PART N

REGULATION AND LICENSING OF TECHNOLOGICALLY ENHANCED NATURALLY OCCURRING RADIOACTIVE MATERIALS (TENORM)

1. Purpose. This Part establishes radiation protection standards for technologically enhanced naturally occurring radioactive materials (TENORM). This includes the possession, use, processing, distribution, transfer, disposal and manufacture of products of TENORM. This Part also establishes requirements for issuance of specific and general licenses to possess and use TENORM, including license termination.

2. Scope.

A. Except as otherwise excluded in this Part, Part N applies to any person who receives, owns, possesses, uses, processes, transfers, distributes, or disposes of TENORM.

B. The regulations in this Part address the introduction of TENORM into products in which neither the TENORM, nor the radiation emitted from the TENORM, is considered to be beneficial to the products.

C. The manufacture and distribution of products containing TENORM, in which the TENORM and/or its emitted radiation is considered to be a beneficial attribute, are licensed under the provisions of Part C of this rule.

D. This Part does not apply to source material and byproduct material as both are defined in the Atomic Energy Act of 1954, as amended (42 USC §2011 et seq.) as implemented by the US Nuclear Regulatory Commission.

E. The transportation and storage incident to transportation are governed by Parts L and D respectively of this rule.

3. Definitions. As used in this Part, the following definitions apply:

Beneficial to the product means the radioactivity of the TENORM is necessary to the product.

Conditional release means the release by a licensee for a specified use, not release for unrestricted use.

Consumer means a member of the public exposed to TENORM from final end-use products available on a retail basis.

Consumer or retail product means any product, article, or component part thereof, produced, distributed or sold for use by a consumer in or around a permanent or temporary household or residence, or for the personal use, consumption, or enjoyment of a consumer, or for use in or around a school or playground.

Natural radioactivity means radioactivity of naturally occurring nuclides.

NARM means any naturally occurring or accelerator-produced radioactive material

Product means something produced, made, manufactured, refined, or beneficiated.

Reasonably maximally exposed individual means a representative of a population who is exposed to TENORM at the maximum TENORM concentration measured in environmental media found at a site along with reasonable maximum case exposure assumptions. The exposure is determined by using maximum values for one or more of the most sensitive parameters affecting exposure, based on cautious but reasonable assumptions, while leaving the others at their mean value.

Technologically enhanced naturally occurring radioactive material (TENORM) means naturally occurring radioactive material whose radionuclide concentrations are increased by or as a result of past or present human practices. TENORM does not include background radiation or the natural radioactivity of rocks or soils. TENORM does not source material and byproduct material as both are defined in the Atomic Energy Act of 1954, as amended (42 USC §2011 et seq.) as implemented by the Nuclear Regulatory Commission.

Transfer means the physical relocation of TENORM within a business's operation or between general or specific licensees. This term does not include commercial distribution or a change in legal title to TENORM that does not involve physical movement of those materials.

4. Exemptions.

A. Persons who receive, own, possess, use, process, transfer, distribute, or dispose of TENORM are exempt from the requirements of Part N with respect to any combination of ^{226}Ra and ^{228}Ra if the materials contain, or are contaminated at, concentrations less than 185 becquerel per kilogram (5 pCi/gm) excluding natural background. This exemption does not apply to products that are regulated pursuant to N.13.C. and N.14[1].

B. Persons who receive products or materials containing TENORM distributed in accordance with a specific license issued by the Agency pursuant to N.11.A., or to an equivalent license issued by another Licensing State, are exempt from this Part with regard to those products or materials.

C. The distribution, including custom blending, possession, and use and disposal of fertilizers and zircon, zirconia, and zircon products containing TENORM, is exempt from the requirements of this Part.

D. TENORM waste regulated by the Comprehensive Environmental Response, Compensation Liability Act (CERCLA 42 USC §9601 et seq. as amended) or by the Resources Conservation and Recovery Act (RCRA 42 USC §6901 et seq. as amended) are exempt from this Part.

E. Other TENORM shall be exempt when the Agency makes a determination, upon its own initiative or upon request for such determination, that the reasonably maximally exposed individual will not receive a TEDE of more than 1 mSv (0.1 rem) in one year from all exposure pathways. The dose specified in this subsection does not include occupational dose, dose received from background radiation, or dose received as a result of administration of radioactive material to a patient.

[1] To apply this exemption to equipment such as pipe, it must be determined that the concentration of total radium is less than 85 pCi per gram, excluding the weight of the pipe or object contaminated with TENORM.

5. Standards for radiation protection for TENORM.

A. No person licensed under N.10 or N.11 shall conduct operations, use process, distribute or transfer TENORM in a manner such that a member of the general public will receive an annual TEDE in excess of 100 mrem (1 millisievert) per year from all licensed sources including TENORM.

B. Persons subject to a license under this Part shall comply with the standards for radiation protection for members of the public set out in Part D of this rule.

C. Doses from inhalation of indoor radon and its short half-life (less than one hour) progeny shall not be included in calculations of the TEDE, unless specifically directed otherwise by the Agency. The Agency will provide its basis if it directs the inclusion of radon in such calculations.

D. No person shall release TENORM for unrestricted use in such a manner that the reasonably maximally exposed individual will receive an annual TEDE from the released TENORM, excluding inhalation of radon and its short half-life (less than 1 hour) radon progeny, in excess of 10 mrem (0.1 millisievert) per year, excluding natural background.

E. Actions taken to confine TENORM on site or to remediate sites shall be based on expected longevity related controls for 1000 years.

6. Protection of workers during operations. Each person subject to a specific or general license under Part N shall conduct operations such that protection of workers is in compliance with the standards for radiation protection set out in Parts D and J of this rule.

7. Unrestricted use and conditional release. Each person subject to a specific or general license under this Part shall only:

A. Transfer or release equipment for unrestricted use or release for unrestricted use facilities contaminated with TENORM which are not greater than the levels in Appendix A of this Part. Upon application, specific approval of alternative levels may be granted by the Agency;

B. Release land for unrestricted use where the concentration of TENORM ^{226}Ra and ^{228}Ra, averaged over 100 square meters, is less than 185 becquerel per kilogram (5 pCi/gm) above the background concentration, averaged over any 15 cm layer of soil below the surface, or compliance with N.5.B. through N.5.D. is demonstrated;

C. Transfer or release for conditional use in metal recycle, equipment contaminated with TENORM producing a maximum exposure level of 50 microroentgen per hour (0.5 uGy), including background radiation, at any accessible location. Recycling shall not include the processing or use of materials in a manner that constitutes disposal without specific written approval of the Agency[2];

D. Transfer or conditionally release with written documentation by the licensee to a specified facility. Written documentation shall include the date, recipient name and

[2] States may establish screening levels based on gamma survey instrument results for use in releasing facilities and equipment, consistent with N.5.

location, description and quantity of the material, and a description of the procedures and mechanisms used to ensure that material will not be released in another manner, as an unrestricted release; or

E. Transfer equipment contaminated with TENORM in excess of levels specified in Appendix A pursuant to N.10.E.

8. Disposal and transfer of waste for disposal.

A. Each person subject to a specific or general license under this Part shall manage and dispose of wastes containing TENORM:

(1) By transfer of the wastes for disposal to a facility licensed under requirements for uranium or thorium byproduct materials in 40 CFR 192, 10 CFR 40 Appendix A, or equivalent regulations of an Agreement State that do not exclude disposal of TENORM; or

(2) By transfer of the wastes for disposal to a disposal facility licensed by the US Nuclear Regulatory Commission, or an Agreement State, pursuant to an authorization that does not exclude disposal of TENORM; or

(3) In accordance with alternate methods authorized by the permitting Agency for the disposal site upon application or upon the Agency's initiative, consistent with N.5 and where applicable the Clean Water Act, Safe Drinking Water Act and other requirements of the U.S. Environmental Protection Agency for disposal of such wastes.

B. Equipment contaminated with TENORM in excess of levels specified in N.7.A. or N.7.B., which is to be disposed of as waste, shall be disposed:

(1) In a manner that will prevent any reintroduction into commerce or unrestricted use; and

(2) Within disposal areas specifically designed to meet the criteria referred to in N.8.A.

C. Transfers of waste containing TENORM for disposal shall be made only to a person specifically authorized by the US Nuclear Regulatory Commission, or an Agreement State, to receive such waste, or other agency with appropriate permitting authority. However, TENORM waste may also be transferred to authorized solid waste disposal facilities, providing such facility is not expressly prohibited from receiving and disposing such TENORM waste and the disposal is in accordance with applicable federal and state law.

D. Records of disposal, including manifests, shall be maintained pursuant to the provisions of Part D of this rule.

E. Purposeful dilution to render TENORM waste exempt shall not be performed without prior Agency approval.

F. A licensee may dispose of TENORM [not away from the point of generation] in an injection well approved in accordance with Maine Department of Environmental Protection permitting requirements.

9. Prohibition. Purposeful dilution to render TENORM exempt shall not be performed without prior Agency approval.

General License

10. General license.

A. Subject to the requirements of N.5 through N.10, a general license is hereby issued to possess, own, use, transfer, distribute or dispose of TENORM without regard to quantity.

B. This general license does not authorize the manufacturing of consumer or retail products containing TENORM in concentrations greater than those specified in N.4.A. nor the receipt and disposal of wastes from other persons.

C. Employees or contractors under control and supervision of a general licensee can perform routine maintenance on equipment, facilities, and land owned or controlled by the general licensee. Maintenance that provides a pathway for exposure different from that found in daily operations and that increases the potential for additional exposure is not considered routine maintenance. The decontamination of equipment, facilities, and land shall be performed only by persons specifically licensed by the Agency or another Licensing State to conduct such work.

D. Any person subject to the general license issued by section.10.A. shall notify the Agency within 60 days of the effective date of this Part or of becoming subject to the general license. Such notification shall include:

(1) Name and address of the licensee;

(2) Location and description of the facility or operation;

(3) Description of the TENORM including estimates of the amount and extent of TENORM.

E. Transfer of material, equipment or real property.

(1) The transfer of TENORM not exempt from this rule from one general licensee to another general licensee is authorized if:

(a) The equipment and facilities contaminated with TENORM are to be used by the recipient for a similar purpose, provided a dose in excess of N.5.A. is not exceeded; or

(b) The transfer of control or ownership of land contaminated with TENORM includes an annotation of the deed records and/or notice to owners of surface and mineral rights to indicate the presence of TENORM.

(2) Transfers not made in accordance with N.10.E.(1) require prior approval by the Agency.

(3) For transfers made under N.10.E.(1), the general licensee who makes the transfer shall assess the extent of TENORM contamination or material present, inform the general licensee receiving the TENORM of these assessments prior to such transfer, and maintain records required by this rule.

(4) A general licensee intending to transfer material or real property for unrestricted use shall document compliance with the requirements of N.7 of this regulation. Records of such compliance shall be kept until the registration is terminated with this Agency.

(5) For transfers not made in accordance with N.10.E.(1), prior written approval by the Agency is required. To obtain Agency approval, the transferor shall submit information that demonstrates compliance with N.7. Records of such compliance shall be maintained as specified in Part D.

F. Distribution of TENORM products between general licensees. The distribution of TENORM products not exempt from this rule from one general licensee to another general licensee is authorized provided the product is accompanied by written disclosure of the type and amount of TENORM.

G. The Agency may, by written notice, require any person authorized by a general licensee to apply for and obtain a specific license if the Agency determines that specific licensure is necessary to ensure that exposures do not exceed the criteria. The notice shall state the reason or reasons for requiring a specific license.

Specific Licenses

11. Specific licenses.

A. A specific license is required under N.13 and N.14 to manufacture and distribute any consumer or retail product containing TENORM unless:

(1) Authorized as specified by N.10.A or N.10.F.;

(2) Licensed under the provisions of part C of this rule;

(3) Exempted under the provisions of N.4; or

(4) Otherwise exempt in accordance with another Part of this rule.

B. A specific license is required to decontaminate equipment or land not exempted under the provisions of N.4 or to decontaminate facilities contaminated with TENORM in excess of the levels in N.7, except as provided in N.10.C. For purposes of this subsection, the term decontaminate shall not include routine maintenance, which incidentally results in removal of contamination;

C. A specific license is required to receive TENORM from other persons for disposal unless otherwise exempt, or authorized in writing by the Agency.

12. Filing application for specific licenses.

A. Applications for specific licenses shall be in English and filed in a manner and on a form prescribed by the Agency, and in accordance with C.7.

B. The Agency may at any time after the filing of the original application, and before the termination of the license, require further statements in order to enable the Agency to determine whether the application should be granted or denied or whether a license should be modified or revoked.

C. Each application shall be signed by the applicant or licensee or a person duly authorized to act for and on the licensee's behalf.

D. An application for a license may include a request for a license authorizing one or more activities.

E. Each application for a specific license shall be accompanied by the fee prescribed in Part C.

13. Requirements for the issuance of specific licenses.

A. A license application will be approved if the Agency determines that:

(1) The applicant is qualified by reason of training and experience to use the TENORM in question for the purpose requested in accordance with this rule in such a manner as to protect the public health and safety or property;

(2) The applicant's proposed equipment, facilities, and procedures are adequate to protect the public health and safety or property;

(3) The issuance of the license will not be inimical to the health and safety of the public;

(4) The applicant satisfied all applicable special requirements in this Part; and

(5) The applicant has met the financial assurance requirements of N.26.

(6) The applicant has adequately addressed the following items in the application:

(a) Procedures and equipment for monitoring and protecting workers;

(b) An evaluation of the radiation levels and concentrations of contamination expected during normal operations;

(c) Operating and emergency procedures, including procedures for waste reduction and a quality assurance program designed to assess the adequacy of measurements made for the purpose of releasing items for unrestricted use; and

(d) A method for managing the radioactive material removed from contaminated equipment and facilities.

(7) For each location to be listed on the license as an authorized use location, the applicant shall submit either:

(a) A statement that the applicant owns the facility where radioactive material is to be used or stored; or

(b) A statement verifying that the facility owner has been informed, in writing, of the use or storage of radioactive material at the facility, and that the use of such material is subject to the rules of the Agency.

B. An application for a specific license to decontaminate equipment, land, or facilities contaminated with TENORM in excess of the levels set forth in N.4.A., N.7.B., or Appendix A of this Part, as applicable, and to dispose of the resulting waste will be approved if:

(1) The applicant satisfies the general requirements specified in N.13.A.; and

(2) The applicant has adequately addressed the following items in the application:

(a) Procedures and equipment for monitoring and protection of workers;

(b) An evaluation of the radiation levels and concentrations of contamination expected during normal operations;

(c) Operating and emergency procedures, including procedures for waste reduction and a quality assurance program designed to assess the adequacy of measurements made for the purpose of releasing items for unrestricted use; and

(d) Method of disposing of the TENORM removed from contaminated equipment, facilities, or land.

C. An application for a specific license to transfer or manufacture or distribute consumer or retail products containing TENORM to persons exempted from this rule pursuant to N.4.B. will be approved if:

(1) The applicant satisfies the general requirements specified in N.13.A.;

(2) The TENORM is not contained in any food, beverage, cosmetic, drug, or other commodity designed for ingestion or inhalation by, or application to, a human being; and

(3) The applicant submits sufficient information relating to the design, manufacture, prototype testing, quality control procedures, labeling or marking, and conditions of handling, storage, use, and disposal of the TENORM product to demonstrate that the product will meet the safety criteria set forth in N.13. The information shall include:

(a) A description of product and its intended use or uses;

(b) The type, quantity, and concentration of TENORM in each product;

(c) The chemical and physical form of the TENORM in the product, and changes in chemical and physical form that may occur during the useful life of the product;

(d) An analysis of the solubility in water and body fluids of the radionuclides in the product;

(e) The details of manufacture and design of the product relating to containment and shielding of the TENORM and other safety features under normal and severe conditions of handling, storage, use, reuse, and disposal of the product;

(f) The degree of access of human beings to the product during normal handling, use, and disposal;

(g) The total quantity of TENORM expected to be distributed annually in the product;

(h) The expected useful life of the product;

(i) The proposed method of labeling or marking each unit of the product with identification of the manufacturer or initial transferor of the product and the radionuclides and quantity of TENORM in the product;

(j) The procedures for prototype testing of the product to demonstrate the effectiveness of the containment, shielding, and other safety features under both normal and severe conditions of handling, storage, use, reuse, and disposal;

(k) The results of the prototype testing of the product, including any change in the form of the TENORM contained in it, the extent to which the TENORM may be released to the environment, any change in radiation levels, and any other changes in safety features;

(l) The estimated external radiation doses and dose commitments relevant to the safety criteria in N.14 and the basis for such estimates;

(m) A determination that the probabilities with respect to doses referred to in N.14 meet the safety criteria;

(n) The quality control procedures to be followed in the processing of production lots of the product, and the quality control standards the product will be required to meet; and

(o) Any additional information, including experimental studies and tests, required by the Agency to facilitate a determination of the radiation safety of the product.

D. Notwithstanding the provisions of N.14.B., the Agency may deny an application for a specific license if the end uses of the product are frivolous or cannot be reasonably foreseen.

14. Safety criteria for products. An applicant for a license under N.13.C. shall demonstrate that the product is designed and will be manufactured so that:

A. In normal use and disposal of a single exempt item, as defined in Part C, and in normal handling and storage of the quantities of exempt items likely to accumulate in one location during marketing, distribution, installation, and servicing of the product, it is unlikely that the TEDE in any one year, to a suitable sample of the group of individuals expected to be most highly exposed to radiation or radioactive material from the product will exceed the doses in Column I of N.15.

B. In use and disposal of a single exempt item and in handling and storage of the quantities of exempt items likely to accumulate in one location during marketing, distribution, installation, and servicing of the product, the probability is low[3] that the containment, shielding, or other safety features of the product would fail under such circumstances that a person would receive an external radiation dose or dose commitment in excess of the dose to the appropriate organ as specified in Column II of the table in N.14 and the probability is negligible*/that a person would receive an external radiation dose or dose commitment in excess of the dose to the appropriate organ as specified in Column III of the table in N.15[4].

C. It is unlikely that there will be a significant reduction in the effectiveness of the containment, shielding, or other safety features of the product from wear and abuse likely to occur in normal handling and use of the product during its useful life.

15. Table of doses.

Part of Body	Column I* Dose	Column II* Dose	Column III* Dose
Whole body; head and trunk; active blood-forming organs; gonads; or lens of eye	0.05 mSv (0.005 rem)	5 mSv (0.5 rem)	150 mSv (15 rem)
Hands and forearms; feet and ankles; localized areas of skin averaged over areas no larger than 1 square centimeter	0.75 mSv (0.075 rem)	75 mSv (7.5 rem)	2000 mSv (200 rem)
Other organs	0.15mSv (0.015 rem)	15 mSv (1.5 rem)	500 mSv (50 rem)
*Dose limit is the dose above background from the product.			

16. Issuance of specific licenses.

A. Upon a determination that an application meets the requirements of Part C, the Agency will issue a specific license authorizing the proposed activity in such form and containing such conditions and limitations as it deems appropriate or necessary.

[3] Low – not more than one such failure per year for each 10,000 exempt units distributed. Negligible – not more than one such failure per year for each one million exempt units distributed.

[4] It is the intent of this paragraph that as the magnitude of the potential dose increases above that permitted under normal conditions, the probability that any individual will receive such a dose must decrease. The probabilities have been expressed in general terms to emphasize the approximate nature of the estimates which are to be made. The above values may be used as guidelines in estimating compliance with the criteria.

B. The Agency may incorporate in any license at the time of issuance, or thereafter by amendment, such additional requirements and conditions with respect to the licensee's receipt, possession, use, and transfer of TENORM subject to this Part as it deems appropriate or necessary in order to:

(1) Protect public health and safety or property;

(2) Require such reports and the keeping of such records, and to provide for such inspections of activities under the license as may be appropriate or necessary; and

(3) Prevent loss, theft, or loss of control of TENORM subject to this Part.

17. Conditions of specific licenses issued under N.13.

A. General Terms and Conditions

(1) Each specific license issued pursuant to this Part shall be subject to all the provisions of Title 22 MRS, Maine Radiation Protection Statutes, now or hereafter in effect, and to all rules, regulations, and orders of the Agency.

(2) No specific license issued or granted under this Part and no right to possess or utilize TENORM granted by any license issued pursuant to this Part shall be transferred, assigned, or in any manner disposed of, either voluntarily or involuntarily, directly or indirectly, through transfer of control of any license to any person unless the Agency shall, after securing full information, find that the transfer is in accordance with the provisions of the Title 22 MRS, Maine Radiation Protection Statutes, and shall give its consent in writing.

(3) Each person specifically licensed by the Agency pursuant to this Part shall confine use and possession of the TENORM licensed to the locations and purposes authorized in the specific license.

(4) Each person specifically licensed by the Agency pursuant to this Part is subject to the general license provisions of N.5 through N.8.

(5) Notification of Bankruptcy:

(a) Each licensee shall notify the Agency, in writing, (Radiation Control Program, Maine Center for Disease Control and Prevention, Department of Health and Human Services, 11 State House Station, Augusta ME, 04333-0011) immediately following the filing of a voluntary or involuntary petition for bankruptcy under any Chapters of Title II (Bankruptcy) of the United States Code (11 U.S.C.) by or against:

(i) A licensee;

(ii) An entity, as defined in 11 U.S.C. 101 (15), controlling a licensee or listing the license or licensee as property of the estate; or

(iii) An affiliate, as defined in 11 U.S.C. 101 (2), of the licensee. This notification shall indicate the bankruptcy court in which the petition for bankruptcy was filed and the date of the filing of the petition.

(6) Each licensee shall notify the Agency in writing and receive approval prior to commencing activities to reclaim the licensed facility.

(7) Notification of Site or Area Closure. When a licensee has permanently ceased use of radioactive materials at a site or portion of a facility and the licensee has not decontaminated the area, or when an area has not been used for a period of two years, the licensee shall, within 60 days, provide the following information in writing to the Agency:

(a) The location of the site or area;

(b) The plan for reclaiming or decontaminating the site or area; and

(c) An evaluation of any changes to the financial assurance submitted in accordance with N.26.

(8) Temporary Jobsites[5]

(a) When temporary jobsites are authorized on a specific license, TENORM may be used at temporary jobsites throughout the State of Maine in accordance with N.25 in areas not under exclusive federal jurisdiction.

(b) Before TENORM can be used at a temporary jobsite at any federal facility within the State of Maine, the jurisdictional status of the jobsite shall be determined as it pertains to the TENORM. Authorization for use of TENORM at jobsites under exclusive federal jurisdiction shall be obtained from the federal agency with jurisdiction for TENORM at the temporary jobsite.

B. Quality control, labeling, and reports of transfer. Each person licensed under N.13.C. shall:

(1) Carry out adequate control procedures in the manufacture of the product to assure that each production lot meets the quality control standards approved by the Agency;

(2) Label or mark each unit so that the manufacturer, processor, producer, or initial transferor of the material or product and the TENORM in the product can be identified; and

[5] Authorization for use of TENORM at jobsites under exclusive federal jurisdiction must be obtained from the federal agency having jurisdiction of the property. Also, specific licenses issued by the Agency do not authorize activities in other states or in areas of exclusive federal jurisdiction in this state or in any other state. Before radioactive materials can be used at a temporary jobsite in another state or an area of exclusive federal jurisdiction, a license must be obtained from the appropriate state or federal agency.]

(3) Maintain records. By identifying, by name and address, each person to whom TENORM is transferred for use under N.4.B. or the equivalent regulations of another Licensing State, and stating the kinds, quantities, and uses of TENORM transferred. An annual summary report stating the total quantity of each radionuclide transferred under the specific license shall be filed with the Agency. Each report shall cover the year ending December 31, and shall be filed within 90 days thereafter. If no transfers of TENORM have been made pursuant to N.13.C. during the reporting period, the report shall so indicate.

18. Expiration and termination of specific licenses.

A. Except as provided in N.18.B., the authority to engage in licensed activities as specified in the specific license shall expire at the end of the specified day in the month and year stated therein. Any expiration date on a specific license applies only to the authority to engage in licensed activities. Expiration of a specific license shall not relieve the licensee of responsibility for decommissioning its facility and terminating the specific license.

B. Each licensee shall notify the Agency immediately in writing and request termination of the license when the licensee decides to terminate all activities involving radioactive material authorized under the license. This notification and request for termination shall include the documents require by N.18.D(4) and shall otherwise substantiate that the licensee has met all of the requirements in N.18.D.

C. No less than 30 days before the expiration date specified in a specific license, the licensee shall either:

(1) Submit an application for license renewal pursuant to N.19; or

(2) Notify the Agency in writing, under N.18.B, if the licensee decides to not renew the license. The licensee requesting termination of a license shall comply with the requirements of N.18.D.

D. Termination of licenses:

(1) If a licensee does not submit a complete application for license renewal pursuant to N.19, the licensee shall, on or before the expiration date specified in the license;

(a) Terminate use of the TENORM specified in the license;

(b) Remove radioactive contamination to the level outlined in N.7, to the extent practicable;

(c) Properly dispose of the TENORM specified in the license;

(d) Submit a completed Agency Form HHE-892 Certificate–Disposition of Radioactive Materials; and

(e) Submit a radiation monitoring report to confirm the absence of TENORM specified in the license or to establish the levels of residual radioactive contamination, unless the licensee demonstrates the absence

of residual radioactive contamination in some other manner. The radiation monitoring report shall specify the instrumentation used and certify that each instrument was properly calibrated and tested. The licensee shall, as applicable, report levels or quantities of:

(i) Beta and gamma radiation at 1 centimeter from surfaces in units, multiples, or subunits of sieverts or rem per hour or microroentgens per hour;

(ii) Gamma radiation at 1 meter from surfaces in units, multiples, or subunits of sieverts or rem per hour or microroentgens per hour;

(iii) Removable radioactivity on surfaces in units, multiples, or subunits of becquerels or curies per 100 square centimeters of surface area or in disintegrations (transformations) per minute per 100 square centimeters of surface area;

(iv) Fixed radioactivity on surfaces in units, multiples, or subunits of becquerels or curies per 100 square centimeters of surface areas or in disintegrations (transformations) per minute per 100 square centimeters of surface area;

(v) Radioactivity in contaminated liquids such as water, oils or solvents in units, multiples, or subunits of becquerels or curies per milliliter of volume or per gram of liquid; and

(vi) Radioactivity in contaminated solids such as soils or concrete in units, multiples, or subunits of becquerels or curies per gram of solid.

(2) If levels of residual radioactive contamination attributable to activities conducted under the license are less than those established in N.7, the licenses shall so certify. If the Agency determines that this certification and the information submitted pursuant to N.18.D(1)(e)(v) is adequate and monitoring confirms the findings, then the Agency will notify the licensee, in writing, of the termination of the license;

(3) If residual radioactive contamination attributable to activities conducted under the license are not in conformance with criteria established in N.7:

(a) The license continues in effect beyond the expiration date, if necessary, with respect to possession of residual TENORM material present as contamination until the Agency notifies the license in writing that the license is terminated. During this time the licensee is subject to the provisions of N.18.E.

(b) In addition to the information submitted pursuant to N.18.D.(1)(d) and N.18.D.(1)(e), the licensee shall submit a plan for decontamination and disposal, if required, as regards residual TENORM contamination remaining at the time the license expires.

E. Each licensee who possesses TENORM material pursuant to N.18.D(6), following the expiration date specified in the license, shall:

(1) Limit actions involving TENORM as specified in the license to those related to decontamination and other activities related to preparation for release for unrestricted use; and

(2) Continue to control entry to restricted areas until they are suitable for release for unrestricted use or conditional release and the Agency notifies the licensee in writing that the license is terminated.

19. Renewal of specific licenses.

A. Applications for renewal of specific licenses shall be filed in accordance with N.12.

B. In any case in which a licensee, not less than 30 days prior to expiration of an existing license, has filed an application in proper form for renewal or for a new license authorizing the same activities, such existing license shall not expire until final action by the Agency.

20. Amendment of specific licenses at request of licensee. Applications for amendment of a license shall be filed in accordance with N.12 and shall specify the respects in which the licensee desires the license to be amended and the grounds for such amendment.

21. Agency action on applications to renew and amend specific licenses. In considering an application by a licensee to renew or amend the license, the Agency will apply the criteria set forth in N.13.

22. Modification and revocation of specific licenses.

A. The terms and conditions of all licenses shall be subject to amendment, revision, or modification or the license may be suspended or revoked by reason of amendments to Title 22 MRSA, Maine Radiation Protection Statutes, or by reason of rules, regulations, and orders issued by the Agency.

B. Any license may be revoked, suspended, or modified, in whole or in part, for any material false statement in the application or any statement of fact required under provisions of 22 MRS Ch. 160, Radiation Protection Act, or because of conditions revealed by such application or statement of fact or any report, record, or inspection or other means which would warrant the Agency to refuse to grant a license on an original application, or for violation of, or failure to observe any of the terms and conditions of 22 MRS Ch. 160, Radiation Protection Act, or of the license, or of any rule, regulation, or order of the Agency.

C. Except in cases of willfulness or those in which the public health, interest or safety requires otherwise, no license shall be modified, suspended or revoked unless prior to the institution of proceedings unless facts or conduct which may warrant such action shall have been called to the attention of the licensee in writing and the licensee shall have been accorded an opportunity to demonstrate or achieve compliance with all lawful requirements.

23. Agency action to remove an authorized user or a radiation safety officer.

A. The Agency may act to remove authorized users or the appointed radiation safety officer from a license for any one or more of the following causes:

(1) Willfully evading the statute or regulations pertaining to the radiation safety program, or willfully aiding another person in evading such statute or regulations;

(2) Having been convicted of a felony under the laws of this State, another state, or the United States, unless the convicted individual demonstrates to the Agency that he has been sufficiently rehabilitated to warrant the public trust;

(3) Exhibiting significant or repeated incompetence in the handling of radioactive material, or in the performance of radiation safety officer duties;

(4) Performing authorized user duties or radiation safety officer duties in such a manner that requirements of the Agency are violated resulting in a threat to health and safety of an individual, other workers or the public; and

B. If, based upon any of the above grounds, the Agency determines that action to remove an authorized user or the appointed radiation safety officer from a radioactive material license is warranted, the Agency shall notify the individual and shall provide an opportunity for a hearing in accordance with Part B of this rule. An opportunity for a hearing shall be provided before the Agency takes action to remove an authorized user or a radiation safety officer from a license unless the Agency finds that an immediate removal is required to protect against immediate danger to health or safety, Title 22 MRSA, in which case the Agency shall remove the individual pending a hearing.

C. If the Agency finds that removal of an authorized user or a radiation safety officer is warranted, the usual action shall be a suspension of duties for up to one year. The term of suspension may be reduced by the Commissioner of the Department of Health and Human Services or his or her designee, upon the recommendation of the hearing officer, if the hearing officer finds, based upon evidence presented during a hearing, that the conditions leading to the Order for Suspension can be cured in less than one year. However, if the Agency finds that the causes are of a serious or continuous nature, such as past actions which posed an immediate threat to occupational or public health or safety or deficiencies that cannot be cured within one year, the Agency shall remove the individual from the radioactive material license.

D. An individual who has been removed from a radioactive material license may seek reinstatement of duties by filing with the Agency a petition for reinstatement. Such petition may be filed one year or more after the beginning of the removal period. The individual shall be afforded a hearing in accordance with 5 MRS Ch. 375, and shall bear the burden of proof of establishing that the individual should be reinstated due to rehabilitation or other just cause.]

24. Record keeping requirements for site reclamation. Each licensee shall keep records of information important to the safe and effective reclamation of a facility in an identified location until the license is terminated by the Agency. If records of relevant information are maintained for other purposes, reference to these records and their locations may be used. For purposes of N.24, reclaiming[6] shall mean returning property to a condition or state such that the property no longer presents a health or safety hazard or threat to the environment. Information the Agency considers important to reclaiming includes:

A. Records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment or site. These records may be limited to instances when contamination remains after any cleanup procedures or when there is reasonable likelihood that contaminants may have spread to inaccessible areas as in the case of possible seepage into porous materials such as concrete. These records must include any known information on identification of involved radionuclides, quantities, forms and concentrations.

B. As-built drawings and modifications of structures and equipment in restricted areas where radioactive materials are used or stored, and of locations of possible inaccessible contamination, such as buried pipes which may be subject to contamination. If required drawings are referenced, each relevant document need not be indexed individually. If drawings are not available, the licensee shall substitute appropriate records of available information concerning these areas and locations.

C. If required by N.26, records of this reclaiming cost estimate prepared for the amount approved by the Agency for reclaiming.

25. Reciprocal recognition of specific licenses. Subject to this rule, any person who holds a specific license from an Agreement State or a Licensing State, and issued by the agency having jurisdiction where the licensee maintains an office for directing the licensed activity and at which radiation safety records are normally maintained, is hereby granted a general license to conduct the activities authorized in such licensing document within this State pursuant to C.24 of this rule, provided that:

A. The licensing document does not limit the activity authorized by such document to specified installations or locations;

B. The out-of-state licensee notifies the Agency in writing at least three working days prior to engaging in such activity. Such notification shall indicate the location, period, and type of proposed possession and use within the State, and shall be accompanied by a copy of the pertinent licensing document. If, for a specific case, the three day period would impose an undue hardship on the out-of-state licensee, the licensee may, upon application to the Agency, obtain permission to proceed sooner. The Agency may waive the requirement for filing additional written notifications during the remainder of the calendar year following the receipt of the initial notification from a person engaging in activities under the general license provided in N.25.A.;

[6] For purposes of N.24, the term "reclaiming" includes but is not limited to those activities necessary to decommission the licensed facility, i.e., to remove (as a facility) safely from service and reduce residual radioactivity to a level that permits release of the property for unrestricted use and termination of license.

C. The out-of-state licensee complies with all applicable regulations of the Agency and with all the terms and conditions of the licensing document, except any such terms and conditions, which may be inconsistent with applicable regulations of the Agency;

D. The out-of-state licensee supplies such other information as the Agency may request; and

E. The out-of-state licensee shall not transfer or dispose of TENORM possessed or used under the general license provided in N.25.A. except by transfer to a person:

(1) Specifically licensed by the Agency or by another Licensing State to receive such TENORM; or

(2) Exempt from the requirements for a license for such TENORM under N.4.

26. Financial assurance arrangements. Pursuant to Part D, each licensee or applicant for a license under N.12 shall post with the Agency financial assurance, or security, to ensure the protection of the public health and safety and the environment in the event of abandonment, default, or other inability or unwillingness of the licensee to meet the requirements of the Act and this rule. Financial assurance arrangements shall be one of the methods listed in C.8 and:

A. Be in an amount sufficient to meet the applicant's or licensee's obligations under the Act and this rule and shall be based upon Agency approved cost estimates;

B. Be established prior to issuance of the license or the commencement of operations to assure that sufficient funds will be available to carry out the decontamination and decommissioning of the facility;

C. Be continuous for the duration of the license and for a period coincident with the applicant or licensee's responsibility under the Act and this rule;

D. Be available in Maine subject to judicial process and execution in the event required for the purposes set forth; and

E. Be established within 90 days of the effective date of this regulation for licenses in effect on that date.

27. Effective date. The provisions and requirements of this Part shall take effect on the effective date of this rule and shall apply to all facilities or sites owned or controlled by a person on that date. Note: Products introduced into commerce and disposals approved prior to that date are not subject to the provisions of this Part.

APPENDIX A.

ACCEPTABLE SURFACE CONTAMINATION[1] LEVELS FOR TENORM

	AVERAGE[2, 3, 6]	MAXIMUM[2, 4, 6]	REMOVABLE[2, 3, 5, 6]
Alpha	5,000 dpm/100 cm^2	15,000 dpm /100 cm^2	1,000 dpm /100 cm^2
Beta-gamma	5,000 dpm/100 cm^2	15,000 dpm /100 cm^2	1,000 dpm /100 cm^2

[1] Where surface contamination by both alpha and beta-gamma emitting nuclides exists, the limits established for alpha and beta-gamma emitting nuclides should apply independently.

[2] As used in this table, dpm (disintegrations per minute) means the rate of emission by radioactive material as determined by correcting the counts per minute observed by an appropriate detector for background, efficiency, and geometric factors associated with the instrumentation.

[3] Measurements of average contamination level should not be averaged over more than one square meter. For objects of less surface area, the average should be derived for each object.

[4] The maximum contamination level applies to an area of not more than 100 cm^2.

[5] The amount of removable radioactive material per 100 cm^2 of surface area should be determined by wiping that area with dry filter or soft absorbent paper, applying moderate pressure, and assessing the amount of radioactive material on the wipe with an appropriate instrument of known efficiency. When removable contamination on objects of surface area A (where A is less than 100 sq. cm) is determined, the entire surface should be wiped and the contamination level multiplied by 100/A to convert to a "per 100 sq cm" basis.

[6] The average and maximum radiation levels associated with surface contamination resulting from beta-gamma emitters should not exceed 0.2 mrad/hr (2 μGy/hr) at 1 cm and 1.0 mR/hr (10 μGy/hr) at 1 cm, respectively, measured through not more than 7 milligrams per square centimeter of total absorber.