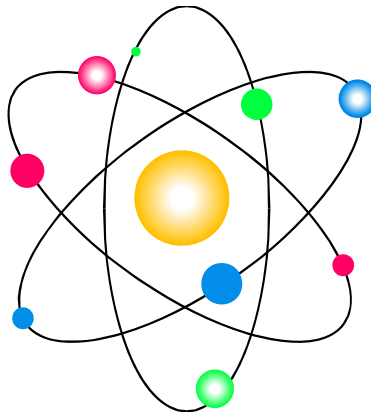




RADIOACTIVE MATERIALS REGULATORY GUIDE



ANNUAL AUDIT CHECKLIST FOR NUCLEAR PHARMACIES



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This guide contains model procedures that are only a suggested guide and are one way to meet this requirement. Some sections may not be pertinent to every licensee or to each review or audit. For example, licensees do not need to address areas that do not apply to their activities and activities that have not occurred since the last audit need not be reviewed at the next audit. Audits of the content and implementation of the radiation protection program must be conducted at least annually.

NUCLEAR PHARMACY AUDIT CHECKLIST

Audit History	4731	N/A	Yes	No
Were previous audits conducted annually?	2010	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are records of previous audits maintained?	2500	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Deficiencies identified?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were the deficiencies corrected?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organization and Scope of Program	4731	N/A	Yes	No
Radiation Safety Officer		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If the RSO was changed, was license amended?	4403	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does new RSO meet MDH training requirements?	4411 4414 4415	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is RSO fulfilling all duties?	4405	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the written agreement in place for a new RSO?	4405	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Authorized Nuclear Pharmacist				
New Authorized Nuclear Pharmacist since last audit?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the new Authorized Nuclear Pharmacist meet MDH training requirements?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If a new Authorized Nuclear Pharmacist was added, was MDH notified within 30 days or was the MDH license amended?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Authorized Users				
New Authorized User since last audit?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the new Authorized User meet MDH training requirements?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If a new Authorized User was added, or was the MDH license amended?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there multiple locations of use?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all locations listed on the license?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If multiple locations authorized, list locations audited.				
Were annual audits performed at each location? If no, explain.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radiation Safety Program	4731	N/A	Yes	No
Minor changes to program?	4405	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Records of changes maintained for five years?	4500	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Content and implementation reviewed annually by the licensee?	2020	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Records of reviews maintained?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Licensed Material	4731	N/A	Yes	No
Isotope, chemical form, quantity and use as authorized?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does total amount of radioactive material possessed require financial assurance?	3080	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If so, is financial assurance adequate?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are sealed sources possessed and used as described in the Sealed Source and Device Registration (SSDR) Certificate?	4460	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are copies of the SSDR Certificates possessed or accessible?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Are manufacturer's manuals for operation of medical devices possessed?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If places of use changed, was the license amended?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If control of license was transferred, was MDH consent obtained prior to the transfer?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Facilities	4731	N/A	Yes	No
Facilities are as described in the license application?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storage areas:				
Materials secured from unauthorized removal or access?	2290	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Licensee controls and maintains constant surveillance of licensed material not in storage?	2290	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dose Calibrator:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Constancy checked daily?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Linearity tested at intervals not to exceed 3 months?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accuracy tested at intervals not to exceed 12 months?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geometry dependence test?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Readings mathematically corrected if linearity error is greater than 10%?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Records maintained and include required information?	4502	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Determination of dosages of unsealed radioactive material:				
Each dosage determined and recorded prior to medical use?	4422	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Measurement of unit dosages made by direct measurement or by decay correction?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For other than unit dosages, dose determined by direct measurement of radioactivity or by combination of radioactivity or volumetric measurement and calculation?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Licensee uses generators?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are generators located in separate room and/or properly shielded to keep doses ALARA?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
First eluate after receipt is tested for Molybdenum-99 breakthrough?	4509	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No radiopharmaceuticals administered with Mo-99 concentrations over 0.15 µCi per mCi of Tc-99 ^m ?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Records maintained?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dose Measurement Systems				
Calibrated for each isotope used?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Constancy tests completed at least once each day prior to assay of patient dosages ($\pm 10\%$)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Linearity at installation and quarterly ($\pm 10\%$)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accuracy at installation and at intervals not to exceed 12 months ($\pm 10\%$)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geometry at installation ($\pm 10\%$)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
After repair, adjustment or relocation of the dose calibrator were Geometry, Accuracy, Linearity, and Constancy tests completed?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Training, Retraining, and Instruction to Workers	4731	N/A	Yes	No
Have workers been provided with required instructions?	1020	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the individual's understanding of current procedures and regulations adequate?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Training program implemented?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operating procedures?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency procedures?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Periodic training required and implemented?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were all workers who are likely to exceed 1 mSv (100 mrem) in a year instructed, and was refresher training provided, as needed?	1020	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was each supervised user instructed in the licensee's written radiation protection procedures and administration of written directives, as appropriate?	4407	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Are initial and periodic training records maintained for each individual?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workers cognizant of requirements for:				
Radiation Safety Program?	2010	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Annual dose limits?	2020 2090 2095 2210 2080	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10% monitoring threshold?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dose limits to embryo/fetus and declared pregnant worker?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grave danger posting?	2310			
Procedures for opening packages?	2350	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supervision of individuals by authorized user and/or authorized nuclear pharmacist in accordance with 4731.4407?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Receipt And Transfer of Radioactive Material	4731	N/A	Yes	No
Describe how packages are received and by whom.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Written package opening procedures established and followed?	2350	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All incoming packages with a DOT label monitored for radioactive contamination, unless exempted (gases and special form)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Incoming packages surveyed?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monitoring in (C) and (D) performed within time specified?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transfer(s) performed per MDH requirements?	3105	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All sources surveyed before shipment and transfer?	2200	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Records of surveys and receipt/transfer maintained?	2510 3115	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Package receipt/distribution activities evaluated for compliance with 4731.2090?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radiation Protection And Control Of Radioactive Material	4731	N/A	Yes	No
Use of radiopharmaceuticals				
Protective clothing worn?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personnel routinely monitor their hands?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No eating/drinking in use/storage areas?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No food, drink, or personal effects kept in use/storage areas?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper dosimetry worn?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radioactive waste disposed of in proper receptacles?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Syringe shields and vial shields used?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Posting and Labeling		N/A	Yes	No
MDH Form, "Notice to Workers" is posted?	1010	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other posting and labeling per 4731.2310, 4731.2330 and not exempted by 4731.2320, 4731.2340?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Dose	4731	N/A	Yes	No
Is licensed material used in a manner to keep doses below 1mSv (100 mrem) in a year?	2090	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has a survey or evaluation been performed?	2200	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have there been any additions or changes to the storage, security, or use of surrounding areas that would necessitate a new survey or evaluation?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	2090 2290	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do unrestricted area radiation levels exceed 0.02 mSv (2 mrem) in any one hour?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is licensed material used or stored in a manner that would prevent unauthorized access or removal?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Records maintained?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personnel Radiation Protection	4731	N/A	Yes	No
Exposure evaluation performed?	2200	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ALARA program implemented?	2010	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External Dosimetry:				
Monitors workers per 4731.2210?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External exposures account for contributions from airborne activity?	2040	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supplier Frequency		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supplier is NVLAP-approved?	2200	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dosimeters exchanged at required frequency?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internal Dosimetry				
Monitors workers per 4731.2210?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Briefly describe program for monitoring and controlling internal exposures?	2240	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monitoring/controlling program implemented (includes bioassays)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Respiratory protection equipment?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Review of Records and Reports				
Reviewed by Frequency		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Auditor reviewed personnel monitoring records for period to _____		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prior dose determined for individuals likely to receive doses?	2520	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maximum exposures TEDE Other		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maximum CDEs Organs		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maximum CEDE		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internal and external summed?	2030	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were occupational limits met?	2020	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MDH Forms 5 or equivalent provided to all monitored employees?	2520 2540	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If a worker declared her pregnancy during the audit period, then was the dose in compliance and were the records maintained?	2030 2540	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Who performed any planned special exposures at this facility (number of people involved and doses received)?	2060 2520 2530 2630	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Records of exposures, surveys, monitoring, and evaluations maintained?	2500 2510 2540	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notification and Reports	4731	N/A	Yes	No
In compliance with 4731.1030, 4731.3110 (reports to individuals, public and occupational, monitored to show compliance)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In compliance with 4731.2600, 4731.3110 (theft or loss)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In compliance with 4731.2610, 4731.3110 (incidents)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In compliance with 4731.2620, 4731.3110 (overexposures and high radiation levels)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aware of MDH phone number?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In compliance with 4731.2620 (Constraint on air emissions)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Radiation Survey Instruments	4731	N/A	Yes	No
Sufficient portable and fixed survey instruments possessed?	4421	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Calibrations completed before first use?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Instrument calibrated annually (intervals not to exceed 12 months)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Calibrations within 20 percent on each scale or decade of interest?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Calibration records maintained?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Area Surveys	4731	N/A	Yes	No
Radiation surveys performed in accordance with the licensee's procedures and the regulatory requirements?	2200	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are area surveys being performed at applicable locations?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are area surveys being performed at required frequencies?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are contamination surveys being performed at applicable locations?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are contamination surveys being performed at required frequencies?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trigger levels established?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corrective action taken and documented if trigger level exceeded?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Techniques can detect 0.1 mR/hr, 2000dpm?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Confirmatory Measurements	4731	N/A	Yes	No
Detail location and results of confirmatory measurements.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leak Tests	4731	N/A	Yes	No
Was each Sealed Source leak tested every six months or at prescribed intervals?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were leak tests performed according to the license?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Records maintained?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MDH notified of any leaking sources?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sealed Source Inventory	4731	N/A	Yes	No
Records of receipt for sources maintained?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sealed sources physically inventoried at intervals not to exceed six months?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Records of inventories retained?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radioactive Waste	4731	N/A	Yes	No
Disposal:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decay-in-storage	4429	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Procedures followed?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Labels removed or defaced?	2330 4429	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Special procedures performed as required?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Authorized disposals?	2400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Records maintained?	2510 2560	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Effluents:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Release to sanitary sewer?	2420	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Material is readily soluble or readily dispersible?	2420	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monthly average release concentrations do not exceed 2750 Subpart 4?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

No more than 5 Ci of H-3, 1 Ci of C-14 and 1 Ci of all other radionuclides combined released in a year?	2420	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Procedures to ensure representative sampling and analysis implemented?	2200	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Release to septic tanks? (Note: Release to septic tanks is not authorized.)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Waste incinerated?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
License authorizes?	2430	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Directly monitor exhaust?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Airborne releases evaluated and controlled?	2095 2200	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air effluents and ashes controlled?	2010 2020 2090 2200 2400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air effluent less than 10 mrem constraint limit?	2010	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If no, reported appropriate information to MDH.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corrective actions implemented and on schedule?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Description of effluent program:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monitoring system hardware adequate?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment calibrated, as appropriate?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air samples/sampling technique (i.e., charcoal, HEPA, etc.) analyzed with appropriate instrumentation?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Waste storage		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Protection from elements and fire?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control of waste maintained?	2290	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Containers properly labeled and area properly posted?	2310 2320	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Package integrity adequately maintained?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Waste disposal:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Records for Decay-in-storage include: <ul style="list-style-type: none"> the date of the disposal, the date on which the radioactive material was placed in storage, the radionuclides disposed with the longest half-life; the manufacturer's name, model number, and serial number of the survey instrument used, or a unique meter identification that can be cross-referenced to a specific manufacturer, model, and serial number; the background dose rate, the radiation dose rate measured at the surface of each waste container, and the name of the individual who performed the disposal. 	2405	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sources transferred to authorized individuals?	2400 2450 3105	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Name of organization:				
Records of surveys and material accountability are maintained?	2510 2560	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transportation (10 CFR 71.5(a) and 49 CFR 171-189)	4731	N/A	Yes	No
Shipments are:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
delivered to common carriers;		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
transported in own private vehicle;		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
both;		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

no shipments since last audit.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Return radiopharmacy doses or sealed sources?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Licensee assumes shipping responsibility?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO, describe arrangements made between licensee and radiopharmacy for shipping responsibilities:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Packages:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Authorized packages used?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Performance test records on file?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DOT-7A packages		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Special form sources		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Two labels (White-I, Yellow-II, Yellow-III) with TI, Nuclide, Activity, and Hazard Class?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Properly marked (Shipping Name, UN Number, Package Type, RQ, "This End Up" (liquids), Name and Address of consignee)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Closed and sealed during transport?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Papers:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prepared and used?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper Shipping Name, Hazard Class, UN Number, Quantity, Package Type, Nuclide, RQ, Radioactive Material, Physical and Chemical Form, Activity, Category of Label, TI, Shipper's Name, Certification and Signature, Emergency Response Phone Number, "Limited Quantity" (if applicable), "Cargo Aircraft Only" (if applicable)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Readily accessible during transport?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recordkeeping for Decommissioning	4731	N/A	Yes	No
Records of information important to the safe and effective decommissioning of the facility maintained in an independent and identifiable location until license termination?	3080	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Records include all information outlined in?	3080	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Amendments Since Last Audit	4731	N/A	Yes	No
Any Amendments since last audit?	4403	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notifications Since Last Audit	4731	N/A	Yes	No
Any Notifications since last audit?	4403	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate documentation provided to MDH for authorized nuclear pharmacist no later than 30 days after the individual starts work?	4403	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MDH notified within 30 days after any of the following stops work or changes name:				
Authorized Nuclear Pharmacist;		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radiation Safety Officer (RSO)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MDH notified within 30 days after:				
licensee's mailing address changes;		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
licensee's name changes without a transfer of control of the license; or		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bulletins and Information Notices	4731	N/A	Yes	No
Bulletins, Information Notices, etc., received?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate action in response to Bulletins, Information Notices, Generic Letters, etc.?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special License Conditions or Issues

Special license conditions or issues to be reviewed:

Evaluation:

Audits and Findings

Summary of findings:

Corrective and preventive actions:

Audit conducted by:

Date:
