White I) / (Yellow II) / (Yellow III) label (during working hours) / (after working hours), the package was not exempt from the monitoring requirement for (radioactive contamination) / (radiation levels), and the licensee did not perform the required monitoring within 3 hours (after receipt) / (from the beginning of the next working day). Specifically, the package received by the licensee contained (specify the radionuclide and approximate quantity) in (specify) form, and the licensee did not monitor the package until (date, time).

This is a Severity Level \_\_ violation (Supplement IV).

#### WASTE DISPOSAL

20-90 **10 CFR 20.2001(a) requires that the licensee dispose of licensed material only by certain specified procedures.**

Contrary to the above, on (date), the licensee disposed of (specify the type and amount of licensed material) by release to the non-radioactive trash, a method not authorized by §20.2001.

This is a Severity Level \_\_ violation (Supplement IV).

#### RECORDS, REPORTS, AND NOTIFICATIONS

20-100 **10 CFR 20.2103(a) requires that each licensee maintain records of the results of surveys and calibrations required by § § 20.1501 and 20.1906(b). The licensee shall retain these records for three years after the record is made.**

Contrary to the above, as of (date), the licensee did not maintain records of the results of (surveys) / (calibrations) performed on (date(s)) and these (surveys) / (calibrations) were required by (§20.1501) / (§20.1906(b)).

This is a Severity Level \_\_ violation (Supplement IV).

20-105 **10 CFR 20.2106(a) requires, in part, that each licensee maintain records of doses received by all individuals for whom monitoring was required pursuant to §20.1502, and records of doses received during planned special exposures, accidents, and emergency conditions.**

20-105a Contrary to the above, as of (date), the licensee did not maintain records of doses received by a (identify the individual, e.g., "technologist"), an individual for whom monitoring was required pursuant to §20.1502.

This is a Severity Level \_\_ violation (Supplement IV).

20-105b Contrary to the above, as of (date), the licensee did not maintain records of doses received by a (identify the individual, e.g., "health physics technician"), an individual for whom monitoring was required (during a planned special exposure) / (during an accident) / (during emergency conditions) that occurred on (date).

This is a Severity Level \_\_ violation (Supplement IV).

20-110 **10 CFR 20.2106(a) requires, in part, that each licensee maintain records of doses received by all individuals for whom monitoring was required pursuant to §20.1502, and records of doses received during planned special exposures, accidents, and emergency conditions.**

**10 CFR 20.2106(c) requires that such records be maintained on NRC Form 5, in accordance with the instructions for NRC Form 5, or in clear and legible records containing all of the information required by NRC Form 5.**

Contrary to the above, as of (date), the licensee did not maintain records of doses received by individuals for whom monitoring was required pursuant to §20.1502 that contained all of the information required by NRC Form 5. Specifically, the licensee did not maintain (identify the missing information), which is information required by NRC Form 5.

This is a Severity Level \_\_ violation (Supplement IV).

20-115 **10 CFR 20.2108 requires that each licensee maintain records of the disposal of licensed materials made under § 20.2002, 20.2003, 20.2004, 20.2005, Part 61, and disposal by burial in soil, including burials authorized before January 28, 1981.**

Contrary to the above, on (date(s)), the licensee disposed of (specify the type and amount of licensed material) by (method of disposal<sup>3</sup>), and the licensee did not maintain a record of these disposal(s).

This is a Severity Level \_\_ violation (Supplement IV).

20-130 **10 CFR 20.2206 requires that certain licensees submit an annual report of the results of individual monitoring carried out by the licensee for each individual for whom monitoring was required by 10 CFR 20.1502 during that year.**

Contrary to the above, although the licensee is subject to the reporting requirement in 10 CFR 20.2206, as of (date), the licensee did not submit the required report for calendar year(s) \_\_\_\_\_.

This is a Severity Level \_\_ violation (Supplement IV).

---

<sup>3</sup>For location-specific disposals such as burial, if the disposal location is known or can be determined, it should be specified in the violation.

THIS PAGE INTENTIONALLY LEFT BLANK

**10 CFR PART 30  
DOMESTIC LICENSING OF  
BYPRODUCT MATERIAL**

---

**CITATIONS FOR ACTIVITIES OR LOCATIONS NOT  
AUTHORIZED BY A LICENSE**

**NOTE:** If a non-licensee conducts activities for which a license is required, use 30-10. If an activity has been conducted by a licensee which is not authorized by the license, use 30-30a. If an activity has been conducted by a licensee at a place not authorized by the license, use 30-30b. If an Agreement State licensee conducts an activity in NRC jurisdiction without filing NRC Form-241, use 150-10.

**30-10 10 CFR 30.3 requires, in part, that except for persons exempted, no person shall possess or use byproduct material except as authorized by a specific or general license issued pursuant to Title 10, Chapter 1, Code of Federal Regulations.**

Contrary to the above, on (date), (name of person or corporate entity) (possessed) / (used) (nuclide) without a valid NRC license, and was not exempt from the requirements for a license.

This is a Severity Level    violation (Supplement VI).

**30-20 10 CFR 30.9(a) requires, in part, that information provided to the Commission by a licensee be complete and accurate in all material respects.**

Contrary to the above, the licensee did not provide to the Commission information that was complete and accurate in all material respects. Specifically, on (date),  
\_\_\_\_\_. This information was material because \_\_\_\_\_.

This is a Severity Level    violation (Supplement VII).

**30-22 10 CFR 30.9(a) requires, in part, that information provided to the Commission by a licensee, or information required by the Commission's regulations to be maintained by the licensee, shall be complete and accurate in all material respects.**

Contrary to the above, on (date), information provided by licensee's (title of employee) to an NRC inspector was inaccurate in that (employee), in response to the inspector's questions regarding \_\_\_\_\_, stated that \_\_\_\_\_. This statement was not accurate in that \_\_\_\_\_. This statement was material because \_\_\_\_\_.

This is a Severity Level    violation (Supplement VII).



30-30 **10 CFR 30.34(c) requires, in part, that each licensee confine his possession and use of byproduct materials to the locations and purposes authorized by the license.**

**Condition \_\_ of License No. \_\_\_\_\_ requires that licensed material be used only at \_\_\_\_\_.**

Contrary to the above, on (date), the licensee possessed (specify amount and type of licensed material) at \_\_\_\_\_, a location not authorized by the license.

This is a Severity Level \_\_ violation (Supplement VI).

30-30a **10 CFR 30.34(c) requires, in part, that each licensee confine his possession and use of byproduct materials to the locations and purposes authorized by the license.**

**Condition \_\_ of License No. \_\_\_\_\_ limits the use of licensed materials to (specify the use(s)) .**

Contrary to the above, on (date), the licensee used (byproduct material) for (specify the use), a use not authorized by the license.

This is a Severity Level \_\_ violation (Supplement VI).

30-30b **10 CFR 30.34(c) requires, in part, that each licensee confine his possession and use of byproduct material to the locations and purposes authorized by the license.**

Contrary to the above, on (date), the licensee did not confine its (possession) / (use) of byproduct material to the location(s) authorized by the license. Specifically, the licensee (possessed) / (used) (byproduct material) at (specify the location), a location not authorized by the license.

This is a Severity Level \_\_ violation (Supplement VI).

## DECOMMISSIONING

**NOTE: For a violation of 30.35(c)(4), first determine whether the licensee is subject to 10 CFR 30.35(a) or (b). Use either 30-32 or 30-33, as appropriate, followed by 30-34.**

**30-32 10 CFR 30.35(a) requires each applicant for a specific license authorizing possession and use of unsealed byproduct material of half-life greater than 120 days and in quantities exceeding 105 times the applicable quantities set forth in 10 CFR Part 30 Appendix B to submit a decommissioning funding plan as described in 10 CFR 30.35(e). The decommissioning funding plan must also be submitted when a combination of isotopes is involved if R divided by 105 is greater than 1 (unity rule), where R is defined as the sum of the ratios of the quantity of each isotope to the applicable value in 10 CFR Part 30 Appendix B.**

**30-33** 10 CFR 30.35(b) requires, in part, that each applicant for a specific license authorizing possession and use of byproduct material of half-life greater than 120 days and in quantities specified in 10 CFR 30.35(d) must either--(1) Submit a decommissioning funding plan as described in 10 CFR 30.35(e); or (2) Submit a certification that financial assurance for decommissioning has been provided in the amount prescribed by 10 CFR 30.35(d) using one of the methods described in 10 CFR 30.35(f).

**30-34** 10 CFR 30.35(c)(4) requires any licensee who has submitted an application for license renewal before July 27, 1990, to provide financial assurance for decommissioning in accordance with 10 CFR 30.35(a) and (b). This assurance was required to be submitted by November 24, 1995.

Contrary to the above, the licensee applied for renewal of Byproduct Material License (number) on (date) , and the license authorizes possession and use of (quantity) of (nuclide) and is therefore subject to 10 CFR (specify "30.35(a)" or "30.35(b)" ) ; however, as of (date) , the licensee did not submit a decommissioning funding plan or otherwise satisfy the requirements for providing financial assurance for decommissioning.

This is a Severity Level \_\_\_ violation (Supplement VI).

**NOTE:** Citations for violations of the Timeliness Rule must be modified to conform to differences in wording among the requirements in 10 CFR 30.36, 40.42, 70.38, and 72.54. Standard Citations for 10 CFR 30.36 are provided below. These citations may be used as a template to formulate citations for violations of 10 CFR 40.42, 70.38, or 72.54. For failure to begin decommissioning when required, use 30-36b and follow with either 30-36d or 30-36e. For failure to submit a decommissioning plan, use 30-36b and then follow with 30-36f and 30-36g.

**30-36a** 10 CFR 30.36(d) requires, in part, that licensees provide notification to the NRC in writing within 60 days of any of the following occurrences:

- (1) The license has expired,
- (2) The licensee has decided to permanently cease principal activities at the entire site or in any separate building or outdoor area that contains residual radioactivity such that the building or outdoor area is unsuitable for release in accordance with NRC requirements,
- (3) No principal activities under the license have been conducted for a period of 24 months, or
- (4) No principal activities have been conducted for a period of 24 months in any separate building or outdoor area that contains residual radioactivity such that the building or outdoor area is unsuitable for release in accordance with NRC requirements.

Contrary to the above, as of (date) , (specify the occurrence from (1) through (4) above, e.g., "the licensee permanently ceased principal activities conducted under Byproduct Material License No. (number)" , and the licensee failed to notify the NRC in writing within 60 days of this occurrence. (Add, if appropriate: Specifically, the licensee did not notify the NRC of this occurrence until (date) .

This is a Severity Level \_\_\_ violation (Supplement VI).

- 30-36b 10 CFR 30.36(d) requires in part that, unless an extension of time has been granted by the Commission pursuant to §30.36(f), in addition to notifying the NRC of any of the following occurrences:
- (1) The license has expired, or
  - (2) The licensee has decided to permanently cease principal activities at the entire site or in any separate building or outdoor area that contains residual radioactivity such that the building or outdoor area is unsuitable for release in accordance with NRC requirements, or
  - (3) No principal activities under the license have been conducted for a period of 24 months, or
  - (4) No principal activities have been conducted for a period of 24 months in any separate building or outdoor area that contains residual radioactivity such that the building or outdoor area is unsuitable for release in accordance with NRC requirements,

a licensee shall either: (1) begin decommissioning its site, or any separate building or outdoor area so that the building or outdoor area is suitable for release in accordance with NRC requirements; or (2) if required by §30.36(g)(1), submit, within 12 months of the notification, a decommissioning plan and begin decommissioning upon approval of that plan.

- 30-36c 10 CFR 30.36(e)(1) requires that any license who has not provided financial assurance to cover the detailed cost estimate submitted with the decommissioning plan shall do so by November 24, 1995.

Contrary to the above, the licensee submitted its detailed cost estimate for decommissioning on (date) ; however, as of (date) , the licensee has not provided financial assurance to cover the detailed cost estimate.

This is a Severity Level \_\_\_ violation (Supplement VI).

- 30-36d Contrary to the above, the licensee had not been granted an extension of time under §30.36(f) and was not required to submit a decommissioning plan pursuant to §30.36(g)(1), and, as of (date) , the licensee notified NRC that (specify the occurrence from (1) through (4) of Standard Citation 30-36b above, e.g., "the licensee permanently ceased principal activities conducted under Byproduct Material License No. (number)" ; however, the licensee failed to begin decommissioning its (site)/ (building)/ (area) containing residual activity, including (specify nuclide(s) and approximate activity) . Specifically, the licensee (did not begin) / (had not begun) decommissioning (until) / (as of) (date) .

This is a Severity Level \_\_\_ violation (Supplement VI).

- 30-36e Contrary to the above, the NRC approved the licensee's decommissioning plan on (date) ; however, the licensee (did not begin) / (had not begun) decommissioning (until) / (as of) (date) .

This is a Severity Level \_\_\_ violation (Supplement VI).

**30-36f** 10 CFR 30.36(g)(1) requires that a decommissioning plan must be submitted if required by license condition or if the procedures and activities necessary to carry out the decommissioning have not been previously approved by the Commission and these procedures could increase potential health and safety impacts to workers or to the public, such as in any of the following cases:

- (i) Procedures would involve techniques not applied routinely during cleanup or maintenance operations;
- (ii) Workers would be entering areas not normally occupied where surface contamination and radiation levels are significantly higher than routinely encountered during operation;
- (iii) Procedures could result in significantly greater airborne concentrations of radioactive materials than are present during operation; or
- (iv) Procedures could result in significantly greater releases of radioactive material to the environment than those associated with operation.

**30-36g** Contrary to the above, as of (date), the licensee, who was not granted an extension of time pursuant to §30.36(f), notified NRC that (specify the occurrence from (1) through (4) of Standard Citation 30-36b above, e.g., "the licensee permanently ceased principal activities conducted under Byproduct Material License No. (number)", and the licensee was required by §30.36(g)(1) to submit a decommission plan within 12 months of that date because (specify the reason(s), i.e., either required by license condition or choose from i - iv of Standard Citation 30-36e above); however, the licensee (did not submit) / (has not submitted) a decommissioning plan (until) / (as of) (date).

This is a Severity Level \_\_\_ violation (Supplement VI).

**30-36h** 10 CFR 30.36(h) requires, in part, that a licensee complete decommissioning of its site or separate building or outdoor area as soon as practicable but no later than 24 months following the initiation of decommissioning, unless the NRC has approved an alternative decommissioning schedule.

Contrary to the above, the licensee initiated decommissioning of its (identify the site, building, or outdoor area) on (date); however, the licensee (did not complete) / (had not completed) the decommissioning (until) / (as of) (date), and the NRC has not approved an alternate decommissioning schedule.

This is a Severity Level \_\_\_ violation (Supplement VI).

---

**TRANSFER OF MATERIAL**

- 30-40 **10 CFR 30.41(a) and (b)(5) require, in part, that no licensee transfer byproduct material except to a person authorized to receive such byproduct material under the terms of a specific or general license issued by the Commission or Agreement State.**

Contrary to the above, on (date), the licensee transferred a source containing      curies of (nuclide) to (person), a person who was not authorized to receive such byproduct material under the terms of a specific or general license issued by the Commission or Agreement State.

This is a Severity Level    violation (Supplement VI).

- 30-41 **10 CFR 30.41(c) requires that, prior to transferring byproduct material, the licensee verify that the transferee's license authorizes the receipt of the type, form, and quantity of byproduct material to be transferred. 10 CFR 30.41(d) specifies acceptable methods for this verification.**

Contrary to the above, on (date), the licensee transferred    millicuries of (byproduct material) to (transferee) and, prior to the transfer, the licensee did not verify by an acceptable method that the transferee's license authorized receipt of this material.

This is a Severity Level    violation (Supplement VI).

- 30-50 **10 CFR 30.51(a) requires that each licensee keep records showing the receipt, transfer, and disposal of byproduct material.**

Contrary to the above, as of (date), the licensee did not keep records of the (receipt) / (transfer) / (disposal) of (byproduct material).

This is a Severity Level    violation (Supplement VI).

---

---

**10 CFR PART 31**  
**GENERAL DOMESTIC LICENSES**  
**FOR BYPRODUCT MATERIAL**

---

---

31-20 **10 CFR 31.5(c)(1) requires that any person who acquires, receives, possesses, uses or transfers byproduct material in a device pursuant to a general license shall assure that all labels affixed to the device at the time of receipt and bearing a statement that removal of the label is prohibited are maintained thereon and shall comply with all instructions and precautions provided by such labels.**

31-20a Contrary to the above, as of (date), the licensee did not assure that a label affixed to a (manufacturer, model, name of device) containing (byproduct material) was maintained on the device, and the label was affixed to the device at the time of receipt and bore a statement that removal of the label is prohibited.

This is a Severity Level \_\_ violation (Supplement VI).

31-20b Contrary to the above, as of (date), the licensee did not comply with all instructions and precautions provided by the label affixed to a (manufacturer, model, name of device) containing (nuclide). Specifically, although the label was affixed to the device at the time of receipt and bore statements that removal of the label is prohibited and that (specify the instruction or precaution), the licensee did not \_\_\_\_\_.

This is a Severity Level \_\_ violation (Supplement VI).

31-21 **10 CFR 31.5(c)(2) requires, with certain exceptions, that any person who acquires, receives, possesses, uses or transfers byproduct material in a device pursuant to a general license shall assure that the device is tested for leakage of radioactive material and proper operation of the on-off mechanism and indicator, if any, at no longer than six month intervals or at such other intervals as are specified in the label.**

Contrary to the above, the licensee's (manufacturer, model, name of device) containing (nominal activity) (nuclide) was not tested for (leakage) / (proper operation of the on-off mechanism) / (proper operation of the on-off indicator) between (date) and (date), an interval greater than the required (time) interval specified (in the regulation) / (on the label), and the device was not subject to the specified exemptions.

This is a Severity Level \_\_ violation (Supplement VI).

- 31-22 **10 CFR 31.5(c)(3) requires that any person who acquires, receives, possesses, uses or transfers byproduct material in a device pursuant to a general license shall assure that tests for leakage of radioactive material and proper operation of the on-off mechanism and indicator, if any, and other testing, installation, servicing, and removal from installation involving the radioactive material, its shielding or containment, are performed: (1) in accordance with the instructions provided by the labels; or (2) by a person holding a specific license pursuant to 10 CFR Parts 30 and 32 or from an Agreement State to perform such activities.**

Contrary to the above, on (date), (specify the testing, installation, servicing, or removal activity) of the licensee's (manufacturer, model, name of device) containing (nuclide) was not performed in accordance with the instructions provided by the labels or by a person holding a specific license pursuant to 10 CFR Parts 30 and 32 or from an Agreement State to perform such activities. Specifically, \_\_\_\_\_.

This is a Severity Level \_\_ violation (Supplement VI).

- 31-23 **10 CFR 31.5(c)(4) requires, in part, that any person who acquires, receives, possesses, uses or transfers byproduct material in a device pursuant to a general license shall maintain records showing the results of tests for leakage and proper operation of the on-off mechanism and indicator, and of other testing, installation, servicing, and removal from installation involving the radioactive material, its shielding or containment. The records must show the dates of performance of, and the names of the persons performing the recorded event, and be retained for three years or until the sealed source is transferred or disposed of.**

Contrary to the above, as of (date), the licensee did not maintain records of (specify the testing, installation, servicing, or removal activity) performed on (date) on the licensee's (manufacturer, model, name of device) containing (byproduct material).

This is a Severity Level \_\_ violation (Supplement VI).

- 31-25 **10 CFR 31.5(c)(6) requires that any person who acquires, receives, possesses, uses or transfers byproduct material in a device pursuant to a general license shall not abandon the device containing byproduct material.**

Contrary to the above, as of (date), the licensee abandoned a (manufacturer, model, name of device) containing (nuclide) that the licensee possessed pursuant to a general license. Specifically, the device was (indicate how abandoned).

This is a Severity Level \_\_ violation (Supplement VI).

- 31-27 **10 CFR 31.5(c)(8) requires, in part, that any person who acquires, receives, possesses, uses or transfers byproduct material in a device pursuant to a general license shall, except as provided in 10 CFR 31.5(c)(9), transfer or dispose of the device containing byproduct material only by transfer to persons holding a specific license pursuant to 10 CFR Parts 30 and 32 or from an Agreement State to receive the device.**

Contrary to the above, on (date), the licensee (transferred) / (disposed of) a (manufacturer, model, name of device) containing (nuclide), and this (transfer) / (disposal) was not made to a person holding a specific license pursuant to 10 CFR Parts 30 and 32 or from an Agreement State to receive the device, and the exceptions in 10 CFR 31.5(c)(9) did not apply. Specifically, the device was (transferred to) / (disposed of in) an unlicensed (individual/company).

This is a Severity Level    violation (Supplement VI).

- 31-85 **10 CFR 31.11(c)(1) requires, in part, that the general licensee shall not possess at any one time, pursuant to the general license in 10 CFR 31.11(a), at any one location of storage or use, a total amount of iodine-125, iodine-131, selenium-75, and/or iron-59 in excess of 200 microcuries.**

Contrary to the above, on (date), at (location), the licensee possessed (activity) of (nuclide) under the general license, an amount in excess of 200 microcuries.

This is a Severity Level    violation (Supplement VI).



THIS PAGE INTENTIONALLY LEFT BLANK

---

---

## 10 CFR PART 34 RADIOGRAPHY

---

---

- 34-10 **10 CFR 34.11(d)(1) requires, in part, that an applicant have an inspection program that requires the observation of the performance of each radiographer and radiographer's assistant during an actual radiographic operation at intervals not to exceed three months.**

**License Condition** \_\_ incorporates the inspection program containing the requirements stated in 10 CFR 34.11(d)(1) as submitted in licensee's application dated \_\_\_\_\_, into License No. \_\_\_\_\_.

Contrary to the above, as of (date), the licensee had not observed the performance of a (radiographer) / (radiographer's assistant) involved in radiographic operations since (date), an interval in excess of three months.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-20 **10 CFR 34.22(a) requires, in part, that, during radiographic operations, the sealed source assembly be secured in the shielded position each time the source is returned to that position.**

Contrary to the above, on (date), a licensee radiographer did not secure the sealed source assembly in the shielded position after returning the source to the shielded position at the termination of a radiographic exposure.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-30 **10 CFR 34.24 requires, in part, that each survey instrument used to conduct physical radiation surveys be calibrated at intervals not to exceed three months and after each instrument servicing.**

Contrary to the above, on (date), a licensee radiographer conducted physical radiation surveys with a (model name and number) survey instrument which was last calibrated on (date), an interval greater than three months.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-30a **10 CFR 34.24 requires, in part, that the licensee maintain sufficient calibrated and operable radiation survey instruments to make physical radiation surveys as required by 10 CFR Parts 20 and 34.**

Contrary to the above, on (date), the licensee did not maintain sufficient calibrated and operable radiation survey meters to make the physical radiation surveys as required by 10 CFR Parts 20 and 34 during radiographic operations at (location) in that no operable radiation survey instruments were available at the site.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-40 **10 CFR 34.25(b) requires that each sealed source be tested for leakage at intervals not to exceed six months.**

Contrary to the above, from (date) to (date), an interval greater than six months, the licensee did not leak test its \_\_\_\_\_ Curie (nuclide) sealed source.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-50 **10 CFR 34.26 requires, in part, that the licensee conduct a quarterly inventory to account for all sealed sources.**

Contrary to the above, from (date) to (date), an interval encompassing \_\_ quarterly periods, the licensee did not perform an inventory of its sealed sources.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-60 **10 CFR 34.27 requires, in part, that each licensee maintain current utilization logs, which shall be kept available for three years from the date of the recorded events, for inspection by the Commission, at the address specified in the license, showing for each sealed source: the make and model number of the radiographic exposure device or storage container in which the sealed source is located; the identity of the radiographer to whom assigned; and the plant or site where used and dates of use.**

Contrary to the above, on (date), the licensee did not maintain utilization logs at its facility located in \_\_\_\_\_, for radiographic operations conducted between (date) and (date), at (location(s)).

This is a Severity Level \_\_ violation (Supplement VI).

- 34-61 **10 CFR 34.27 requires, in part, that each licensee maintain current utilization logs, which shall be kept available for three years from the date of the recorded events, for inspection by the Commission, at the address specified in the license, showing for each sealed source: the make and model number of the radiographic exposure device or storage container in which the sealed source is located; the identity of the radiographer to whom assigned; and the plant or site where used and dates of use.**

Contrary to the above, as of (date), the licensee's utilization logs were inadequate in that the logs did not show for each sealed source: (indicate the deficiencies).

This is a Severity Level \_\_ violation (Supplement VI).

- 34-70 **10 CFR 34.28(a) requires that the licensee check radiographic exposure devices, storage containers, and source changers for obvious defects prior to use each day the equipment is used.**

Contrary to the above, on (date), the licensee did not check a (model name and number) (exposure device, etc.) for defects prior to use that day.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-80 **10 CFR 34.29(b) requires that each entrance used for personnel access to the high radiation area in a permanent radiographic installation have both visible and audible signals to warn of the presence of radiation. The visible signal must be actuated by radiation whenever the source is exposed and the audible signal must be actuated when an attempt is made to enter the installation while the source is exposed.**

Contrary to the above, on (date), each entrance used for personnel access to the high radiation area of the licensee's permanent radiographic installation located at \_\_\_\_\_ did not have either visible or audible signals (or specify which one was lacking) as required.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-90 **10 CFR 34.31(a) requires that the licensee not permit any individual to act as a radiographer until such individual: has been instructed in the subjects outlined in Appendix A of 10 CFR Part 34; has received copies of and instruction in NRC regulations contained in 10 CFR Part 34 and in the applicable sections of 10 CFR Parts 19 and 20, NRC license(s) under which the radiographer will perform radiography, and the licensee's operating and emergency procedures; has demonstrated competence to use the licensee's radiographic exposure devices, sealed sources, related handling tools, and survey instruments; and has demonstrated understanding of the instructions in this paragraph by successful completion of a written test and field examination on the subjects covered.**

Contrary to the above, between (date) and (date), the licensee permitted (an) individual(s) to act as (a) radiographer(s) on \_\_\_\_\_ occasions without any of the above requirements being fulfilled.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-91 **10 CFR 34.31(a)(2) requires that the licensee not permit any individual to act as a radiographer until such individual has received copies of and instruction in NRC regulations contained in 10 CFR Part 34 and in the applicable sections of 10 CFR Parts 19 and 20, NRC license(s) under which the radiographer will perform radiography, and the licensee's operating and emergency procedures.**

Contrary to the above, the licensee permitted (an) individual(s) to act as (a) radiographer(s) on (date) at (location) without having received (copies of and instruction in the applicable sections of 10 CFR Parts 19 and 20) / (the NRC license(s) under which the radiographer performed radiography) / (the licensee's operating and emergency procedures).

This is a Severity Level \_\_ violation (Supplement VI).

- 34-92 **10 CFR 34.31(a)(4) requires that the licensee not permit any individual to act as a radiographer until such individual has demonstrated understanding of the instructions in the subjects outlined in Appendix A of 10 CFR Part 34 and NRC regulations contained in 10 CFR Part 34 and in the applicable sections of 10 CFR Parts 19 and 20, NRC license(s) under which the radiographer will perform radiography, and the licensee's operating and emergency procedures by successful completion of a written test and field examination on the subjects covered.**

Contrary to the above, between (date) and (date), the licensee permitted (an) individual(s) to act as (a) radiographer(s) on \_\_\_ occasions before (the) / (these) individual(s) had demonstrated understanding of the instructions specified above by the successful completion of a written test and field examination on the subjects covered.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-100 **10 CFR 34.31(b)(1) and (3) requires that the licensee not permit any individual to act as a radiographer's assistant until that individual has received copies of and instruction in the licensee's operating and emergency procedures and has demonstrated an understanding of them.**

Contrary to the above, on (date), the licensee permitted an individual in its employment to act as a radiographer's assistant prior to receiving copies of the operating and emergency procedures and demonstrating an understanding of them.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-102 **10 CFR 34.31(b) requires that the licensee not permit any individual to act as a radiographer's assistant until such individual: has received copies of and instruction in the licensee's operating and emergency procedures; has demonstrated competence to use, under the personal supervision of the radiographer, the radiographic exposure devices, sealed sources, related handling tools, and radiation survey instruments that the assistant will use; and has demonstrated understanding of the instructions in this paragraph by successfully completing a written or oral test and field examination on the subjects covered.**

Contrary to the above, on (date), the licensee permitted an individual to act as radiographer's assistant without the above requirements being fulfilled, in that (specify the deficiencies).

This is a Severity Level \_\_ violation (Supplement VI).

- 34-104 **10 CFR 34.31(c) requires that records of training of radiographers and radiographer's assistants, including copies of written tests and dates of oral tests and field examinations, be maintained for three years.**

Contrary to the above, no records of training, including copies of written tests and dates of oral tests and field examinations, were maintained for individuals who had worked as (radiographers, radiographer's assistants) between (date) and (date), at (locations).

This is a Severity Level \_\_ violation (Supplement VI).

- 34-110 **10 CFR 34.33(a) requires that the licensee not permit any individual to act as a radiographer or a radiographer's assistant unless, at all times during radiographic operations, the individual wears a direct-reading pocket dosimeter, an alarming ratemeter, and either a film badge or a thermoluminescent dosimeter.**

Contrary to the above, on (date), a licensee (radiographer, radiographer's assistant) did not wear a pocket dosimeter while conducting radiographic operations.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-120 **10 CFR 34.33(b) requires that pocket dosimeters be read and exposures recorded daily and that the licensee retain each record of these exposures for three years after the record is made.**

Contrary to the above, from (date) to (date), licensee radiographers did not record their pocket dosimeter readings.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-130 **10 CFR 34.33(c) requires that pocket dosimeters be checked at intervals not to exceed one year for correct response to radiation.**

Contrary to the above, from (date) to (date), an interval exceeding one year, pocket dosimeters were not checked for correct response to radiation.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-140 **10 CFR 34.33(d) requires that if an individual's pocket dosimeter is discharged beyond its range, his film badge or TLD be immediately sent for processing.**

Contrary to the above, on (date) during radiography performed at \_\_\_\_\_ a (radiographer's) / (radiographer assistant's) pocket dosimeter discharged beyond its range and the (film badge) / (TLD) worn by the individual (was) / (were) not immediately sent for processing.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-150 **10 CFR 34.41 requires that during each radiographic operation, the radiographer or radiographer's assistant maintain direct surveillance of the operation to protect against unauthorized entry into a high radiation area, as defined in 10 CFR Part 20, except where the high radiation area is equipped with a control device or alarm system, or locked.**

Contrary to the above, on (date), at a field site in \_\_\_\_\_, neither the licensee's radiographer nor the radiographer's assistant maintained direct surveillance over the radiographic operation to protect against entry into the high radiation area, and the high radiation area was not equipped with a control device or alarm system or locked. Specifically, \_\_\_\_\_.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-160 **10 CFR 34.42 requires, notwithstanding any provisions in 10 CFR 20.1903, that areas in which radiography is being performed be conspicuously posted as required by 10 CFR 20.1902(a) and (b).**

**10 CFR 20.1902(a) requires that each radiation area shall be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words "CAUTION, RADIATION AREA."**

**10 CFR 20.1902(b) requires that each high radiation area shall be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words "CAUTION, HIGH RADIATION AREA" or "DANGER, HIGH RADIATION AREA."**

Contrary to the above, on (date), during radiography performed at (location), the licensee did not post the radiation area and the high radiation area in which industrial radiography was being performed.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-170 **10 CFR 34.43(b) requires, in part, the licensee to ensure that a survey with a calibrated and operable radiation survey instrument is made after each radiographic exposure to determine that the sealed source has been returned to its shielded position.**

Contrary to the above, on (date), a licensee radiographer did not perform a survey after a radiographic exposure to determine that the sealed source had been returned to its shielded position.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-107a **10 CFR 34.43(b) requires, in part, the licensee to ensure that a survey with a calibrated and operable radiation survey instrument is made after each radiographic exposure to determine that the sealed source has been returned to its shielded position. The survey must include the entire circumference of the radiographic exposure device and any source guide tube.**

Contrary to the above, on (date), at (location), a licensee radiographer did not perform an adequate survey after each radiographic exposure to determine that the sealed source had been returned to its shielded position, in that the survey did not include the entire circumference of the radiographic exposure device and the source guide tube.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-170b **10 CFR 34.43(b) requires, in part, the licensee to ensure that a survey with a calibrated and operable radiation survey instrument is made after each radiographic exposure to determine that the sealed source has been returned to its shielded position. The survey must include the entire circumference of the radiographic exposure device and any source guide tube.**

Contrary to the above, on (date), a licensee radiographer did not perform a survey after each radiographic exposure to determine that the sealed source had been returned to its shielded position, in that the radiation survey meter was neither in calibration nor operable.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-180 **10 CFR 34.43(d) requires the licensee to ensure that a record of the storage survey required by 10 CFR 34.43(c) is retained for three years when that storage survey is the last one performed in the work day.**

Contrary to the above, as of (date), the licensee did not retain records of the last storage survey of the radiographic exposure device performed in the work day.

This is a Severity Level \_\_ violation (Supplement VI).

- 34-190 **10 CFR 34.44 requires that whenever a radiographer's assistant uses radiographic exposure devices, uses sealed sources or related source handling tools, or conducts radiation surveys required by 10 CFR 34.43(b) to determine that the sealed source has returned to the shielded position after an exposure, he shall be under the personal supervision of a radiographer. The personal supervision shall include: (a) the radiographer's personal presence at the site where sealed sources are being used; (b) the ability of the radiographer to give immediate assistance if required; and (c) the radiographer watching the assistant's performance of the above referred to operations.**

Contrary to the above, on (date), a licensee radiographer's assistant operated radiographic exposure devices and conducted radiation surveys without the personal supervision of a radiographer at (location), in that (specify the deficiency of supervision).

This is a Severity Level \_\_ violation (Supplement VI).



34-190a **10 CFR 34.44 requires that whenever a radiographer's assistant uses radiographic exposure devices, uses sealed sources or related source handling tools, or conducts radiation surveys required by 10 CFR 34.43(b) to determine that the sealed source has returned to the shielded position after an exposure, he shall be under the personal supervision of a radiographer. The personal supervision shall include: (a) the radiographer's personal presence at the site where the sealed sources are being used; (b) the ability of the radiographer to give immediate assistance if required; and (c) the radiographer watching the assistant's performance of the operations referred to in this section.**

Contrary to the above, on (date), an individual acted as a radiographer's assistant, used a radiographic exposure device and was not adequately supervised by a radiographer, in that the radiographer was not watching the performance of operations including exposure of the source.

This is a Severity Level    violation (Supplement IV).

---

---

## 10 CFR PART 35 MEDICAL USE

---

---

**10 CFR 35.24(a) requires the licensee's management to approve in writing:**

- (1) Requests for license applications, renewals, or amendments before submittal to the Commission;**
- (2) Any individual before allowing that individual to work as an authorized user, authorized nuclear pharmacist, or authorized medical physicist; and,**
- (3) Radiation protection program changes that do not require a license amendment and are permitted under § 35.26.**

Contrary to the above, from   (date)   to   (date)  , the licensee's management did not approve, in writing,   (Chose from above)  .

This is a Severity Level    violation (Supplement VI).

**10 CFR 35.24(b) requires that a licensee's management appoint a Radiation Safety Officer, who agrees, in writing, to be responsible for implementing the radiation protection program. The licensee, through the Radiation Safety Officer, is required to ensure that radiation safety activities are being performed in accordance with licensee-approved procedures and regulatory requirements.**

Contrary to the above, between   (date)   and   (date)  , the licensee's management failed to appoint a Radiation Safety Officer, who agreed, in writing, to be responsible for implementing the radiation protection program.

Or,

Contrary to the above, on   (date)  , the licensee, through its Radiation Safety Officer, failed to ensure that radiation safety activities were being performed in accordance with   (the licensee's procedures)     (regulatory requirements)  . Specifically,   (describe how the licensee violated the procedure or regulatory requirement)  .

This is a Severity Level    violation (Supplement VI).

**10 CFR 35.24(f) requires, in part, that the membership of the Radiation Safety Committee include an authorized user of each type of use permitted by the license, a Radiation Safety Officer, a representative of the nursing service, and a representative of management who is neither an authorized user nor the Radiation Safety Officer.**

Contrary to the above, as of   (date)  , the membership of the licensee's Radiation Safety Committee did not include                     .

This is a Severity Level    violation (Supplement VI).



**10 CFR 35.27(b)(1) requires, in part, a licensee that permits the preparation of byproduct material for medical use by an individual under the supervision of an authorized nuclear pharmacist or physician who is an authorized user to instruct the supervised individual in the preparation of byproduct material for medical use, as appropriate to that individual's involvement with byproduct material.**

Contrary to the above, as of (date), the licensee did not instruct (identify the supervised individual, e.g., "a pharmacy technologist") in the preparation of byproduct material for medical use, as appropriate to that individual's involvement with byproduct material;

This is a Severity Level \_\_ violation (Supplement VI).

**10 CFR 35.27(b)(2) requires, in part, the supervised individual to follow the instructions of the supervising authorized user or authorized nuclear pharmacist regarding the preparation of byproduct material for medical use, written radiation protection procedures established by the licensee, the regulations of this chapter, and license conditions.**

Contrary to the above, on (date), a (e.g., technologist), an individual under the supervision of an authorized nuclear pharmacist or physician who is an authorized user, (describe how the individual failed to follow the instruction).

This is a Severity Level \_\_ violation (Supplement VI).

**10 CFR 35.41(a) states that, for any administration requiring a written directive, licensees are required to develop, implement, and maintain written procedures to provide high confidence that: (1) The patient's or human research subject's identity is verified before each administration; and (2) Each administration is in accordance with the written directive. Procedures must meet the requirements described in 10 CFR 35.41(b).**

Contrary to the above, the licensee did not (develop, implement, and/or maintain) written procedures to provide high confidence that (select from 1 and/or 2 above).

And/or,

Contrary to the above, the licensee's procedures did not meet the requirements described in § 35.41(b), in that the procedures did not require (insert the item(s) from § 35.41(b) that apply).

This is a Severity Level \_\_ violation (Supplement VI)

**10 CFR 35.41(c) requires the licensee to retain a copy of the procedures required under paragraph (a) in accordance with § 35.2041.**

Contrary to the above, the licensee did not retain a copy of the procedure(s) for (describe the procedure), dated \_\_\_\_\_, which is required under paragraph (a) in accordance with § 35.2041.

This is a Severity Level \_\_ violation (Supplement VI)

**10 CFR 35.60(a) requires a licensee, who performs direct measurements in accordance with § 35.63, to possess and use instrumentation to measure the activity of unsealed byproduct material before it is administered to each patient or human research subject.**

Contrary to the above, from (date) to (date), the licensee did not possess and use instrumentation to measure the activity of unsealed byproduct material before it was administered to each patient or human research subject.

This is a Severity Level \_\_ violation (Supplement VI).

**10 CFR 35.60(b) requires the licensee to calibrate the instrumentation required in paragraph (a) of this section in accordance with nationally recognized standards or the manufacturer's instructions.**

Contrary to the above, from (date) to (date), the licensee did not calibrate the instrumentation required in paragraph (a) of this section in accordance with nationally recognized standards or the manufacturer's instructions.

This is a Severity Level \_\_ violation (Supplement VI).

**10 CFR 35.60(c) requires the licensee to retain a record of each instrument calibration required by this section in accordance with § 35.2060.**

Contrary to the above, the licensee did not retain a copy of the calibration record for describe the instrument, calibrated on date, as required by this section in accordance with § 35.2060.

This is a Severity Level \_\_ violation (Supplement VI)

**10 CFR 35.61(a) requires, in part, that a licensee calibrate the survey instruments used to show compliance with this part and 10 CFR Part 20 before first use, annually, and following a repair that affects the calibration.**

Contrary to the above, as of (date), the licensee was using a (manufacturer name), (model number) survey instrument to show compliance with this part and 10 CFR Part 20, and this survey instrument had not been calibrated from (date) through (date).

This is a Severity Level \_\_ violation (Supplement VI).

Contrary to the above, the licensee was using a (manufacturer name), (model number) survey instrument to show compliance with this part and 10 CFR Part 20, and this survey instrument had not been calibrated (before its first use) / (following a repair), which occurred on (date).

This is a Severity Level \_\_ violation (Supplement VI).

**10 CFR 35.63(a) requires that a licensee determine and record the activity of each dosage before medical use.**

Contrary to the above, on (date), the licensee did not determine and record the activity of a radiopharmaceutical containing (microcuries) / (millicuries) of (byproduct material), before it was administered to a patient/human research subject for medical use.

This is a Severity Level    violation (Supplement VI).

**10 CFR 35.63(b) requires that, for a unit dosage, the license must determine the activity either by (1) direct measurement of radioactivity; or (2) a decay correction, based on the activity or activity concentration determined by (i) A manufacturer or preparer licensed under § 32.72 of this chapter or equivalent Agreement State requirements; or (ii) An NRC or Agreement State licensee for use in research in accordance with a Radioactive Drug Research Committee-approved protocol or an Investigational New Drug (IND) protocol accepted by FDA.**

Contrary to the above, on (date), the licensee did not determine the activity in a unit radiopharmaceutical dosage containing (byproduct material), before it was administered to a (patient/human research subject) for medical use. Specifically,         

This is a Severity Level    violation (Supplement VI).

**10 CFR 35.63(c) requires that, for other than a unit dosage, the license must determine the activity either by (1) direct measurement of radioactivity; (2) a combination of measurement of radioactivity and mathematical calculations; or (3) a combination of volumetric measurements and mathematical calculations, based on the measurement made by a manufacturer or preparer licensed under § 32.72 of this chapter or equivalent Agreement State requirements.**

Contrary to the above, on (date), the licensee did not determine the activity in a radiopharmaceutical dosage containing (byproduct material), before it was administered to a (patient/human research subject) for medical use.

This is a Severity Level    violation (Supplement VI).

**10 CFR 35.615(a) requires a licensee to control access to the (remote afterloader units, teletherapy units, and/or gamma stereotactic radiosurgery units) treatment room by a door at each entrance.**

Contrary to the above, from                      to                     , access to the (remote afterloader units, teletherapy units, and/or gamma stereotactic radiosurgery units) treatment room was not controlled by a door at each entrance.

This is a Severity Level    violation (Supplement VI).

**10 CFR 35.615(b) requires a licensee to equip each entrance to the (remote afterloader units, teletherapy units, and/or gamma stereotactic radiosurgery units) treatment room with an electrical interlock system that will (1) Prevent the operator from initiating the treatment cycle unless each treatment room entrance door is closed; (2) Cause the source(s) to be shielded when an entrance door is opened; and (3) Prevent the source(s) from being exposed following an interlock interruption until all treatment room entrance doors are closed and the source(s) on-off control is reset at the console.**

Contrary to the above, as of   date   the licensee did not equip the entrance to the (remote afterloader units, teletherapy units, and/or gamma stereotactic radiosurgery units) treatment room with an electrical interlock system that will           (Choose from above)          .

This is a Severity Level    violation (Supplement VI).

**10 CFR 35.3045(a) requires a licensee to report any event, except for an event that results from patient intervention, in which the administration of byproduct material or radiation from byproduct material results in --**

- (1) A dose that differs from the prescribed dose or dose that would have resulted from the prescribed dosage by more than 0.05 Sv (5 rem) effective dose equivalent, 0.5 Sv (50 rem) to an organ or tissue, or 0.5 Sv (50 rem) shallow dose equivalent to the skin; and**
  - (i) The total dose delivered differs from the prescribed dose by 20 percent or more;**
  - (ii) The total dosage delivered differs from the prescribed dosage by 20 percent or more or falls outside the prescribed dosage range; or**
  - (iii) The fractionated dose delivered differs from the prescribed dose, for a single fraction, by 50 percent or more.**
- (2) A dose that exceeds 0.05 Sv (5 rem) effective dose equivalent, 0.5 Sv (50 rem) to an organ or tissue, or 0.5 Sv (50 rem) shallow dose equivalent to the skin from any of the following –**
  - (i) An administration of a wrong radioactive drug containing byproduct material;**
  - (ii) An administration of a radioactive drug containing byproduct material by the wrong route of administration;**
  - (iii) An administration of a dose or dosage to the wrong individual or human research subject;**
  - (iv) An administration of a dose or dosage delivered by the wrong mode of treatment; or**
  - (v) A leaking sealed source.**
- (3) A dose to the skin or an organ or tissue other than the treatment site that exceeds by 0.5 Sv (50 rem) to an organ or tissue and 50 percent or more of the dose expected from the administration defined in the written directive (excluding, for permanent implants, seeds that were implanted in the correct site but migrated outside the treatment site).**

Contrary to the above, on (date), the licensee became aware that a medical event had occurred, and the licensee did not notify the NRC. Specifically, (the administration of byproduct material or radiation from byproduct material) resulted in (give a brief description of the medical event to show that it meets the applicable definition used above).

This is a Severity Level    violation (Supplement VI).

**10 CFR 35.3045(c) requires the licensee to notify the NRC Operations Center, by telephone, no later than the next calendar day after discovery of the medical event.**

Contrary to the above, on   (date)  , the licensee became aware that a medical event had occurred, and the licensee did not notify the NRC until                     , which was later than the next calendar day. Specifically, (the administration of byproduct material) or (radiation from byproduct material) resulted in (give a brief description of the medical event to show that it meets the applicable definition used above).

This is a Severity Level    violation (Supplement VI).



THIS PAGE INTENTIONALLY LEFT BLANK

---

---

**10 CFR PART 71  
PACKAGING AND  
TRANSPORTATION OF  
RADIOACTIVE MATERIAL**

---

---

71-10 **10 CFR 71.3 states that, except as authorized in a general license or a specific license issued by the Commission, or as exempted by other paragraphs in 10 CFR Part 71, no licensee may: (1) deliver licensed material to a carrier for transport, or (2) transport licensed material.**

**10 CFR 71.10(b) states, in part, that a licensee is exempt from all requirements of 10 CFR Part 71, other than 10 CFR 71.5 and 10 CFR 71.88, with respect to shipment or carriage of a package containing no more than a Type A quantity of radioactive material, provided the package contains no fissile material or if the fissile material exemption standards of 10 CFR 71.53 are satisfied.**

71-12 Contrary to the above, on (date), the licensee (transported) / (delivered to a carrier for transport) (amount) of (nuclide), which is greater than a Type A quantity of radioactive material; and the licensee was not otherwise exempted pursuant to 10 CFR Part 71, nor did the licensee meet the criteria for a general license, nor was this transport authorized in a specific license issued by the Commission.

This is a Severity Level \_\_\_ violation (Supplement V).

71-14 Contrary to the above, on (date), the licensee (transported) / (delivered to a carrier for transport) (amount) grams of fissile material consisting of (nuclide(s)), which does not meet the exemption standards set forth in 10 CFR 71.53; and the licensee was not otherwise exempted pursuant to 10 CFR Part 71, nor did the licensee meet the criteria for a general license, nor was this transport authorized in a specific license issued by the Commission.

This a Severity Level \_\_\_ violation (Supplement V).

---

---

**CITATIONS FOR FAILURE TO FOLLOW DOT REGULATIONS**

**NOTE:** Citations for failure to follow specific DOT regulations should include, in the first paragraph, the authority under 10 CFR 71.5(a). Use the paragraph below. Then list the specific citations as subheadings, without repeating the initial paragraph.

71-20 **10 CFR 71.5(a) requires that a licensee who transports licensed material outside of the site of usage, as specified in the NRC license, or where transport is on public highways, or who delivers licensed material to a carrier for transport, comply with the applicable requirements of the regulations appropriate to the mode of transport of the Department of Transportation (DOT) in 49 CFR Parts 170 through 189.**

71-30 **10 CFR 71.12 states, in part, that a general license to transport licensed material, or to deliver licensed material to a carrier for transport, applies only to a licensee who has a quality assurance program approved by the Commission as satisfying the provisions of subpart H of 10 CFR Part 71; has a copy of the certificate of compliance, or other approval of the package; and submits in writing to NRC, prior to the first use of the transport package, the licensee's name, license number, and package identification number.**

Contrary to the above, as of \_(date)\_, the licensee routinely \_(transported licensed material) / (delivered licensed material to a carrier for transport)\_ under the general license pursuant to 10 CFR 71.12, and the licensee \_(did not have a quality assurance program approved by the Commission) / (did not have a copy of the certificate of compliance, or other approval of the package) / (had not submitted in writing to NRC prior to the first use of the transport package the licensee's name, license number, and package identification number)\_.

This is a Severity Level \_\_\_ violation (Supplement V).

---

---

## 49 CFR PART 172 HAZARDOUS MATERIALS

---

---

### SHIPPING PAPERS

**NOTE:** If there is no shipping paper, choose one of the two citations below, depending on whether the licensee transported the material or offered it for transport. If the shipping paper is incomplete or inaccurate, begin with either 71-50 or 71-55 as appropriate, and then follow with the specific citation, choosing from among 71-60 through 71-90.

71-50 **49 CFR 172.200(a) requires, with exceptions not applicable here, that each person who offers a hazardous material for transportation describe the hazardous material on the shipping paper in the manner required by subpart C of 49 CFR Part 172. Pursuant to 49 CFR 172.101, radioactive material is classified as hazardous material.**

Contrary to the above, on (date), the licensee offered (licensed material) to a carrier for transport and did not include with the shipment a shipping paper describing the material.

This is a Severity Level    violation (Supplement V).

71-55 **49 CFR 177.817(a) requires that a carrier not transport a hazardous material unless it is accompanied by a shipping paper prepared in accordance with 49 CFR 172.200-203. Pursuant to 49 CFR 172.101, radioactive material is classified as hazardous material.**

Contrary to the above, on (date), the licensee transported (licensed material) outside the confines of its plant without a shipping paper.

This is a Severity Level    violation (Supplement V).

### EMERGENCY RESPONSE TELEPHONE NUMBER

**NOTE:** If the emergency response telephone number is on the shipping paper but does not meet the requirements of 49 CFR 172.602, use 71-220.

71-60 **49 CFR 172.201(d) requires that a shipping paper contain an emergency response telephone number, as prescribed in subpart G of 49 CFR Part 172.**

Contrary to the above, on (date), the licensee (transported outside the confines of its plant) / (delivered to a carrier for transport) (licensed material), and the shipping paper that accompanied the shipment did not contain an emergency response telephone number.

This is a Severity Level    violation (Supplement V).

- 71-70 **49 CFR 172.202(a) and (b) require in part, with exceptions not applicable here, that the shipping description of a hazardous material on the shipping paper include, in the following sequence: (1) the proper shipping name prescribed for the material in 172.101 (2) the hazard class prescribed for the material as shown in Column 3 of the 172.101 Table, and (3) the identification number prescribed for the material as shown in Column 4 of the 172.101 Table. Pursuant to 49 CFR 172.101, radioactive material is classified as hazardous material.**

Contrary to the above, on (date), the licensee (transported outside the confines of its plant) / (delivered to a carrier for transport) (licensed material), and the shipping description on the shipping paper that accompanied the shipment did not include (select the missing item(s) from the paragraph above).

This is a Severity Level \_\_\_ violation (Supplement V).

- 71-80 **49 CFR 172.203(c)(2) requires that the letters "RQ" be entered on the shipping paper either before or after the basic description required for each hazardous substance. Pursuant to 49 CFR 172.101, radioactive material is classified as hazardous material.**

Contrary to the above, on (date), the licensee (transported outside the confines of its plant) / (delivered to a carrier for transport) (licensed material), and the letters "RQ" were not entered either before or after the description on the shipping paper that accompanied the shipment.

This is a Severity Level \_\_\_ violation (Supplement V).

- 71-90 **49 CFR 172.203(d) requires, in part, that the description for a shipment of radioactive material include: (1) the name or abbreviation (e.g., <sup>99</sup>Mo) of each radionuclide that is in the radioactive material and is listed in 49 CFR 173.435, or for mixtures of radionuclides, those nuclides determined in accordance with the provisions of 49 CFR 173.433(f); (2) the physical and chemical form of the material (if not special form); (3) the activity contained in each package of the shipment in terms of the appropriate SI units (e.g., Becquerel, Terabecquerel etc...), or in terms of appropriate SI units followed by customary units (e.g., curies, millicuries, or microcuries) [Note that for domestic transportation, use of customary units only is authorized until April 1, 1997]; (4) the category of label applied to each package (e.g., RADIOACTIVE WHITE-I), and 5) the transport index assigned to each package in the shipment bearing RADIOACTIVE YELLOW-II OR YELLOW-III labels.**

- 71-92 Contrary to the above, on (date), the licensee (transported outside the confines of its plant) / (delivered to a carrier for transport) (licensed material), and the description on the shipping paper that accompanied the shipment did not include select missing item(s) from above).

This is a Severity Level \_\_\_ violation (Supplement V).

- 71-94 Contrary to the above, on (date), the licensee (transported outside the confines of its plant) / (delivered to a carrier for transport) (licensed material), and the description on the shipping paper that accompanied the shipment did not include the correct (select item(s) from above). Specifically, (state how each item was incorrect).

This is a Severity Level \_\_\_ violation (Supplement V).

- 71-100 **49 CFR 172.310 requires, in part, that for each package containing radioactive materials, the packaging must be marked on the outside of the package, in letters at least 13 mm (0.5 inch) high, with the words “TYPE A” or “TYPE B” as appropriate, and requires that packagings which do not conform to Type A or Type B requirements may not be so marked.**

Contrary to the above, as of (date), the licensee (transported outside the confines of its plant) / (delivered to a carrier for transport) (licensed material) in a (Type A) / (Type B) package which was not marked "(Type A)" / "(Type B)".

This is a Severity Level \_\_\_ violation (Supplement V).

- 71-110 **49 CFR 172.312 requires in part, with exceptions not applicable here, that each package having an inside packaging containing liquid hazardous materials be (1) packed with closures upward, and (2) legibly marked, with package orientation markings that conform pictorially to ISO Standard 780-1985, on two opposite vertical sides of the package with the arrows pointing in the correct upright direction. Pursuant to 49 CFR 172.101, radioactive material is classified as hazardous material.**

Contrary to the above, on (date), the licensee (transported outside the confines of its plant) / (delivered to a carrier for transport) (licensed material) in liquid form, and the outer package was not marked on two opposite vertical sides with package orientation arrows pointing in the correct upright direction.

This is a Severity Level \_\_\_ violation (Supplement V).

- 71-120 **49 CFR 172.403 requires, in part, with exceptions not applicable here, that each package of radioactive material be labeled, as appropriate, with two RADIOACTIVE WHITE-I, RADIOACTIVE YELLOW-II, or RADIOACTIVE YELLOW-III labels on opposite sides of the package. The contents, activity, and transport index must be entered in the blank spaces on the label using a legible and durable, weather resistant means. The contents entered on the label must include the name or abbreviation (e.g., <sup>99</sup>Mo) of the radionuclides as taken from the listing in 49 CFR 173.435, or for mixtures of radionuclides, those nuclides determined in accordance with the provisions of 49 CFR 173.433(f), with consideration of space available on the label. The activity must be expressed in terms of the appropriate SI units (e.g., Becquerel, Terabecquerel etc...), or in terms of appropriate SI units followed by customary units (e.g., curies, millicuries, or microcuries) [Note that for domestic transportation, use of customary units only is authorized until April 1, 1997].**

- 71-122 Contrary to the above, on (date), the licensee (transported outside the confines of its plant) / (delivered to a carrier for transport) (licensed material) without the required (RADIOACTIVE WHITE-I) / (RADIOACTIVE YELLOW-II) / (RADIOACTIVE YELLOW-III) labels.

This is a Severity Level \_\_\_ violation (Supplement V).

- 71-124 Contrary to the above, on (date), the licensee (transported outside the confines of its plant)

/ (delivered to a carrier for transport) (licensed material) , and the RADIOACTIVE label affixed to the package did not identify the (contents) / (activity) / (transport index) .

This is a Severity Level \_\_\_ violation (Supplement V).

- 71-126 Contrary to the above, on  (date) , the licensee (transported outside the confines of its plant) / (delivered to a carrier for transport) (licensed material) , and the RADIOACTIVE label affixed to the package incorrectly identified the (contents) / (activity) / (transport index) . Specifically,  (state how each item was incorrect) .

This is a Severity Level \_\_\_ violation (Supplement V).

- 71-128 Contrary to the above, on  (date) , the licensee (transported outside the confines of its plant) / (delivered to a carrier for transport) (licensed material) , and the package had only one RADIOACTIVE label affixed to it.

This is a Severity Level \_\_\_ violation (Supplement V).

- 71-140 **49 CFR 172.403(b) requires that the label to be affixed to a package is based on the radiation level at the surface of the package and the transport index. The label to be applied must be the highest category required for either of the two determining conditions of the package. 49 CFR 172.403(c) defines the categories of labels to be applied to radioactive materials packages and requires, in part, that: (1) packages with surface radiation levels of less than or equal to 0.005 millisievert per hour (0.5 millirem per hour) be labeled "White-I," (2) packages with surface radiation levels greater than 0.005 millisievert per hour (0.5 millirem per hour) but less than or equal to 0.5 millisievert per hour (50 millirem per hour) be labeled "Yellow-II," and (3) packages with surface radiation levels greater than 0.5 millisievert per hour (50 millirem per hour) be labeled "Yellow-III."**

Contrary to the above, on  (date) , the licensee (transported outside the confines of its plant) / (delivered to a carrier for transport) (licensed material) in a package that was improperly labeled. Specifically, the package had surface radiation levels of (specify) millirem per hour and was labeled \_\_\_\_\_, instead of \_\_\_\_\_.

This is a Severity Level \_\_\_ violation (Supplement V).

- 71-150 **49 CFR 172.403(b) requires that the label to be affixed to a package is based on the radiation level at the surface of the package and the transport index (T.I). The label to be applied must be the highest category required for either of the two determining conditions of the package. 49 CFR 172.403(c) defines the categories of labels to be applied to radioactive materials packages and requires, in part, that: (1) packages with a T.I. of zero (i.e., a measured T.I. of not greater than 0.05) be labeled "White-I", (2) packages with a T.I. of more than zero but less than or equal to 1.0 be labeled "Yellow-II," and (2) packages with a T.I. greater than 1.0 be labeled "Yellow-III."**

Contrary to the above, on  (date) , the licensee (transported outside the confines of its plant) / (delivered to a carrier for transport) (licensed material) in a package that was improperly labeled. Specifically, the package had a T.I. of (specify) and was labeled \_\_\_\_\_.

instead of \_\_\_\_\_.

This is a Severity Level \_\_\_ violation (Supplement V).

### PROHIBITED PLACARDING

**NOTE:** DOT regulations prohibit the use of the "RADIOACTIVE" placard ONLY when the vehicle contains NO radioactive material. The violation below normally should be considered to be a minor violation and not the subject of formal enforcement action in accordance with the Enforcement Policy.

71-170 **49 CFR 172.502(a) requires, in part, with exceptions not applicable here, that no person affix or display on a transport vehicle any placard unless the placard represents a hazard of the material being transported.**

Contrary to the above, on (date), the licensee operated a transport vehicle, outside the site of usage, as specified on the NRC license, or on a public highway, with a "RADIOACTIVE" placard displayed on it and no packages containing radioactive material were present in the vehicle at the time.

This is a Severity Level \_\_\_ violation (Supplement V).

71-180 **49 CFR 172.504 prescribes requirements for placarding vehicles used to transport hazardous materials. Specifically, Table 1 requires that the transport vehicle be placarded on each side and each end with a "RADIOACTIVE" placard when transporting: a) packages bearing a "RADIOACTIVE YELLOW-III" label, and b) exclusive-use shipments of low specific activity (LSA) radioactive materials and surface contaminated objects (SCO) transported in accordance with 49 CFR 173.427(b)(3) or (c) (see footnote in Table 1, 49 CFR 173.504(e)).**

71-182 Contrary to the above, on (date), the licensee transported (licensed material), outside the site of usage, as specified on the NRC license, or on a public highway, in a package with YELLOW-III labels, and the transport vehicle was not placarded with "RADIOACTIVE" placards.

This is a Severity Level \_\_\_ violation (Supplement V).

71-184 Contrary to the above, on (date), the licensee transported (LSA material/ SCO) consisting of (specify) as an exclusive use shipment in accordance with 49 CFR 173.427(b)(3) or (c), outside the site of usage, as specified on the NRC license, or on a public highway, , and the transport vehicle was not placarded with "RADIOACTIVE" placards.

This is a Severity Level \_\_\_ violation (Supplement V).



---

**EMERGENCY RESPONSE TELEPHONE NUMBER**

**NOTE:** If the emergency response telephone number is not entered on the shipping paper, use 71-60.

71-190 **49 CFR 172.600 requires, with exceptions not applicable here, that no person may offer for transportation, accept for transportation, transfer, store, or otherwise handle during transportation, a hazardous material unless emergency response information conforming to Subpart G of 49 CFR Part 172 is immediately available for use at all times the hazardous material is present. 49 CFR 172.602 requires, in part, that the emergency response information must be presented: (1) on a shipping paper; (2) in a document, other than a shipping paper (e.g., a material safety data sheet); or (3) in a separate document (e.g., an emergency response guidance document), in a manner that cross-references the description of the hazardous material on the shipping paper with the emergency response information on the document. Pursuant to 49 CFR 172.101, radioactive material is classified as a hazardous material.**

Contrary to the above, on (date), the licensee (transported outside the confines of its plant) / (delivered to a carrier for transport) (licensed material), without the required emergency response information.

This is a Severity Level \_\_\_ violation (Supplement V).

71-200 **49 CFR 172.602 requires, in part, that as a minimum, the emergency response information required by Subpart G of 49 CFR Part 172 must contain: (1) the basic description and technical name of the hazardous material, (2) immediate hazards to health, (3) risks of fire or explosion, (4) immediate precautions to be taken in the event of an accident or incident, (5) immediate methods for handling fires, (6) initial methods for handling spills or leaks in the absence of fire, and (7) preliminary first aid measures. Pursuant to 49 CFR 172.101, radioactive material is classified as a hazardous material.**

71-202 Contrary to the above, on (date), the licensee (transported outside the confines of its plant) / (delivered to a carrier for transport) (licensed material), and the emergency response information that accompanied the shipment did not include select missing item(s) from above.

This is a Severity Level \_\_\_ violation (Supplement V).

71-204 Contrary to the above, on (date), the licensee (transported outside the confines of its plant) / (delivered to a carrier for transport) (licensed material), and the emergency response information that accompanied the shipment did not include the (correct/complete) (select item(s) from above). Specifically, (state how each item was incorrect/incomplete).

This is a Severity Level \_\_\_ violation (Supplement V).

71-210 **49 CFR 172.602(c) requires, with exceptions not applicable here, that the emergency response information specified in 49 CFR 172.602(a) must be maintained by each carrier who transports hazardous material in the same manner as prescribed for shipping papers. 49 CFR 177.817(e) requires, in part, that the driver of a motor vehicle containing hazardous material ensure that the shipping paper is readily available to, and recognizable by, authorities in the event of accident or inspection. Specifically, (i) when the driver is at the vehicle's controls, the shipping paper shall be: (a) within his immediate reach while he is restrained by the lap belt; and (b) either readily visible to a person entering the driver's compartment or in a holder which is mounted to the inside of the door on the driver's side of the vehicle; (ii) when the driver is not at the vehicle's controls, the shipping paper shall be: (a) in a holder which is mounted to the side of the door on the driver's side of the vehicle; or (b) on the driver's seat in the vehicle.**

**Pursuant to 49 CFR 172.101, radioactive material is classified as a hazardous material.**

Contrary to the above, on (date), the licensee transported (licensed material), outside the site of usage, as specified on the NRC license, or on a public highway, and the driver of the vehicle did not ensure that the emergency response information was readily available in the driver's compartment, as required. Specifically, (state where the emergency response information was and why it was not accessible).

This is a Severity Level \_\_\_ violation (Supplement V).

**NOTE:** If the emergency response telephone number is not entered on the shipping paper, use 71-60.

71-220 **49 CFR 172.604 requires, in part, that a person who offers a hazardous material for transportation provide a 24 hour emergency response telephone number for use in the event of an emergency involving the hazardous material. The telephone number must be: (1) monitored at all times the hazardous material is in transportation, including storage incidental to transportation, (2) the number of a person who is either knowledgeable of the hazardous material being shipped and has comprehensive emergency response and incident mitigation information for that material, or has immediate access to a person who possesses such knowledge, and (3) entered on the shipping paper.**

Contrary to the above, on (date), the licensee delivered to a carrier for transport (licensed material) and the emergency response telephone number on the shipping paper that the licensee used to accompany the shipment was inadequate in that it was not (select from item (1) or (2) above).

This is a Severity Level \_\_\_ violation (Supplement V).

---

---

**HAZMAT TRAINING REQUIREMENTS**

**NOTE:** Always include the first paragraph below. If there is no hazmat training provided, cite against that paragraph. If the training is incomplete, also include the second citation. Or, if the training records are not adequate, also include the third citation.

- 71-230 **49 CFR 172.702 requires that each hazmat employer shall ensure that each hazmat employee is trained and tested, and that no hazmat employee performs any function subject to the requirements of 49 CFR Parts 171-177 unless trained, in accordance with Subpart H of 49 CFR Part 172. The terms Hazmat Employer and Hazmat Employee are defined in 49 CFR 171.8.**

Contrary to the above, during the period between     (date and date)    , the licensee did not provide training for its hazmat employees as required by Subpart H to 49 CFR Part 172, and the licensee otherwise meets the definition of hazmat employer in 49 CFR 171.8.

This is a Severity Level      violation (Supplement V).

- 71-240 **49 CFR 172.704(a) specifies the elements of hazmat employee training as: (1) general awareness/familiarization training, (2) function-specific training, and (3) safety training. 49 CFR 172.204(c) requires, in part, that a hazmat employee receive initial training, and recurrent training at least once every two years.**

Contrary to the above, the licensee's did not provide training for its hazmat employees which satisfied the requirements in Subpart H to 49 CFR Part 172, in that     (Specify the deficiencies in the training program)    , and the licensee otherwise meets the definition of hazmat employer in 49 CFR 171.8.

This is a Severity Level      violation (Supplement V).

- 71-250 **49 CFR 172.704(d) requires that a record of current training, inclusive of the preceding two years, in accordance with Subpart H of 49 CFR Part 172, shall be created and retained by each hazmat employer for each hazmat employee for as long as that employee is employed by that employer as a hazmat employee and for 90 days thereafter. The record must include: (1) the hazmat employee's name, (2) the most recent training completion date of the hazmat employee's training, (3) a description, copy, or location of the training materials, (4) the name and address of the person providing the training, and (5) certification that the hazmat employee has been trained and tested in accordance with Subpart H of 49 CFR Part 172.**

Contrary to the above, the licensee's records of hazmat employee training were inadequate in that they did not include     (Specify the missing/incomplete items from the above list)    , and the licensee otherwise meets the definition of hazmat employer in 49 CFR 171.8.

This is a Severity Level      violation (Supplement V).

---

---

## 49 CFR PART 173 SHIPPERS: REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

---

---

71-260 49 CFR 173.25 requires, in part, for packages containing hazardous materials and offered for transportation in an overpack, that: 1) the overpack be marked with the proper shipping name and identification number, and labeled as required by 49 CFR Parts 171-177 for each hazardous material contained therein unless markings and labels representative of each hazardous material in the overpack are visible; and 2) the overpack be marked with a statement indicating that the inside (inner) packages comply with prescribed specifications when specification packagings are required, unless specification markings on the inside packages are visible. Pursuant to 49 CFR 172.101, radioactive material is classified as hazardous material.

Contrary to the above, as of (date), the licensee offered for transportation in an overpack (licensed material) that was not marked with the proper shipping name and identification number, nor with any statement indicating that the inner package complied with the prescribed specifications; and the markings on the inside package were not visible.

This is a Severity Level \_\_\_ violation (Supplement V).

71-270 49 CFR 173.411(c) requires that, except for Industrial Packaging Type 1 (IP-1) packagings, each offeror of an industrial package must maintain on file for at least one year after the latest shipment, a complete documentation of tests and an engineering evaluation or comparative data showing that the construction methods, packaging design, and materials of construction comply with that specification.

71-272 Contrary to the above, as of (date), the licensee shipped (licensed material) in an (IP-2/IP-3) package, and did not maintain for a period of at least one year following that shipment documentation of tests and an engineering evaluation or comparative data showing that the package complied with the applicable specification.

This is a Severity Level \_\_\_ violation (Supplement V).

71-274 Contrary to the above, as of (date), the licensee shipped (licensed material) in an (IP-2/IP-3) package, and did not maintain for a period of at least one year following that shipment complete documentation of tests and an engineering evaluation or comparative data showing that the package complied with the applicable specification. Specifically, the documentation was incomplete in that \_\_\_\_\_. [state how/why the documentation was not adequate, e.g., it did not show that the (construction methods) / (packaging design) / (materials of construction) comply with (the applicable specification)].

This is a Severity Level \_\_\_ violation (Supplement V).

**71-280** 49 CFR 173.415(a) requires that each shipper of a DOT Specification 7A Type A package must maintain on file for at least one year after the latest shipment a complete documentation of tests and an engineering evaluation or comparative data showing that the construction methods, packaging design, and materials of construction comply with the specification as described in 49 CFR 178.350.

**71-282** Contrary to the above, as of (date), the licensee shipped (licensed material) in a package marked DOT Specification 7A Type A and did not maintain for a period of at least one year following that shipment documentation of tests and an engineering evaluation or comparative data showing that the package complied with the applicable DOT specification.

This is a Severity Level \_\_\_ violation (Supplement V).

**71-284** Contrary to the above, as of (date), the licensee shipped (licensed material) in a package marked DOT Specification 7A Type A and did not maintain for a period of at least one year following that shipment complete documentation of tests and an engineering evaluation or comparative data showing that the package complied with the applicable DOT specification. Specifically, the documentation was incomplete in that \_\_\_\_\_ . [state how/why the documentation was not adequate, e.g., it did not show that the (construction methods) / (packaging design) / (materials of construction) comply with (the applicable DOT specification)].

This is a Severity Level \_\_\_ violation (Supplement V).

71-290 49 CFR 173.421 excepts limited quantities of radioactive material, specified as radioactive material whose activity per package does not exceed the limits in 49 CFR 173.425, from the specification packaging, marking, and labeling requirements, and if not a hazardous substance or hazardous waste, the shipping paper and certification requirements of 49 CFR Parts 171-177, and the requirements of Subpart I of 49 CFR Part 173, provided, among other things, that       (Insert here the applicable item(s) from the below list)      .

- (1) each package meets the general design requirements in 49 CFR 173.410.
- (2) the radiation level at any point on any external surface of the package does not exceed 0.005 millisievert per hour (0.5 millirem per hour)
- (3) the nonfixed (removable) radioactive surface contamination on the external surface of the package does not exceed the limits specified in 49 CFR 173.443(a)
- (4) the outside of the inner packaging, or if there is no inner packaging, the outside of the packaging itself bears the marking "Radioactive."
- (5) with exceptions not applicable here, the package does not contain more than 15 grams of uranium-235.
- (6) the material is otherwise prepared for shipment in accordance with 49 CFR 173.422. 49 CFR 173.422 requires, in part, that a limited quantity of radioactive material, prepared for shipment in accordance with 49 CFR 173.421, must, be certified as being acceptable for transportation by having a notice enclosed in or on the package, included with the packing list, or otherwise forwarded with the package. This notice must include the name of the consignor or consignee and the statement: "This package conforms to the conditions and limitations specified in 49 CFR 173.421 for radioactive material, excepted package-limited quantity of material, UN2910."

Contrary to the above, on   (date)  , the licensee   (transported/delivered to a carrier for transport)     (amount)   of   (licensed material)  , as an excepted package-limited quantity of material, but the package was not prepared for shipment, as required, in accordance with 49 CFR 173.421. Specifically,   (Identify the specific deficiencies which were noted)  .

This is a Severity Level    violation (Supplement V).

71-300 49 CFR 173.424 permits the shipment of certain devices containing radioactive materials as "instruments and articles", excepted from the specification packaging, shipping paper and certification, marking and labeling requirements, provided, among other things, that (Insert here the applicable item(s) from the below list) .

- (1) each package meets the general design requirements in 49 CFR 173.410.
- (2) the activity of the instrument or article does not exceed the relevant limit listed in Table 7 of 49 CFR 173.425. 49 CFR 173.425 lists the activity limit for each instrument and article containing (Special form solid/ normal form solid/...) radioactive material as ( $10^{-2} A_1/10^{-2} A_2/...$ ) .
- (3) the total activity per package does not exceed the relevant limit listed in Table 7 of 49 CFR 173.425. 49 CFR 173.425 lists the total activity limit per package for instrument and articles containing (Special form solid/ normal form solid/...) radioactive material as ( $A_1/A_2/...$ ) .
- (4) the radiation level at 10 centimeters (4 inches) from any point on the external surface of any unpackaged instrument or article does not exceed 0.1 millisievert per hour (10 millirem per hour).
- (5) the radiation level at any point on any external surface of the package does not exceed 0.005 millisievert per hour (0.5 millirem per hour), or for exclusive use domestic shipments, 0.02 millisievert per hour (2 millirem per hour).
- (6) the nonfixed (removable) radioactive surface contamination on the external surface of the package does not exceed the limits specified in 49 CFR 173.443(a).
- (7) with exceptions not applicable here, the package does not contain more than 15 grams of uranium-235.
- (8) the package is otherwise prepared for shipment in accordance with 49 CFR 173.422. 49 CFR 173.422 requires, in part, that an excepted package of radioactive material, prepared for shipment in accordance with 49 CFR 173.424, must, be certified as being acceptable for transportation by having a notice enclosed in or on the package, included with the packing list, or otherwise forwarded with the package. This notice must include the name of the consignor or consignee and the statement: "This package conforms to the conditions and limitations specified in 49 CFR 173.424 for radioactive material, excepted package-instruments *or* articles, UN2910."

Contrary to the above, on (date) , the licensee (transported/delivered to a carrier for transport) (amount) of (licensed material) , as an excepted package-instruments or articles, but the package was not prepared for shipment, as required, in accordance with 49 CFR 173.424. Specifically, (Identify the specific deficiencies which were noted) .

This is a Severity Level     violation (Supplement V).

- 71-310 49 CFR 173.475 requires, in part, that before each shipment of any Class 7 (radioactive) materials package, the offeror must insure by examination or appropriate tests, that the packaging is proper for the contents to be shipped. 49 CFR 173.427(a) requires that, unless excepted by §173.427(d), low specific activity (LSA) materials and surface contaminated objects (SCO), must be packaged in accordance with 49 CFR 173.427(b) or (c).

Contrary to the above, on (date), the licensee transported (LSA materials/SCO) in a package which was not authorized for that material pursuant to 49 CFR 173.427. . Specifically, the materials were packaged in (describe the package and state why it did not meet the applicable condition(s) in §173.427, for example, why a strong-tight container did not: (1) meet the general design requirements of 49 CFR 173.410; (2) contained greater than an A, quantity, ....) .

This is a Severity Level     violation (Supplement V).

- 71-320 49 CFR 173.427(a)(6) requires, in part, that packages offered for domestic transportation containing low-specific activity (LSA) material or surface contaminated objects (SCO), which are required by 49 CFR 173.427 to be consigned as exclusive use, are excepted from marking and labeling requirements of 49 CFR Parts 171-177, provided that the exterior of each nonbulk package is stenciled or otherwise marked “Radioactive-LSA” or “Radioactive-SCO” as appropriate, and nonbulk packages that contain a hazardous substance are stenciled or otherwise marked “RQ” in association with the above description.

- 71-322 Contrary to the above, on (date), the licensee transported, in a domestic shipment, (LSA materials/SCO) in a nonbulk package required by 49 CFR 173.427 to be consigned exclusive use , and the exterior of the packages was not marked or stenciled (“Radioactive - LSA”/“Radioactive-SCO”) .

This is a Severity Level     violation (Supplement V).

- 71-324 Contrary to the above, on (date), the licensee transported, in a domestic shipment, (LSA materials/SCO) containing (specify) terabecquerels ((specify) curies) of (specify the nuclide(s)), which is a reportable quantity of a hazardous substance pursuant to 49 CFR 171.8 and Table 2 of Appendix A to 49 CFR 172.101, in a nonbulk package required by 49 CFR 173.427 to be consigned exclusive use, and the exterior of the packages was not stenciled or otherwise marked “RQ.”

This is a Severity Level     violation (Supplement V).



71-330 49 CFR 173.475 requires, in part, that before each shipment of any Class 7 (radioactive) materials package, the offeror must insure by examination or appropriate tests, that the external radiation and contamination levels are within the allowable limits in 49 CFR Parts 171-178. 49 CFR 173.441(a) requires in part, with exceptions not applicable here, that each package of radioactive materials offered for transportation be designed and prepared for shipment so that under conditions normally incident to transportation the radiation level does not exceed 2 millisievert per hour (200 millirem per hour) at any point on the external surface of the package.

Contrary to the above, on (date), the licensee (transported outside the site of usage, as specified on the NRC license, or on a public highway) / (delivered to a carrier for transport) (licensed material) in a package that arrived at its destination with a measured radiation level of approximately (specify) millisievert per hour (       millirem per hour).

This is a Severity Level     violation (Supplement V).

71-340 49 CFR 173.475 requires, in part, that before each shipment of any Class 7 (radioactive) materials package, the offeror must insure by examination or appropriate tests, that the external radiation and contamination levels are within the allowable limits in 49 CFR Parts 171-178. 49 CFR 173.443(a) requires, in part, with exceptions not applicable here, that for beta and gamma emitting contaminants, the level of non-fixed (removable) radioactive contamination on the external surfaces of each package offered for transport, at the beginning of transport,, not exceed 0.4 Becquerel per square centimeter (22 disintegrations per minute per square centimeter) on any single wiping material, determined by wiping an area of 300 square centimeters of the surface concerned with an absorbent material, using moderate pressure, and averaging over the surface wiped. Sufficient measurements must be taken in the most appropriate locations to yield a representative assessment of the non-fixed contamination levels.

71-342 Contrary to the above, on (date), the licensee delivered to a carrier for transport a package which contained (licensed material), and the licensee did not determine the non-fixed contamination level prior to offering the package for transport .

This is a Severity Level     violation (Supplement V).

71-344 Contrary to the above, on (date), the licensee delivered to a carrier for transport a package which was determined to have non-fixed contamination caused by (nuclide), a (beta/gamma) emitting radionuclide, of approximately (specify) disintegrations per minute per square centimeter averaged over the surface wiped.

This is a Severity Level     violation (Supplement V).

- 71-350 49 CFR 173.448(a) requires that each shipment of radioactive materials be secured in order to prevent shifting during normal transportation conditions.

Contrary to the above, on (date), the licensee (transported outside the site of usage, as specified on the NRC license, or on a public highway) / (delivered to a carrier for transport) a package containing (licensed material) which was not properly secured to prevent shifting during transport. Specifically, (state how/why the package was not properly secured, what happened, etc.).

This is a Severity Level \_\_\_ violation (Supplement V).

- 71-360 49 CFR 173.466 requires, in part, that Type A packagings designed for liquids shall be capable of withstanding the tests described in section 173.466(a)(1) and (2).

49 CFR 173.461 requires, in part, that compliance with the test requirements in section 173.466 shall be shown by any of the methods prescribed in section 173.461(a)(1)-(4), or by a combination of these methods appropriate for the particular feature being evaluated.

Contrary to the above, on (date), the licensee (transported outside the site of usage, as specified on the NRC license, or on a public highway) / (delivered to a carrier for transport) (amount) of (licensed material) in liquid form, a quantity that requires Type A packaging, in a (specify the container, e.g., cardboard box) that had not been tested or evaluated for compliance with the test requirements in section 173.466.

This is a Severity Level \_\_\_ violation (Supplement V).

- 71-380 49 CFR 173.475 requires, in part, that before each shipment of any Class 7 (radioactive) materials package, the offeror must insure by examination or appropriate tests, that: (1) the packaging is proper for the contents to be shipped; (2) the packaging is in unimpaired physical condition, except for superficial marks; (3) each special instruction for filling, closing, and preparation of the packaging for shipment has been followed. 49 CFR 173.415 lists the packages that are authorized for shipment to contain quantities of Class 7 (Radioactive) material not exceeding the  $A_1$  or  $A_2$  value, as appropriate.

Contrary to the above, on (date), the licensee (transported outside the site of usage, as specified on the NRC license, or on a public highway), (amount) of (licensed material), a quantity not exceeding the ( $A_1$  /  $A_2$ ) value, in a packaging which was not authorized pursuant to 49 CFR 173.415. Specifically, (state how/why the package was not an authorized Type A package (e.g., a damaged/leaking drum was offered, a gauge device was shipped without retracting the source, etc...)).

This is a Severity Level \_\_\_ violation (Supplement V).

**71-390** 49 CFR 173.475 requires, in part, that before each shipment of any radioactive materials package, the shipper ensure by examination or appropriate tests that each closure, valve, or other opening of the containment system through which the radioactive content might escape is properly closed and sealed.

Contrary to the above, on (date), the licensee failed to examine or test the (specify valves, seals, etc.) of a package containing (licensed material) before delivering the package to a carrier for transport. [If appropriate, add a sentence to describe the result: "This resulted in (briefly describe what leaked, etc.) "]

This is a Severity Level \_\_\_ violation (Supplement V).

**71-400** 49 CFR 173.476(a) requires, in part, that each shipper of special form radioactive materials maintain on file, for at least one year after the latest shipment, a complete safety analysis including documentation of any tests, demonstrating that the special form material meets the requirements of 49 CFR 173.469. 49 CFR 173.469(b) specifies the tests to be conducted for the safety analysis.

**71-402** Contrary to the above, as of (date), the licensee shipped packages containing (licensed material) in special form, and did not maintain for a period of at least one year following each shipment documentation that the special form material meets the requirements of 49 CFR 173.469.

This is a Severity Level \_\_\_ violation (Supplement V).

**71-404** Contrary to the above, as of (date), the licensee shipped packages containing (licensed material) in special form, and the special form radioactive material had not undergone the required safety analysis to determine that it met the requirements of 49 CFR 173.469.

This is a Severity Level \_\_\_ violation (Supplement V).

---

---

**49 CFR Part 177**  
**CARRIAGE BY PUBLIC HIGHWAY**

---

---

- 1-410 49 CFR 177.817(e) requires, in part, that the driver of a motor vehicle containing hazardous material ensure that the shipping paper is readily available to, and recognizable by, authorities in the event of accident or inspection. Specifically, (i) when the driver is at the vehicle's controls, the shipping paper shall be: (a) within his immediate reach while he is restrained by the lap belt; and (b) either readily visible to a person entering the driver's compartment or in a holder which is mounted to the inside of the door on the driver's side of the vehicle; (ii) when the driver is not at the vehicle's controls, the shipping paper shall be: (a) in a holder which is mounted to the side of the door on the driver's side of the vehicle; or (b) on the driver's seat in the vehicle.

Pursuant to 49 CFR 172.101, radioactive material is classified as a hazardous material.

Contrary to the above, on (date), the licensee transported (licensed material), outside the site of usage, as specified on the NRC license, or on a public highway, and the driver of the vehicle did not ensure that the shipping paper was readily available in the driver's compartment, as required. Specifically, (state where the shipping paper was and why it was not accessible).

This is a Severity Level \_\_\_ violation (Supplement V).

- 71-420 49 CFR 177.834(a) requires, in part, that packaging not permanently attached to the motor vehicle and containing radioactive material must be secured against movement within the vehicle on which it is being transported, under conditions normally incident to transportation.

Contrary to the above, on (date), the licensee transported (licensed material), outside the site of usage, as specified on the NRC license, or on a public highway, and the package was not secured against movement within the vehicle. Specifically, (state how/why the package was not considered to be secured).

This is a Severity Level \_\_\_ violation (Supplement V).

**71-430** 49 CFR 177.842 requires, in part, that packages of radioactive materials be so blocked and braced that they cannot change position during conditions normally incident to transportation.

Contrary to the above, on (date), the licensee transported a package containing (licensed material), outside the site of usage, as specified on the NRC license, or on a public highway, and the package was not blocked and braced such that it could not change position during conditions normally incident to transportation. Specifically, (describe how/why the package was not sufficiently blocked and braced and what happened as a result).

This is a Severity Level     violation (Supplement V).

---

**10 CFR PART 150**  
**EXEMPTIONS AND CONTINUED REGULATORY**  
**AUTHORITY IN AGREEMENT STATES AND**  
**IN OFFSHORE WATERS UNDER SECTION 274**

---

**RECIPROCITY**

150-10 **10 CFR 150.20(a) provides in part that any person who holds a specific license from an Agreement State is granted an NRC general license to conduct the same activity in (non-Agreement States) (areas of exclusive Federal jurisdiction within Agreement States) (offshore waters), provided that the provisions of 10 CFR 150.20(b) have been met.**

**10 CFR 150.20(b)(1) requires, in part, that any person engaging in activities in (non-Agreement States) (areas of exclusive Federal jurisdiction within Agreement States) (offshore waters), shall, at least 3 days before engaging in each such activity, file 4 copies of NRC Form-241, "Report of Proposed Activities in Non-Agreement States", with the Regional Administrator of the appropriate NRC regional office.**

Contrary to the above, on  (date) ,  (name of Agreement State Licensee) , a licensee of  (Agreement State) , used  (nuclide)  in  (specify location, including State) , a (non-Agreement State) (area of exclusive Federal jurisdiction within Agreement State) (offshore waters), without filing Form-241 with the NRC.

This is a Severity Level   violation (Supplement VI).