

UTAH STATE BULLETIN

OFFICIAL NOTICES OF UTAH STATE GOVERNMENT
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Kenneth A. Hansen, Director
Nancy L. Lancaster, Editor

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Inquiries concerning administrative rules or other contents of the *Bulletin* may be addressed to the responsible agency or to: Division of Administrative Rules, PO Box 141007, Salt Lake City, Utah 84114-1007, telephone (801) 538-3218, FAX (801) 538-1773. To view rules information, and on-line versions of the division's publications, visit: <http://www.rules.state.ut.us/>

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SPECIAL NOTICES

EXECUTIVE ORDER

WHEREAS, the State of Utah Office of Polynesian Affairs was created within the Department of Community and Economic Development by an executive order dated August 20, 1996;

WHEREAS, the Polynesian Advisory Council was created by a separate executive order of the same date; and

WHEREAS, it is now desirable to change the name of both of these bodies to identify more appropriately the communities and individuals served by the office and the council;

NOW THEREFORE, I, Michael O. Leavitt, Governor of the State of Utah, by virtue of the authority vested in me by the Constitution and laws of the State of Utah, hereby order as follows:

1. The State of Utah Office of Polynesian Affairs shall henceforth be known as the State Office of Pacific Islander Affairs.
2. The Polynesian Advisory Council shall henceforth be known as the Pacific Islander Advisory Council.
3. This executive order does not alter the organization, function, authority, responsibility, or purpose of the office or the council, as currently set forth in the executive orders creating these bodies dated August 20, 1996. Those orders remain in effect in all respects except for the name change.

IN WITNESS WHEREOF, I have here unto set my hand and cause to be affixed the Great Seal of the State of Utah. Done at the State Capitol in Salt Lake City, Utah, this 16th day of December, 1999.

(STATE SEAL)

MICHAEL O. LEAVITT
Governor

Attest:
OLENE WALKER
Lieutenant Governor

ENVIRONMENTAL QUALITY AIR QUALITY

PUBLIC NOTICE EXTENDING THE COMMENT PERIOD ON THE PROPOSED AMENDMENT TO R307-110-11 ENTITLED "SECTION IX, CONTROL MEASURES FOR AREA AND POINT SOURCES, PART B, SULFUR DIOXIDE"

The Division of Air Quality is extending the comment period to March 2, 2000, for R307-110-11, a proposed amendment regarding the air quality maintenance plan for sulfur dioxide emissions for Salt Lake County and eastern Tooele County. The proposed amendment was published in the January 1, 2000, issue of the *Utah State Bulletin* (No. 2000-1) under DAR No. 22552. For more information, call (801) 536-4077.

Comments should be mailed to: Ursula Kramer, Director; Division of Air Quality; Box 144820; Salt Lake City, UT, 84114-4820. Comments can also be sent by electronic mail to: jmiller@deq.state.ut.us (reference DAR No. 22552).

**DEPARTMENT OF COMMUNITY AND ECONOMIC DEVELOPMENT
COMMUNITY DEVELOPMENT, LIBRARY**

PUBLIC NOTICE

The Utah State Library Division has made available Utah State Publications List No. 00-02, dated January 21, 2000. For copies of the complete list, contact the Utah State Library Division at: 1950 West 250 North, Suite A, Salt Lake City, UT 84116-7901; phone: (801) 715-6777; or the Division of Administrative Rules, PO Box 141007, Salt Lake City, UT, 84114-1007; phone: (801) 538-3218; FAX: (801) 538-1773. This list is available on the World Wide Web at: <http://www.state.lib.ut.us/publicat/publicat.htm>.

End of the Special Notices Section

NOTICES OF PROPOSED RULES

A state agency may file a PROPOSED RULE when it determines the need for a new rule, a substantive change to an existing rule, or a repeal of an existing rule. Filings received between December 31, 1999, 12:00 a.m., and January 14, 2000, 11:59 p.m., are included in this, the February 1, 2000, issue of the *Utah State Bulletin*.

In this publication, each PROPOSED RULE is preceded by a RULE ANALYSIS. This analysis provides summary information about the PROPOSED RULE including the name of a contact person, anticipated cost impact of the rule, and legal cross-references.

Following the RULE ANALYSIS, the text of the PROPOSED RULE is usually printed. New rules or additions made to existing rules are underlined (e.g., example). Deletions made to existing rules are struck out with brackets surrounding them (e.g., [~~example~~]). Rules being repealed are completely struck out. A row of dots in the text (••••) indicates that unaffected text was removed to conserve space. If a PROPOSED RULE is too long to print, the Division of Administrative Rules will include only the RULE ANALYSIS. A copy of rules that are too long to print is available from the filing agency or from the Division of Administrative Rules.

The law requires that an agency accept public comment on PROPOSED RULES published in this issue of the *Utah State Bulletin* until at least March 2, 2000. The agency may accept comment beyond this date and will list the last day the agency will accept comment in the RULE ANALYSIS. The agency may also hold public hearings. Additionally, citizens or organizations may request the agency to hold a hearing on a specific PROPOSED RULE. Section 63-46a-5 (1987) requires that a hearing request be received "in writing not more than 15 days after the publication date of the PROPOSED RULE."

From the end of the public comment period through May 31, 2000, the agency may notify the Division of Administrative Rules that it wants to make the PROPOSED RULE effective. The agency sets the effective date. The date may be no fewer than 31 days nor more than 120 days after the publication date of this issue of the *Utah State Bulletin*. Alternatively, the agency may file a CHANGE IN PROPOSED RULE in response to comments received. If the Division of Administrative Rules does not receive a NOTICE OF EFFECTIVE DATE or a CHANGE IN PROPOSED RULE, the PROPOSED RULE filing lapses and the agency must start the process over.

The public, interest groups, and governmental agencies are invited to review and comment on PROPOSED RULES. *Comment may be directed to the contact person identified on the RULE ANALYSIS for each rule.*

PROPOSED RULES are governed by *Utah Code* Section 63-46a-4 (1996); and *Utah Administrative Code* Rule R15-2, and Sections R15-4-3, R15-4-4, R15-4-5, R15-4-9, and R15-4-10.

The Proposed Rules Begin on the Following Page.

Agriculture and Food, Regulatory
Services

R70-630

Water Vending Machine

NOTICE OF PROPOSED RULE

(Amendment)

DAR FILE NO.: 22597

FILED: 01/11/2000, 15:44

RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: To adopt the 1999 version of 21 CFR 178.1010.

SUMMARY OF THE RULE OR CHANGE: Adopt by reference the 1999 version of 21 CFR 178.1010 in Subsection R70-630-3(9) ("Definitions"). There has been no significant changes made in this version.

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Title 4, Chapter 5

THIS RULE OR CHANGE INCORPORATES BY REFERENCE THE FOLLOWING MATERIAL: 21 CFR 178.1010 (1999)

ANTICIPATED COST OR SAVINGS TO:

❖THE STATE BUDGET: None--this rule is established to protect the health, safety, and welfare of the public using vended water. The only cost is the purchase of the water by the consumer.

❖LOCAL GOVERNMENTS: None--the cost would be to the vendor and consumer in the use of vending machines.

❖OTHER PERSONS: The only cost would be the price of the vended water, estimated cost \$1 per bottle.

COMPLIANCE COSTS FOR AFFECTED PERSONS: The only cost is the purchase of the water from vending machines set by the vendor, estimated cost \$1 per bottle.

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: No fiscal impact on businesses.

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Agriculture and Food
Regulatory Services
350 North Redwood Road
PO Box 146500
Salt Lake City, UT 84114-6500, or
at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Becky Shreeve at the above address, by phone at (801) 538-7149, by FAX at (801) 538-7126, or by Internet E-mail at agmain.bshreeve@state.ut.us.

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS TO THE ADDRESS ABOVE NO LATER THAN 5:00 P.M. ON 03/02/2000.

THIS RULE MAY BECOME EFFECTIVE ON: 03/03/2000

AUTHORIZED BY: Cary G. Peterson, Commissioner

R70. Agriculture and Food, Regulatory Services.

R70-630. Water Vending Machine.

R70-630-1. Authority.

Promulgated under authority of Title 4, Chapter 5.

R70-630-2. Purpose.

The purpose of these rules is to set forth requirements and controls for vending machines designed to dispense water intended for human consumption to assure:

(1) Consumers using such machines are given appropriate information as to the nature of the vended water;

(2) The quality of the water vended meets acceptable standards for potability; and

(3) The vending equipment is installed, operated, and maintained to protect the health, safety, and welfare of the consuming public.

R70-630-3. Definitions.

For the purpose of this rule, the following words and phrases shall have the meanings indicated:

(1) "Approved" means a water vending machine, drinking water source, backflow prevention device or other devices or services that meets the minimum standards of this rule. Approved does not imply satisfactory performance for a specific period of time. Approval, when required, shall be in writing based upon departmental review of data submitted by the water vending industry, manufacturers, operators, owners or managers.

(2) "Approved material" means materials approved by the department as being free of substances which may render the water injurious to health or which may adversely affect the flavor, color, odor, radiological, microbial or chemical quality of the water.

(3) "Department" means the Department of Agriculture and Food, Division of Regulatory Services, or its representative.

(4) "Nontoxic" means free of substances which may render the water injurious to health or may adversely affect the flavor, color, odor, chemical or microbial quality of the water.

(5) "Person" means any individual, partnership, firm, company, corporation, trustee, association, public body or private entity engaged in the water vending business.

(6) "Potable water" means water satisfactory for drinking, culinary and domestic purposes meeting the quality standards of rule R309-103, under the Department of Environmental Quality, the Division of Drinking Water.

(7) "Purified water" means water produced by distillation, deionization, reverse osmosis, or other method of equal effectiveness that meets the requirements for purified water as described in the 21st Edition of the United States Pharmacopoeia issued by Mack Publishing, Easton, Penn. 18042.

(8) "Sanitize" means the effective bactericidal treatment of clean surfaces of equipment, utensils, and containers by a process that provides enough accumulative heat or concentration of chemicals for sufficient time to reduce the bacterial count, including pathogens, to a safe level.

(9) "Sanitizing solution" means Aqueous solutions described by 21 CFR 178.1010, [1995]1999, for the purpose of sanitizing food or water contact surfaces.

(10) "Vended water" means water that is dispensed by a water vending machine or retail water facility for drinking, culinary or other purposes involving a likelihood of the water being ingested by humans. Vended water does not include water from a public water system which has not undergone additional treatment and shall be labeled accordingly.

(11) "Vending machine" means any self-service device which upon insertion of a coin, coins, paper currency, token, card or receipt of payment by other means dispenses unit servings of food, either in bulk or in packages without the necessity of replenishing the device between each vending operation.

(12) "Water vending machine" means a vending machine connected to water designed to dispense drinking water, purified and/or other water products. Such machines shall be designed to reduce or remove turbidity, off-taste and odors and to provide disinfectant treatment and may include processes for dissolved solid reduction or removal.

(13) "Water vending machine operator" means any person who owns, leases, manages, or is otherwise responsible for the operation of a water vending machine.

R70-630-4. Location and Operation.

(1) Each water vending machine shall be located indoors or otherwise protected against tampering and vandalism, and shall be located in an area that can be maintained in a clean condition, and in a manner that avoids insect and rodent harborage.

(2) The floor on which a water vending machine is located shall be smooth and of cleanable construction.

(3) Each machine shall have an adequate system for collecting and disposing drippage, spillage, and overflow of water to prevent creation of a nuisance. Where process waste water is collected within the machine for pumping or gravity flow to an outside drain, the water line from the processing unit shall terminate at least two inches above the top rim of the retention vessel. Additionally, the waste line from the machine shall be air-gapped. Containers or drip pans used for the storage or collection of liquid wastes within a vending machine shall be leakproof, readily removable, easily cleanable and corrosion resistant. In water vending machines which utilize the bottom of the cabinet interior as an internal sump, the sump shall be readily accessible and corrosion resistant. The waste disposal holding tank shall be maintained in a clean and sanitary manner.

(4) Each machine shall have a backflow prevention device for all connections with the water supply source which meets requirements of The International Plumbing Code and its amendment as adopted by the State of Utah Building Codes Commission and shall have no cross connections between the drain and potable water.

(5) Each person who establishes, maintains, or operates any water vending machine in the state shall first secure a Water

Vending Machine Operating Permit issued under Section 4-5-9. Such a permit shall be renewed annually.

(6) Application for permit shall be made in writing and include the location of each water vending machine, the source of the water to be vended, the treatment that the water will receive prior to being vended, and the name of the manufacturer and the model number of each machine.

(7) The source of the water supply shall be an approved public water system as defined under the Department of Environmental Quality, Division of Drinking Water. Upon application for an initial operating permit, the operator shall submit information which indicates the product being dispensed into the container meets all finished product quality standards applicable to drinking water. When indicated by reason of complaint or illness, the department may require that additional analyses be performed on the source or products of water vending machines.

(8) Each water vending machine shall be maintained in a clean and sanitary condition, free from dust, dirt and vermin.

(9) Labels or advertisements located on or near water vending machines shall not imply nor describe the vended water as "spring water."

(10) Water vending machine labels or advertisements shall not describe or use other words to imply, on the machine or elsewhere, the water as being "purified water" unless such water conforms to the definition contained in this rule.

(11) Water vending machine labels or advertisements shall not describe, on the machine or elsewhere, the water as having medicinal or health giving properties.

(12) Each water vending machine shall have in a position clearly visible to customers the following information:

(a) Name and address of the operator.

(b) Name of the water supply purveyor.

(c) The method of treatment that is utilized.

(d) The method of post-disinfection that is utilized.

(e) A local or toll free number that may be called for further information, problems, or complaints; or the name of the store or building manager can be listed when the machine is located within a business establishment and the establishment manager is responsible for the operation of the machine.

R70-630-5. Construction Requirements.

(1) Water vending machines shall comply with the construction and performance standards of the National Sanitation Foundation or National Automatic Merchandising Association. A list of acceptable third party certification groups is available from 8:00 to 5:00 p.m. at the Utah Department of Agriculture and Food. Water vending machines shall be designed and constructed to permit easy cleaning and maintenance of all exterior and interior surfaces and component parts.

(2) Water contact surfaces and parts of the water vending machine shall be of non-toxic, corrosion-resistant, non-absorbent material capable of withstanding repeated cleaning and sanitizing treatment.

(3) Water vending machines shall have a guarded or recessed spout.

(4) Owners, managers and operators of water vending machines shall ensure that the methods used for treatment of vended water are acceptable to the department. Such acceptable treatment

includes distillation, ion-exchange, filtration, ultra-violet light, mineral addition and reverse osmosis.

(5) Water vending machines shall be equipped to disinfect the vended water by ultra-violet light, ozone, or equally effective methods prior to delivery into the customer's container.

(6) Water vending machines shall be equipped with monitoring devices designed to shut down operation of the machine when the treatment or disinfectant unit fails to properly function.

(7) Water vending machines shall be equipped with a self-closing, tight-fitting door on the vending compartment if the machine is not located in an enclosed building.

(8) Granular activated carbon, if used in the treatment process of vended water, shall comply with the specifications provided by the American Water Works Association for that substance (Standard B604-90).

R70-630-6. Operator Requirements.

(1) Water vending machine operators shall have on file and perform a maintenance program that includes:

- (a) Visits for cleaning, sanitizing and servicing of machines at least every two weeks.
- (b) Written servicing instructions.
- (c) Technical manuals for the machines.
- (d) Technical manuals for the water treatment appurtenances involved.

(2) Parts and surfaces of water vending machines shall be kept clean and maintained by the water vending machine operator. The vending chamber and the vending nozzle shall be cleaned and sanitized each time the machine is serviced. A record of cleaning and maintenance operations shall be kept by the operator for each water vending machine. These records shall be made available to the department's employees upon request.

(3) Water vending machine operators shall ensure that machines are maintained and monitored to dispense water meeting quality standards specified in this rule. Water analysis shall be performed using approved testing procedures set forth in 21 CFR 165, 1999. Each machine's finished product shall be sampled at least once every three months by the operator, to determine total coliform content. However, provided a satisfactory method of post-treatment disinfection is utilized and based on a sustained record of satisfactory total coliform analyses, the department shall allow modification of the three-month sampling requirement as follows:

(a) When three consecutive three-month samples are each found to contain zero coliform colonies per 100 milliliters of the vended water, microbiological sampling intervals shall be extended to a period not exceeding six months. Should a subsequent six-month sample test positive for total coliform, the required sampling frequency shall revert to the three-month frequency until three consecutive samples again test negative for total coliform bacteria.

(b) If any sample collected from a machine is determined to be unsatisfactory, exceeding the zero coliform colonies per 100 milliliter, the machine shall be cleaned, sanitized and resampled immediately. If, after being cleaned and sanitized, the vended product is determined to be positive for coliform, the machine shall be taken out of service until the source of contamination has been located and corrected.

(4) Each water vending machine operator shall take whatever investigative or corrective actions are necessary to assure a potable water is supplied to consumers.

(5) The vended water from each vending machine utilizing silver-impregnated carbon filters in the treatment process shall be sampled once every six months for silver.

(6) All records pertaining to the sampling and analyses shall be retained by the operator for a period of not less than two years. Results of the analyses shall be available for department review upon request.

R70-630-7. Duties and Responsibilities of the Department.

(1) The department may collect and analyze samples of vended water when necessary to determine if the vended water meets the standards of potable water.

(2) After considering the source of water and the treatment process provided by the water vending machine, the department shall determine whether the finished product water will or will not meet quality standards as provided under rule R309-103 under the Division of Drinking Water. If it is determined that the water will not meet potable water standards, the permit to operate a water vending machine shall be denied.

(3) The department will evaluate water vending machines, as well as their locations and support facilities as often as may be deemed necessary for enforcement of the provisions of this rule.

(4) Water vending machine operators shall allow the department to examine necessary records pertaining to the operation and maintenance of the vending machines and also provide access to the machines for inspection at reasonable hours.

R70-630-8. Enforcement and Penalties.

(1) The department shall order a water vending machine operator to discontinue the operation of any water vending machine that represents a threat to the life or health of any person, or whose finished water does not meet the minimum standards provided for in this rule. Such water vending machine shall not be returned to use or used until such time the department determines that the conditions which caused the discontinuance of operation no longer exist.

(2) The department shall revoke a permit (procedures for permit revocation are stated in R51-2) when it is determined that there has been a substantial failure to comply with the provisions of this rule by which the health or life of an individual, or the health or lives of individuals is threatened or impaired, or by which or through which, directly or indirectly, disease is caused. Permit can also be revoked if the water has been adulterated.

R70-630-9. Preemption of Authority to Regulate.

The regulation of water vending machines is hereby preempted by the state. No county or municipality may adopt or enforce any ordinance which regulates the licensure or operation of water vending machines, unless the director of the county public health unit determines that unique conditions exist within the county which make it necessary for the county to regulate water vending machines in order to protect the public health or welfare, pursuant to Section 4-5-17 and R70-530, Food Protection rule.

KEY: food inspection
[July 6, 1999]2000

4-5



Education, Administration
R277-501
 Educator Licensing Renewal

NOTICE OF PROPOSED RULE

(New)

DAR FILE NO.: 22609
 FILED: 01/14/2000, 16:11
 RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: This rule was required by 1999 legislation directing the State Board of Education to make rules requiring participation in professional development activities in order for educators to retain their licenses.

(DAR Note: H.B. 109 is found at 1999 Utah Laws 108, and was effective July 1, 1999.)

SUMMARY OF THE RULE OR CHANGE: The rule provides definitions, activities, procedures, and point values for professional development for educators.

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Section 53A-6-104

ANTICIPATED COST OR SAVINGS TO:

❖THE STATE BUDGET: No immediate cost--costs will be borne initially by school districts, school associations or organizations, or individuals.

❖LOCAL GOVERNMENTS: There will be some cost, speculative at this time, as school districts and other entities provide professional development opportunities. A school district may bear the cost of an inservice which could include costs for consultants, meals for a day for each teacher, facilities, materials, and substitute costs. For a medium-size inservice, this could cost a school district anywhere from \$1,200 to \$5,000 per inservice.

❖OTHER PERSONS: Individual educators should expect some costs to earn professional development points. A medium-size inservice sponsored by a school district might cost an individual educator no more than \$30. Often this cost is borne by the school district.

COMPLIANCE COSTS FOR AFFECTED PERSONS: Individual educators and school districts will have some compliance costs. A school district's costs could range from \$1,200 to \$5,000 per inservice; an individual educator's costs could be \$30 per inservice.

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: I have reviewed this rule and I see no fiscal impact on businesses--Steven O. Laing

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Education
 Administration
 250 East 500 South

Salt Lake City, UT 84111, or
 at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Carol B. Lear at the above address, by phone at (801) 538-7835, by FAX at (801) 538-7768, or by Internet E-mail at clear@usoe.k12.ut.us.

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS TO THE ADDRESS ABOVE NO LATER THAN 5:00 P.M. ON 03/02/2000.

THIS RULE MAY BECOME EFFECTIVE ON: 03/03/2000

AUTHORIZED BY: Carol B. Lear, Acting Coordinator, School Law

R277. Education, Administration.

R277-501. Educator Licensing Renewal.

R277-501-1. Definitions.

A. "Acceptable alternative professional development activities" means activities that do not fall within a specific category under R277-501-3 but are consistent with this rule.

B. "Active educator" means an individual holding a valid license issued by the Board who is employed by a unit of the public education system or an accredited private school in a role covered by the license or an individual who has taught successfully for three of the five years in the educator's renewal cycle.

C. "Active license" means a license that is currently valid for service in a position requiring a license.

D. "Approved Inservice" means training, approved by the USOE under R277-519-3, in which current educators or individuals who have previously received a license may participate to renew a license, teach in another subject area or teach at another grade level.

E. "Board" means the Utah State Board of Education.

F. "College/university course" means a course taken through an institution approved under Section 53A-6-108.

G. "Documentation of professional development activities" means:

(1) an original report card or student transcript for university/college courses;

(2) certificate of completion for an approved inservice, conference, workshop, institute, symposium, educational travel experience and staff development;

(3) summary, explanation, or copy of the product and supervisor's signature, if available, or complete documentation of professional development activities that support district and school policies and further academic pursuit or educational innovations of professional development activities. All agendas, work products, certificates shall be maintained by the educator in the educator's Utah Educator License Renewal Folder;

(4) an agenda or conference program demonstrating sessions and duration of professional development activities.

H. "Educational research" means conducting educational research or investigating education innovations.

I. "Inactive educator" means an individual holding a valid license issued by the Board who was employed by a unit of the public education system or an accredited private school in a role

covered by the license for less than three years in the individual's renewal period.

J. "Inactive license" means a license, other than a surrendered, suspended or revoked license, that is currently not valid due to the holder's failure to complete requirements for license renewal.

K. "Level 1 license" means a license issued upon completion of an approved preparation program or an alternative preparation program, or pursuant to an agreement under the NASDTEC Interstate Contract, to candidates who have also met all ancillary requirements established by law or rule.

L. "Level 2 license" means a license issued after satisfaction of all requirements for a Level 1 license and:

- (1) requirements established by law or rule; and
- (2) three years of successful education experience within a five-year period.

M. "Level 3 license" means a license issued to an educator who holds a current Utah Level 2 license and has also received National Board certification or a doctorate in education or in a field related to a content area in a unit of the public education system or an accredited private school.

N. "License" means an authorization issued by the Board which permits the holder to serve in a professional capacity in a unit of the public education system or an accredited private school.

O. "One half time contract position" means less than full time (minimum 990 hour contract position) but at least one half time (minimum 495 hour contract position) employment as an educator in a unit of the public education system or an accredited private school for one school year, or full time for at least one half of the school year.

P. "Professional activities in an educational institution" means active participation in an educational institution consistent with the standards of this rule.

Q. "Professional development plan" means a document prepared by the educator consistent with this rule.

R. "Professional development or license points" means the points accumulated by a Utah license holder through activities approved under this rule for the purpose of satisfying requirements of Section 53A-6-104.

S. "Utah Educator License Renewal Folder" means the folder provided by the USOE or school districts for educators to collect and track professional activities for purposes of license renewal. The license renewal folder may also be developed by an educator upon his own initiative and in an individual format, but shall include adequate documentation of participation in activities approved under this rule.

T. "USOE" means the Utah State Office of Education.

U. "Verification of employment" means official documentation of employment as an educator.

R277-501-2. Authority and Purpose.

A. This rule is authorized by Utah Constitution Article X, Section 3 which vests general control and supervision of public education in the Board, Section 53A-6-104 which requires the Board to make rules requiring participation in professional development activities in order for educators to retain Utah licensure, and Section 53A-1-401(3) which permits the Board to adopt rules in accordance with its responsibilities.

B. The purpose of this rule is to provide definitions and requirements for an educator to renew a Utah educator license. This

rule requires verification of employment, development of a professional development plan and documentation of activities consistent with Section Title 53A, Chapter 6.

R277-501-3. Categories of Acceptable Activities for an Educator with an Active License.

A. A college/university course:

(1) shall be successfully completed with a "C" or better, or a "pass."

(2) Each semester hour equals 18 license points; or

(3) Each quarter hour equals 12 license points.

B. Inservice:

(1) shall be state-approved under R277-519-3.

(2) may be requested from the USOE by:

(a) written request from a private provider on a form supplied by the USOE and received by the appropriate USOE subject specialist at least two weeks prior to the beginning date of the scheduled inservice, or

(b) a request submitted through the computerized inservice program connected to the USOE licensure system.

(i) The computerized process is available in most Utah school districts and area technology centers.

(ii) Such requests shall be made at least two weeks prior to the beginning of the scheduled inservice.

(3) Each clock hour of authorized inservice time equals one professional development point.

(4) The inservice shall be successfully completed through attendance and required project(s).

C. Conferences, workshops, institutes, symposia, educational travel experience or staff-development programs:

(1) Acceptable workshops and programs include those with prior written approval by the USOE, recognized professional associations, district supervisors, or school supervisors regardless of the source of sponsorship or funding.

(2) One license point is awarded for each clock hour of educational participation.

D. Service in professional activities in an educational institution:

(1) Acceptable service includes that in which the license holder contributes to improving achievement in a school, district, or other educational institution, including planning and implementation of an improvement plan.

(2) One license point is awarded for each clock hour of participation.

(3) An inactive educator may earn professional development points by service in professional activities under the supervision of an active administrator.

E. Service in a leadership role in a national, state-wide or district recognized professional education organization:

(1) Acceptable service includes that in which the license holder assumes a leadership role in a professional education organization.

(2) One license point is awarded for each clock hour of participation with a maximum of 10 license points per year.

F. Educational research and innovation that results in a final, demonstrable product:

(1) Acceptable activities include conducting educational research or investigating educational innovations.

(2) This research activity shall follow school and district policy.

(3) An inactive educator may conduct research and receive professional development credit on programs or issues approved by a practicing administrator.

(4) One license point is awarded for each clock hour of participation.

G. Acceptable alternative professional development activities:

(1) Acceptable activities are those that enhance or improve education yet may not fall into a specific category.

(2) These activities shall be approved by an educator's principal/supervisor.

(3) One license point is awarded for each clock hour of participation.

H. Substituting in a unit of the public education system or an accredited private school may be an acceptable alternative professional development activity toward license renewal if the license holder is not an active educator as defined under R277-501B and is paid and authorized as a substitute. A substitute shall earn one point for every two hours of documented substitute time. Verification of hours shall be obtained from the employer or from the supervising principal. A license holder may earn a maximum of 50 professional development points during the renewal period as a substitute.

I. Up to 50 license points may be earned in any one or any combination of categories D, F and G above.

R277-501-4. Required Renewal License Points for Designated License Holders.

A. Level 1 license holder with no licensed educator experience.

(1) An educator desiring to retain active status shall earn at least 100 license points in each three year period.

B. Level 1 license holder with one year licensed educator experience within a three year period.

(1) An active educator shall earn at least 75 license points in each three year period; and

(2) any years taught shall have satisfactory evaluation(s).

C. Level 1 license holder with two years licensed educator experience within a three year period.

(1) An active educator shall earn at least 50 license points in each three year period; and

(2) Any years taught shall have satisfactory evaluation(s).

D. Level 2 license holder:

(1) An active educator shall earn at least 100 license points within each five year period. License points shall be earned in activities defined under this rule that contribute to competence, performance, and effectiveness in the education profession.

(2) An inactive educator shall earn at least 200 license points within a five year period to maintain an active educator license.

(3) An inactive educator who works one year within a five year period shall earn 160 license points within a five year period to maintain an active educator license.

(4) An inactive educator who works two years within a five year period shall earn 120 license points within a five year period to maintain an active educator license.

(5) Credit for any year(s) taught requires satisfactory evaluation(s).

E. Level 3 license holder:

(1) A Level 3 license holder with National Board Certification shall meet the National Board for Professional Teaching Standards (NBPTS) requirements consistent with the NBPTS schedule available from the USOE Educator Licensure Section. A Level 3 license holder shall be responsible to provide verification of NBPTS status prior to the license holder's designated renewal date.

(2) A Level 3 license holder with a doctorate degree in education or in a field related to a content area in a unit of the public education system or an accredited private school shall meet the active or inactive educator Level 2 license holder requirements within a seven year period.

(3) An educator seeking a Level 3 license shall notify the USOE of completion of Level 3 license requirements. Level 3 license criteria apply to the license holder as of the license holder's renewal date following the notification to the USOE.

R277-501-5. Renewal Timeline with Point Requirements for Educator Level 2 License Holders.

A. Level 2 active educators:

(1) A licensed educator whose license expires June 30, 2001 shall earn 20 license points between July 1, 1999 and June 30, 2001 and shall provide verification of employment.

(2) A licensed educator whose license expires June 30, 2002 shall earn 40 license points between July 1, 1999 and June 30, 2002 and shall provide verification of employment.

(3) A licensed educator whose license expires June 30, 2003 shall earn 60 license points between July 1, 1999 and June 30, 2003 and shall provide verification of employment.

(4) A licensed educator whose license expires June 30, 2004 shall earn 80 license points between July 1, 1999 and June 30, 2004 and shall provide verification of employment.

(5) A licensed educator whose license expires June 30, 2005 shall earn 100 license points between July 1, 1999 and June 30, 2005 and shall provide verification of employment.

B. Level 2 inactive educators:

(1) A licensed educator whose license expires on June 30, 2001 shall earn 40 license points between July 1, 1999 and June 30, 2001.

(2) A licensed educator whose license expires on June 30, 2002 shall earn 80 license points between July 1, 1999 and June 30, 2002.

(3) A licensed educator whose license expires on June 30, 2003 shall earn 120 license points between July 1, 1999 and June 30, 2003.

(4) A licensed educator whose license expires on June 30, 2004 shall earn 160 license points between July 1, 1999 and June 30, 2004.

(5) A licensed educator whose license expires on June 30, 2005 shall earn 200 license points between July 1, 1999 and June 30, 2005.

R277-501-6. Miscellaneous Renewal Information.

A. A licensed educator shall develop and maintain a professional development plan. The plan:

(1) shall be based on the educator's professional goals and current or anticipated assignment,

(2) shall take into account the goals and priorities of the school/district,

(3) shall be consistent with state laws and district policies, and
(4) may be adjusted as circumstances change.
(5) shall be reviewed and signed by the educator's supervisor.
(6) If an educator is not employed in education at the renewal date, the educator shall:

(a) review the plan and documentation with a professional colleague who may sign the professional development plan and USOE verification form, or

(b) review the professional development plan and personally sign the verification form.

B. Each Utah license holder shall be responsible for maintaining a professional development folder.

(1) It is the educator's responsibility to retain copies of complete documentation of professional development activities with appropriate signatures.

(2) The professional development folder shall be retained by the educator for a minimum of two renewal cycles.

C. The "Verification for License Renewal" form shall be submitted to the USOE Licensing Section, 250 East 500 South, Salt Lake City, Utah 84111 between January 1 and June 30 of the renewal year.

(1) Forms that are not complete or do not bear original signatures shall not be processed.

(2) Failure to submit the verification form consistent with deadlines shall result in beginning anew the administrative licensure process, including all attendant fees and criminal background checks.

(3) The USOE may review or audit verification for license renewal forms or education license renewal folders upon request.

D. License holders may begin to acquire professional development points under this rule as of July 1, 1999.

E. This rule does not explain criteria or provide credit standards for state approved inservice programs. That information is provided in R277-519.

F. Credit for district lane changes or other purposes is determined by a school district and is awarded at a school district's discretion. Professional development credit should not be assumed to be credit for school district purposes, such as salary or lane change credit.

G. A renewal fee set by the USOE shall be charged to educators who seek renewal from an inactive status. Educators with active licenses shall not be charged a renewal fee.

H. The USOE may make exceptions to the provisions of this rule for unique and compelling circumstances.

(1) Exceptions may only be made consistent with the purposes of this rule and the authorizing statutes.

(2) Requests for exceptions shall be made in writing at least 30 days prior to the license holder's renewal date to the Coordinator of Educator Licensing, USOE.

(3) Approval or disapproval shall be made in a timely manner.

I. Licenses awarded under R277-521, Professional Specialist Licensing, are subject to renewal requirements under this rule.

(1) Specialists shall be considered licensed as of September 15, 1999, the effective date of R277-521.

(2) All specialists shall be considered Level 1 license holders.

(3) Years of work experience beginning September 15, 1999 count toward levels of licensure.

KEY: educational program evaluations, educator license renewal* 2000

**Art X Sec 3
53A-6-104
53A-1-401(3)**



Education, Administration
R277-607
 Truancy Prevention

NOTICE OF PROPOSED RULE

(Amendment)

DAR FILE NO.: 22610

FILED: 01/14/2000, 16:11

RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: This rule is amended to make it consistent with the original legislation and to provide for local discretion in developing a policy to prevent truancy.

SUMMARY OF THE RULE OR CHANGE: One change extends the time period to the entire year for designating a habitual truant.

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Subsection 53A-1-401(3)

ANTICIPATED COST OR SAVINGS TO:

❖THE STATE BUDGET: None immediately--costs will be borne within existing education funds.

❖LOCAL GOVERNMENTS: School districts will have some compliance costs. District costs may include mailing costs for certified letters (\$3.13 each multiplied by perhaps 30 letters a year for a medium-sized school) and some additional printing costs (\$0.02 to \$0.05 per copy). If additional staff (full-time technician without benefits) is needed to track students or to process cases through the courts, it could cost approximately \$20,000 to \$30,000 per staff member.

❖OTHER PERSONS: Perhaps some cost to other persons - parents as they are forced to comply with the law which may include court costs, if assessed to parents (\$100 per appearance), truancy citations (\$50 per citation, as determined by individual districts) and possible legal fees of anywhere from \$200 to \$1,000.

COMPLIANCE COSTS FOR AFFECTED PERSONS: School districts will have some compliance costs. District costs may include mailing costs for certified letters (\$3.13 each multiplied by perhaps 30 letters a year for a medium-sized school) and some additional printing costs (\$0.02 to \$0.05 per copy). If additional staff (full-time technician without benefits) is needed to track students or to process cases through the courts, it could cost approximately \$20,000 to \$30,000 per staff member.

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: I have reviewed this rule and I see no fiscal impact on businesses--Steven O. Laing

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Education
Administration
250 East 500 South
Salt Lake City, UT 84111, or
at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Carol B. Lear at the above address, by phone at (801) 538-7835, by FAX at (801) 538-7768, or by Internet E-mail at clear@usoe.k12.ut.us.

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS TO THE ADDRESS ABOVE NO LATER THAN 5:00 P.M. ON 03/02/2000.

THIS RULE MAY BECOME EFFECTIVE ON: 03/03/2000

AUTHORIZED BY: Carol B. Lear, Acting Coordinator, School Law

R277. Education, Administration.

R277-607. Truancy Prevention.

R277-607-1. Definitions.

A. "Absence" means a student's non-attendance at school for one school day or part of one school day.

B. "Certified mail" means notification sent through the U.S. Post Office, that requires a signature of acceptance for the letter. A signed receipt notifies the sender that the letter was accepted.

C. "Excused absence" means a student's absence from school for a reason identified by the school or district as reasonable such as:

- (1) illness;
- (2) medical appointments;
- (3) family emergencies;
- (4) death of family member or close friend;
- (5) family activity or travel, consistent with district/school policy.

D. "Habitual truant" means a school-aged minor who has received more than two truancy citations within one school year from the school in which the minor is or should be enrolled and eight absences without a legitimate or valid excuse or who, in defiance of efforts on the part of school authorities to resolve a student's attendance problems as required under Section 53A-11-103, refuses to regularly attend school or any scheduled period of the school day.

E. "IEP team" means an local education agency representative, a parent, a regular and special education educator, and person qualified to interpret evaluation results, in accordance with the Individuals with Disabilities Education Act (IDEA).

F. "Truancy citation" is a ticket issued in the truant's name under R277-609 or Section 53A-11-105(1). A truancy citation is issued by school designated individuals and may provide for administrative penalties, strict attendance by the student and

monitoring by the school, or may be payable to the school or school district. Penalties or requirements that may result from a truancy citation shall be clearly stated in the school or district truancy policy.

G. "Truancy fee schedule" means a uniform payment schedule set by a local school board consistent with R277-609-5.

H. "Unexcused absence" means a student's absence from school for reasons other than those authorized under the school or district policy.

I. "USOE" means the Utah State Office of Education.

R277-607-2. Authority and Purpose.

A. This rule is authorized by Utah Constitution Article X, Section 3 which vests general control and supervision of public education in the Board, Section 53A-1-401(3) which permits the Board to adopt rules in accordance with its responsibilities, and Sections 53A-11-101 through 53A-11-105 which direct educational entities and designated agencies working on behalf of children to encourage compliance with the compulsory education law and regular school attendance for all students.

B. The purpose of this rule is to establish consistent procedures for school districts in informing parents about compulsory education laws, encouraging and monitoring school attendance consistent with the law, and providing firm consequences for noncompliance. This rule encourages meaningful incentives for parental responsibility and directs districts to establish ongoing truancy prevention procedures in schools especially for students in grades 1-8.

R277-607-3. General Provisions.

A. Local school boards shall develop a truancy policy consistent with this rule and 53A-11-101 through 53A-11-105 and shall review the policy annually.

B. The local school board truancy policy shall be available for review by parents or interested parties upon request.

C. Truancy citation fees are not subject to fee waivers provisions because truancy citations are similar to repayment for destruction of school property. Also, schools or districts shall provide reasonable and specific options in lieu of payment for truancy citations at parent/school meetings.

D. If a student moves from one Utah school district to another Utah school district, truancy citations issued consistent with this rule may follow the student at the receiving school district's discretion.

E. A truancy citation issued by law enforcement under Section 53A-11-105(1) may be viewed as a truancy citation in designating a student a habitual truant. If a district does so, the parent shall be notified of receipt of the citation, including a copy of the citation, in a timely manner.

F. Districts shall prepare an annual fiscal year-end report to be submitted to the USOE that includes:

- (1) copy of the district truancy policy required under Section R277-607-3A;
- (2) total number of students designated as habitual truants;
- (3) total number of students tracked or disciplined under the district's attendance/truancy policy;
- (4) total amount of funds collected, if any, by school from truancy citations; and
- (5) summary of program effectiveness.

R277-607-4. Procedures Toward the Designation of Habitual Truant Status.

A. Prior to or no later than school registration, the parent(s) of all students in grades 1-12 shall be provided written notice from the school or district informing parents of Compulsory Education attendance laws and encouraging parental cooperation.

(1) A student registering in the school district during the school year shall be provided written notice explaining the school and school district's compulsory education policy.

(2) A student moving from one school to another within the same district may be provided written notice explaining the school and school district's compulsory education policy.

B. Following two unexcused absences in a six week period, the individual designated by the school shall counsel the parent(s)/student as to the importance of school attendance and the legal implications of truancy.

C. Following four additional unexcused or six excused absences in a subsequent six week period, the individual designated by the school shall contact the parent(s) and arrange for a meeting at the school or elsewhere to discuss the student's attendance problem.

D. Following the seventh unexcused absence within a total 12 week period, a certified letter shall be sent requesting again the support of the parent(s) in resolving the attendance problems and outlining the requirements of Section 53A-11-103.

E. The school shall continue to monitor school attendance following the first truancy citation. If appropriate, the student's curriculum or schedule may be adjusted.

F. If there is an eighth unexcused absence within a total 14 week period, a second truancy citation shall be issued. Following the second truancy citation, prior to the referral to court, in a final attempt to prevent habitual truancy, the school shall schedule a pre-court hearing meeting with the second truancy citation for the parent and student. At the meeting, school personnel shall present final alternatives to court referral.

G. Following the ninth unexcused absence [~~within a total 18 week period~~], a third truancy citation shall be issued and the parent/student shall be notified that the student is a habitual truant. Referral to the appropriate County or District Attorney or Juvenile Court consistent with Section 53A-11-104(6) shall be made by the individual designated by the school/district.

H. The school district may work with appropriate courts and personnel to develop procedures to track students and encourage school attendance.

I. If students with disabilities under the Individuals with Disabilities Education Act (IDEA) or students protected under Section 504/ADA of the Rehabilitation Act have excessive absences and fall within the criteria of this rule, the student's IEP team (IDEA) or school team (Section 504) shall ensure that the procedures of this rule apply consistent with state and federal law and regulations.

J. The parent shall have the right to appeal a truancy citation consistent with district administrative policy and time limits established by the district policy and legal due process.

R277-607-5. Documentation and Variances.

[~~K~~]A. When a student is referred to court as a habitual truant, the school/district shall make a recommended disposition to the court which shall include:

(1) documentation of attendance and academic [~~and~~] achievement;

(2) documentation of school efforts to improve attendance;

(3) copies of truancy citations, including all mailing certificates; and

(4) student background as requested by the prosecuting agency.

[~~E~~]B. Copies of truancy citations shall be retained in the student's permanent record.

C. A school district may develop a truancy policy that varies from this rule, but that is consistent with Section 53A-11-101 through 105 and the intent of the law and this rule.

(1) Timelines and numbers of absences between citations may vary, but basic due process requirements of notice to parents of the policy, notice as discipline or consequences progress and an opportunity to appeal disciplinary measures, as appropriate, shall be provided for in the policy.

(2) Districts may have different policies for elementary, middle/junior high and high schools so long as basic due process requirements are satisfied.

KEY: compulsory education, truancy
~~[November 16, 1999]~~2000

Art X Sec 3
 53A-1-401(3)

53A-11-101 through 53A-11-105



Education, Administration
R277-904
 Applied Technology Center and
 Service Region Standards and
 Operating Procedures

NOTICE OF PROPOSED RULE
 (Amendment)

DAR FILE NO.: 22611

FILED: 01/14/2000, 16:11

RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: This amendment clarifies the composition of ATC/ATCSR boards and changes fiscal procedures.

SUMMARY OF THE RULE OR CHANGE: The amendment makes terminology changes and provides changes in the fiscal procedures.

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Subsection 53A-1-401(3)

ANTICIPATED COST OR SAVINGS TO:

❖THE STATE BUDGET: No additional costs to be borne outside of the education budget.

❖LOCAL GOVERNMENTS: No costs or savings because the changes are only of procedures and designation.

❖OTHER PERSONS: No costs or savings to individuals because the changes are only procedural and accounting changes for ATC/ATCSR (applied technology center/applied technology center service region) employees. The proposed changes will not affect students.

COMPLIANCE COSTS FOR AFFECTED PERSONS: No compliance costs because these changes only give a simplified explanation of fiscal procedures.

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: I have reviewed this rule and I see no fiscal impact on businesses--Steven O. Laing

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Education
Administration
250 East 500 South
Salt Lake City, UT 84111, or
at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Carol B. Lear at the above address, by phone at (801) 538-7835, by FAX at (801) 538-7768, or by Internet E-mail at clear@usoe.k12.ut.us.

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS TO THE ADDRESS ABOVE NO LATER THAN 5:00 P.M. ON 03/02/2000.

THIS RULE MAY BECOME EFFECTIVE ON: 03/03/2000

AUTHORIZED BY: Carol B. Lear, Acting Coordinator, School Law

R277. Education, Administration.

R277-904. Applied Technology Center and Service Region Standards and Operating Procedures.

R277-904-1. Definitions.

A. "Adult ATC/ATCSR student" means a student enrolled in an approved applied technology center or service region program who is not at the same time enrolled in a regular high school program.

B. "Applied technology instruction" means instruction approved by the Board and the State Board of Regents through the Joint Liaison Committee, identified by a Classification of Instructional Programs (CIP) code number, which is designed to prepare individuals for gainful, entry-level employment in occupations requiring other than a baccalaureate or higher degree. The instruction may include:

- (1) hands-on skills training in a laboratory or on the job;
- (2) classroom instruction necessary to support skills training;
- (3) programs that provide occupational work experiences including job shadowing, internships, apprenticeships and their related instructional aspects.

(4) remedial programs designed to correct education deficiencies or disabilities that prevent students from successfully completing their training;

(5) activities of applied technology student leadership organizations that are an integral part of the applied technology instruction; and

(6) Custom Fit training which may or may not have CIP codes.

C. "Applied technology center or ATC" means a facility approved by the Board and the Legislature to offer applied technology instruction and related services to secondary and non-degree seeking adult students.

[G]D. "Applied technology center service region or ATCSR" means an entity provided facilities by school districts and/or higher education institution(s), recognized by the Board and the Legislature, and coordinated with the State Board of Regents through the Joint Liaison Committee to offer applied technology instruction and related services to secondary and non-degree seeking adult students.

[B]E. "ATC/ATCSR board" means applied technology center or applied technology center service region board.

[E]E. "ATC/ATCSR executive officer" means applied technology center superintendent or applied technology center service region director.

[F]G. "ATC/ATCSR region" means a group of school districts and higher education institution(s) assigned by the Board and the State Board of Regents through the Joint Liaison Committee to an applied technology center or applied technology center service region.

H. "Board" means the Utah State Board of Education/Utah State Board for Applied Technology Education.

I. "Independent auditor" means an auditor selected by each ATC/ATCSR or the ATCSR fiscal agent as selected through the State Auditor's Office bid procedures.

J. "Joint Liaison Committee" means a committee comprised of members of the Board and the state superintendent, members of the Utah State Board of Regents and the commissioner, and business and industry members, co-designated in Section 53A-1-501.

K. "Occupational upgrade" means additional job training for a currently employed individual.

L. "Open-entry/open-exit" means enrolling students, providing testing and assessment services, conducting applied technology instruction, and offering support services on the basis of individual rates and needs at any time during the calendar year instead of pre-set dates such as the traditional school semester or quarter.

M. "Regions" means the nine groupings of school districts, applied technology centers or service regions, and higher education institutions as defined by the Board and the Utah State Board of Regents through the Joint Liaison Committee.

N. "Region master planning committee" means the group of individuals designated by the state applied technology master plan to develop an annual regional applied technology master plan which includes the regional operation of applied technology programs by school districts, applied technology centers or service regions, and higher education institutions. One member shall be designated by the committee as the regional chairperson.

O. "SEOP" means student education occupation plan which is cooperatively developed by the student, the student's parent(s)/guardian(s), and designated school personnel. The plan is guided by general Board requirements and individual student interests and goals.

P. "State applied technology education master plan" means the annually updated resource manual approved by the Board and the Utah State Board of Regents through the Joint Liaison Committee for the planning and operation of applied technology education courses, programs, and facilities on both state and regional levels.

[H]Q. "State Custom Fit Training Program" means a state-funded training program designed to meet the needs of business and industry through classroom, lab, and, if appropriate, on-the-job training. Its purpose is to bring education and business together to provide training and assistance to company employees through applied technology centers and post-secondary institutions in order to stimulate economic development, facilitate the creation of new jobs, coordinate with public schools, and provide businesses with trained workers.

[Q]R. "Support services" means a full range of services provided by an ATC/ATCSR designed to assist students in receiving the most benefit from their applied technology instruction.

[R]S. "USOE" means the Utah State Office of Education/Applied Technology Education Services Division.

R277-904-2. Authority and Purpose.

A. This rule is authorized by the Utah Constitution Article X, Section 3 which vests general control and supervision of public education in the Board, by Section 53A-15-203 which places applied technology centers under the control and management of the Board, ~~and~~ Section 53A-1-501 which requires a Joint Liaison Committee which coordinates applied technology education issues between the Board and the Utah State Board of Regents, and Section 53A-1-401(3) which permits the Board to adopt rules in accordance with its responsibilities.

B. The purpose of this rule is to specify standards and procedures for operating applied technology centers and service regions.

R277-904-3. Mission.

A. An ATC/ATCSR provides personalized, open-entry/open-exit, competency-based, non-credit applied technology center instruction and support services to high school and adult applied technology center students, displaced workers, and unemployed individuals for employment in skill intensive occupations.

B. An ATC/ATCSR provides occupational upgrade instruction through approved Custom Fit or regular applied technology programs to employed individuals.

C. An ATC/ATCSR offers personalized open-entry/open-exit, competency-based, applied technology instruction on a year-round basis (subject to sufficient enrollment and funding) not tied to pre-set dates such as the traditional school semester or quarter.

D. An ATC/ATCSR shall feature short-term, intensive, task-specific, instruction closely aligned with the needs of business and industry with competencies and length of training determined following consultation with ATC/ATCSR program advisory committees.

R277-904-4. Governance.

A. The Board shall:

(1) develop a statewide system of applied technology including centers (ATCs) with state-supported facilities and service regions (ATCSRs) in regions where facilities are provided by school districts or higher education institutions or both;

(2) adopt policies and procedures for the management of applied technology centers;

(3) appoint ATC boards for the day-to-day operation of applied technology instruction in the ATCs;

(4) determine statewide ATC needs and submit annual recommendations and funding requests to the Legislature;

(5) in consultation with each ATC board, appoint and fix the salary of an executive officer (the ATC superintendent) for each ATC who will serve at the pleasure of the Board and the applied technology center board;

(6) coordinate with the Utah State Board of Regents through the Joint Liaison Committee to plan and operate ATCSRs in regions without ATCs to;

(a) adopt policies and procedures for the management of applied technology centers service regions;

(b) appoint ATCSR boards for the day-to-day operation of applied technology instruction in the service regions;

(c) determine statewide ATCSR needs and submit annual recommendations and funding requests to the Legislature; and

(d) in consultation with each ATCSR board, appoint and fix the salary of an executive officer (the ATCSR director) for each ATCSR who will serve at the pleasure of the Board and the Board of Regents and the applied technology center service region board.

B. The ATC/ATCSR boards shall:

(1) participate with other applied technology education providers within the region (including school districts and higher education institutions) to develop an annual regional master plan for delivering applied technology center programs and services for approval by the Board and the State Board of Regents through the Joint Liaison Committee;

(2) function according to rules and procedures set by the Board;

(3) function according to rules and procedures set by the State Board of Regents as coordinated through the Joint Liaison Committee.

C. ATC/ATCSR Board Composition

(1) ATC boards shall:

(a) establish two-year terms for board members with a reappointment schedule designed to maintain continuity of the ATC board;

(b) recommend potential ATC board members to the Board;

(c) include:

(i) at least one member of the local board of education~~member~~ from each school district located within the ATC region;

(ii) and may include a representative of each higher education institution within the region; and

(iii) representation by at least two ~~board members~~ individuals who are employers or represent business and industry located within the region. ATC [B]board members who are [local]elected school board members or trustees and also are employers or business and industry representatives may be counted as satisfying this requirement.

(iv) other board members may be appointed by the Board as necessary to ensure the effective and efficient operation of the ATC board.

(d) at least annually, provide recommendations to the Board regarding performance and subsequent salary adjustments for the ATC executive officer according to criteria developed by the Board;

(e) annually elect a chairperson and vice chair from the board's membership.

(2) ATCSR boards shall:

(a) establish two-year terms for board members with a reappointment schedule designed to maintain continuity of the ATCSR board;

(b) recommend potential ATCSR board members to the Board;

(c) include:

(i) the superintendent or his designee of each school district in the region;

(ii) the president or his designee of each higher education institution located in the region; and

(iii) at least two ~~board members~~ individuals who are employers or represent business and industry located within the region. ATCSR board ~~members~~ who are ~~local~~ elected school board members, trustees, or designees and also are employers or business and industry representatives may be counted as satisfying this requirement.

(d) also be recommended to the State Board of Regents through the Joint Liaison Committee;

(e) at least annually, provide recommendations to the Board regarding performance and subsequent salary adjustments for the ATCSR executive officer according to criteria developed by the Board;

(f) also provide recommendations to the Utah State Board of Regents through the Joint Liaison Committee regarding performance and salary adjustments for the executive officer;

(g) annually elect a chairperson and vice chair from the board's membership.

D. The ATC superintendent or ATCSR director shall:

(1) serve as the executive officer of the ATC/ATCSR board;

(2) administer the day-to-day operation of the applied technology center or service region under the policies and rules of the ATC/ATCSR board and the Board; and

(3) be accountable to the ATC/ATCSR board and the Board in meeting established goals;

(4) shall, in the case of the ATCSR directors, also be accountable to the State Board of Regents through the Joint Liaison Committee.

E. Unless reserved by the Board, the ATC/ATCSR board shall:

(1) be the immediate local authority for each applied technology center or service region;

(2) develop policies for the operation of the ATC/ATCSR;

(3) appoint and fix the salary of all employees, except the executive officer;

(4) adopt and administer an annual budget and fund balances;

(5) submit an annual appropriations request to the Board through the Joint Liaison Committee;

(6) in the case of ATCSRs, also submit an annual appropriations request to the Utah State Board of Regents through the Joint Liaison Committee;

(7) conduct annual program evaluations

(8) appoint program advisory committees and other advisory groups to provide counsel, support, and recommendations for updating and improving the effectiveness of training programs and services;

(9) enact bylaws for self-government, including provisions for board organization and a schedule of regular meetings; and

(10) approve regulations, both regular and emergency, to be issued and executed by the executive officer.

(11) approve or reject center processes and arrangements including:

(a) facility, students, employee organizations, rules and regulation;

(b) instruction, examination, admission, and classification of students;

(c) necessary and proper exercise of authority not specifically denied the ATC/ATCSR by law or by rules of the Board or the Board of Regents.

R277-904-5. Program Advisory Committees.

A. Each ATC/ATCSR shall appoint program advisory committees to provide employer counsel, support, and recommendations for updating and improving the effectiveness of training programs and services.

B. Program advisory committees shall be organized and approved by the ATC/ATCSR board to advise and support each occupational training program at the ATC/ATCSR.

(1) Members of a program advisory committee shall be workers presently employed in the occupation for which the program trains students.

(2) The lead instructor in each training program shall serve as the executive secretary to the program advisory committee.

(3) The program advisory committee shall carry out the program of goals and objectives assigned by the ATC/ATCSR board, provide support, and make recommendations for improving program quality.

R277-904-6. ATC/ATCSR Service Outside of Designated Region.

A. An ATC/ATCSR may freely market and provide services outside its designated region as approved by the Board and coordinated with the State Board of Regents through the Joint Liaison Committee.

B. An ATC/ATCSR may provide services outside its designated region if the services meet the following requirements:

(1) Training has been recommended by the region applied technology master planning committee in which the training is to be provided, and;

(2) The training is not currently or sufficiently offered in the region where it is proposed to be provided, or;

(3) The training is requested and fully funded by the requesting agency or business, or;

(4) The training is provided as a result of a bid consistent with state purchasing procedures.

C. In all cases in which an ATC/ATCSR provides services outside of its designated region, written approval shall be made by the ATC/ATCSR board providing the service and the ATC/ATCSR board of the region where the service will be provided, prior to the commencement of services.

R277-904-7. Applied Technology Instruction and Support Services.

A. Applied technology instruction and support services in each ATC/ATCSR shall incorporate the following components and characteristics:

- (1) open entry/open exit enrollment, student assessment, information options, instruction and support services;
- (2) hands-on, personalized training based on specific jobs, skills, and tasks associated with an occupation;
- (3) curriculum designed to prepare students for employment;
- (4) short-term intensive training;
- (5) training in meeting employer expectations related to job seeking, job keeping, and appropriate attitudes;
- (6) competency-based measurement of student achievement;
- (7) instruction based on performance objectives;
- (8) traditional letter grades only when necessary due to licensure or other documented and specific requirements; and
- (9) no credit issued by ATCs/ATCSRs, however, high school and/or higher education institution credit for ATC/ATCSR earned competencies may be awarded by high schools, colleges, or universities based on written mutual agreement.

B. An ATC/ATCSR Board shall obtain final approval from the Board prior to starting a program that requires permanent space and continuing budget support. The program shall be in the approved regional master plan or shall have completed the program approval procedure and emphasize the following information:

- (1) labor market analysis or client request;
- (2) program advisory committee recommendations;
- (3) other relevant information.

C. A Program reporting low student enrollment or job placement statistics or both shall be reviewed by the ATC superintendent/ATCSR director and the ATC/ATCSR board to determine if the program is meeting appropriate job demands.

- (1) If not, and other criteria used to evaluate the program warrants action, the program shall be discontinued.
- (2) Reasonable notice for phasing out a designated program shall be given to avoid hardship to students and staff.

D. An ATC/ATCSR shall provide student assessment services to determine a potential student's employability, abilities, needs, interests, and to identify resources available to the student.

- (1) Testing, work samples, career guidance, counseling, or any combination may be utilized.
- (2) Assessment services shall include the development of a student education occupation plan.

E. An ATC/ATCSR shall conduct student evaluation according to placement and evaluation procedures set by the Board through the Joint Liaison Committee to determine the employment success and capabilities of students after training.

F. An ATC/ATCSR shall provide job placement services for its secondary and post-secondary students. Job placement services may include:

- (1) provision of information on employment opportunities;
- (2) locating job openings;
- (3) providing interview opportunities with prospective employers;
- (4) obtaining the highest feasible level of wage and salary; and
- (5) providing employment market data.

G. An ATC/ATCSR shall cooperate with employers to train workers who can fulfill their needs based on available resources.

H. An ATC/ATCSR may operate enterprise activities and avocational programs as long as the activities/programs are consistent with its mission. Fees shall be equal to the full cost of the program and services.

R277-904-8. Evaluation and Accreditation.

A. Each ATC/ATCSR board shall direct the executive officer to evaluate programs, services, facilities, and all phases of the ATC/ATCSR operation and management. Program evaluation data shall include program enrollment, completions, job placements, certifications, wage rates, and program costs factors.

B. The Board, in cooperation with the ATC/ATCSR board, shall evaluate each ATC superintendent/ATCSR director annually.

C. ATCSR boards shall also coordinate with the State Board of Regents through the Joint Liaison Committee for this function.

D. An ATC/ATCSR shall be accredited by the Board in accordance with R277-912, Standards and Procedures for Post-secondary Applied Technology Education Accreditation, as those standards apply to ATC/ATCSRs.

R277-904-9. Certificates.

A. An ATC/ATCSR may issue the following certificates:

(1) Certificates of completion awarded on the completion of all required competencies in a training program. The certificate shall indicate the competencies acquired by the student and be issued in a manner that assists students in obtaining employment or further applied technology education opportunities without having to repeat instruction or pay a second time for areas of demonstrated competency.

(2) Certificates of proficiency or skills certificates awarded to students who complete portions of programs identified as independent areas of benchmarks of skill development. The certificate shall indicate to a potential employer the proficiency levels at which the student can perform specific tasks.

B. If a student desires to receive credit for specific program competencies:

- (1) secondary credit may be provided through a school district at the district's discretion;
- (2) post-secondary credit shall be provided through a college or university in accordance with the rules and policies adopted by the Board and the State Board of Regents as coordinated through the Joint Liaison Committee.

C. An ATC/ATCSR may not issue secondary diplomas, degrees, or post-secondary credit.

R277-904-10. Staff.

A. Instructional and counseling staff shall hold current certificates consistent with Board rules for the positions to which persons are assigned.

B. Trade and industry, eminence, and alternative certification, as outlined in Board rules, is authorized to meet unique training needs of ATC/ATCSRs.

R277-904-11. Student Eligibility; Fees and Tuition; Student Education Occupation Plan.

A. To be eligible to become a student at an ATC/ATCSR, a person shall comply with ATC/ATCSR rules, including the written code of conduct adopted by each ATC/ATCSR board, be capable of succeeding in an applied technology center training program

conducted at the ATC/ATCSR, and be employable at training completion. In addition:

(1) an ATC/ATCSR may not accept a high school student without the approval of the student's school district unless the education and training is in addition to a full high school schedule and is outside the regular school day. High school students enrolling at an ATC/ATCSR shall have an applied technology goal recorded in the student education occupation plan, and be accepted into an ATC/ATCSR program with available space;

(2) an adult student shall have an applied technology goal recorded in the student education occupation plan and shall pay the required tuition and fees.

B. Persons who meet the eligibility requirements, but who are not Utah residents, may be admitted to ATC/ATCSR programs on a space available basis in compliance with R277-902-3.

C. Tuition at ATC/ATCSRs shall be waived for students who are enrolled in Utah high schools or who are of high school age and are working toward a high school diploma, unless classes are taken in addition to a student's full high school schedule.

R277-904-12. Fiscal Procedures.

A. An ATC/ATCSR board shall keep fiscal, program, and accounting records as required by the Board and as needed by the ATC/ATCSR, and shall submit reports required by the Board, [under the uniform reporting system of the Board and shall follow the standard fiscal program, and accounting procedures of the Board except that] [t]The ATC/ATCSRs shall account and report following the model used for Generally Accepted Accounting Principles (GAAP) [reporting]as set forth by the Governmental Accounting Standards Board (GASB) and by the National Association of College and University Business Officers (NACUBO).

B. An ATC/ATCSR shall prepare a comprehensive annual financial report which is issued separately from the financial report of any other entity. An ATC/ATCSR [B]board and the State Auditor's Office shall jointly select an independent auditor to conduct an annual audit of the ATC/ATCSR's [fiscal accounts and records]comprehensive annual financial report. Three financial statements are required for ATC/ATCSRs. These are the:

(1) balance sheet;

(2) statement of changes in fund balances; and

(3) statement of current funds, revenues, expenditures, and other changes. The independent auditor shall provide [the audit results, including an opinion, a management letter,]an auditors' report and any other reports or documentation required by Government Auditing Standards and by the State Auditor's Office, to the Board [prior to September 2]within three months after the close of the fiscal year[audited].

C. An ATCSR that is provided financial accounting services through a fiscal agent shall comply with the same annual audit requirements of Subsection R277-904-12B through the independent auditor contracted by the fiscal agent and approved by the State Auditor's Office with the exceptions that:

(1) the ATCSR may prepare separately issued basic financial statements, including notes to the financial statements, rather than a comprehensive annual financial report; and

(2) the auditor may perform a financial review of the separately issued financial statements, rather than a full audit, provided that the ATCSR is included in the audit of the fiscal agent.

~~[D. Funds shall be distributed to ATC/ATCSR boards according to Legislative assignment and Board-approved formula(s).~~

~~E. Disbursement of Funds to ATC/ATCSRs:~~

~~(1) Funds appropriated to the Board for the education and training of secondary and adult students in ATC/ATCSRs shall be disbursed based on Legislative assignment and the prorated share of secondary and adult membership hours, placement counts, and skill certification counts, documented the prior fiscal year by each ATC/ATCSR compared to the total for all ATC/ATCSRs for the prior fiscal year.~~

~~(2) Membership hours, placements, and skill certifications of secondary and adult students who have received approved ATC/ATCSR instruction in remote sites through electronic delivery such as EDNET may be included in the prorated share of all ATC/ATCSR membership hours when the instruction originated at an ATC/ATCSR and the corresponding costs are incurred by the ATC/ATCSR.]~~

~~[F]D. ATC/ATCSRs shall account for and report [the results of operations]their financial activities to the Board as of June 30 annually as part of the audited comprehensive annual financial report in accordance with GAAP as [outlined]set forth in GASB pronouncements and in the NACUBO [College and University Business Administration Handbook, the Audit Guide for Colleges and Universities (AICPA), and pronouncements of the Governmental Accounting Standards Board (GASB), all of]Financial Accounting and Report Manual for Higher Education which are available from the USOE Finance and Statistics Section.~~

~~[G]E. Fund Accounting Standards:~~

~~(1) The current funds group includes those economic resources of an ATC/ATCSR that are expendable for the purpose of performing the primary and supporting missions of the center/service region. The term "current" means that the resources will be expended in the near term and that they will be used for operating purposes. The current funds group has two basic subgroups--unrestricted and restricted.~~

~~(a) Unrestricted current funds are those funds received for which no stipulation was made by the external source as to the specific purposes for which they should be expended. The unrestricted current funds group shall be further subdivided to provide useful information as to the center's intended use of unrestricted resources:~~

~~(b) Restricted current funds are those resources available for financing operations but which are limited by external sources to specific purposes, programs, departments, or schools. Externally imposed restrictions are to be contrasted with internal designations imposed by the ATC/ATCSR board on restricted funds. Internal designations do not create restricted funds, inasmuch as the removal of the designation remains at the discretion of the ATC/ATCSR board.](1) An ATC/ATCSR shall establish accounting fund designations as necessary in order to perform financial accounting and reporting in conformity with GAAP as set forth by GASB and NACUBO.~~

~~(2) ATC/ATCSRs shall account for current [funds]operations within the current [ACCOUNTING fund group]accounting funds, comprised of the general operating, designated, auxiliary enterprises, and restricted accounting funds.[—More specific descriptions of the various current ACCOUNTING fund operations follow.]~~

(3)a) The general operating~~[-accounting]~~ fund shall be used to account for all ~~[current economic]~~financial resources and transactions not accounted for in ~~[the restricted or in other non-restricted accounting funds]~~another fund. An ATC/ATCSR APPROPRIATED BUDGET shall be its entire general operating fund budget.

(4)b) The designated~~[-accounting]~~ fund ~~[is to]~~shall be used to account for all ~~[material current economic]~~financial resources and transactions ~~[directly for activities, set aside as separate]~~which have internal designations imposed by the local ATC/ATCSR board for a specific operating purpose[-including]. Internal designations do not create restricted funds, because removal of the designation remains at the discretion of the ATC/ATCSR board. Included in the designated fund are sales and services of educational activities[-and unrestricted custom fit training (excluding the State Custom Fit Training for Economic Growth)].

(5)c) The auxiliary enterprises~~[-accounting]~~ fund shall be used to account for all ~~[material current economic]~~financial resources and transactions ~~[directly for the provision of facilities]~~from activities which predominantly provide goods or services [for]to students, faculty, [and]or staff [on a substantially self-supporting financial basis including]and that charge a fee directly related to, although not necessarily equal to, the cost of the goods or services. Auxiliary enterprise fund activities are limited to those activities for which sales and services, rather than training and instruction, are the primary purpose. Included in the auxiliary enterprises fund are the following activities unless such activities [form an integral part of an educational activity (see designated accounting fund, Subsection F(4))]exist primarily for training or instruction: bookstores, student housing, day care, food services, and exercise facilities.

(6)d) The restricted~~[-accounting]~~ fund shall be used to account for all ~~[material current economic]~~financial resources and transactions~~[-directly for the operation of activities restricted by contracts;]~~ which ~~[impose external]~~have restrictions [on services provided and fund balances, including the following restricted activities]placed on their use by external agencies or donors. Included in the restricted fund are the following activities: federal and state student financial [aid]assistance programs, federal contracts (whether direct or through state or local sources), state contracts (including State Custom Fit Training~~[-for Economic Growth]~~), local agency contracts,~~[-and]~~ private contracts (including Private Custom Fit Contracts), and independent operations.

(3) Each ATC/ATCSR shall maintain adequate fund balances.

(a) The Board directs that the general operating fund balance should be at least three to five percent of the annual general operating fund revenues.

(7)b) Unrestricted Current Accounting Funds, Fund Balance -- At each ATC/ATCSR, fund balances not externally restricted and not internally reserved for inventories, investment in general fixed assets, or purchase order encumbrances, in all current and plant accounting funds, shall not exceed, combined and at year end, seven and one-half (7-1/2) percent of the total combined unrestricted revenues in those accounting funds for the year then ended. The ATC/ATCSR [B]board may recommend an amount greater than that to the Board for approval up to ten (10) percent of the total combined unrestricted revenues. Exceptional revenue items received late in the fiscal year due to circumstances not in the control of the ATC/ATCSR or due to mandate from a governing

authority at Board level or higher to spend such revenue item(s) in a subsequent time period, such as a supplemental appropriation for expenditure in a subsequent fiscal year, shall be excluded from fund balances when calculating fund balance percentages for these purposes.

(4) An ATC/ATCSR board may authorize transfers of financial resources among accounting funds.~~[(a) General operating fund balance is the difference between the assets and liabilities of the general operating fund and consists of the excess (deficiency) of unrestricted general operating fund revenues and transfers in over expenditures and transfers out.]~~ The ATC/ATCSR board may elect to set aside ~~[these funds]~~financial resources for specific future operating purposes by transferring ~~[funds]~~financial resources to other ~~[fund groups]~~accounting funds, such as to designated funds for use in some specific future operating purpose, to plant funds for expansion or rehabilitation or for debt retirement. The ATC/ATCSR board may also elect to return any balances of designated or plant funds to the unrestricted general operating fund.~~[-The balance of funds not set aside by the ATC/ATCSR board for some specific future use or that have been returned from other funds becomes the general operating fund unallocated fund balance. The Board has targeted that this balance be at least 3-5% of the annual general operating fund:~~

~~---(b) Designated fund balance is the difference between the assets and liabilities of the designated fund and consists of the excess (deficiency) of designated fund revenues and transfers in over expenditures and transfer out. These funds have been set aside by the ATC/ATCSR board for specific future operating purposes.~~

~~---(c) The auxiliary enterprise fund balance is the difference between the assets and liabilities of the auxiliary enterprise fund and consists of the excess (deficiency) of auxiliary enterprise fund revenues and transfers in over expenditures and transfers out. These funds have been set aside by the ATC/ATCSR board for "working capital" of the auxiliary enterprise fund.~~

~~---(8) Restricted current fund balance is the difference between the assets and liabilities, including deferred revenue, of the restricted fund and consists of the excess (deficiency) of restricted fund revenues and transfers in over expenditures and transfers out.~~

~~---(a) These funds are restricted by external sources for specific future operating purposes and are not available for allocation by the ATC/ATCSR board.~~

~~---(b) Typically restricted fund revenues are not earned until they are spent and are, therefore, disclosed in the financial statements as "excess of restricted receipts over transfers to revenue" before being classified as part of the restricted fund balance.~~

~~---(9) The plant ACCOUNTING funds group is used to account for MATERIAL ECONOMIC RESOURCES AND TRANSACTIONS DIRECTLY FOR THE FOLLOWING PURPOSES:~~

~~---(a) acquisition of long-lived assets for center/service region purposes;~~

~~---(b) renewal and replacement of center/service region properties;~~

~~---(c) debt service and retirement of indebtedness on center plant;~~

~~---(d) the cost (or fair value at time of donation) of long-lived assets (other than those of endowment and similar funds) including associated liabilities; and~~

~~---(e) Plant ACCOUNTING Funds subgroups~~

~~(i) Unexpended plant fund—used to account for the unexpended resources derived from various sources to finance the acquisition of long-lived plant assets and the associated liabilities. The unexpended plant fund balance is the difference between assets and liabilities of the unexpended plant fund and consists of the excess of revenues and transfers in over expenditures and transfers out for this fund. These funds have been set aside by the ATC/ATCSR board for future center/service region plant projects. Resources may be transferred into or out of unexpended plant fund by the ATC/ATCSR board either temporarily or permanently. It would not be considered excessive and would be considered sound fiscal practice that up to five (5) percent of total general operating fund revenue for the current fiscal year be transferred from the general fund to the unexpended plant fund in any on fiscal year.~~

~~(ii) Renewal and replacement fund—used to account for resources set aside for renewal and replacement of plant fund assets as distinguished from additions and improvements to plant. The renewal and replacement plant fund balance is the difference between assets and liabilities of the renewal and replacement plant fund and consists of the excess (deficiency) of revenues and transfers in over expenditures and transfers out for this fund. These funds have been set aside by the ATC/ATCSR board for future renewal and replacement of plant fund assets.~~

~~(iii) Retirement of indebtedness plant fund—used to account for accumulated resources for interest and principal payments and other debt service charges relating to plant fund indebtedness. The retirement of indebtedness plant fund balance is the difference between assets and liabilities of this fund and represent the net resources held to serve the objective of this subgroup. These funds have been set aside by the ATC/ATCSR board to meet the obligations of plant-related debt.~~

~~(iv) Investment in plant fund—used to account for all long-lived assets in the service of the center and all construction in progress (unless carried in the unexpended plant funds until completion of the project) as well as all associated liabilities. The investment in plant fund balance represents the excess of the carrying value of the assets over the associated liabilities. Net investment in plant is increased through the acquisition of plant assets less associated liabilities, through liquidation of indebtedness incurred for plant purposes and is decreased through disposal of assets. This fund balance cannot be set aside by the ATC/ATCSR board for use in other purposes.]~~

~~(+0)5 An ATC/ATCSR shall not incur significant debt without Board permission.~~

~~(+1)6 An ATC/ATCSR shall report "Education and [g]General" [functions of an ATC/ATCSR are]expenditures in the following functional categories: instruction, [instruction]academic support, student [support]services, [center]institutional support,[plant] operation and maintenance of plant, and scholarships[and fellowships]. [With the exception of scholarships and fellowships expended from endowment or trust funds, these education and general functions are to be accounted for in one of these three: the general operating, designated, or restricted accounting fund only; and in no other current or non-current accounting fund; and any moneys not accounted for in one of these funds, which are to be used for education and general function expenditures, shall be transferred into one of the three appropriate accounting funds before it is expended:]~~

(a) The instruction category includes expenditures for all activities that are part of an ATC/ATCSR's instruction or training programs. This category excludes expenditures for instructional personnel when the primary assignment is administration and no direct classroom or lab instruction is included in the assignment.

(b) The academic support category includes expenditures incurred to provide support services for the ATC/ATCSR's instruction or training programs. It includes instructional administration and separately budgeted support for course and curriculum development. Expenditures associated with the office of the chief training officer or manager are not included in this category, but shall be classified as institutional support.

(c) The student services category includes expenditures incurred for the offices of admissions, student records, and other activities with the primary purpose of contributing to students' emotional and physical well-being. It includes counseling, placement, and student financial assistance administration.

(d) The institutional support category includes expenditures for executive-level activities concerned with the management of the ATC/ATCSR. This category includes expenditures for the local ATC/ATCSR board, the office of the ATC superintendent or the ATCSR director, the office of the chief training officer or manager, the office of the ATC/ATCSR business administrator, fiscal operations, employee personnel and records, and public relations.

(e) The operations and maintenance of plant category includes all expenditures of current operating funds for the operation and maintenance of the physical plant.

(f) The scholarships category includes expenditures for scholarships, including those in the form of grants, stipends, and student tuition waivers.

~~(+2)7 Expenditures from all fund accounts shall be made only by approval of the ATC/ATCSR board and shall be reported to the Board as prescribed by the Board.~~

~~(+3)8 Each ATC/ATCSR board shall establish and maintain a capital equipment inventory system consistent with capital equipment inventory standards required by the Board.~~

~~(+4)9 An ATC/ATCSR is considered a state agency for insurance purposes. As such, the ATC/ATCSR board shall ensure that the ATC/ATCSR complies with the policies and rules of the State Risk Management Office and is properly covered at all times by appropriate types and levels of insurance through that office.~~

~~(+5)10 When computing full time equivalent personnel, ATC/ATCSR boards shall use 2,080 hours per year to equal one full time equivalent for all ATC/ATCSR personnel with paid holidays and vacation or 1,840 hours for personnel without paid vacation or holidays.~~

~~(+6) An ATC/ATCSR shall report at year end all expenditures for payroll benefits allocated to the education and general accounting functions and not report such expenditures as a separate accounting category.~~

~~(17) An ATC/ATCSR "appropriated budget" shall be its entire general operating (accounting) fund budget.](11) Supplemental budget reports for unappropriated programs and for the plant accounting funds shall be submitted as part of the appropriation request to provide analysts a comprehensive ATC/ATCSR budget picture. Appropriation requests and supplemental information shall be submitted to the Board and appropriating bodies in conformance with designated Board procedures and timelines.~~

R277-904-13. Capital Facilities.

A. An ATC board shall follow procedures governing capital facilities adopted by the Board.

B. An ATC board shall approve all capital facility requests, including land acquisition, and shall submit the requests to the Board in accordance with Board procedures.

C. Any use of ATC facilities that restricts, limits, or interferes with the utilization of those facilities for applied technology education purposes is prohibited.

KEY: adult education, applied technology education*

~~January 1, 1997~~ 2000

Notice of Continuation October 20, 1997

Art X Sec 3

53A-15-203

53A-1-501

53A-1-401(3)

◆ ————— ◆
Environmental Quality, Air Quality

R307-150

Emission Inventories

NOTICE OF PROPOSED RULE

(Amendment)

DAR FILE No.: 22605

FILED: 01/14/2000, 09:51

RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: To delete the requirement that sources which emit ammonia submit emissions information to the Division of Air Quality every third year.

SUMMARY OF THE RULE OR CHANGE: Delete Subsections R307-150-1(f) and R307-150-4(1) and renumber subsequent portions; delete "ammonia and" from the second sentence in Subsection R307-150-3(2). The requirement that sources submit information about ammonia emissions every third year was added to the original rule that was effective March 4, 1999. Ammonia combines with sulfur oxides and nitrogen oxides to form ammonium nitrate and ammonium sulfate; both are components of PM2.5, for which the Environmental Protection Agency (EPA) issued a health-based standard in 1997, and both contribute to the regional haze which clouds visibility in the national parks of southern Utah. The Division of Air Quality collected ammonia information for 1997. Analysis of the information shows that total ammonia emissions are approximately 33,311 tons per year, that only 484 tons per year come from industrial sources, that humans and their pets contribute about 1,677 tons per year, and the remaining 31,150 tons comes from livestock and agricultural sources. Other states have found similar data distributions. Based on these results, it is clear that a total ammonia emissions inventory can be calculated based on data from the United States Department of Agriculture and other sources within the Department of Environmental Quality, and

there is no need to require individual sources to submit information.

(DAR Note: R307-150 was a proposed new rule that is effective as of March 4, 1999. It was published in the November 15, 1998, issue of the *Utah State Bulletin* under DAR No. 21591.)

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Section 19-2-104

ANTICIPATED COST OR SAVINGS TO:

❖THE STATE BUDGET: By deleting this requirement, the Division of Air Quality will save approximately one hour of staff time (\$24.84 salary + benefits) in processing information from each of 20 point sources once every third year. TOTAL SAVINGS = \$496.80 for every three year period. (Calculated from cost estimates made with the original rule filing in 1998.) Information to calculate the annual ammonia inventory will be acquired as anticipated in the original rule filing with no change in costs.

❖LOCAL GOVERNMENTS: No local governments are affected by the rule; therefore, no cost or savings.

❖OTHER PERSONS: Approximately 20 sources will save approximately \$12.42 for a total cost to businesses of \$248.40 every third year. (Calculated from cost estimates made with the original rule filing in 1998.)

COMPLIANCE COSTS FOR AFFECTED PERSONS: Each source which no longer has to submit the information will save approximately 1/2 hour every third year. At a staff cost of \$24.84 per hour salary + benefits, each source will save approximately \$12.42 every third year. (Calculated from cost estimates made with the original rule filing in 1998.)

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: Savings from eliminating this requirement are not large, but it is important to delete the requirement so that sources are not out of compliance with air quality requirements--Dianne R. Nielson

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Environmental Quality
Air Quality
150 North 1950 West
PO Box 144820
Salt Lake City, UT 84114-4820, or
at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Jan Miller at the above address, by phone at (801) 536-4042, by FAX at (801) 536-4099, or by Internet E-mail at jmiller@deq.state.ut.us.

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS TO THE ADDRESS ABOVE NO LATER THAN 5:00 P.M. ON 03/02/2000; OR ATTENDING A PUBLIC HEARING SCHEDULED FOR 02/17/2000, 1:30 p.m., Department of Environmental Quality (DEQ) Building, 168 North 1950 West, Room 201, Salt Lake City, UT.

THIS RULE MAY BECOME EFFECTIVE ON: 03/03/2000

AUTHORIZED BY: Rick Sprott, Planning Branch Manager

R307. Environmental Quality, Air Quality.

R307-150. Emission Inventories.

R307-150-1. General Applicability.

(1) The following sources shall submit an emission inventory report:

- (a) any Part 70 source;
- (b) any source that emits or is allowed under R307 to emit 100 tons per year or more of any regulated air pollutant;
- (c) any source located in Davis, Salt Lake, Utah or Weber County that emits or is allowed under R307 to emit 25 tons per year or more of a combination of PM10, sulfur oxides, or oxides of nitrogen;
- (d) any source located in Davis, Salt Lake, Utah or Weber County that emits or is allowed under R307 to emit 10 tons per year or more of volatile organic compounds;
- (e) any source that emits or is allowed under R307 to emit 5 tons per year or more of lead;[
- ~~(f) any source that emits or is allowed under R307 to emit 10 tons or more per year of ammonia;]~~
- (g) any source that is allowed under R307 to emit between 90 and 100 tons per year of any regulated air pollutant;
- (h) any source that the executive secretary requires to submit an inventory for any full or partial year on reasonable notice.

R307-150-2. Definitions.

The following additional definitions apply to R307-150:

"Acute Contaminant" means any noncarcinogenic air contaminant for which a threshold limit value - ceiling (TLV-C) has been adopted by the American Conference of Governmental Industrial Hygienists in its "Threshold Limit Values for Chemical Substances and Physical Agents - Biological Exposure Indices, pages 15 - 40 (1997)."

"Carcinogenic Contaminant" means any air contaminant that is classified as a known human carcinogen (A1) or suspected human carcinogen (A2) by the American Conference of Governmental Industrial Hygienists in its "Threshold Limit Values for Chemical Substances and Physical Agents - Biological Exposure Indices, pages 15 - 40 (1997)."

"Chronic Contaminant" means any noncarcinogenic air contaminant for which a threshold limit value - time weighted average (TLV-TWA) having no threshold limit value - ceiling (TLV-C) has been adopted by the American Conference of Governmental Industrial Hygienists in its "Threshold Limit Values for Chemical Substances and Physical Agents - Biological Exposure Indices, pages 15 - 40 (1997)."

"Dioxins" and "Furans" mean total tetra- through octachlorinated dibenzo-p-dioxins and dibenzofurans.

R307-150-3. What to Report.

(1) The requirements of R307-150 replace any annual inventory reporting requirements in approval orders issued prior to April 1, 1998.

(2) The emission inventory report shall include the information the Board deems necessary to determine whether the source is in compliance with R307 and federal regulations and standards. The data shall include ~~[ammonia, and]~~ all regulated air

pollutants not exempted in (3) below that are not hazardous air pollutants that are emitted at a source. Data shall include the rate and period of emission, excess or breakdown emissions, startup and shut down emissions, specific installation which is the source of the air pollution, composition of air contaminant, type and efficiency of the air pollution control equipment and other information necessary to quantify operation and emissions, and to evaluate pollution control. The emissions of a pollutant shall be calculated using the source's actual operating hours, production rates, and types of materials processed, stored, or combusted during the inventoried time period.

(3) Regulated air pollutants that are not PM10, sulfur oxides, oxides of nitrogen, carbon monoxide, PM2.5, ozone, volatile organic compounds, dioxins, furans, or hazardous air pollutants are exempt from being reported if they are emitted in an amount less than the smaller of the following:

- (a) 500 pounds per year; or
- (b) an annual emission level calculated to be the applicable threshold limit value - time weighted average (TLV-TWA) or the threshold limit value - ceiling (TLV-C) multiplied by the appropriate emission threshold factor in cubic meter pounds per milligram year. For an acute contaminant, the factor is 15.81; for a chronic contaminant, the factor is 21.22; for a carcinogenic contaminant, the factor is 7.07.

(4) In addition, any owner or operator of a source that is required by R307-150-1 to submit an inventory shall use appropriate emission factors and estimating techniques to estimate all emissions from each activity not required by R307-401 or R307-415 to be included in a notice of intent or operating permit application. The estimates shall be included in the inventory.

R307-150-4. Timing of Submittals.

~~[(1) A report is required for 1998, 1999, and for every third year after 1999 for any source which actually emits or is allowed under R307 to emit 10 tons or more per year of ammonia.~~

[(2)] Report Every Third Year. The owner or operator of each of the following sources is required to submit a report of emissions every third year. The first report shall be due in 2000 for calendar year 1999 for:

- (a) any Part 70 source located in Davis, Salt Lake, Utah or Weber Counties;
- (b) any Part 70 temporary source;
- (c) any Part 70 source located outside Davis, Salt Lake, Utah or Weber Counties with 25 tons per year or more of combined allowable emissions of PM10, sulfur oxides, oxides of nitrogen, volatile organic compounds or carbon monoxide; or
- (d) any stationary source:
 - (i) located in Davis, Salt Lake, Utah or Weber County that emits or is allowed under R307 to emit a combination of PM10, sulfur oxides, or oxides of nitrogen of 25 tons per year or more;
 - (ii) located in Davis, Salt Lake, Utah or Weber County that emits or is allowed under R307 to emit 10 tons per year or more of volatile organic compounds;
 - (iii) located in Davis, Salt Lake, Weber, or Utah County that emits or is allowed under R307 to emit 100 tons per year or more of carbon monoxide;
 - (iv) that emits 100 tons per year or more of any regulated air pollutant; or

(v) that emits or is allowed to emit 5 tons per year or more of lead;

(e) any source that is allowed under R307 to emit between 90 and 100 tons per year of any regulated air pollutant.

([3]2) Report Every Sixth Year. Any Part 70 source not included in R307-150-3(2) shall submit an emissions inventory every sixth year. The inventory for calendar year 1996 suffices as the first inventory.

([4]3) Additional Reports of Emissions Required Under Specified Circumstances. This subsection is applicable to all sources identified in R307-150-1.

(a) A source that initially achieves compliance at any time with any requirement of an applicable state implementation plan shall submit an inventory for the calendar year in which compliance is achieved.

(b) A source that emits or is allowed under R307 to emit 100 or more tons per year of any regulated air pollutant and whose emissions of any of these pollutants increase or decrease by five percent or more from the most recently submitted inventory shall submit an inventory for the calendar year in which the increase or decrease occurred.

(c) A source operating temporarily shall submit an inventory for the calendar year in which the source operated.

(d) A source that is not a temporary source, is required to submit an inventory, and ceases operations shall submit a report of emissions for the partial year and a report for the previous calendar year, if not already submitted.

(e) A new or modified source that is not a temporary source, is required to submit an inventory, and receives approval to construct or begins operating shall submit a report for the initial partial year of operation and a report for the subsequent calendar year.

([5]4) In addition to the required inventories, any source may choose to submit an inventory for any calendar year. The executive secretary may require at any time a full or partial year inventory on reasonable notice to affected sources.

([6]5) Due Date. Emission inventories shall be submitted on or before April 15 of each calendar year following any calendar year in which an inventory is required.

R307-150-5. Recordkeeping Requirements.

(1) Each owner or operator of a stationary source subject to this rule shall maintain a copy of the emission inventory submitted to the Division of Air Quality and records indicating how the information submitted in the inventory was determined, including any calculations, data, measurements, and estimates used. The records shall be kept for a period of at least five years from the due date of each emission statement or until the next inventory is due, whichever is longer.

(2) Upon the request of the executive secretary, the owner or operator of the stationary source shall make these records available at the stationary source for inspection by any representative of the Division of Air Quality during normal business hours.

KEY: air pollution, reports, inventories

[March 4, 1999]2000

19-2-104(1)(c)



Environmental Quality, Air Quality

R307-415-5a

Permit Applications: Duty to Apply

NOTICE OF PROPOSED RULE

(Amendment)

DAR FILE NO.: 22606

FILED: 01/14/2000, 09:51

RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: To defer the requirement for certain sources to submit an application for an Operating Permit under 40 CFR Part 70 until 12 months after the federal Environmental Protection Agency completes rulemaking affecting these sources. Also, Subsection R307-415-5a(3)(f) is deleted because it addressed deadlines which already have passed.

SUMMARY OF THE RULE OR CHANGE: When the federal Operating Permit Rule (40 CFR 70) was issued, the Environmental Protection Agency (EPA) was to complete rulemaking within five years to address nonmajor (area) sources. Therefore, Utah's operating permit rule defers the requirement until July 15, 2000. However, EPA currently has no plans to pursue further rulemaking and expects the deferral to continue. Therefore, the Air Quality Board proposes to amend the Utah operating permit rule to postpone the obligation to submit a permit until 12 months after the EPA completes its rulemaking. Area sources required to submit a permit application under other provisions are not deferred under this action.

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Section 19-2-104

FEDERAL REQUIREMENT FOR THIS RULE: 40 CFR 70

ANTICIPATED COST OR SAVINGS TO:

❖THE STATE BUDGET: No change as the application has not been required and is being further deferred. Federal rules which determine the complexity of the application have not been issued.

❖LOCAL GOVERNMENTS: No change as the application has not been required and is being further deferred. Federal rules which determine the complexity of the application have not been issued.

❖OTHER PERSONS: No change as the application has not been required and is being further deferred. Federal rules which determine the complexity of the application have not been issued.

COMPLIANCE COSTS FOR AFFECTED PERSONS: No change as the application has not been required and is being further deferred. Federal rules which determine the complexity of the application have not been issued.

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: The EPA and the state appropriately have focused on the major sources of

pollutants and are postponing implementation of the operating permits program for smaller sources, thus postponing costs for them--Dianne R. Nielson

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Environmental Quality
Air Quality
150 North 1950 West
PO Box 144820
Salt Lake City, UT 84114-4820, or
at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Jan Miller at the above address, by phone at (801) 536-4042, by FAX at (801) 536-4099, or by Internet E-mail at jmillier@deq.state.ut.us.

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS TO THE ADDRESS ABOVE NO LATER THAN 5:00 P.M. ON 03/02/2000; OR ATTENDING A PUBLIC HEARING SCHEDULED FOR 02/16/2000, 1:30 p.m., Department of Environmental Quality (DEQ) Building, 168 North 1950 West, Room 20, Salt Lake City, UT.

THIS RULE MAY BECOME EFFECTIVE ON: 04/05/2000

AUTHORIZED BY: Rick Sprott, Planning Branch Manager

R307. Environmental Quality, Air Quality.

R307-415. Permits: Operating Permit Requirements.

R307-415-5a. Permit Applications: Duty to Apply.

For each Part 70 source, the owner or operator shall submit a timely and complete permit application. A pre-application conference may be held at the request of a Part 70 source or the Executive Secretary to assist a source in submitting a complete application.

(1) Timely application.

(a) Except as provided in the transition plan under (3) below, a timely application for a source applying for an operating permit for the first time is one that is submitted within 12 months after the source becomes subject to the permit program.

(b) Except as provided in the transition plan under (3) below, any Part 70 source required to meet the requirements under Section 112(g) of the Act, Hazardous Air Pollutant Modifications, or required to receive an approval order to construct a new source or modify an existing source under R307-401, shall file a complete application to obtain an operating permit or permit revision within 12 months after commencing operation of the newly constructed or modified source. Where an existing operating permit would prohibit such construction or change in operation, the source must obtain a permit revision before commencing operation.

(c) For purposes of permit renewal, a timely application is one that is submitted by the renewal date established in the permit. The Executive Secretary shall establish a renewal date for each permit that is at least six months and not greater than 18 months prior to the date of permit expiration. A source may submit a permit application early for any reason, including timing of other application requirements.

(2) Complete application.

(a) To be deemed complete, an application must provide all information sufficient to evaluate the subject source and its application and to determine all applicable requirements pursuant to R307-415-5c. Applications for permit revision need supply such information only if it is related to the proposed change. A responsible official shall certify the submitted information consistent with R307-415-5d.

(b) Unless the Executive Secretary notifies the source in writing within 60 days of receipt of the application that an application is not complete, such application shall be deemed to be complete. A completeness determination shall not be required for minor permit modifications. If, while processing an application that has been determined or deemed to be complete, the Executive Secretary determines that additional information is necessary to evaluate or take final action on that application, the Executive Secretary may request such information in writing and set a reasonable deadline for a response. The source's ability to operate without a permit, as set forth in R307-415-7b(2), shall be in effect from the date the application is determined or deemed to be complete until the final permit is issued, provided that the applicant submits any requested additional information by the deadline specified in writing by the Executive Secretary.

(3) Transition Plan. A timely application under the transition plan is an application that is submitted according to the following schedule:

(a) All Title IV affected sources shall submit an operating permit application as well as an acid rain permit application in accordance with the date required by 40 CFR Part 72 effective April 11, 1995, Subpart C-Acid Rain Permit Applications;

(b) All major Part 70 sources operating as of July 10, 1995, except those described in (a) above, and all solid waste incineration units operating as of July 10, 1995, that are required to obtain an operating permit pursuant to 42 U.S.C. Sec. 7429(e) shall submit a permit application by October 10, 1995.

(c) Area sources.

(i) Except as provided in (c)(ii) and (c)(iii) below, each Part 70 source that is not a major source, a Title IV affected source, or a solid waste incineration unit required to obtain a permit pursuant to section 129(e) (42 U.S.C. 7429), is deferred from the obligation to submit an application until 12 months after the Administrator completes a rulemaking to determine how the program should be structured for area sources and the appropriateness of any permanent exemptions in addition to those provided in R307-415-4(2).

(ii) General Permits.

(i)A The Executive Secretary shall develop general permits and application forms for area source categories.

(i)B After a general permit has been issued for a source category, the Executive Secretary shall establish a due date for permit applications from all area sources in that source category.

(i)C The Executive Secretary shall provide at least six months notice that the application is due for a source category.

(iii) Regulation-specific Requirements.

(A) If a regulation promulgated under Section 111 or 112 (42 U.S.C. 7411 or 7412) requires an area source category to submit an application for a Part 70 permit, each area source covered by the requirement must submit an application in accordance with the regulation.

~~(iv) Except as provided in (a) and (b) above, all area sources are required to submit a permit application by July 10, 2000, unless required earlier as provided in (ii) above.]~~

(d) Extensions. The owner or operator of any Part 70 source may petition the Executive Secretary for an extension of the application due date for good cause. The due date for major Part 70 sources shall not be extended beyond July 10, 1996. The due date for an area source shall not be extended beyond ~~[July 10, 2000]~~ twelve months after the due date in (c)(i) above.

(e) Application shield. If a source submits a timely and complete application under this transition plan, the application shield under R307-415-7b(2) shall apply to the source. If a source submits a timely application and is making sufficient progress toward correcting an application determined to be incomplete, the Executive Secretary may extend the application shield under R307-415-7b(2) to the source when the application is determined complete. The application shield shall not be extended to any major source that has not submitted a complete application by July 10, 1996, or to any area source that has not submitted a complete application ~~[by July 10, 2000]~~ within twelve months after the due date in (c)(i) above.

~~(f) Permit issuance. The Executive Secretary shall take final action on all complete applications from major Part 70 sources by July 10, 1998.]~~

(4) Confidential information. Claims of confidentiality on information submitted to EPA may be made pursuant to applicable federal requirements. Claims of confidentiality on information submitted to the Department shall be made and governed according to Section 19-1-306. In the case where a source has submitted information to the Department under a claim of confidentiality that also must be submitted to the EPA, the Executive Secretary shall either submit the information to the EPA under Section 19-1-306, or require the source to submit a copy of such information directly to EPA.

(5) Late applications. An application submitted after the deadlines established in R307-415-5a shall be accepted for processing, but shall not be considered a timely application. Submitting an application shall not relieve a source of any enforcement actions resulting from submitting a late application.

KEY: air pollution, environmental protection, operating permit*, emission fee*

~~[1999]2000~~ **19-2-109.1**
Notice of Continuation March 1, 1999 **19-2-104**



Environmental Quality, Drinking Water
R309-405
Compliance and Enforcement:
Administrative Penalty

NOTICE OF PROPOSED RULE

(New)

DAR FILE NO.: 22604

FILED: 01/14/2000, 08:32

RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: This rule filing is in response to a federal Safe Drinking Water Act requirement for state drinking water programs to have administrative penalty authority in order to maintain primacy.

SUMMARY OF THE RULE OR CHANGE: This rule filing outlines the procedure to be used when administrative penalties are assessed against a noncompliant public water system.

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Section 19-4-104

FEDERAL REQUIREMENT FOR THIS RULE: Safe Drinking Water Act (amended Aug. 6, 1996), Title XIV, Section 1413(a)(6)

ANTICIPATED COST OR SAVINGS TO:

❖ **THE STATE BUDGET:** No incremental impact--the division will continue to enforce the existing rules for public drinking water systems. This rule filing will add an additional enforcement option.

❖ **LOCAL GOVERNMENTS:** Municipalities and districts operating public water systems who are out of compliance with existing requirements may be subject to an administrative penalty of up to \$5,000 per violation.

❖ **OTHER PERSONS:** Owners and operators of other public water systems who are out of compliance with existing requirements may be subject to an administrative penalty of up to \$5,000 per violation.

COMPLIANCE COSTS FOR AFFECTED PERSONS: This rule change will not impose any additional requirements to any public water system or individual. The rule filing outlines the procedure to be used in assessing administrative penalties against noncompliant public water systems.

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT

THE RULE MAY HAVE ON BUSINESSES: The Department of Environmental Quality agrees with the comments given under "aggregate anticipated cost or savings to..." and "compliance costs for affected persons." It is to the benefit of the state, regulated public water systems and the public to maintain primacy and thus enable state input and options for our drinking water program and the systems we regulate--Dianne R. Nielson, Executive Director

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Environmental Quality
Drinking Water
150 North 1950 West
PO Box 144830
Salt Lake City, UT 84114-4830, or
at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Ken Bousfield or Patti Fauver at the above address, by phone at (801) 536-4207 or (801) 536-4196, by FAX at (801) 536-4211, or by Internet E-mail at kbousfie@deq.state.ut.us or pfauver@deq.state.ut.us.

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS TO THE ADDRESS ABOVE NO LATER THAN 5:00 P.M. ON 03/02/2000.

THIS RULE MAY BECOME EFFECTIVE ON: 03/03/2000

AUTHORIZED BY: Kevin W. Brown, Director and Executive Secretary

R309. Environmental Quality, Drinking Water.

R309-405. Compliance and Enforcement: Administrative Penalty.

R309-405-1. Authority.

Utah Code Annotated, Sections 19-4-104 and 19-4-109

R309-405-2. Purpose, Scope, and Applicability.

(1) This rule sets the criteria and procedures the Board will use in assessing penalties to public drinking water systems for violation of its rules.

(2) This guidance and ensuing criteria is intended to be flexible and liberally construed to achieve a fair, just, and equitable result with the intent of returning a public water system to compliance.

(3) This rule is applicable to all public drinking water systems.

R309-405-3. Limits on Authority and Liability.

Nothing in this rule should be construed to limit the Board's ability to take enforcement actions under Utah Code Annotated, Section 19-4-109.

R309-405-4. Assessment of a Penalty and Calculation of Settlement Amounts.

Where the Executive Secretary determines that a penalty may be appropriate, the Executive Secretary shall propose a penalty amount by sending a notice of agency action, under Title 63, chapter 46b of the Administrative Procedures Act, to the public water system. The notice of agency action shall provide that the public water system may submit comments and/or information on the proposed penalty to the Executive Secretary within 30 days. The criteria the Executive Secretary will use in establishing a proposed penalty amount shall be as follows:

(1) Major Violations: \$3,000 to \$5,000 per violation. This category includes violations with high potential for impact on drinking water users, major deviations from the requirements of the rules or Safe Drinking Water Act, intentional fraud, falsification of data, violations which result in a public water system being considered by the Environmental Protection Agency to be: "Significant Non-Compliers" (SNC), or violations that may have a substantial adverse effect on the regulatory program. This category also includes violations which result in an accumulation of 400 or more Improvement Priority System (IPS) points based on Section R309-150, the Water System Rating Criteria.

(2) Moderate Violations: \$2,000 to \$3,000 per violation. This category includes violations with a moderate potential for impact on drinking water users, moderate deviations from the requirements of the rules or Safe Drinking Water Act with some requirements implemented as intended, or violations that may have a significant notable adverse effect on the regulatory program. This category also includes violations which result in an accumulation of 300 or more IPS points based on Section R309-150, the Water System Rating Criteria.

(3) Minor Violations: Up to \$2,000 per violation. This category includes violations with a minor potential for impact on drinking water users, slight deviations from the rules or Act with most of the requirements implemented, or violations that may have a minor adverse effect on the regulatory program. This category also includes violations which result in an accumulation of 200 or more IPS points based on Section R309-150, the Water System Rating Criteria.

The Executive Secretary will assess the penalty, if any, after reviewing information submitted by the public water system. The public water system may appeal the assessment of the penalty to the Board by requesting a formal hearing under the Utah Administrative Procedures Act within 30 days of the date of assessment of the penalty.

R309-405-5. Factors for Seeking or Negotiating Amount of Penalties.

The Executive Secretary, in assessing the penalty, may take into account the following factors:

(1) Economic benefit. The costs a person or organization may save by delaying or avoiding compliance with applicable laws or rules.

(2) Gravity of the violation. This component of the calculation shall be based on:

(a) The extent of deviation from the rules;

(b) The potential for harm to drinking water users, regardless of the extent of harm that actually occurred;

(c) The degree of cooperation or noncooperation and good faith efforts to comply. Good faith takes into account the openness in dealing with the violations, promptness in correction of problems, and the degree of cooperation with the State;

(d) History of compliance or noncompliance. The penalty amount may be adjusted upward in consideration of previous violations and the degree of recidivism. Likewise, the penalty amount may be adjusted downward when it is shown that the violator has a good compliance record; and,

(e) Degree of willfulness or negligence. Factors to be considered include how much control the violator had over the violation and the foreseeability of the events constituting the violation, whether the violator made or could have made reasonable efforts to prevent the violation, whether the violator knew, or should have known, of the legal requirements which were violated, and degree of recalcitrance.

(3) The number of days of non compliance

(4) Public sensitivity. The actual impact of the violation(s) that occurred.

(5) Response and investigation costs incurred by the State and others.

(6) The possible deterrent effect of a penalty to prevent future violations.

R309-405-6. Satisfaction of Penalty Under Stipulated Penalty Agreement.

The Executive Secretary may accept the following methods of payment or satisfaction of a penalty to promote compliance and to achieve the purposes set forth in Utah Code Annotated Section 19-4-109:

(1) Payment of the penalty may be extended based on a person or organization's inability to pay. This should be distinguished from an unwillingness to pay. In cases of financial hardship, the Executive Secretary may accept payment of the penalty under an installment plan or delayed payment schedule with interest.

(2) In circumstances where there is a demonstrated financial hardship, the Executive Secretary may allow a portion of the penalty to be deferred and eventually waived if no further violations are committed within a period designated by the Executive Secretary.

(3) In some cases, the Executive Secretary may allow the violator to satisfy the penalty by completing a Supplemental Environmental Project (SEP) approved by the Executive Secretary. The following criteria shall be used in determining the eligibility of such projects:

(a) The project must be in addition to all regulatory compliance obligations;

(b) The project must relate to some or all of the issues of the violation;

(c) The project must primarily benefit the drinking water users;

(d) The project must be defined, measurable and have a beginning and ending date;

(e) The project must be agreed to in writing between the public water system and the Executive Secretary;

(f) The project must not generate the public perception favoring violations of the laws and rules.

KEY: drinking water, environmental protection, administrative procedure, penalty

April 14, 2000

**19-4-104
63-46b-4**



**Environmental Quality, Radiation
Control
R313-12
General Provisions**

NOTICE OF PROPOSED RULE

(Amendment)
DAR FILE No.: 22598
FILED: 01/13/2000, 15:53
RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: Proposed changes are necessary for compatibility requirements of the

United States Nuclear Regulatory Commission, and for clarification of rule references cited in Rule R313-12.

SUMMARY OF THE RULE OR CHANGE: A change was made to the definition of background radiation. The following definitions were added: "critical group"; "decommission"; "distinguishable from background"; and "residual radioactivity." The definition for "facility" was modified and moved from Rule R313-16 to Rule R313-12. Corrections were made to the rule references in Rule R313-12.

(DAR Note: The amendment to R313-16 is under DAR No. 22600 in this *Bulletin*.)

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Sections 19-3-104 and 19-3-108

ANTICIPATED COST OR SAVINGS TO:

❖THE STATE BUDGET: None--this rule proposes new definitions and changes to definitions in Section R313-12-3. These definitions will be utilized for clarification purposes. These changes will not affect the state budget since new regulatory requirements are not proposed.

❖LOCAL GOVERNMENTS: None--this rule does not impact local government. Local government does not regulate radioactive material licensees.

❖OTHER PERSONS: None--this rule proposes new definitions and changes to definitions in Section R313-12-3. These definitions will be utilized for clarification purposes. These changes will not affect other persons since new regulatory requirements are not proposed.

COMPLIANCE COSTS FOR AFFECTED PERSONS: The proposed changes to this rule will not add any compliance costs to affected licensees because the changes are for clarification purposes and new regulatory requirements are not proposed.

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: No fiscal impact is expected for businesses since the changes are for clarification purposes and new regulatory requirements are not proposed.

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Environmental Quality
Radiation Control
State of Utah Office Park, Building 2
168 North 1950 West
PO Box 144850
Salt Lake City, UT 84114-4850, or
at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Julie Felice at the above address, by phone at (801) 536-4250, by FAX at (801) 533-4097, or by Internet E-mail at jfelice@deq.state.ut.us.

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS TO THE ADDRESS ABOVE NO LATER THAN 5:00 P.M. ON 03/02/2000.

THIS RULE MAY BECOME EFFECTIVE ON: 03/10/2000

AUTHORIZED BY: William J. Sinclair, Executive Secretary

R313. Environmental Quality, Radiation Control.

R313-12. General Provisions.

R313-12-1. Authority.

The rules set forth herein are adopted pursuant to the provisions of Subsections 19-3-104(3) and 19-3-104(6) and Section 63-38-3.

R313-12-2. Purpose and Scope.

It is the purpose of these rules to state such requirements as shall be applied in the use of radiation, radiation machines, and radioactive materials to ensure the maximum protection of the public health and safety to all persons at, or in the vicinity of, the place of use, storage, or disposal. These rules are intended to be consistent with the proper use of radiation machines and radioactive materials. Except as otherwise specifically provided, these rules apply to all persons who receive, possess, use, transfer, own or acquire any source of radiation, provided, however, that nothing in these rules shall apply to any person to the extent such person is subject to regulation by the U.S. Nuclear Regulatory Commission. See also Section R313-12-55.

R313-12-3. Definitions.

As used in these rules, these terms shall have the definitions set forth below. Additional definitions used only in a certain [chapter]rule will be found in that [chapter]rule.

"A₁" means the maximum activity of special form radioactive material permitted in a Type A package.

"A₂" means the maximum activity of radioactive material, other than special form radioactive material, low specific activity, and surface contaminated object material permitted in a Type A package. These values are either listed in 10 CFR 71, Appendix A, which is incorporated by reference in Section R313-19-100 or may be derived in accordance with the procedures prescribed in 10 CFR 71, Appendix A, which is incorporated by reference in Section R313-19-100.

"Absorbed dose" means the energy imparted by ionizing radiation per unit mass of irradiated material. The units of absorbed dose are the gray (Gy) and the rad.

"Accelerator produced material" means a material made radioactive by a particle accelerator.

"Act" means Utah Radiation Control Act, Title 19, Chapter 3.

"Activity" means the rate of disintegration or transformation or decay of radioactive material. The units of activity are the becquerel (Bq) and the curie (Ci).

"Adult" means an individual 18 or more years of age.

"Address of use" means the building that is identified on the license and where radioactive material may be received, used or stored.

"Agreement State" means a state with which the United States Nuclear Regulatory Commission has entered into an effective agreement under Section 274 b. of the Atomic Energy Act of 1954, as amended (73 Stat. 689).

"Airborne radioactive material" means a radioactive material dispersed in the air in the form of dusts, fumes, particulates, mists, vapors, or gases.

"Airborne radioactivity area" means: a room, enclosure, or area in which airborne radioactive material exists in concentrations:

(a) In excess of the derived air concentrations (DACs), specified in Rule R313-15, or

(b) To such a degree that an individual present in the area without respiratory protective equipment could exceed, during the hours an individual is present in a week, an intake of 0.6 percent of the annual limit on intake (ALI), or 12 DAC hours.

"As low as reasonably achievable" (ALARA) means making every reasonable effort to maintain exposures to radiation as far below the dose limits as is practical, consistent with the purpose for which the licensed or registered activity is undertaken, taking into account the state of technology, the economics of improvements in relation to state of technology, the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to utilization of nuclear energy and licensed or registered sources of radiation in the public interest.

"Area of use" means a portion of an address of use that has been set aside for the purpose of receiving, using, or storing radioactive material.

"Background radiation" means radiation from cosmic sources; naturally occurring radioactive materials, including radon, except as a decay product of source or special nuclear material, and including global fallout as it exists in the environment from the testing of nuclear explosive devices or from past nuclear accidents such as Chernobyl that contribute to background radiation and are not under the control of the licensee. "Background radiation" does not include sources of radiation from radioactive materials regulated by the Department under the Radiation Control Act or Rules.

"Becquerel" (Bq) means the SI unit of activity. One becquerel is equal to one disintegration or transformation per second.

"Bioassay" means the determination of kinds, quantities or concentrations, and in some cases, the locations of radioactive material in the human body, whether by direct measurement, in vivo counting, or by analysis and evaluation of materials excreted or removed from the human body. For purposes of these rules, "radiobioassay" is an equivalent term.

"Board" means the Radiation Control Board created under Section 19-1-106.

"Byproduct material" means:

(a) a radioactive material, with the exception of special nuclear material, yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material; and

(b) the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content, including discrete surface wastes resulting from uranium or thorium solution extraction processes. Underground ore bodies depleted by these solution extraction operations do not constitute "byproduct material" within this definition.

"Calendar quarter" means not less than 12 consecutive weeks nor more than 14 consecutive weeks. The first calendar quarter of

the year shall begin in January, and subsequent calendar quarters shall be arranged so that no day is included in more than one calendar quarter and no day in any one year is omitted from inclusion within a calendar quarter. The method observed by the licensee or registrant for determining calendar quarters shall only be changed at the beginning of a year.

"Calibration" means the determination of:

(a) the response or reading of an instrument relative to a series of known radiation values over the range of the instrument; or
(b) the strength of a source of radiation relative to a standard.

"CFR" means Code of Federal Regulations.

"Chelating agent" means a chemical ligand that can form coordination compounds in which the ligand occupies more than one coordination position. The agents include beta diketones, certain proteins, amine polycarboxylic acids, hydroxycarboxylic acids, gluconic acid, and polycarboxylic acids.

"Collective dose" means the sum of the individual doses received in a given period of time by a specified population from exposure to a specified source of radiation.

"Committed dose equivalent" ($H_{T,50}$), means the dose equivalent to organs or tissues of reference (T), that will be received from an intake of radioactive material by an individual during the 50-year period following the intake.

"Committed effective dose equivalent" ($H_{E,50}$), is the sum of the products of the weighting factors applicable to each of the body organs or tissues that are irradiated and the committed dose equivalent to each of these organs or tissues.

"Controlled area" means an area, outside of a restricted area but inside the site boundary, access to which can be limited by the licensee or registrant for any reason.

"Critical group" means the group of individuals reasonably expected to receive the greatest exposure to residual radioactivity for any applicable set of circumstances.

"Curie" means a unit of measurement of activity. One curie (Ci) is that quantity of radioactive material which decays at the rate of 3.7×10^{10} disintegrations or transformations per second (dps or tps).

"Decommission" means to remove a facility or site safely from service and reduce residual radioactivity to a level that permits:

(a) release of property for unrestricted use and termination of the license; or

(b) release of the property under restricted conditions and termination of the license.

"Deep dose equivalent" (H_D), which applies to external whole body exposure, means the dose equivalent at a tissue depth of one centimeter (1000 mg/cm^2).

"Department" means the Utah State Department of Environmental Quality.

"Depleted uranium" means the source material uranium in which the isotope uranium-235 is less than 0.711 weight percent of the total uranium present. Depleted uranium does not include special nuclear material.

"Distinguishable from background" means that the detectable concentration of a radionuclide is statistically different from the background concentration of that radionuclide in the vicinity of the site or, in the case of structures, in similar materials using adequate measurement technology, survey, and statistical techniques.

"Dose" is a generic term that means absorbed dose, dose equivalent, effective dose equivalent, committed dose equivalent,

committed effective dose equivalent, or total effective dose equivalent. For purposes of these rules, "radiation dose" is an equivalent term.

"Dose equivalent" (H_T), means the product of the absorbed dose in tissue, quality factor, and other necessary modifying factors at the location of interest. The units of dose equivalent are the sievert (Sv) and rem.

"Dose limits" means the permissible upper bounds of radiation doses established in accordance with these rules. For purpose of these rules, "limits" is an equivalent term.

"Effective dose equivalent" (H_E), means the sum of the products of the dose equivalent to each organ or tissue (H_T), and the weighting factor (w_T), applicable to each of the body organs or tissues that are irradiated.

"Embryo/fetus" means the developing human organism from conception until the time of birth.

"Entrance or access point" means an opening through which an individual or extremity of an individual could gain access to radiation areas or to licensed or registered radioactive materials. This includes entry or exit portals of sufficient size to permit human entry, irrespective of their intended use.

"Executive Secretary" means the executive secretary of the board.

"Explosive material" means a chemical compound, mixture, or device which produces a substantial instantaneous release of gas and heat spontaneously or by contact with sparks or flame.

"EXPOSURE" when capitalized, means the quotient of dQ by dm where "dQ" is the absolute value of the total charge of the ions of one sign produced in air when all the electrons, both negatrons and positrons, liberated by photons in a volume element of air having a mass of "dm" are completely stopped in air. The special unit of EXPOSURE is the roentgen (R). See Section R313-12-20 Units of exposure and dose for the SI equivalent. For purposes of these rules, this term is used as a noun.

"Exposure" when not capitalized as the above term, means being exposed to ionizing radiation or to radioactive material. For purposes of these rules, this term is used as a verb.

"EXPOSURE rate" means the EXPOSURE per unit of time, such as roentgen per minute and milliroentgen per hour.

"External dose" means that portion of the dose equivalent received from a source of radiation outside the body.

"Extremity" means hand, elbow, arm below the elbow, foot, knee, and leg below the knee.

"Eye dose equivalent" means the external dose equivalent to the lens of the eye at a tissue depth of 0.3 centimeter (300 mg/cm^2).

"Facility" means the location within one building, vehicle, or under one roof and under the same administrative control

(a) at which the use, processing or storage of radioactive material is or was authorized; or

(b) at which one or more radiation-producing machines or radioactivity-inducing machines are installed or located.

"Former United States Atomic Energy Commission (AEC) or United States Nuclear Regulatory Commission (NRC) licensed facilities" means nuclear reactors, nuclear fuel reprocessing plants, uranium enrichment plants, or critical mass experimental facilities where AEC or NRC licenses have been terminated.

"Generally applicable environmental radiation standards" means standards issued by the U.S. Environmental Protection Agency under the authority of the Atomic Energy Act of 1954, as

amended, that impose limits on radiation exposures or levels, or concentrations or quantities of radioactive material, in the general environment outside the boundaries of locations under the control of persons possessing or using radioactive material.

"Gray" (Gy) means the SI unit of absorbed dose. One gray is equal to an absorbed dose of one joule per kilogram.

"Hazardous waste" means those wastes designated as hazardous by the U.S. Environmental Protection Agency rules in 40 CFR Part 261.

"Healing arts" means the disciplines of medicine, dentistry, osteopathy, chiropractic, and podiatry.

"High radiation area" means an area, accessible to individuals, in which radiation levels could result in an individual receiving a dose equivalent in excess of one mSv (0.1 rem), in one hour at 30 centimeters from a source of radiation or from a surface that the radiation penetrates. For purposes of these rules, rooms or areas in which diagnostic x-ray systems are used for healing arts purposes are not considered high radiation areas.

"Human use" means the intentional internal or external administration of radiation or radioactive material to human beings.

"Individual" means a human being.

"Individual monitoring" means the assessment of:

(a) dose equivalent, by the use of individual monitoring devices or, by the use of survey data; or

(b) committed effective dose equivalent by bioassay or by determination of the time weighted air concentrations to which an individual has been exposed, that is, DAC-hours.

"Individual monitoring devices" means devices designated to be worn by a single individual for the assessment of dose equivalent. For purposes of these rules, individual monitoring equipment and personnel monitoring equipment are equivalent terms. Examples of individual monitoring devices are film badges, thermoluminescent dosimeters (TLD's), pocket ionization chambers, and personal air sampling devices.

"Inspection" means an official examination or observation including, but not limited to, tests, surveys, and monitoring to determine compliance with rules, orders, requirements and conditions applicable to radiation sources.

"Interlock" means a device arranged or connected requiring the occurrence of an event or condition before a second condition can occur or continue to occur.

"Internal dose" means that portion of the dose equivalent received from radioactive material taken into the body.

"License" means a license issued by the Executive Secretary in accordance with the rules adopted by the Board.

"Licensee" means a person who is licensed by the Department in accordance with these rules and the Act.

"Licensed or registered material" means radioactive material, received, possessed, used or transferred or disposed of under a general or specific license issued by the Executive Secretary.

"Licensing state" means a state which has been provisionally or finally designated as such by the Conference of Radiation Control Program Directors, Inc., which reviews state regulations to establish equivalency with the Suggested State Regulations and ascertains whether a State has an effective program for control of natural occurring or accelerator produced radioactive material (NARM). The Conference will designate as Licensing States those states with regulations for control of radiation relating to, and an effective program for, the regulatory control of NARM.

"Limits". See "Dose limits".

"Lost or missing source of radiation" means licensed or registered sources of radiation whose location is unknown. This definition includes, but is not limited to, radioactive material that has been shipped but has not reached its planned destination and whose location cannot be readily traced in the transportation system.

"Major processor" means a user processing, handling, or manufacturing radioactive material exceeding Type A quantities as unsealed sources or material, or exceeding four times Type B quantities as sealed sources, but does not include nuclear medicine programs, universities, industrial radiographers, or small industrial programs. Type A and B quantities are defined in 10 CFR 71.4.

"Member of the public" means an individual except when that individual is receiving an occupational dose.

"Minor" means an individual less than 18 years of age.

"Monitoring" means the measurement of radiation, radioactive material concentrations, surface area activities or quantities of radioactive material, and the use of the results of these measurements to evaluate potential exposures and doses. For purposes of these rules, radiation monitoring and radiation protection monitoring are equivalent terms.

"NARM" means a naturally occurring or accelerator-produced radioactive material. It does not include byproduct, source or special nuclear material.

"NORM" means a naturally occurring radioactive material.

"Natural radioactivity" means radioactivity of naturally occurring nuclides.

"Nuclear Regulatory Commission" (NRC) means the U.S. Nuclear Regulatory Commission or its duly authorized representatives.

"Occupational dose" means the dose received by an individual in the course of employment in which the individual's assigned duties for the licensee or registrant involve exposure to sources of radiation, whether or not the sources of radiation are in the possession of the licensee, registrant, or other person. Occupational dose does not include doses received from background radiation, from any medical administration the individual has received, from exposure to individuals administered radioactive material and released in accordance with [Section R313-32-75](#), from voluntary participation in medical research programs, or as a member of the public.

"Package" means the packaging together with its radioactive contents as presented for transport.

"Particle accelerator" means a machine capable of accelerating electrons, protons, deuterons, or other charged particles in a vacuum and of discharging the resultant particulate or other radiation into a medium at energies usually in excess of one MeV.

"Person" means an individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, agency, political subdivision of this state, or another state or political subdivision or agency thereof, and a legal successor, representative, agent or agency of the foregoing.

"Personnel monitoring equipment," see individual monitoring devices.

"Pharmacist" means an individual licensed by this state to practice pharmacy. See Sections 58-17-1 through 58-17-27.

"Physician" means an individual licensed by this state to practice medicine and surgery in all its branches. See Sections 58-12-26 through 58-12-43.

"Practitioner" means an individual licensed by this state in the practice of a healing art. Examples would be, physician, dentist, podiatrist, osteopath, and chiropractor.

"Protective apron" means an apron made of radiation-attenuating materials used to reduce exposure to radiation.

"Public dose" means the dose received by a member of the public from sources of radiation from licensed or registered operations. Public dose does not include occupational dose or doses received from background radiation, from any medical administration the individual has received, from exposure to individuals administered radioactive material and released in accordance with Section R313-32-75, or from voluntary participation in medical research programs.

"Pyrophoric material" means any liquid that ignites spontaneously in dry or moist air at or below 130 degrees Fahrenheit (54.4 degrees Celsius) or any solid material, other than one classed as an explosive, which under normal conditions is liable to cause fires through friction, retained heat from manufacturing or processing, or which can be ignited and, when ignited, burns so vigorously and persistently as to create a serious transportation, handling, or disposal hazard. Included are spontaneously combustible and water-reactive materials.

"Quality factor" (Q) means the modifying factor, listed in Tables 1 and 2 of Section R313-12-20 that is used to derive dose equivalent from absorbed dose.

"Rad" means the special unit of absorbed dose. One rad is equal to an absorbed dose of 100 erg per gram or 0.01 joule per kilogram

"Radiation" means alpha particles, beta particles, gamma rays, x-rays, neutrons, high speed electrons, high speed protons, and other particles capable of producing ions. For purposes of these rules, ionizing radiation is an equivalent term. Radiation, as used in these rules, does not include non-ionizing radiation, like radiowaves or microwaves, visible, infrared, or ultraviolet light.

"Radiation area" means an area, accessible to individuals, in which radiation levels could result in an individual receiving a dose equivalent in excess of 0.05 mSv (0.005 rem), in one hour at 30 centimeters from the source of radiation or from a surface that the radiation penetrates.

"Radiation machine" means a device capable of producing radiation except those devices with radioactive material as the only source of radiation.

"Radiation safety officer" means an individual who has the knowledge and responsibility to apply appropriate radiation protection rules and has been assigned such responsibility by the licensee or registrant.

"Radiation source[-]". See "Source of radiation."

"Radioactive material" means a solid, liquid, or gas which emits radiation spontaneously.

"Radioactivity" means the transformation of unstable atomic nuclei by the emission of radiation.

"Radiobioassay". See "Bioassay".

"Registrant" means any person who is registered with respect to radioactive materials or radiation machines with the Executive Secretary or is legally obligated to register with the Executive Secretary pursuant to these rules and the Act.

"Registration" means registration with the Department in accordance with the rules adopted by the Board.

"Regulations of the U.S. Department of Transportation" means 49 CFR 100 through 189.

"Rem" means the special unit of any of the quantities expressed as dose equivalent. The dose equivalent in rem is equal to the absorbed dose in rad multiplied by the quality factor. One rem equals 0.01 sievert (Sv).

"Research and development" means:

(a) theoretical analysis, exploration, or experimentation; or

(b) the extension of investigative findings and theories of a scientific or technical nature into practical application for experimental and demonstration purposes, including the experimental production and testing of models, devices, equipment, materials, and processes. Research and development does not include the internal or external administration of radiation or radioactive material to human beings.

"Residual radioactivity" means radioactivity in structures, materials, soils, groundwater, and other media at a site resulting from activities under the licensee's control. This includes radioactivity from all licensed and unlicensed sources used by the licensee, but excludes background radiation. It also includes radioactive materials remaining at the site as a result of routine or accidental releases of radioactive material at the site and previous burials at the site, even if those burials were made in accordance with the provisions of Rule R313-15.

"Restricted area" means an area, access to which is limited by the licensee or registrant for the purpose of protecting individuals against undue risks from exposure to sources of radiation. A "Restricted area" does not include areas used as residential quarters, but separate rooms in a residential building may be set apart as a restricted area.

"Roentgen" (R) means the special unit of EXPOSURE. One roentgen equals 2.58×10^{-4} coulombs per kilogram of air. See EXPOSURE.

"Sealed source" means radioactive material that is permanently bonded or fixed in a capsule or matrix designed to prevent release and dispersal of the radioactive material under the most severe conditions which are likely to be encountered in normal use and handling.

"Shallow dose equivalent" (H_s) which applies to the external exposure of the skin or an extremity, means the dose equivalent at a tissue depth of 0.007 centimeter (seven mg per cm^2), averaged over an area of one square centimeter.

"SI" means an abbreviation of the International System of Units.

"Sievert" (Sv) means the SI unit of any of the quantities expressed as dose equivalent. The dose equivalent in sievert is equal to the absorbed dose in gray multiplied by the quality factor. One Sv equals 100 rem.

"Site boundary" means that line beyond which the land or property is not owned, leased, or otherwise controlled by the licensee or registrant.

"Source container" means a device in which sealed sources are transported or stored.

"Source material" means:

(a) uranium or thorium, or any combination thereof, in any physical or chemical form, or

(b) ores that contain by weight one-twentieth of one percent (0.05 percent), or more of, uranium, thorium, or any combination of uranium and thorium. Source material does not include special nuclear material.

"Source material milling" means any activity that results in the production of byproduct material as defined by (b) of "byproduct material".

"Source of radiation" means any radioactive material, or a device or equipment emitting or capable of producing ionizing radiation.

"Special form radioactive material" means radioactive material which satisfies the following conditions:

(a) it is either a single solid piece or is contained in a sealed capsule that can be opened only by destroying the capsule;

(b) the piece or capsule has at least one dimension not less than five millimeters (0.197 inch); and

(c) it satisfies the test requirements specified by the U.S. Nuclear Regulatory Commission in 10 CFR 71.75. A special form encapsulation designed in accordance with the U.S. Nuclear Regulatory Commission requirements in effect on June 30, 1983, and constructed prior to July 1, 1985, may continue to be used. A special form encapsulation designed in accordance with the requirements of Section 71.4 in effect on March 31, 1996, (see 10 CFR 71 revised January 1, 1983), and constructed before April 1, 1998, may continue to be used. Any other special form encapsulation must meet the specifications of this definition.

"Special nuclear material" means:

(a) plutonium, uranium-233, uranium enriched in the isotope 233 or in the isotope 235, and other material that the U.S. Nuclear Regulatory Commission, pursuant to the provisions of section 51 of the Atomic Energy Act of 1954, as amended, determines to be special nuclear material, but does not include source material; or

(b) any material artificially enriched by any of the foregoing but does not include source material.

"Special nuclear material in quantities not sufficient to form a critical mass" means uranium enriched in the isotope U-235 in quantities not exceeding 350 grams of contained U-235; uranium-233 in quantities not exceeding 200 grams; plutonium in quantities not exceeding 200 grams or a combination of them in accordance with the following formula: For each kind of special nuclear material, determine the ratio between the quantity of that special nuclear material and the quantity specified above for the same kind of special nuclear material. The sum of such ratios for all of the kinds of special nuclear material in combination shall not exceed one. For example, the following quantities in combination would not exceed the limitation and are within the formula:

$((175(\text{Grams contained U-235})/350) + (50(\text{Grams U-233}/200) + (50(\text{Grams Pu}/200)))$ is equal to one.

"Survey" means an evaluation of the radiological conditions and potential hazards incident to the production, use, transfer, release, disposal, or presence of sources of radiation. When appropriate, such evaluation includes, but is not limited to, tests, physical examinations and measurements of levels of radiation or concentrations of radioactive material present.

"Test" means the process of verifying compliance with an applicable rule.

"These rules" means "Utah Radiation Control Rules".

"Total effective dose equivalent" (TEDE) means the sum of the deep dose equivalent for external exposures and the committed effective dose equivalent for internal exposures.

"Total organ dose equivalent" (TODE) means the sum of the deep dose equivalent and the committed dose equivalent to the organ receiving the highest dose as described in Subsection R313-15-[-] 1107(1)(f).

"U.S. Department of Energy" means the Department of Energy established by Public Law 95-91, August 4, 1977, 91 Stat. 565, 42 U.S.C. 7101 et seq., to the extent that the Department exercises functions formerly vested in the U.S. Atomic Energy Commission, its Chairman, members, officers and components and transferred to the U.S. Energy Research and Development Administration and to the Administrator thereof pursuant to sections 104(b), (c), and (d) of Public Law 93-438, October 11, 1974, 88 Stat. 1233 at 1237, effective January 19, 1975 known as the Energy Reorganization Act of 1974, and retransferred to the Secretary of Energy pursuant to section 301(a) of Public Law 95-91, August 14, 1977, 91 Stat. 565 at 577-578, 42 U.S.C. 7151, effective October 1, 1977 known as the Department of Energy Organization Act.

"Unrefined and unprocessed ore" means ore in its natural form prior to processing, like grinding, roasting, beneficiating or refining.

"Unrestricted area" means an area, to which access is neither limited nor controlled by the licensee or registrant. For purposes of these rules, "uncontrolled area" is an equivalent term.

"Waste" means those low-level radioactive wastes that are acceptable for disposal in a land disposal facility. For the purposes of this definition, low-level waste has the same meaning as in the Low-Level Radioactive Waste Policy Act, P.L. 96-573, as amended by P.L. 99-240, effective January 15, 1986; that is, radioactive waste:

(a) not classified as high-level radioactive waste, spent nuclear fuel, or byproduct material as defined in Section 11e.(2) of the Atomic Energy Act (uranium or thorium tailings and waste) and

(b) classified by the U.S. Nuclear Regulatory Commission as low-level radioactive waste consistent with existing law and in accordance with (a) above.

"Waste collector licensees" means persons licensed to receive and store radioactive wastes prior to disposal or persons licensed to dispose of radioactive waste.

"Week" means seven consecutive days starting on Sunday.

"Whole body" means, for purposes of external exposure, head, trunk including male gonads, arms above the elbow, or legs above the knees.

"Worker" means an individual engaged in work under a license or registration issued by the Executive Secretary and controlled by a licensee or registrant, but does not include the licensee or registrant.

"Working level" (WL), means any combination of short-lived radon daughters in one liter of air that will result in the ultimate emission of 1.3×10^5 MeV of potential alpha particle energy. The short-lived radon daughters are, for radon-222: polonium-218, lead-214, bismuth-214, and polonium-214; and for radon 220: polonium-216, lead-212, bismuth-212, and polonium-212.

"Working level month" (WLM), means an exposure to one working level for 170 hours. 2,000 working hours per year divided by 12 months per year is approximately equal to 170 hours per month.

"Year" means the period of time beginning in January used to determine compliance with the provisions of these rules. The licensee or registrant may change the starting date of the year used to determine compliance by the licensee or registrant provided that the decision to make the change is made not later than December 31 of the previous year. If a licensee or registrant changes in a year, the licensee or registrant shall assure that no day is omitted or duplicated in consecutive years.

R313-12-20. Units of Exposure and Dose.

(1) As used in these rules, the unit of EXPOSURE is the coulomb per kilogram (C per kg). One roentgen is equal to 2.58 x 10⁻⁴ coulomb per kilogram of air.

(2) As used in these rules, the units of dose are:

(a) Gray (Gy) is the SI unit of absorbed dose. One gray is equal to an absorbed dose of one joule per kilogram. One gray equals 100 rad.

(b) Rad is the special unit of absorbed dose. One rad is equal to an absorbed dose of 100 erg per gram or 0.01 joule per kilogram. One rad equals 0.01 Gy.

(c) Rem is the special unit of any of the quantities expressed as dose equivalent. The dose equivalent in rem is equal to the absorbed dose in rad multiplied by the quality factor. One rem equals 0.01 Sv.

(d) Sievert (Sv) is the SI unit of any of the quantities expressed as dose equivalent. The dose equivalent in sievert is equal to the absorbed dose in gray multiplied by the quality factor. One Sv equals 100 rem.

(3) As used in these rules, the quality factors for converting absorbed dose to dose equivalent are shown in Table 1.

TABLE 1

Quality Factors and Absorbed Dose Equivalencies

Type of Radiation	Quality Factor (Q)	Absorbed Dose Equal to a Unit Dose Equivalent
X, gamma, or beta radiation and high-speed electrons	1	1
Alpha particles, multiple-charged particles, fission fragments and heavy particles of unknown charge	20	0.05
Neutrons of unknown energy	10	0.1
High energy protons	10	0.1

For the column in Table 1 labeled "Absorbed Dose Equal to a Unit Dose Equivalent", the absorbed dose in rad is equal to one rem or the absorbed dose in gray is equal to one Sv.

(4) If it is more convenient to measure the neutron fluence rate than to determine the neutron dose equivalent rate in sievert per hour or rem per hour, as provided in Subsection R313-12-20(3), 0.01 Sv of neutron radiation of unknown energies may, for purposes of these rules, be assumed to result from a total fluence of 25 million neutrons per square centimeter incident upon the body. If sufficient information exists to estimate the approximate energy distribution of the neutrons, the licensee or registrant may use the fluence rate per unit dose equivalent or the appropriate Q value from Table 2 to convert a measured tissue dose in gray or rad to dose equivalent in sievert or rem.

TABLE 2

Mean Quality Factors, Q, and Fluence Per Unit Dose Equivalent for Monoenergetic Neutrons

Neutron Energy Mev	Quality Factor Q	Fluence per Unit Dose Equivalent neutrons cm ⁻² rem ⁻¹	Fluence per Unit Dose Equivalent neutrons cm ⁻² Sv ⁻¹	
thermal	2.5 x 10 ⁻⁸	2	980 x 10 ⁶	980 x 10 ⁸
	1 x 10 ⁻⁷	2	980 x 10 ⁶	980 x 10 ⁸
	1 x 10 ⁻⁶	2	810 x 10 ⁶	810 x 10 ⁸
	1 x 10 ⁻⁵	2	810 x 10 ⁶	810 x 10 ⁸
	1 x 10 ⁻⁴	2	840 x 10 ⁶	840 x 10 ⁸
	1 x 10 ⁻³	2	980 x 10 ⁶	980 x 10 ⁸
	1 x 10 ⁻²	2.5	1010 x 10 ⁶	1010 x 10 ⁸
	1 x 10 ⁻¹	7.5	170 x 10 ⁶	170 x 10 ⁸
	5 x 10 ⁻¹	11	39 x 10 ⁶	39 x 10 ⁸
	1	11	27 x 10 ⁶	27 x 10 ⁸
	2.5	9	29 x 10 ⁶	29 x 10 ⁸
	5	8	23 x 10 ⁶	23 x 10 ⁸
	7	7	24 x 10 ⁶	24 x 10 ⁸
	10	6.5	24 x 10 ⁶	24 x 10 ⁸
	14	7.5	17 x 10 ⁶	17 x 10 ⁸
	20	8	16 x 10 ⁶	16 x 10 ⁸
	40	7	14 x 10 ⁶	14 x 10 ⁸
	60	5.5	16 x 10 ⁶	16 x 10 ⁸
	1 x 10 ²	4	20 x 10 ⁶	20 x 10 ⁸
	2 x 10 ²	3.5	19 x 10 ⁶	19 x 10 ⁸
	3 x 10 ²	3.5	16 x 10 ⁶	16 x 10 ⁸
	4 x 10 ²	3.5	14 x 10 ⁶	14 x 10 ⁸

For the column in Table 2 labeled "Quality Factor", the values of Q are at the point where the dose equivalent is maximum in a 30 cm diameter cylinder tissue-equivalent phantom.

For the columns in Table 2 labeled "Fluence per Unit Dose Equivalent", the values are for monoenergetic neutrons incident normally on a 30 cm diameter cylinder tissue equivalent phantom.

R313-12-40. Units of Radioactivity.

For purposes of these rules, activity is expressed in the SI unit of becquerel (Bq), or in the special unit of curie (Ci), or their multiples, or disintegrations or transformations per unit of time.

(1) One becquerel (Bq) equals one disintegration or transformation per second.

(2) One curie (Ci) equals 3.7 x 10¹⁰ disintegrations or transformations per second, which equals 3.7 x 10¹⁰ becquerel, which equals 2.22 x 10¹² disintegrations or transformations per minute.

R313-12-51. Records.

(1) A licensee or registrant shall maintain records showing the receipt, transfer, and disposal of all sources of radiation.

(2) Prior to license termination, each licensee authorized to possess radioactive material with a half-life greater than 120 days, in an unsealed form, may forward the following records to the Executive Secretary:

(a) records of disposal of licensed material made under Sections R313-15-1002 (including burials authorized before January 28, 1981), R313-15-1003, R313-15-1004, and R313-15-1005; and

(b) records required by Subsection R313-15-1103(2)(d).

NOTE: 10 CFR 20.304 permitted burial of small quantities of licensed materials in soil before January 28, 1981, without specific U.S. Nuclear Regulatory Commission authorization. See 20.304

contained in the 10 CFR, parts 0 to 199, edition revised as of January 1, 1981.

(3) If licensed activities are transferred or assigned in accordance with Subsection R313-19-34(2), each licensee authorized to possess radioactive material, with a half-life greater than 120 days, in an unsealed form, shall transfer the following records to the new licensee and the new licensee will be responsible for maintaining these records until the license is terminated:

(a) records of disposal of licensed material made under Sections R313-15-1002 (including burials authorized before January 28, 1981), R313-15-1003, R313-15-1004, and R313-15-1005; and

(b) records required by Subsection R313-15-1103(2)(d).

(4) Prior to license termination, each licensee may forward the records required by Subsection R313-22-35(7) to the Executive Secretary.

(5) Additional records requirements are specified elsewhere in these rules.

R313-12-52. Inspections.

(1) A licensee or registrant shall afford representatives of the Executive Secretary, at reasonable times, opportunity to inspect sources of radiation and the premises and facilities wherein those sources of radiation are used or stored.

(2) A licensee or registrant shall make available to representatives of the Executive Secretary for inspection, upon reasonable notice, records maintained pursuant to these rules.

R313-12-53. Tests.

(1) A licensee or registrant shall perform upon instructions from a representative of the Board or the Executive Secretary or shall permit the representative to perform reasonable tests as the representative deems appropriate or necessary including, but not limited to, tests of:

- (a) sources of radiation;
- (b) facilities wherein sources of radiation are used or stored;
- (c) radiation detection and monitoring instruments; and
- (d) other equipment and devices used in connection with utilization or storage of licensed or registered sources of radiation.

R313-12-54. Additional Requirements.

The Board may, by rule, or order, impose upon a licensee or registrant requirements in addition to those established in these rules that it deems appropriate or necessary to minimize any danger to public health and safety or the environment.

R313-12-55. Exemptions.

(1) The Board may, upon application or upon its own initiative, grant exemptions or exceptions from the requirements of these rules as it determines are authorized by law and will not result in undue hazard to public health and safety or the environment.

(2) U.S. Department of Energy contractors or subcontractors and U.S. Nuclear Regulatory Commission contractors or subcontractors operating within this state are exempt from these rules to the extent that the contractor or subcontractor under his contract receives, possesses, uses, transfers, or acquires sources of radiation. The following contractor categories are included:

(a) prime contractors performing work for the U.S. Department of Energy at U.S. Government-owned or controlled sites, including the transportation of sources of radiation to or from the sites and the performance of contract services during temporary interruptions of the transportation;

(b) prime contractors of the U.S. Department of Energy performing research in, or development, manufacture, storage, testing or transportation of, atomic weapons or components thereof;

(c) prime contractors of the U.S. Department of Energy using or operating nuclear reactors or other nuclear devices in a United States Government-owned vehicle or vessel; and

(d) any other prime contractor or subcontractor of the U.S. Department of Energy or of the U.S. Nuclear Regulatory Commission when the state and the U.S. Nuclear Regulatory Commission jointly determine (i) that the exemption of the prime contractor or subcontractor is authorized by law; and (ii) that under the terms of the contract or subcontract, there is adequate assurance that the work thereunder can be accomplished without undue risk to the public health and safety.

R313-12-70. Impounding.

Sources of radiation shall be subject to impounding pursuant to Section 19-3-111. Persons who have a source of radiation impounded are subject to fees established in accordance with the Legislative Appropriations Act for the actual cost of the management and oversight activities performed by representatives of the Executive Secretary.

R313-12-100. Prohibited Uses.

(1) A hand-held fluoroscopic screen using x-ray equipment shall not be used unless it has been listed in the Registry of Sealed Source and Devices or accepted for certification by the U.S. Food and Drug Administration, Center for Devices and Radiological Health.

(2) A shoe-fitting fluoroscopic device shall not be used.

R313-12-110. Communications.

All communications and reports concerning these rules, and applications filed thereunder, should be addressed to the Division of Radiation Control, P.O. Box 144850, 168 North 1950 West, Salt Lake City, Utah 84114-4850.

KEY: definitions, units, inspections, exemptions

~~March 12, 1999~~ **2000** 19-3-104
Notice of Continuation March 26, 1997 19-3-108



Environmental Quality, Radiation
 Control
R313-15
 Standards for Protection Against
 Radiation

NOTICE OF PROPOSED RULE

(Amendment)

DAR FILE NO.: 22599

FILED: 01/13/2000, 15:53

RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: The proposed rulemaking is an item of the United States Nuclear Regulatory Compatibility.

SUMMARY OF THE RULE OR CHANGE: The proposed rulemaking is an item of the United States Nuclear Regulatory Compatibility. The proposed rulemaking will provide specific radiological criteria for the decommissioning of lands and structures. The criteria is to be applied to the decommissioning of radioactive material licensee's facilities that operate through their normal lifetime and to those that may be shut down prematurely. The requirements for testing for leakage or contamination of sealed sources was moved from Section R313-15-401 to Section R313-15-1401.

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Sections 19-3-104 and 19-3-108

ANTICIPATED COST OR SAVINGS TO:

❖THE STATE BUDGET: No anticipated costs to the state budget since division staff currently review all terminating licenses.

❖LOCAL GOVERNMENTS: None--this rule does not impact local government. Local government does not regulate radioactive material licenses.

❖OTHER PERSONS: None--Subsection R313-22-35(2) requires applicants for a specific radioactive material license authorizing the possession and use of radioactive material of half-life greater than 120 days, and in quantities specified in Subsection R313-22-35(4), to either submit a decommissioning funding plan, or submit certification that financial assurance for decommissioning has been provided in the amount prescribed by Subsection R313-22-35(4), using one of the methods described in Subsection R313-22-35(6). This is not a new requirement; therefore, no additional costs or savings.

COMPLIANCE COSTS FOR AFFECTED PERSONS: Decommissioning is expected to be relatively easy for the majority of radioactive material licensee's facilities (e.g., those that use either sealed radioactive sources or small amounts of short-lived radioactive materials) because there is usually no residual radioactive contamination to be cleaned up and disposed of, or, if there is any, it should be localized or it can be quickly reduced to low levels by radioactive decay. Decommissioning operations for these types of facilities will generally consist of disposing of sealed source(s) or allowing short-lived radioactive material to decay in storage, submit a form for license termination, and demonstrating (either through radiation survey or other means such as calculation of reduction of the contamination level by radioactive decay) compliance with the requirements for license termination. Because radioactive material contamination at these facilities is expected to be negligible, or to decay to negligible levels in a short time, achieving an objective of returning these facilities to background is not an

unreasonable objective and costs to licensee(s) are expected to be the current price for the disposal of radioactive material at the time of license termination or premature closure. The costs of obtaining, maintaining, and disposing of radioactive material under a specific license should be considered at the time of application for a radioactive material license. Decommissioning cost for the few radioactive material license facilities who use radioactive material in unsealed form, and which are long-lived radioactive materials, cannot be projected due to the fact that there are too many variables (e.g., the amount, the location, and the type of radioactive material contamination, and current disposal and labor costs at the time of license termination or premature closure.) Section R313-22-35 requires applicants for a specific radioactive material license authorizing the possession and use of radioactive material of half-life greater than 120 days, and in quantities specified in Subsection R313-22-35(4), to either submit a decommissioning funding plan, or submit certification that financial assurance for decommissioning has been provided in the amount prescribed by Subsection R313-22-35(4), using one of the methods described in Subsection R313-22-35(6).

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: The fiscal impact of businesses regulated under this rule cannot be easily projected due to many variables (see explanation given under "compliance costs for affected persons").

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Environmental Quality
Radiation Control
State of Utah Office Park, Building 2
168 North 1950 West
PO Box 144850
Salt Lake City, UT 84114-4850, or
at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Julie Felice at the above address, by phone at (801) 536-4250, by FAX at (801) 533-4097, or by Internet E-mail at jfelice@deq.state.ut.us.

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS TO THE ADDRESS ABOVE NO LATER THAN 5:00 P.M. ON 03/02/2000.

THIS RULE MAY BECOME EFFECTIVE ON: 03/10/2000

AUTHORIZED BY: William J. Sinclair, Executive Secretary

**R313. Environmental Quality, Radiation Control.
R313-15. Standards for Protection Against Radiation.
R313-15-1. Purpose, Authority and Scope.**

(1) Rule R313-15 establishes standards for protection against ionizing radiation resulting from activities conducted pursuant to licenses issued by the Executive Secretary. These rules are issued pursuant to Sections 19-3-104(3) and 19-3-104(6).

(2) The requirements of Rule R313-15 are designed to control the receipt, possession, use, transfer, and disposal of sources of radiation by any licensee or registrant so the total dose to an individual, including doses resulting from all sources of radiation other than background radiation, does not exceed the standards for protection against radiation prescribed in Rule R313-15. However, nothing in Rule R313-15 shall be construed as limiting actions that may be necessary to protect health and safety.

(3) Except as specifically provided in other sections of these rules, Rule R313-15 applies to persons licensed or registered by the Executive Secretary to receive, possess, use, transfer, or dispose of sources of radiation. The limits in Rule R313-15 do not apply to doses due to background radiation, to exposure of patients to radiation for the purpose of medical diagnosis or therapy, to exposure from individuals administered radioactive material and released in accordance with Section R313-32-75, or to exposure from voluntary participation in medical research programs.

R313-15-2. Definitions.

"Annual limit on intake" (ALI) means the derived limit for the amount of radioactive material taken into the body of an adult worker by inhalation or ingestion in a year. ALI is the smaller value of intake of a given radionuclide in a year by the reference man that would result in a committed effective dose equivalent of 0.05 Sv (5 rem) or a committed dose equivalent of 0.5 Sv (50 rem) to any individual organ or tissue. ALI values for intake by ingestion and by inhalation of selected radionuclides are given in Table I, Columns 1 and 2, of Appendix B of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference.

"Class" means a classification scheme for inhaled material according to its rate of clearance from the pulmonary region of the lung. Materials are classified as D, W, or Y, which applies to a range of clearance half-times: for Class D, Days, of less than ten days, for Class W, Weeks, from ten to 100 days, and for Class Y, Years, of greater than 100 days. For purposes of these rules, "lung class" and "inhalation class" are equivalent terms.

"Constraint (dose constraint)" in accordance with 10 CFR 20.1003, means a value above which specified licensee actions are required.

"Declared pregnant woman" means a woman who has voluntarily informed her employer, in writing, of her pregnancy and the estimated date of conception.

"Derived air concentration" (DAC) means the concentration of a given radionuclide in air which, if breathed by the reference man for a working year of 2,000 hours under conditions of light work, results in an intake of one ALI. For purposes of these rules, the condition of light work is an inhalation rate of 1.2 cubic meters of air per hour for 2,000 hours in a year. DAC values are given in Table I, Column 3, of Appendix B of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference.

"Derived air concentration-hour" (DAC-hour) means the product of the concentration of radioactive material in air, expressed as a fraction or multiple of the derived air concentration for each radionuclide, and the time of exposure to that radionuclide, in hours. A licensee or registrant may take 2,000 DAC-hours to represent one ALI, equivalent to a committed effective dose equivalent of 0.05 Sv (5 rem).

"Dosimetry processor" means an individual or an organization that processes and evaluates individual monitoring devices in order to determine the radiation dose delivered to the monitoring devices.

"Inhalation class", refer to "Class".

"Labeled package" means a package labeled with a Radioactive White I, Yellow II, or Yellow III label as specified in U.S. Department of Transportation regulations 49 CFR 172.403 and 49 CFR 172.436 through 440, 1997 ed. Labeling of packages containing radioactive materials is required by the U.S. Department of Transportation if the amount and type of radioactive material exceeds the limits for an excepted quantity or article as defined and limited by U.S. Department of Transportation regulations 49 CFR 173.403(m) and (w) and 49 CFR 173.421 through 424, 1997 ed.

"Lung class", refer to "Class".

"Nonstochastic effect" means a health effect, the severity of which varies with the dose and for which a threshold is believed to exist. Radiation-induced cataract formation is an example of a nonstochastic effect. For purposes of these rules, "deterministic effect" is an equivalent term.

"Planned special exposure" means an infrequent exposure to radiation, separate from and in addition to the annual occupational dose limits.

"Quarter" means a period of time equal to one-fourth of the year observed by the licensee, approximately 13 consecutive weeks, providing that the beginning of the first quarter in a year coincides with the starting date of the year and that no day is omitted or duplicated in consecutive quarters.

"Reference Man" means a hypothetical aggregation of human physical and physiological characteristics determined by international consensus. These characteristics may be used by researchers and public health employees to standardize results of experiments and to relate biological insult to a common base. A description of the Reference Man is contained in the International Commission on Radiological Protection report, ICRP Publication 23, "Report of the Task Group on Reference Man."

"Respiratory protective equipment" means an apparatus, such as a respirator, used to reduce an individual's intake of airborne radioactive materials.

"Sanitary sewerage" means a system of public sewers for carrying off waste water and refuse, but excluding sewage treatment facilities, septic tanks, and leach fields owned or operated by the licensee or registrant.

"Stochastic effect" means a health effect that occurs randomly and for which the probability of the effect occurring, rather than its severity, is assumed to be a linear function of dose without threshold. Hereditary effects and cancer incidence are examples of stochastic effects. For purposes of these rules, "probabilistic effect" is an equivalent term.

"Very high radiation area" means an area, accessible to individuals, in which radiation levels could result in an individual receiving an absorbed dose in excess of five Gy (500 rad) in one hour at one meter from a source of radiation or from any surface that the radiation penetrates. At very high doses received at high dose rates, units of absorbed dose, gray and rad, are appropriate, rather than units of dose equivalent, sievert and rem.

"Weighting factor" w_T for an organ or tissue (T) means the proportion of the risk of stochastic effects resulting from irradiation of that organ or tissue to the total risk of stochastic effects when the

whole body is irradiated uniformly. For calculating the effective dose equivalent, the values of w_T are:

TABLE
ORGAN DOSE WEIGHTING FACTORS

Organ or Tissue	w_T
Gonads	0.25
Breast	0.15
Red bone marrow	0.12
Lung	0.12
Thyroid	0.03
Bone surfaces	0.03
Remainder	0.30(1)
Whole Body	1.00(2)

(1) 0.30 results from 0.06 for each of five "remainder" organs, excluding the skin and the lens of the eye, that receive the highest doses.

(2) For the purpose of weighting the external whole body dose, for adding it to the internal dose, a single weighting factor, $w_T = 1.0$, has been specified. The use of other weighting factors for external exposure will be approved on a case-by-case basis until such time as specific guidance is issued.

R313-15-3. Implementation.

(1) Any existing license or registration condition that is more restrictive than Rule R313-15 remains in force until there is an amendment or renewal of the license or registration.

(2) If a license or registration condition exempts a licensee or registrant from a provision of Rule R313-15 in effect on or before January 1, 1994, it also exempts the licensee or registrant from the corresponding provision of Rule R313-15.

(3) If a license or registration condition cites provisions of Rule R313-15 in effect prior to January 1, 1994, which do not correspond to any provisions of Rule R313-15, the license or registration condition remains in force until there is an amendment or renewal of the license or registration that modifies or removes this condition.

R313-15-101. Radiation Protection Programs.

(1) Each licensee or registrant shall develop, document, and implement a radiation protection program sufficient to ensure compliance with the provisions of Rule R313-15. See Section R313-15-1102 for recordkeeping requirements relating to these programs.

(2) The licensee or registrant shall use, to the extent practical, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and public doses that are as low as is reasonably achievable (ALARA).

(3) The licensee or registrant shall, at intervals not to exceed 12 months, review the radiation protection program content and implementation.

(4) To implement the ALARA requirements of Subsection R313-15-101(2), and notwithstanding the requirements in Section R313-15-301, a constraint on air emissions of radioactive material to the environment, excluding radon-222 and its decay products, shall be established by licensees or registrants such that the individual member of the public likely to receive the highest dose will not be expected to receive a total effective dose equivalent in excess of 0.1 mSv (0.01[θ] [m]rem) per year from these emissions. If a licensee or registrant subject to this requirement exceeds this

dose constraint, the licensee or registrant shall report the exceedance as provided in Section R313-15-1203 and promptly take appropriate corrective action to ensure against recurrence.

R313-15-201. Occupational Dose Limits for Adults.

(1) The licensee or registrant shall control the occupational dose to individual adults, except for planned special exposures pursuant to Section R313-15-206, to the following dose limits:

(a) An annual limit, which is the more limiting of:

(i) The total effective dose equivalent being equal to 0.05 Sv (5 rem); or

(ii) The sum of the deep dose equivalent and the committed dose equivalent to any individual organ or tissue other than the lens of the eye being equal to 0.50 Sv (50 rem).

(b) The annual limits to the lens of the eye, to the skin, and to the extremities which are:

(i) An eye dose equivalent of 0.15 Sv (15 rem), and

(ii) A shallow dose equivalent of 0.50 Sv (50 rem) to the skin or to any extremity.

(2) Doses received in excess of the annual limits, including doses received during accidents, emergencies, and planned special exposures, shall be subtracted from the limits for planned special exposures that the individual may receive during the current year and during the individual's lifetime. See Subsections R313-15-206(5)(a) and R313-15-206(5)(b).

(3) The assigned deep dose equivalent and shallow dose equivalent shall be for the portion of the body receiving the highest exposure determined as follows:

(a) The deep dose equivalent, eye dose equivalent and shallow dose equivalent may be assessed from surveys or other radiation measurements for the purpose of demonstrating compliance with the occupational dose limits, if the individual monitoring device was not in the region of highest potential exposure, or the results of individual monitoring are unavailable; or

(b) When a protective apron is worn while working with medical fluoroscopic equipment and monitoring is conducted as specified in Subsection R313-15-502(1)(d), the effective dose equivalent for external radiation shall be determined as follows:

(i) When only one individual monitoring device is used and it is located at the neck outside the protective apron, and the reported dose exceeds 25 percent of the limit specified in Subsection R313-15-201(1), the reported deep dose equivalent value multiplied by 0.3 shall be the effective dose equivalent for external radiation; or

(ii) When individual monitoring devices are worn, both under the protective apron at the waist and outside the protective apron at the neck, the effective dose equivalent for external radiation shall be assigned the value of the sum of the deep dose equivalent reported for the individual monitoring device located at the waist under the protective apron multiplied by 1.5 and the deep dose equivalent reported for the individual monitoring device located at the neck outside the protective apron multiplied by 0.04.

(4) Derived air concentration (DAC) and annual limit on intake (ALI) values are specified in Table I of Appendix B of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference, and may be used to determine the individual's dose and to demonstrate compliance with the occupational dose limits. See Section R313-15-1107.

(5) Notwithstanding the annual dose limits, the licensee shall limit the soluble uranium intake by an individual to ten milligrams in a week in consideration of chemical toxicity. See footnote 3, of Appendix B of 10 CFR 20.1001 to 20-2402, 1997 ed., which is incorporated by reference.

(6) The licensee or registrant shall reduce the dose that an individual may be allowed to receive in the current year by the amount of occupational dose received while employed by any other person. See Subsection R313-15-205(5).

R313-15-202. Compliance with Requirements for Summation of External and Internal Doses.

(1) If the licensee or registrant is required to monitor pursuant to both Subsections R313-15-502(1) and R313-15-502(2), the licensee or registrant shall demonstrate compliance with the dose limits by summing external and internal doses. If the licensee or registrant is required to monitor only pursuant to Subsection R313-15-502(1) or only pursuant to Subsection R313-15-502(2), then summation is not required to demonstrate compliance with the dose limits. The licensee or registrant may demonstrate compliance with the requirements for summation of external and internal doses pursuant to Subsections R313-15-202(2), R313-15-202(3) and R313-15-202(4). The dose equivalents for the lens of the eye, the skin, and the extremities are not included in the summation, but are subject to separate limits.

(2) Intake by Inhalation. If the only intake of radionuclides is by inhalation, the total effective dose equivalent limit is not exceeded if the sum of the deep dose equivalent divided by the total effective dose equivalent limit, and one of the following, does not exceed unity:

(a) The sum of the fractions of the inhalation ALI for each radionuclide, or

(b) The total number of derived air concentration-hours (DAC-hours) for all radionuclides divided by 2,000, or

(c) The sum of the calculated committed effective dose equivalents to all significantly irradiated organs or tissues (T) calculated from bioassay data using appropriate biological models and expressed as a fraction of the annual limit. For purposes of this requirement, an organ or tissue is deemed to be significantly irradiated if, for that organ or tissue, the product of the weighting factors, w_T , and the committed dose equivalent, $H_{T,50}$, per unit intake is greater than ten percent of the maximum weighted value of $H_{T,50}$, that is, $w_T H_{T,50}$, per unit intake for any organ or tissue.

(3) Intake by Oral Ingestion. If the occupationally exposed individual receives an intake of radionuclides by oral ingestion greater than ten percent of the applicable oral ALI, the licensee or registrant shall account for this intake and include it in demonstrating compliance with the limits.

(4) Intake through Wounds or Absorption through Skin. The licensee or registrant shall evaluate and, to the extent practical, account for intakes through wounds or skin absorption. The intake through intact skin has been included in the calculation of DAC for hydrogen-3 and does not need to be evaluated or accounted for pursuant to Subsection R313-15-202(4).

R313-15-203. Determination of External Dose from Airborne Radioactive Material.

(1) Licensees or registrants shall, when determining the dose from airborne radioactive material, include the contribution to the

deep dose equivalent, eye dose equivalent, and shallow dose equivalent from external exposure to the radioactive cloud. See footnotes 1 and 2 of Appendix B of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference.

(2) Airborne radioactivity measurements and DAC values shall not be used as the primary means to assess the deep dose equivalent when the airborne radioactive material includes radionuclides other than noble gases or if the cloud of airborne radioactive material is not relatively uniform. The determination of the deep dose equivalent to an individual shall be based upon measurements using instruments or individual monitoring devices.

R313-15-204. Determination of Internal Exposure.

(1) For purposes of assessing dose used to determine compliance with occupational dose equivalent limits, the licensee or registrant shall, when required pursuant to Section R313-15-502, take suitable and timely measurements of:

(a) Concentrations of radioactive materials in air in work areas; or

(b) Quantities of radionuclides in the body; or

(c) Quantities of radionuclides excreted from the body; or

(d) Combinations of these measurements.

(2) Unless respiratory protective equipment is used, as provided in Section R313-15-703, or the assessment of intake is based on bioassays, the licensee or registrant shall assume that an individual inhales radioactive material at the airborne concentration in which the individual is present.

(3) When specific information on the physical and biochemical properties of the radionuclides taken into the body or the behavior of the material in an individual is known, the licensee or registrant may:

(a) Use that information to calculate the committed effective dose equivalent, and, if used, the licensee or registrant shall document that information in the individual's record; and

(b) Upon prior approval of the Executive Secretary, adjust the DAC or ALI values to reflect the actual physical and chemical characteristics of airborne radioactive material, for example, aerosol size distribution or density; and

(c) Separately assess the contribution of fractional intakes of Class D, W, or Y compounds of a given radionuclide to the committed effective dose equivalent. See Appendix B of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference.

(4) If the licensee or registrant chooses to assess intakes of Class Y material using the measurements given in Subsections R313-15-204(1)(b) or R313-15-204(1)(c), the licensee or registrant may delay the recording and reporting of the assessments for periods up to seven months, unless otherwise required by Section R313-15-1202 or Section R313-15-1203. This delay permits the licensee or registrant to make additional measurements basic to the assessments.

(5) If the identity and concentration of each radionuclide in a mixture are known, the fraction of the DAC applicable to the mixture for use in calculating DAC-hours shall be either:

(a) The sum of the ratios of the concentration to the appropriate DAC value, that is, D, W, or Y, from Appendix B of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference, for each radionuclide in the mixture; or

(b) The ratio of the total concentration for all radionuclides in the mixture to the most restrictive DAC value for any radionuclide in the mixture.

(6) If the identity of each radionuclide in a mixture is known, but the concentration of one or more of the radionuclides in the mixture is not known, the DAC for the mixture shall be the most restrictive DAC of any radionuclide in the mixture.

(7) When a mixture of radionuclides in air exists, a licensee or registrant may disregard certain radionuclides in the mixture if:

(a) The licensee or registrant uses the total activity of the mixture in demonstrating compliance with the dose limits in Section R313-15-201 and in complying with the monitoring requirements in Subsection R313-15-502(2), and

(b) The concentration of any radionuclide disregarded is less than ten percent of its DAC, and

(c) The sum of these percentages for all of the radionuclides disregarded in the mixture does not exceed 30 percent.

(8) When determining the committed effective dose equivalent, the following information may be considered:

(a) In order to calculate the committed effective dose equivalent, the licensee or registrant may assume that the inhalation of one ALI, or an exposure of 2,000 DAC-hours, results in a committed effective dose equivalent of 0.05 Sv (5 rem) for radionuclides that have their ALIs or DACs based on the committed effective dose equivalent.

(b) For an ALI and the associated DAC determined by the nonstochastic organ dose limit of 0.50 Sv (50 rem), the intake of radionuclides that would result in a committed effective dose equivalent of 0.05 Sv (5 rem), that is, the stochastic ALI, is listed in parentheses in Table I of Appendix B of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference. The licensee or registrant may, as a simplifying assumption, use the stochastic ALI to determine committed effective dose equivalent. However, if the licensee or registrant uses the stochastic ALI, the licensee or registrant shall also demonstrate that the limit in Subsection R313-15-201(1)(a)(ii) is met.

R313-15-205. Determination of Prior Occupational Dose.

(1) For each individual likely to receive, in a year, an occupational dose requiring monitoring pursuant to Section R313-15-502, the licensee or registrant shall:

(a) Determine the occupational radiation dose received during the current year; and

(b) Attempt to obtain the records of cumulative occupational radiation dose. A licensee or registrant may accept, as the record of cumulative radiation dose, an up-to-date form DRC-05 or equivalent, signed by the individual and countersigned by an appropriate official of the most recent employer for work involving radiation exposure, or the individual's current employer, if the individual is not employed by the licensee or registrant.

(2) Prior to permitting an individual to participate in a planned special exposure, the licensee or registrant shall determine:

(a) The internal and external doses from all previous planned special exposures; and

(b) All doses in excess of the limits, including doses received during accidents and emergencies, received during the lifetime of the individual.

(3) In complying with the requirements of Subsection R313-15-205(1), a licensee or registrant may:

(a) Accept, as a record of the occupational dose that the individual received during the current year, a written signed statement from the individual, or from the individual's most recent employer for work involving radiation exposure, that discloses the nature and the amount of any occupational dose that the individual received during the current year; and

(b) Obtain reports of the individual's dose equivalents from the most recent employer for work involving radiation exposure, or the individual's current employer, if the individual is not employed by the licensee or registrant, by telephone, telegram, facsimile, other electronic media or letter. The licensee or registrant shall request a written verification of the dose data if the authenticity of the transmitted report cannot be established.

(4) The licensee or registrant shall record the exposure history, as required by Subsection R313-15-205(1), on form DRC-05, or other clear and legible record, of all the information required on that form.

(a) The form or record shall show each period in which the individual received occupational exposure to radiation or radioactive material and shall be signed by the individual who received the exposure. For each period for which the licensee or registrant obtains reports, the licensee or registrant shall use the dose shown in the report in preparing form DRC-05 or equivalent. For any period in which the licensee or registrant does not obtain a report, the licensee or registrant shall place a notation on form DRC-05 or equivalent indicating the periods of time for which data are not available.

(b) For the purpose of complying with this requirement, licensees or registrants are not required to reevaluate the separate external dose equivalents and internal committed dose equivalents or intakes of radionuclides assessed pursuant to the rules in Rule R313-15 in effect before January 1, 1994. Further, occupational exposure histories obtained and recorded on form DRC-05 or equivalent before January 1, 1994, would not have included effective dose equivalent, but may be used in the absence of specific information on the intake of radionuclides by the individual.

(5) If the licensee or registrant is unable to obtain a complete record of an individual's current and previously accumulated occupational dose, the licensee or registrant shall assume:

(a) In establishing administrative controls under Subsection R313-15-201(6) for the current year, that the allowable dose limit for the individual is reduced by 12.5 mSv (1.25 rem) for each quarter for which records were unavailable and the individual was engaged in activities that could have resulted in occupational radiation exposure; and

(b) That the individual is not available for planned special exposures.

(6) The licensee or registrant shall retain the records on form DRC-05 or equivalent until the Executive Secretary terminates each pertinent license or registration requiring this record. The licensee or registrant shall retain records used in preparing form DRC-05 or equivalent for three years after the record is made.

R313-15-206. Planned Special Exposures.

A licensee or registrant may authorize an adult worker to receive doses in addition to and accounted for separately from the doses received under the limits specified in Section R313-15-201 provided that each of the following conditions is satisfied:

(1) The licensee or registrant authorizes a planned special exposure only in an exceptional situation when alternatives that might avoid the higher exposure are unavailable or impractical.

(2) The licensee or registrant, and employer if the employer is not the licensee or registrant, specifically authorizes the planned special exposure, in writing, before the exposure occurs.

(3) Before a planned special exposure, the licensee or registrant ensures that each individual involved is:

(a) Informed of the purpose of the planned operation; and

(b) Informed of the estimated doses and associated potential risks and specific radiation levels or other conditions that might be involved in performing the task; and

(c) Instructed in the measures to be taken to keep the dose ALARA considering other risks that may be present.

(4) Prior to permitting an individual to participate in a planned special exposure, the licensee or registrant ascertains prior doses as required by Subsection R313-15-205(2) during the lifetime of the individual for each individual involved.

(5) Subject to Subsection R313-15-201(2), the licensee or registrant shall not authorize a planned special exposure that would cause an individual to receive a dose from all planned special exposures and all doses in excess of the limits to exceed:

(a) The numerical values of any of the dose limits in Subsection R313-15-201(1) in any year; and

(b) Five times the annual dose limits in Subsection R313-15-201(1) during the individual's lifetime.

(6) The licensee or registrant maintains records of the conduct of a planned special exposure in accordance with Section R313-15-1106 and submits a written report in accordance with Section R313-15-1204.

(7) The licensee or registrant records the best estimate of the dose resulting from the planned special exposure in the individual's record and informs the individual, in writing, of the dose within 30 days from the date of the planned special exposure. The dose from planned special exposures shall not be considered in controlling future occupational dose of the individual pursuant to Subsection R313-15-201(1) but shall be included in evaluations required by Subsections R313-15-206(4) and R313-15-206(5).

R313-15-207. Occupational Dose Limits for Minors.

The annual occupational dose limits for minors are ten percent of the annual occupational dose limits specified for adult workers in Section R313-15-201.

R313-15-208. Dose to an Embryo/Fetus.

(1) The licensee or registrant shall ensure that the dose to an embryo/fetus during the entire pregnancy, due to occupational exposure of a declared pregnant woman, does not exceed five mSv (0.5 rem). See Section R313-15-1107 for recordkeeping requirements.

(2) The licensee or registrant shall make efforts to avoid substantial variation above a uniform monthly exposure rate to a declared pregnant woman so as to satisfy the limit in Subsection R313-15-208(1).

(3) The dose to an embryo/fetus shall be taken as the sum of:

(a) The dose to the embryo/fetus from radionuclides in the embryo/fetus and radionuclides in the declared pregnant woman; and

(b) The dose that is most representative of the dose to the embryo/fetus from external radiation, that is, in the mother's lower torso region.

(i) If multiple measurements have not been made, assignment of the highest deep dose equivalent for the declared pregnant woman shall be the dose to the embryo/fetus, in accordance with Subsection R313-15-201(3); or

(ii) If multiple measurements have been made, assignment of the deep dose equivalent for the declared pregnant woman from the individual monitoring device which is most representative of the dose to the embryo/fetus shall be the dose to the embryo fetus. Assignment of the highest deep dose equivalent for the declared pregnant woman to the embryo/fetus is not required unless that dose is also the most representative deep dose equivalent for the region of the embryo/fetus.

(4) If by the time the woman declares pregnancy to the licensee or registrant, the dose to the embryo/fetus has exceeded 4.5 mSv (0.45 rem) the licensee or registrant shall be deemed to be in compliance with Subsection R313-15-208(1) if the additional dose to the embryo/fetus does not exceed 0.50 mSv (0.05 rem) during the remainder of the pregnancy.

R313-15-301. Dose Limits for Individual Members of the Public.

(1) Each licensee or registrant shall conduct operations so that:

(a) Except as provided in Subsection R313-15-301(1)(c), the total effective dose equivalent to individual members of the public from the licensed or registered operation does not exceed one mSv (0.1 rem) in a year, exclusive of the dose contribution from background radiation, from any medical administration the individual has received, from exposure to individuals administered radioactive material and released in accordance with Section R313-32-75, from voluntary participation in medical research programs, and from the licensee's or registrant's disposal of radioactive material into sanitary sewerage in accordance with Section R313-15-1003; and

(b) The dose in any unrestricted area from external sources, exclusive of the dose contributions from patients administered radioactive material and released in accordance with Section R313-32-75, does not exceed 0.02 mSv (0.002 rem) in any one hour; and

(c) The total effective dose equivalent to individual members of the public from infrequent exposure to radiation from radiation machines does not exceed 5 mSv (0.5 rem) in a year.

(2) If the licensee or registrant permits members of the public to have access to controlled areas, the limits for members of the public continue to apply to those individuals.

(3) A licensee, registrant, or an applicant for a license or registration may apply for prior Executive Secretary authorization to operate up to an annual dose limit for an individual member of the public of five mSv (0.5 rem). This application shall include the following information:

(a) Demonstration of the need for and the expected duration of operations in excess of the limit in Subsection R313-15-301(1); and

(b) The licensee's or registrant's program to assess and control dose within the five mSv (0.5 rem) annual limit; and

(c) The procedures to be followed to maintain the dose ALARA.

(4) The Executive Secretary may impose additional restrictions on radiation levels in unrestricted areas and on the total quantity of radionuclides that a licensee or registrant may release in effluents in order to restrict the collective dose.

R313-15-302. Compliance with Dose Limits for Individual Members of the Public.

(1) The licensee or registrant shall make or cause to be made surveys of radiation levels in unrestricted and controlled areas and radioactive materials in effluents released to unrestricted and controlled areas to demonstrate compliance with the dose limits for individual members of the public in Section R313-15-301.

(2) A licensee or registrant shall show compliance with the annual dose limit in Section R313-15-301 by:

(a) Demonstrating by measurement or calculation that the total effective dose equivalent to the individual likely to receive the highest dose from the licensed or registered operation does not exceed the annual dose limit; or

(b) Demonstrating that:

(i) The annual average concentrations of radioactive material released in gaseous and liquid effluents at the boundary of the unrestricted area do not exceed the values specified in Table II of Appendix B of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference; and

(ii) If an individual were continuously present in an unrestricted area, the dose from external sources would not exceed 0.02 mSv (0.002 rem) in an hour and 0.50 mSv (0.05 rem) in a year.

(3) Upon approval from the Executive Secretary, the licensee or registrant may adjust the effluent concentration values in Appendix B, Table II of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference, for members of the public, to take into account the actual physical and chemical characteristics of the effluents, such as, aerosol size distribution, solubility, density, radioactive decay equilibrium, and chemical form.

[R313-15-401. Testing for Leakage or Contamination of Sealed Sources:

~~(1) The licensee or registrant in possession of any sealed source shall assure that:~~

~~(a) Each sealed source, except as specified in Subsection R313-15-401(2), is tested for leakage or contamination and the test results are received before the sealed source is put into use unless the licensee or registrant has a certificate from the transferor indicating that the sealed source was tested within six months before transfer to the licensee or registrant.~~

~~(b) Each sealed source that is not designed to emit alpha particles is tested for leakage or contamination at intervals not to exceed six months or at alternative intervals approved by the Executive Secretary, an Agreement State, a Licensing State, or the U.S. Nuclear Regulatory Commission.~~

~~(c) Each sealed source that is designed to emit alpha particles is tested for leakage or contamination at intervals not to exceed three months or at alternative intervals approved by the Executive Secretary, an Agreement State, a Licensing State, or the Nuclear Regulatory Commission.~~

~~(d) For each sealed source that is required to be tested for leakage or contamination, at any other time there is reason to~~

~~suspect that the sealed source might have been damaged or might be leaking, the licensee or registrant shall assure that the sealed source is tested for leakage or contamination before further use.~~

~~(e) Tests for leakage for all sealed sources, except brachytherapy sources manufactured to contain radium, shall be capable of detecting the presence of 185 Bq (0.005 uCi) of radioactive material on a test sample. Test samples shall be taken from the sealed source or from the surfaces of the container in which the sealed source is stored or mounted on which one might expect contamination to accumulate. For a sealed source contained in a device, test samples are obtained when the source is in the "off" position.~~

~~(f) The test for leakage for brachytherapy sources manufactured to contain radium shall be capable of detecting an absolute leakage rate of 37 Bq (0.001 uCi) of radon-222 in a 24 hour period when the collection efficiency for radon-222 and its daughters has been determined with respect to collection method, volume and time.~~

~~(g) Tests for contamination from radium daughters shall be taken on the interior surface of brachytherapy source storage containers and shall be capable of detecting the presence of 185 Bq (0.005 uCi) of a radium daughter which has a half-life greater than four days.~~

~~(2) A licensee or registrant need not perform tests for leakage or contamination on the following sealed sources:~~

~~(a) Sealed sources containing only radioactive material with a half-life of less than 30 days;~~

~~(b) Sealed sources containing only radioactive material as a gas;~~

~~(c) Sealed sources containing 3.7 MBq (100 uCi) or less of beta or photon-emitting material or 370 kBq (ten uCi) or less of alpha-emitting material;~~

~~(d) Sealed sources containing only hydrogen-3;~~

~~(e) Seeds of iridium-192 encased in nylon ribbon; and~~

~~(f) Sealed sources, except teletherapy and brachytherapy sources, which are stored, not being used and identified as in storage. The licensee or registrant shall, however, test each such sealed source for leakage or contamination and receive the test results before any use or transfer unless it has been tested for leakage or contamination within six months before the date of use or transfer.~~

~~(3) Tests for leakage or contamination from sealed sources shall be performed by persons specifically authorized by the Executive Secretary, an Agreement State, a Licensing State, or the U.S. Nuclear Regulatory Commission to perform such services.~~

~~(4) Test results shall be kept in units of becquerel or microcurie and maintained for inspection by representatives of the Executive Secretary. Records of test results for sealed sources shall be made pursuant to Section R313-15-1104.~~

~~(5) The following shall be considered evidence that a sealed source is leaking:~~

~~(a) The presence of 185 Bq (0.005 uCi) or more of removable contamination on any test sample.~~

~~(b) Leakage of 37 Bq (0.001 uCi) of radon-222 per 24 hours for brachytherapy sources manufactured to contain radium.~~

~~(c) The presence of removable contamination resulting from the decay of 185 Bq (0.005 uCi) or more of radium.~~

~~(6) The licensee or registrant shall immediately withdraw a leaking sealed source from use and shall take action to prevent the~~

spread of contamination. The leaking sealed source shall be repaired or disposed of in accordance with Rule R313-15-

(7) Reports of test results for leaking or contaminated sealed sources shall be made pursuant to Section R313-15-1208. **R313-15-401. Radiological Criteria for License Termination - General Provisions.**

(1) The criteria in Sections R313-15-401 through R313-15-406 apply to the decommissioning of facilities licensed under Rules R313-22 and R313-25, as well as other facilities subject to the Board's jurisdiction under the Act. For low-level waste disposal facilities (Rule R313-25), the criteria apply only to ancillary surface facilities that support radioactive waste disposal activities.

(2) The criteria in Sections R313-15-401 through R313-15-406 do not apply to sites which:

(a) Have been decommissioned prior to the effective date of the rule in accordance with criteria approved by the Executive Secretary;

(b) Have previously submitted and received Executive Secretary approval on a license termination plan or decommissioning plan; or

(c) Submit a sufficient license termination plan or decommissioning plan before the effective date of the rule with criteria approved by the Executive Secretary.

(3) After a site has been decommissioned and the license terminated in accordance with the criteria in Sections R313-15-401 through R313-15-406, the Executive Secretary will require additional cleanup only if, based on new information, the Executive Secretary determines that the criteria in Sections R313-15-401 through R313-15-406 was not met and residual radioactivity remaining at the site could result in significant threat to public health and safety.

(4) When calculating the total effective dose equivalent to the average member of the critical group, the licensee shall determine the peak annual total effective dose equivalent dose expected within the first 1000 years after decommissioning.

R313-15-402. Radiological Criteria for Unrestricted Use.

A site will be considered acceptable for unrestricted use if the residual radioactivity that is distinguishable from background radiation results in a total effective dose equivalent to an average member of the critical group that does not exceed 0.25 mSv (0.025 rem) per year, including no greater than 0.04 mSv (0.004 rem) committed effective dose equivalent or total effective dose equivalent to an average member of the critical group from groundwater sources, and the residual radioactivity has been reduced to levels that are as low as reasonably achievable (ALARA). Determination of the levels which are ALARA must take into account consideration of any detriments, such as deaths from transportation accidents, expected to potentially result from decontamination and waste disposal.

R313-15-403. Criteria for License Termination Under Restricted Conditions.

A site will be considered acceptable for license termination under restricted conditions if:

(1) The licensee can demonstrate that further reductions in residual radioactivity necessary to comply with the provisions of Section R313-15-402 would result in net public or environmental harm or were not being made because the residual levels associated

with restricted conditions are ALARA. Determination of the levels which are ALARA must take into account consideration of any detriments, such as traffic accidents, expected to potentially result from decontamination and waste disposal; and

(2) The licensee has made provisions for legally enforceable institutional controls that provide reasonable assurance that the total effective dose equivalent from residual radioactivity distinguishable from background to the average member of the critical group will not exceed 0.25 mSv (0.025 rem) per year; and

(3) The licensee has provided sufficient financial assurance to enable an independent third party, including a governmental custodian of a site, to assume and carry out responsibilities for any necessary control and maintenance of the site. Acceptable financial assurance mechanisms are:

(a) Funds placed into an account segregated from the licensee's assets outside the licensee's administrative control as described in Subsection R313-22-35(6)(a);

(b) Surety method, insurance, or other guarantee method as described in Subsection R313-22-35(6)(b);

(c) A statement of intent in the case of Federal, State, or local Government licensees, as described in Subsection R313-22-35(6)(d); or

(d) When a governmental entity is assuming custody and ownership of a site, an arrangement that is deemed acceptable by such governmental entity; and

(4) The licensee has submitted a decommissioning plan or license termination plan to the Executive Secretary indicating the licensee's intent to decommission in accordance with Subsection R313-22-36(4) and specifying that the licensee intends to decommission by restricting use of the site. The licensee shall document in the license termination plan or decommissioning plan how the advice of individuals and institutions in the community who may be affected by the decommissioning has been sought and incorporated, as appropriate, following analysis of that advice;

(a) Licensees proposing to decommission by restricting use of the site shall seek advice from such affected parties regarding the following matters concerning the proposed decommissioning:

(i) Whether provisions for institutional controls proposed by the licensee;

(A) Will provide reasonable assurance that the total effective dose equivalent from residual radioactivity distinguishable from background to the average member of the critical group will not exceed 0.25 mSv (0.025 rem) total effective dose equivalent per year;

(B) Will be enforceable; and

(C) Will not impose undue burdens on the local community or other affected parties; and

(ii) Whether the licensee has provided sufficient financial assurance to enable an independent third party, including a governmental custodian of a site, to assume and carry out responsibilities for any necessary control and maintenance of the site; and

(b) In seeking advice on the issues identified in Subsection R313-15-403(4)(a), the licensee shall provide for:

(i) Participation by representatives of a broad cross section of community interests who may be affected by the decommissioning;

(ii) An opportunity for a comprehensive, collective discussion on the issues by the participants represented; and

(iii) A publicly available summary of the results of all such discussions, including a description of the individual viewpoints of the participants on the issues and the extent of agreement and disagreement among the participants on the issues; and

(5) Residual radioactivity at the site has been reduced so that if the institutional controls were no longer in effect, there is reasonable assurance that the total effective dose equivalent from residual radioactivity distinguishable from background to the average member of the critical group is as low as reasonably achievable and would not exceed either:

(a) one mSv (0.1 rem) per year; or

(b) five mSv (0.5 rem) per year provided the licensee:

(i) Demonstrates that further reductions in residual radioactivity necessary to comply with the one mSv (0.1 rem) per year value of Subsection R313-15-403(5)(a) are not technically achievable, would be prohibitively expensive, or would result in net public or environmental harm;

(ii) Makes provisions for durable institutional controls; and

(iii) Provides sufficient financial assurance to enable a responsible government entity or independent third party, including a governmental custodian of a site, both to carry out periodic rechecks of the site no less frequently than every five years to assure that the institutional controls remain in place as necessary to meet the criteria of Subsection R313-15-403(2) and to assume and carry out responsibilities for any necessary control and maintenance of those controls. Acceptable financial assurance mechanisms are those in Subsection R313-15-403(3).

R313-15-404. Alternate Criteria for License Termination.

(1) The Executive Secretary may terminate a license using alternative criteria greater than the dose criterion of Section R313-15-402, and Subsections R313-15-403(2) and R313-15-403(4)(a)(i)(A), if the licensee:

(a) Provides assurance that public health and safety would continue to be protected, and that it is unlikely that the dose from all man-made sources combined, other than medical, would be more than the one mSv (0.1 rem) per year limit of Subsection R313-15-301(1)(a), by submitting an analysis of possible sources of exposure; and

(b) Has employed, to the extent practical, restrictions on site use according to the provisions of Section R313-15-403 in minimizing exposures at the site; and

(c) Reduces doses to ALARA levels, taking into consideration any detriments such as traffic accidents expected to potentially result from decontamination and waste disposal; and

(d) Has submitted a decommissioning plan or license termination plan to the Executive Secretary indicating the licensee's intent to decommission in accordance with Subsection R313-22-36(4), and specifying that the licensee proposes to decommission by use of alternate criteria. The licensee shall document in the decommissioning plan or license termination plan how the advice of individuals and institutions in the community who may be affected by the decommissioning has been sought and addressed, as appropriate, following analysis of that advice. In seeking such advice, the licensee shall provide for:

(i) Participation by representatives of a broad cross section of community interests who may be affected by the decommissioning; and

(ii) An opportunity for a comprehensive, collective discussion on the issues by the participants represented; and

(iii) A publicly available summary of the results of all such discussions, including a description of the individual viewpoints of the participants on the issues and the extent of agreement and disagreement among the participants on the issues.

(2) The use of alternate criteria to terminate a license requires the approval of the Executive Secretary after consideration of recommendations from the Division's staff, comments provided by federal, state and local governments, and any public comments submitted pursuant to Section R313-15-405.

R313-15-405. Public Notification and Public Participation.

Upon the receipt of a license termination plan or decommissioning plan from the licensee, or a proposal by the licensee for release of a site pursuant to Sections R313-15-403 or R313-15-404, or whenever the Executive Secretary deems such notice to be in the public interest, the Executive Secretary shall:

(1) Notify and solicit comments from:

(a) Local and State governments in the vicinity of the site and any Indian Nation or other indigenous people that have treaty or statutory rights that could be affected by the decommissioning; and

(b) Federal, state and local governments for cases where the licensee proposes to release a site pursuant to Section R313-15-404.

(2) Publish a notice in a forum, such as local newspapers, letters to State or local organizations, or other appropriate forum, that is readily accessible to individuals in the vicinity of the site, and solicit comments from affected parties.

R313-15-406. Minimization of Contamination.

Applicants for licenses, other than renewals, shall describe in the application how facility design and procedures for operation will minimize, to the extent practicable, contamination of the facility and the environment, facilitate eventual decommissioning, and minimize, to the extent practicable, the generation of waste.

R313-15-501. Surveys and Monitoring - General.

(1) Each licensee or registrant shall make, or cause to be made, surveys that:

(a) Are necessary for the licensee or registrant to comply with Rule R313-15; and

(b) Are necessary under the circumstances to evaluate:

(i) Radiation levels; and

(ii) Concentrations or quantities of radioactive material; and

(iii) The potential radiological hazards that could be present.

(2) The licensee or registrant shall ensure that instruments and equipment used for quantitative radiation measurements, for example, dose rate and effluent monitoring, are calibrated at intervals not to exceed 12 months for the radiation measured, except when a more frequent interval is specified in another applicable part of these rules or a license condition.

(3) All personnel dosimeters, except for direct and indirect reading pocket ionization chambers and those dosimeters used to measure the dose to any extremity, that require processing to determine the radiation dose and that are used by licensees and registrants to comply with Section R313-15-201, with other applicable provisions of these rules, or with conditions specified in a license or registration shall be processed and evaluated by a dosimetry processor:

(a) Holding current personnel dosimetry accreditation from the National Voluntary Laboratory Accreditation Program (NVLAP) of the National Institute of Standards and Technology; and

(b) Approved in this accreditation process for the type of radiation or radiations included in the NVLAP program that most closely approximates the type of radiation or radiations for which the individual wearing the dosimeter is monitored.

(4) The licensee or registrant shall ensure that adequate precautions are taken to prevent a deceptive exposure of an individual monitoring device.

R313-15-502. Conditions Requiring Individual Monitoring of External and Internal Occupational Dose.

Each licensee or registrant shall monitor exposures from sources of radiation at levels sufficient to demonstrate compliance with the occupational dose limits of Rule R313-15. As a minimum:

(1) Each licensee or registrant shall monitor occupational exposure to radiation and shall supply and require the use of individual monitoring devices by:

(a) Adults likely to receive, in one year from sources external to the body, a dose in excess of ten percent of the limits in Subsection R313-15-201(1); and

(b) Minors and declared pregnant women likely to receive, in one year from sources external to the body, a dose in excess of ten percent of any of the applicable limits in Sections R313-15-207 or R313-15-208; and

(c) Individuals entering a high or very high radiation area; and

(d) Individuals working with medical fluoroscopic equipment.

(i) An individual monitoring device used for the dose to an embryo/fetus of a declared pregnant woman, pursuant to Subsection R313-15-208(1), shall be located under the protective apron at the waist.

(A) If an individual monitoring device worn by a declared pregnant woman has a monthly reported dose equivalent value in excess of 0.5 mSv (50 mrem), the value to be used for determining the dose to the embryo/fetus, pursuant to Subsection R313-15-208(3)(a) for radiation from medical fluoroscopy, may be the value reported by the individual monitoring device worn at the waist underneath the protective apron which has been corrected for the potential overestimation of dose recorded by the monitoring device because of the overlying tissue of the pregnant individual. This correction shall be performed by a radiation safety officer of an institutional radiation safety committee, a qualified expert approved by the Board, or a representative of the Executive Secretary.

(ii) An individual monitoring device used for eye dose equivalent shall be located at the neck, or an unshielded location closer to the eye, outside the protective apron.

(iii) When only one individual monitoring device is used to determine the effective dose equivalent for external radiation pursuant to Subsection R313-15-201(3)(b), it shall be located at the neck outside the protective apron. When a second individual monitoring device is used, for the same purpose, it shall be located under the protective apron at the waist. Note: The second individual monitoring device is required for a declared pregnant woman.

(2) Each licensee or registrant shall monitor, to determine compliance with Section R313-15-204, the occupational intake of

radioactive material by and assess the committed effective dose equivalent to:

(a) Adults likely to receive, in one year, an intake in excess of ten percent of the applicable ALI in Table I, Columns 1 and 2, of Appendix B of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference; and

(b) Minors and declared pregnant women likely to receive, in one year, a committed effective dose equivalent in excess of 0.50 mSv (0.05 rem).

R313-15-503. Location of Individual Monitoring Devices.

Each licensee or registrant shall ensure that individuals who are required to monitor occupational doses in accordance with Subsection R313-15-502(1) wear individual monitoring devices as follows:

(1) An individual monitoring device used for monitoring the dose to the whole body shall be worn at the unshielded location of the whole body likely to receive the highest exposure. When a protective apron is worn, the location of the individual monitoring device is typically at the neck (collar).

(2) An individual monitoring device used for monitoring the dose to an embryo/fetus of a declared pregnant woman, pursuant to Subsection R313-15-208(1), shall be located at the waist under any protective apron being worn by the woman.

(3) An individual monitoring device used for monitoring the eye dose equivalent, to demonstrate compliance with Subsection R313-15-201(1)(b)(i), shall be located at the neck (collar), outside any protective apron being worn by the monitored individual, or at an unshielded location closer to the eye.

(4) An individual monitoring device used for monitoring the dose to the extremities, to demonstrate compliance with Subsection R313-15-201(1)(b)(ii), shall be worn on the extremity likely to receive the highest exposure. Each individual monitoring device shall be oriented to measure the highest dose to the extremity being monitored.

R313-15-601. Control of Access to High Radiation Areas.

(1) The licensee or registrant shall ensure that each entrance or access point to a high radiation area has one or more of the following features:

(a) 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 one mSv (0.1 rem) in one hour at 30 centimeters from the source of radiation or from any surface that the radiation penetrates; or

(b) 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

(c) Entryways that are locked, except during periods when access to the areas is required, with positive control over each individual entry.

(2) In place of the controls required by Subsection R313-15-601(1) for a high radiation area, the licensee or registrant may substitute continuous direct or electronic surveillance that is capable of preventing unauthorized entry.

(3) The licensee or registrant may apply to the Executive Secretary for approval of alternative methods for controlling access to high radiation areas.

(4) The licensee or registrant shall establish the controls required by Subsections R313-15-601(1) and R313-15-601(3) in a way that does not prevent individuals from leaving a high radiation area.

(5) The licensee or registrant is not required to control each entrance or access point to a room or other area that is a high radiation area solely because of the presence of radioactive materials prepared for transport and packaged and labeled in accordance with the rules of the U.S. Department of Transportation provided that:

(a) The packages do not remain in the area longer than three days; and

(b) The dose rate at one meter from the external surface of any package does not exceed 0.1 mSv (0.01 rem) per hour.

(6) The licensee or registrant is not required to control entrance or access to rooms or other areas in hospitals solely because of the presence of patients containing radioactive material, provided that there are personnel in attendance who are taking the necessary precautions to prevent the exposure of individuals to radiation or radioactive material in excess of the established limits in Rule R313-15 and to operate within the ALARA provisions of the licensee's or registrant's radiation protection program.

(7) The registrant is not required to control entrance or access to rooms or other areas containing sources of radiation capable of producing a high radiation area as described in Section R313-15-601 if the registrant has met all the specific requirements for access and control specified in other applicable sections of these rules, such as, Rule R313-36 for industrial radiography, Rule R313-28 for x rays in the healing arts, Rule R313-30 for therapeutic radiation machines, and Rule R313-35 for industrial use of x-ray systems.

R313-15-602. Control of Access to Very High Radiation Areas.

(1) In addition to the requirements in Section R313-15-601, the licensee or registrant shall institute measures to ensure that an individual is not able to gain unauthorized or inadvertent access to areas in which radiation levels could be encountered at five Gy (500 rad) or more in one hour at one meter from a source of radiation or any surface through which the radiation penetrates. This requirement does not apply to rooms or areas in which diagnostic x-ray systems are the only source of radiation, or to non-self-shielded irradiators.

(2) The registrant is not required to control entrance or access to rooms or other areas containing sources of radiation capable of producing a very high radiation area as described in Subsection R313-15-602(1) if the registrant has met all the specific requirements for access and control specified in other applicable sections of these rules, such as, Rule R313-36 for industrial radiography, Rule R313-28 for x rays in the healing arts, Rule R313-30 for therapeutic radiation machines, and Rule R313-35 for industrial use of x-ray systems.

R313-15-603. Control of Access to Very High Radiation Areas -- Irradiators.

(1) Section R313-15-603 applies to licensees or registrants with sources of radiation in non-self-shielded irradiators. Section R313-15-603 does not apply to sources of radiation that are used in teletherapy, in industrial radiography, or in completely self-shielded irradiators in which the source of radiation is both stored and operated within the same shielding radiation barrier and, in the

designed configuration of the irradiator, is always physically inaccessible to any individual and cannot create a high levels of radiation in an area that is accessible to any individual.

(2) Each area in which there may exist radiation levels in excess of five Gy (500 rad) in one hour at one meter from a source of radiation that is used to irradiate materials shall meet the following requirements:

(a) Each entrance or access point shall be equipped with entry control devices which:

(i) Function automatically to prevent any individual from inadvertently entering a very high radiation area; and

(ii) Permit deliberate entry into the area only after a control device is actuated that causes the radiation level within the area, from the source of radiation, to be reduced below that at which it would be possible for an individual to receive a deep dose equivalent in excess of one mSv (0.1 rem) in one hour; and

(iii) Prevent operation of the source of radiation if it would produce radiation levels in the area that could result in a deep dose equivalent to an individual in excess of one mSv (0.1 rem) in one hour.

(b) Additional control devices shall be provided so that, upon failure of the entry control devices to function as required by Subsection R313-15-603(2)(a):

(i) The radiation level within the area, from the source of radiation, is reduced below that at which it would be possible for an individual to receive a deep dose equivalent in excess of one mSv (0.1 rem) in one hour; and

(ii) Conspicuous visible and audible alarm signals are generated to make an individual attempting to enter the area aware of the hazard and at least one other authorized individual, who is physically present, familiar with the activity, and prepared to render or summon assistance, aware of the failure of the entry control devices.

(c) The licensee or registrant shall provide control devices so that, upon failure or removal of physical radiation barriers other than the sealed source's shielded storage container:

(i) The radiation level from the source of radiation is reduced below that at which it would be possible for an individual to receive a deep dose equivalent in excess of one mSv (0.1 rem) in one hour; and

(ii) Conspicuous visible and audible alarm signals are generated to make potentially affected individuals aware of the hazard and the licensee or registrant or at least one other individual, who is familiar with the activity and prepared to render or summon assistance, aware of the failure or removal of the physical barrier.

(d) When the shield for stored sealed sources is a liquid, the licensee or registrant shall provide means to monitor the integrity of the shield and to signal, automatically, loss of adequate shielding.

(e) Physical radiation barriers that comprise permanent structural components, such as walls, that have no credible probability of failure or removal in ordinary circumstances need not meet the requirements of Subsections R313-15-603(2)(c) and R313-15-603(2)(d).

(f) Each area shall be equipped with devices that will automatically generate conspicuous visible and audible alarm signals to alert personnel in the area before the source of radiation can be put into operation and in time for any individual in the area to operate a clearly identified control device, which shall be

installed in the area and which can prevent the source of radiation from being put into operation.

(g) Each area shall be controlled by use of such administrative procedures and such devices as are necessary to ensure that the area is cleared of personnel prior to each use of the source of radiation.

(h) Each area shall be checked by a radiation measurement to ensure that, prior to the first individual's entry into the area after any use of the source of radiation, the radiation level from the source of radiation in the area is below that at which it would be possible for an individual to receive a deep dose equivalent in excess of one mSv (0.1 rem) in one hour.

(i) The entry control devices required in Subsection R313-15-603(2)(a) shall be tested for proper functioning. See Section R313-15-1110 for recordkeeping requirements.

(i) Testing shall be conducted prior to initial operation with the source of radiation on any day, unless operations were continued uninterrupted from the previous day; and

(ii) Testing shall be conducted prior to resumption of operation of the source of radiation after any unintentional interruption; and

(iii) The licensee or registrant shall submit and adhere to a schedule for periodic tests of the entry control and warning systems.

(j) The licensee or registrant shall not conduct operations, other than those necessary to place the source of radiation in safe condition or to effect repairs on controls, unless control devices are functioning properly.

(k) Entry and exit portals that are used in transporting materials to and from the irradiation area, and that are not intended for use by individuals, shall be controlled by such devices and administrative procedures as are necessary to physically protect and warn against inadvertent entry by any individual through these portals. Exit portals for irradiated materials shall be equipped to detect and signal the presence of any loose radioactive material that is carried toward such an exit and automatically to prevent loose radioactive material from being carried out of the area.

(3) Licensees, registrants, or applicants for licenses or registrations for sources of radiation within the purview of Subsection R313-15-603(2) which will be used in a variety of positions or in locations, such as open fields or forests, that make it impractical to comply with certain requirements of Subsection R313-15-603(2), such as those for the automatic control of radiation levels, may apply to the Executive Secretary for approval of alternative safety measures. Alternative safety measures shall provide personnel protection at least equivalent to those specified in Subsection R313-15-603(2). At least one of the alternative measures shall include an entry-preventing interlock control based on a measurement of the radiation that ensures the absence of high radiation levels before an individual can gain access to the area where such sources of radiation are used.

(4) The entry control devices required by Subsections R313-15-603(2) and R313-15-603(3) shall be established in such a way that no individual will be prevented from leaving the area.

R313-15-701. Use of Process or Other Engineering Controls.

The licensee or registrant shall use, to the extent practical, process or other engineering controls, such as, containment or ventilation, to control the concentrations of radioactive material in air.

R313-15-702. Use of Other Controls.

When it is not practical to apply process or other engineering controls to control the concentrations of radioactive material in air to values below those that define an airborne radioactivity area, the licensee or registrant shall, consistent with maintaining the total effective dose equivalent ALARA, increase monitoring and limit intakes by one or more of the following means:

- (1) Control of access; or
- (2) Limitation of exposure times; or
- (3) Use of respiratory protection equipment; or
- (4) Other controls.

R313-15-703. Use of Individual Respiratory Protection Equipment.

(1) If the licensee or registrant uses respiratory protection equipment to limit intakes pursuant to Section R313-15-702:

(a) Except as provided in Subsection R313-15-703(1)(b), the licensee or registrant shall use only respiratory protection equipment that is tested and certified or had certification extended by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration.

(b) The licensee or registrant may use equipment that has not been tested or certified by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration, has not had certification extended by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration, or for which there is no schedule for testing or certification, provided the licensee or registrant has submitted to the Executive Secretary and the Executive Secretary has approved an application for authorized use of that equipment, including a demonstration by testing, or a demonstration on the basis of test information, that the material and performance characteristics of the equipment are capable of providing the proposed degree of protection under anticipated conditions of use.

(c) The licensee or registrant shall implement and maintain a respiratory protection program that includes:

(i) Air sampling sufficient to identify the potential hazard, permit proper equipment selection, and estimate exposures; and

(ii) Surveys and bioassays, as appropriate, to evaluate actual intakes; and

(iii) Testing of respirators for operability immediately prior to each use; and

(iv) Written procedures regarding selection, fitting, issuance, maintenance, and testing of respirators, including testing for operability immediately prior to each use; supervision and training of personnel; monitoring, including air sampling and bioassays; and recordkeeping; and

(v) Determination by a physician prior to initial fitting of respirators, and either every 12 months thereafter or periodically at a frequency determined by a physician, that the individual user is medically fit to use the respiratory protection equipment.

(d) The licensee or registrant shall issue a written policy statement on respirator usage covering:

(i) The use of process or other engineering controls, instead of respirators; and

(ii) The routine, nonroutine, and emergency use of respirators; and

(iii) The length of periods of respirator use and relief from respirator use.

(e) The licensee or registrant shall advise each respirator user that the user may leave the area at any time for relief from respirator use in the event of equipment malfunction, physical or psychological distress, procedural or communication failure, significant deterioration of operating conditions, or any other conditions that might require such relief.

(f) The licensee or registrant shall use respiratory protection equipment within the equipment manufacturer's expressed limitations for type and mode of use and shall provide proper visual, communication, and other special capabilities, such as adequate skin protection, when needed.

(2) When estimating exposure of individuals to airborne radioactive materials, the licensee or registrant may make allowance for respiratory protection equipment used to limit intakes pursuant to Section R313-15-702, provided that the following conditions, in addition to those in Subsection R313-15-703(1), are satisfied:

(a) The licensee or registrant selects respiratory protection equipment that provides a protection factor, specified in Appendix A of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference, greater than the multiple by which peak concentrations of airborne radioactive materials in the working area are expected to exceed the values specified in Appendix B, Table I, Column 3 of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference. However, if the selection of respiratory protection equipment with a protection factor greater than the multiple defined in the preceding sentence is inconsistent with the goal specified in Section R313-15-702 of keeping the total effective dose equivalent ALARA, the licensee or registrant may select respiratory protection equipment with a lower protection factor provided that such a selection would result in a total effective dose equivalent that is ALARA. The concentration of radioactive material in the air that is inhaled when respirators are worn may be initially estimated by dividing the average concentration in air, during each period of uninterrupted use, by the protection factor. If the exposure is later found to be greater than initially estimated, the corrected value shall be used; if the exposure is later found to be less than initially estimated, the corrected value may be used.

(b) The licensee or registrant shall obtain authorization from the Executive Secretary before assigning respiratory protection factors in excess of those specified in Appendix A of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference. The Executive Secretary may authorize a licensee or registrant to use higher protection factors on receipt of an application that:

(i) Describes the situation for which a need exists for higher protection factors, and

(ii) Demonstrates that the respiratory protection equipment provides these higher protection factors under the proposed conditions of use.

(3) In an emergency, the licensee or registrant shall use as emergency equipment only respiratory protection equipment that has been specifically certified or had certification extended for emergency use by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration.

(4) The licensee or registrant shall notify the Executive Secretary in writing at least 30 days before the date that respiratory protection equipment is first used pursuant to either Subsections R313-15-703(1) or R313-15-703(2).

R313-15-801. Security and Control of Licensed or Registered Sources of Radiation.

(1) The licensee or registrant shall secure licensed or registered radioactive material from unauthorized removal or access.

(2) The licensee or registrant shall maintain constant surveillance, and use devices or administrative procedures to prevent unauthorized use of licensed or registered radioactive material that is in an unrestricted area and that is not in storage.

(3) The registrant shall secure registered radiation machines from unauthorized removal.

(4) The registrant shall use devices or administrative procedures to prevent unauthorized use of registered radiation machines.

R313-15-901. Caution Signs.

(1) Standard Radiation Symbol. Unless otherwise authorized by the Executive Secretary, the symbol prescribed by 10 CFR 20.1901, 1997 ed., which is incorporated by reference, shall use the colors magenta, or purple, or black on yellow background. The symbol prescribed is the three-bladed design as follows:

(a) Cross-hatched area is to be magenta, or purple, or black, and

(b) The background is to be yellow.

(2) Exception to Color Requirements for Standard Radiation Symbol. Notwithstanding the requirements of 10 CFR 20.1901a, 1997 ed., which is incorporated by reference, licensees or registrants are authorized to label sources, source holders, or device components containing sources of radiation that are subjected to high temperatures, with conspicuously etched or stamped radiation caution symbols and without a color requirement.

(3) Additional Information on Signs and Labels. In addition to the contents of signs and labels prescribed in Rule R313-15, the licensee or registrant shall provide, on or near the required signs and labels, additional information, as appropriate, to make individuals aware of potential radiation exposures and to minimize the exposures.

R313-15-902. Posting Requirements.

(1) Posting of Radiation Areas. The licensee or registrant shall post each radiation area with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, RADIATION AREA."

(2) Posting of High Radiation Areas. The licensee or registrant shall post each high radiation area with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, HIGH RADIATION AREA" or "DANGER, HIGH RADIATION AREA."

(3) Posting of Very High Radiation Areas. The licensee or registrant shall post each very high radiation area with a conspicuous sign or signs bearing the radiation symbol and words "GRAVE DANGER, VERY HIGH RADIATION AREA."

(4) Posting of Airborne Radioactivity Areas. The licensee or registrant shall post each airborne radioactivity area with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, AIRBORNE RADIOACTIVITY AREA" or "DANGER, AIRBORNE RADIOACTIVITY AREA."

(5) Posting of Areas or Rooms in which Licensed or Registered Material is Used or Stored. The licensee or registrant shall post each area or room in which there is used or stored an

amount of licensed or registered material exceeding ten times the quantity of such material specified in Appendix C of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference, with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, RADIOACTIVE MATERIAL" or "DANGER, RADIOACTIVE MATERIAL."

R313-15-903. Exceptions to Posting Requirements.

(1) A licensee or registrant is not required to post caution signs in areas or rooms containing sources of radiation for periods of less than eight hours, if each of the following conditions is met:

(a) The sources of radiation are constantly attended during these periods by an individual who takes the precautions necessary to prevent the exposure of individuals to sources of radiation in excess of the limits established in Rule R313-15; and

(b) The area or room is subject to the licensee's or registrant's control.

(2) Rooms or other areas in hospitals that are occupied by patients are not required to be posted with caution signs pursuant to Section R313-15-902 provided that the patient could be released from licensee control pursuant to Section R313-32-75.

(3) A room or area is not required to be posted with a caution sign because of the presence of a sealed source provided the radiation level at 30 centimeters from the surface of the sealed source container or housing does not exceed 0.05 mSv (0.005 rem) per hour.

(4) A room or area is not required to be posted with a caution sign because of the presence of radiation machines used solely for diagnosis in the healing arts.

R313-15-904. Labeling Containers and Radiation Machines.

(1) The licensee or registrant shall ensure that each container of licensed or registered material bears a durable, clearly visible label bearing the radiation symbol and the words "CAUTION, RADIOACTIVE MATERIAL" or "DANGER, RADIOACTIVE MATERIAL." The label shall also provide information, such as the radionuclides present, an estimate of the quantity of radioactivity, the date for which the activity is estimated, radiation levels, kinds of materials, and mass enrichment, to permit individuals handling or using the containers, or working in the vicinity of the containers, to take precautions to avoid or minimize exposures.

(2) Each licensee or registrant shall, prior to removal or disposal of empty uncontaminated containers to unrestricted areas, remove or deface the radioactive material label or otherwise clearly indicate that the container no longer contains radioactive materials.

(3) Each registrant shall ensure that each radiation machine is labeled in a conspicuous manner which cautions individuals that radiation is produced when it is energized.

R313-15-905. Exemptions to Labeling Requirements.

A licensee or registrant is not required to label:

(1) Containers holding licensed or registered material in quantities less than the quantities listed in Appendix C of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference; or

(2) Containers holding licensed or registered material in concentrations less than those specified in Table III of Appendix B of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference; or

(3) Containers attended by an individual who takes the precautions necessary to prevent the exposure of individuals in excess of the limits established by Rule R313-15; or

(4) Containers when they are in transport and packaged and labeled in accordance with the rules of the U.S. Department of Transportation; or

(5) Containers that are accessible only to individuals authorized to handle or use them, or to work in the vicinity of the containers, if the contents are identified to these individuals by a readily available written record. Examples of containers of this type are containers in locations such as water-filled canals, storage vaults, or hot cells. The record shall be retained as long as the containers are in use for the purpose indicated on the record; or

(6) Installed manufacturing or process equipment, such as piping and tanks.

R313-15-906. Procedures for Receiving and Opening Packages.

(1) Each licensee or registrant who expects to receive a package containing quantities of radioactive material in excess of a Type A quantity, as used in Section R313-19-100, which incorporates 10 CFR 71.4 by reference, shall make arrangements to receive:

(a) The package when the carrier offers it for delivery; or

(b) The notification of the arrival of the package at the carrier's terminal and to take possession of the package expeditiously.

(2) Each licensee or registrant shall:

(a) Monitor the external surfaces of a labeled package for radioactive contamination unless the package contains only radioactive material in the form of gas or in special form as defined in Section R313-12-3; and

(b) Monitor the external surfaces of a labeled package for radiation levels unless the package contains quantities of radioactive material that are less than or equal to the Type A quantity, as used in Section R313-19-100, which incorporates 10 CFR 71.4 by reference; and

(c) Monitor all packages known to contain radioactive material for radioactive contamination and radiation levels if there is evidence of degradation of package integrity, such as packages that are crushed, wet, or damaged.

(3) The licensee or registrant shall perform the monitoring required by Subsection R313-15-906(2) as soon as practical after receipt of the package, but not later than three hours after the package is received at the licensee's or registrant's facility if it is received during the licensee's or registrant's normal working hours or if there is evidence of degradation of package integrity, such as a package that is crushed, wet, or damaged. If a package is received after working hours, and has no evidence of degradation of package integrity, the package shall be monitored no later than three hours from the beginning of the next working day.

(4) The licensee or registrant shall immediately notify the final delivery carrier and, by telephone and telegram, mailgram, or facsimile, the Executive Secretary when:

(a) Removable radioactive surface contamination exceeds the limits of Section R313-19-100 which incorporates 10 CFR 71.87(i) by reference; or

(b) External radiation levels exceed the limits of Section R313-19-100 which incorporates 10 CFR 71.47 by reference.

(5) Each licensee or registrant shall:

(a) Establish, maintain, and retain written procedures for safely opening packages in which radioactive material is received; and

(b) Ensure that the procedures are followed and that due consideration is given to special instructions for the type of package being opened.

(6) Licensees or registrants transferring special form sources in vehicles owned or operated by the licensee or registrant to and from a work site are exempt from the contamination monitoring requirements of Subsection R313-15-906(2), but are not exempt from the monitoring requirement in Subsection R313-15-906(2) for measuring radiation levels that ensures that the source is still properly lodged in its shield.

R313-15-1001. Waste Disposal - General Requirements.

(1) A licensee or registrant shall dispose of licensed or registered material only:

(a) By transfer to an authorized recipient as provided in Section R313-15-1006 or in Rules R313-21, R313-22, or R313-25, or to the U.S. Department of Energy; or

(b) By decay in storage; or

(c) By release in effluents within the limits in Section R313-15-301; or

(d) As authorized pursuant to Sections R313-15-1002, R313-15-1003, R313-15-1004, or R313-15-1005.

(2) A person shall be specifically licensed or registered to receive waste containing licensed or registered material from other persons for:

(a) Treatment prior to disposal; or

(b) Treatment or disposal by incineration; or

(c) Decay in storage; or

(d) Disposal at a land disposal facility licensed pursuant to Rule R313-25; or

(e) Storage until transferred to a storage or disposal facility authorized to receive the waste.

R313-15-1002. Method for Obtaining Approval of Proposed Disposal Procedures.

A licensee or registrant or applicant for a license or registration may apply to the Executive Secretary for approval of proposed procedures, not otherwise authorized in these rules, to dispose of licensed or registered material generated in the licensee's or registrant's operations. Each application shall include:

(1) A description of the waste containing licensed or registered material to be disposed of, including the physical and chemical properties that have an impact on risk evaluation, and the proposed manner and conditions of waste disposal; and

(2) An analysis and evaluation of pertinent information on the nature of the environment; and

(3) The nature and location of other potentially affected facilities; and

(4) Analyses and procedures to ensure that doses are maintained ALARA and within the dose limits in Rule R313-15.

R313-15-1003. Disposal by Release into Sanitary Sewerage.

(1) A licensee or registrant may discharge licensed or registered material into sanitary sewerage if each of the following conditions is satisfied:

(a) The material is readily soluble, or is readily dispersible biological material, in water; and

(b) The quantity of licensed or registered radioactive material that the licensee or registrant releases into the sewer in one month divided by the average monthly volume of water released into the sewer by the licensee or registrant does not exceed the concentration listed in Table III of Appendix B of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference; and

(c) If more than one radionuclide is released, the following conditions shall also be satisfied:

(i) The licensee or registrant shall determine the fraction of the limit in Table III of Appendix B of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference, represented by discharges into sanitary sewerage by dividing the actual monthly average concentration of each radionuclide released by the licensee or registrant into the sewer by the concentration of that radionuclide listed in Table III of Appendix B of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference; and

(ii) The sum of the fractions for each radionuclide required by Subsection R313-15-1003(1)(c)(i) does not exceed unity; and

(d) The total quantity of licensed or registered radioactive material that the licensee or registrant releases into the sanitary sewerage system in a year does not exceed 185 GBq (five Ci) of hydrogen-3, 37 GBq (one Ci) of carbon-14, and 37 GBq (one Ci) of all other radioactive materials combined.

(2) Excreta from individuals undergoing medical diagnosis or therapy with radioactive material are not subject to the limitations contained in Subsection R313-15-1003(1).

R313-15-1004. Treatment or Disposal by Incineration.

A licensee or registrant may treat or dispose of licensed or registered material by incineration only in the form and concentration specified in Section R313-15-1005 or as specifically approved by the Executive Secretary pursuant to Section R313-15-1002.

R313-15-1005. Disposal of Specific Wastes.

(1) A licensee or registrant may dispose of the following licensed or registered material as if it were not radioactive:

(a) 1.85 kBq (0.05 uCi), or less, of hydrogen-3 or carbon-14 per gram of medium used for liquid scintillation counting; and

(b) 1.85 kBq (0.05 uCi) or less, of hydrogen-3 or carbon-14 per gram of animal tissue, averaged over the weight of the entire animal.

(2) A licensee or registrant shall not dispose of tissue pursuant to Subsection R313-15-1005(1)(b) in a manner that would permit its use either as food for humans or as animal feed.

(3) The licensee or registrant shall maintain records in accordance with Section R313-15-1109.

R313-15-1006. Transfer for Disposal and Manifests.

(1) Requirements of Section R313-15-1006 and Appendix F and G of 10 CFR 20.1001 to 20.2402, 1997 ed.

(a) The requirements of Section R313-15-1006 and Appendix F and G of 10 CFR 20.1001 to 20.2402, 1997 ed., which are incorporated into these rules by reference, are designed to:

(i) control transfers of low-level radioactive waste by any waste generator, waste collector, or waste processor licensee, as defined in Appendix F or G in 10 CFR 20.1001 to 20.2402, 1997

ed., who ships low-level waste either directly, or indirectly through a waste collector or waste processor, to a licensed low-level waste land disposal facility as defined in Section R313-25-2;

- (ii) establish a manifest tracking system; and
- (iii) supplement existing requirements concerning transfers and recordkeeping for those wastes.

(b) Beginning March 1, 1998, all affected licensees must use Appendix G of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated into these rules by reference. Prior to March 1, 1998, a low-level waste disposal facility operator or its regulatory authority may require the shipper to use Appendix F or Appendix G of 10 CFR 20.1001 to 20.2402, 1997 ed. Licensees using Appendix F shall comply with Subsection R313-15-1006(2)(a). Licensees using Appendix G shall comply with Subsection R313-15-1006(2)(b).

(2) Shipment of Radioactive Waste.

(a) Each shipment of radioactive waste designated for disposal at a licensed low-level radioactive waste disposal facility shall be accompanied by a shipment manifest as specified in Section I of Appendix F of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference.

(b) Any licensee shipping radioactive waste intended for ultimate disposal at a licensed land disposal facility must document the information required on the U.S. Nuclear Regulatory Commission's Uniform Low-Level Radioactive Waste Manifest and transfer this recorded information to the intended consignee in accordance with Appendix G to 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated into these rules by reference.

(3) Each shipment manifest shall include a certification by the waste generator as specified in Section II of Appendix F or G, as appropriate, of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference. See Subsection R313-15-1006(1)(b) to determine the appropriate Appendix.

(4) Each person involved in the transfer of waste for disposal or in the disposal of waste, including the waste generator, waste collector, waste processor, and disposal facility operator, shall comply with the requirements specified in Section III of Appendix F or G, as appropriate, of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference. See Subsection R313-15-1006(1)(b) to determine the appropriate Appendix.

R313-15-1007. Compliance with Environmental and Health Protection Rules.

Nothing in Sections R313-15-1001, R313-15-1002, R313-15-1003, R313-15-1004, R313-15-1005, or R313-15-1006 relieves the licensee or registrant from complying with other applicable Federal, State and local rules governing any other toxic or hazardous properties of materials that may be disposed of pursuant to Sections R313-15-1001, R313-15-1002, R313-15-1003, R313-15-1004, R313-15-1005, or R313-15-1006.

R313-15-1008. Classification and Characteristics of Low-Level Radioactive Waste.

(1) Classification of Radioactive Waste for Land Disposal

(a) Considerations. Determination of the classification of radioactive waste involves two considerations. First, consideration shall be given to the concentration of long-lived radionuclides (and their shorter-lived precursors) whose potential hazard will persist long after such precautions as institutional controls, improved waste

form, and deeper disposal have ceased to be effective. These precautions delay the time when long-lived radionuclides could cause exposures. In addition, the magnitude of the potential dose is limited by the concentration and availability of the radionuclide at the time of exposure. Second, consideration shall be given to the concentration of shorter-lived radionuclides for which requirements on institutional controls, waste form, and disposal methods are effective.

(b) Classes of waste.

(i) Class A waste is waste that is usually segregated from other waste classes at the disposal site. The physical form and characteristics of Class A waste shall meet the minimum requirements set forth in Subsection R313-15-1008(2)(a). If Class A waste also meets the stability requirements set forth in Subsection R313-15-1008(2)(b), it is not necessary to segregate the waste for disposal.

(ii) Class B waste is waste that shall meet more rigorous requirements on waste form to ensure stability after disposal. The physical form and characteristics of Class B waste shall meet both the minimum and stability requirements set forth in Subsection R313-15-1008(2).

(iii) Class C waste is waste that not only shall meet more rigorous requirements on waste form to ensure stability but also requires additional measures at the disposal facility to protect against inadvertent intrusion. The physical form and characteristics of Class C waste shall meet both the minimum and stability requirements set forth in Subsection R313-15-1008(2).

(c) Classification determined by long-lived radionuclides. If the radioactive waste contains only radionuclides listed in Table I, classification shall be determined as follows:

(i) If the concentration does not exceed 0.1 times the value in Table I, the waste is Class A.

(ii) If the concentration exceeds 0.1 times the value in Table I, but does not exceed the value in Table I, the waste is Class C.

(iii) If the concentration exceeds the value in Table I, the waste is not generally acceptable for land disposal.

(iv) For wastes containing mixtures of radionuclides listed in Table I, the total concentration shall be determined by the sum of fractions rule described in Subsection R313-15-1008(1)(g).

TABLE I

Radionuclide	Concentration	
	curie/cubic meter(1)	nanocurie/gram(2)
C-14	8	
C-14 in activated metal	80	
Ni-59 in activated metal	220	
Nb-94 in activated metal	0.2	
Tc-99	3	
I-129	0.08	
Alpha emitting transuranic radionuclides with half-life greater than five years		100
Pu-241		3,500
Cm-242		20,000
Ra-226		100

NOTE: (1) To convert the Ci/m³ values to gigabecquerel (GBq)/cubic meter, multiply the Ci/m³ value by 37.

(2) To convert the nCi/g values to becquerel (Bq)/gram, multiply the nCi/g value by 37.

(d) Classification determined by short-lived radionuclides. If the waste does not contain any of the radionuclides listed in Table I, classification shall be determined based on the concentrations shown in Table II. However, as specified in Subsection R313-15-1008(1)(f), if radioactive waste does not contain any nuclides listed in either Table I or II, it is Class A.

(i) If the concentration does not exceed the value in Column 1, the waste is Class A.

(ii) If the concentration exceeds the value in Column 1 but does not exceed the value in Column 2, the waste is Class B.

(iii) If the concentration exceeds the value in Column 2 but does not exceed the value in Column 3, the waste is Class C.

(iv) If the concentration exceeds the value in Column 3, the waste is not generally acceptable for near-surface disposal.

(v) For wastes containing mixtures of the radionuclides listed in Table II, the total concentration shall be determined by the sum of fractions rule described in Subsection R313-15-1008(1)(g).

TABLE II

Radionuclide	Concentration, Column 1	curie/cubic meter(1)	
		Column 2	Column 3
Total of all radio-nuclides with less than 5-year half-life	700	(2)	(2)
H-3	40	(2)	(2)
Co-60	700	(2)	(2)
Ni-63	3.5	70	700
Ni-63 in activated metal	35	700	7000
Sr-90	0.04	150	7000
Cs-137	1	44	4600

NOTE: (1) To convert the Ci/m³ value to gigabecquerel (GBq)/cubic meter, multiply the Ci/m³ value by 37.

(2) There are no limits established for these radionuclides in Class B or C wastes. Practical considerations such as the effects of external radiation and internal heat generation on transportation, handling, and disposal will limit the concentrations for these wastes. These wastes shall be Class B unless the concentrations of other radionuclides in Table II determine the waste to be Class C independent of these radionuclides.

(e) Classification determined by both long- and short-lived radionuclides. If the radioactive waste contains a mixture of radionuclides, some of which are listed in Table I and some of which are listed in Table II, classification shall be determined as follows:

(i) If the concentration of a radionuclide listed in Table I is less than 0.1 times the value listed in Table I, the class shall be that determined by the concentration of radionuclides listed in Table II.

(ii) If the concentration of a radionuclide listed in Table I exceeds 0.1 times the value listed in Table I, but does not exceed the value in Table I, the waste shall be Class C, provided the concentration of radionuclides listed in Table II does not exceed the value shown in Column 3 of Table II.

(f) Classification of wastes with radionuclides other than those listed in Tables I and II. If the waste does not contain any radionuclides listed in either Table I or II, it is Class A.

(g) The sum of the fractions rule for mixtures of radionuclides. For determining classification for waste that contains a mixture of radionuclides, it is necessary to determine the sum of fractions by dividing each radionuclide's concentration by the appropriate limit

and adding the resulting values. The appropriate limits shall all be taken from the same column of the same table. The sum of the fractions for the column shall be less than 1.0 if the waste class is to be determined by that column. Example: A waste contains Sr-90 in a concentration of 1.85 TBq/m³ (50 Ci/m³) and Cs-137 in a concentration of 814 GBq/m³ (22 Ci/m³). Since the concentrations both exceed the values in Column 1, Table II, they shall be compared to Column 2 values. For Sr-90 fraction, 50/150 = 0.33., for Cs-137 fraction, 22/44 = 0.5; the sum of the fractions = 0.83. Since the sum is less than 1.0, the waste is Class B.

(h) Determination of concentrations in wastes. The concentration of a radionuclide may be determined by indirect methods such as use of scaling factors which relate the inferred concentration of one radionuclide to another that is measured, or radionuclide material accountability, if there is reasonable assurance that the indirect methods can be correlated with actual measurements. The concentration of a radionuclide may be averaged over the volume of the waste, or weight of the waste if the units are expressed as becquerel (nanocurie) per gram.

(2) Radioactive Waste Characteristics

(a) The following are minimum requirements for all classes of waste and are intended to facilitate handling and provide protection of health and safety of personnel at the disposal site.

(i) Wastes shall be packaged in conformance with the conditions of the license issued to the site operator to which the waste will be shipped. Where the conditions of the site license are more restrictive than the provisions of Rule R313-15, the site license conditions shall govern.

(ii) Wastes shall not be packaged for disposal in cardboard or fiberboard boxes.

(iii) Liquid waste shall be packaged in sufficient absorbent material to absorb twice the volume of the liquid.

(iv) Solid waste containing liquid shall contain as little free-standing and non-corrosive liquid as is reasonably achievable, but in no case shall the liquid exceed one percent of the volume.

(v) Waste shall not be readily capable of detonation or of explosive decomposition or reaction at normal pressures and temperatures, or of explosive reaction with water.

(vi) Waste shall not contain, or be capable of generating, quantities of toxic gases, vapors, or fumes harmful to persons transporting, handling, or disposing of the waste. This does not apply to radioactive gaseous waste packaged in accordance with Subsection R313-15-1008(2)(a)(viii).

(vii) Waste shall not be pyrophoric. Pyrophoric materials contained in wastes shall be treated, prepared, and packaged to be nonflammable.

(viii) Wastes in a gaseous form shall be packaged at an absolute pressure that does not exceed 1.5 atmospheres at 20 degrees celsius. Total activity shall not exceed 3.7 TBq (100 Ci) per container.

(ix) Wastes containing hazardous, biological, pathogenic, or infectious material shall be treated to reduce to the maximum extent practical the potential hazard from the non-radiological materials.

(b) The following requirements are intended to provide stability of the waste. Stability is intended to ensure that the waste does not degrade and affect overall stability of the site through slumping, collapse, or other failure of the disposal unit and thereby lead to water infiltration. Stability is also a factor in limiting

exposure to an inadvertent intruder, since it provides a recognizable and nondispersible waste.

(i) Waste shall have structural stability. A structurally stable waste form will generally maintain its physical dimensions and its form, under the expected disposal conditions such as weight of overburden and compaction equipment, the presence of moisture, and microbial activity, and internal factors such as radiation effects and chemical changes. Structural stability can be provided by the waste form itself, processing the waste to a stable form, or placing the waste in a disposal container or structure that provides stability after disposal.

(ii) Notwithstanding the provisions in Subsections R313-15-1008(2)(a)(iii) and R313-15-1008(2)(a)(iv), liquid wastes, or wastes containing liquid, shall be converted into a form that contains as little free-standing and non-corrosive liquid as is reasonably achievable, but in no case shall the liquid exceed one percent of the volume of the waste when the waste is in a disposal container designed to ensure stability, or 0.5 percent of the volume of the waste for waste processed to a stable form.

(iii) Void spaces within the waste and between the waste and its package shall be reduced to the extent practical.

(3) Labeling. Each package of waste shall be clearly labeled to identify whether it is Class A, Class B, or Class C waste, in accordance with Subsection R313-15-1008(1).

R313-15-1101. Records - General Provisions.

(1) Each licensee or registrant shall use the SI units becquerel, gray, sievert and coulomb per kilogram, or the special units, curie, rad, rem, and roentgen, including multiples and subdivisions, and shall clearly indicate the units of all quantities on records required by Rule R313-15.

(2) Notwithstanding the requirements of Subsection R313-15-1101(1), when recording information on shipment manifests, as required in Subsection R313-15-1006(2), information must be recorded in SI units or in SI units and the special units specified in Subsection R313-15-1101(1).

(3) The licensee or registrant shall make a clear distinction among the quantities entered on the records required by Rule R313-15, such as, total effective dose equivalent, total organ dose equivalent, shallow dose equivalent, eye dose equivalent, deep dose equivalent, or committed effective dose equivalent.

R313-15-1102. Records of Radiation Protection Programs.

(1) Each licensee or registrant shall maintain records of the radiation protection program, including:

(a) The provisions of the program; and
(b) Audits and other reviews of program content and implementation.

(2) The licensee or registrant shall retain the records required by Subsection R313-15-1102(1)(a) until the Executive Secretary terminates each pertinent license or registration requiring the record. The licensee or registrant shall retain the records required by Subsection R313-15-1102(1)(b) for three years after the record is made.

R313-15-1103. Records of Surveys.

(1) Each licensee or registrant shall maintain records showing the results of surveys and calibrations required by Section R313-15-

501 and Subsection R313-15-906(2). The licensee or registrant shall retain these records for three years after the record is made.

(2) The licensee or registrant shall retain each of the following records until the Executive Secretary terminates each pertinent license or registration requiring the record:

(a) Records of the results of surveys to determine the dose from external sources of radiation used, in the absence of or in combination with individual monitoring data, in the assessment of individual dose equivalents; and

(b) Records of the results of measurements and calculations used to determine individual intakes of radioactive material and used in the assessment of internal dose; and

(c) Records showing the results of air sampling, surveys, and bioassays required pursuant to Subsections R313-15-703(1)(c)(i) and R313-15-703(1)(c)(ii); and

(d) Records of the results of measurements and calculations used to evaluate the release of radioactive effluents to the environment.

R313-15-1104. Records of Tests for Leakage or Contamination of Sealed Sources.

Records of tests for leakage or contamination of sealed sources required by Section R313-15-401 shall be kept in units of becquerel or microcurie and maintained for inspection by the Executive Secretary for five years after the records are made.

R313-15-1105. Records of Prior Occupational Dose.

For each individual who is likely to receive in a year an occupational dose requiring monitoring pursuant to Section R313-15-502, the licensee or registrant shall retain the records of prior occupational dose and exposure history as specified in Section R313-15-205 on form DRC-05 or equivalent until the Executive Secretary terminates each pertinent license requiring this record. The licensee or registrant shall retain records used in preparing form DRC-05 or equivalent for three years after the record is made.

R313-15-1106. Records of Planned Special Exposures.

(1) For each use of the provisions of Section R313-15-206 for planned special exposures, the licensee or registrant shall maintain records that describe:

(a) The exceptional circumstances requiring the use of a planned special exposure; and

(b) The name of the management official who authorized the planned special exposure and a copy of the signed authorization; and

(c) What actions were necessary; and

(d) Why the actions were necessary; and

(e) What precautions were taken to assure that doses were maintained ALARA; and

(f) What individual and collective doses were expected to result; and

(g) The doses actually received in the planned special exposure.

(2) The licensee or registrant shall retain the records until the Executive Secretary terminates each pertinent license or registration requiring these records.

R313-15-1107. Records of Individual Monitoring Results.

(1) Recordkeeping Requirement. Each licensee or registrant shall maintain records of doses received by all individuals for whom monitoring was required pursuant to Section R313-15-502, and records of doses received during planned special exposures, accidents, and emergency conditions. Assessments of dose equivalent and records made using units in effect before January 1, 1994, need not be changed. These records shall include, when applicable:

(a) The deep dose equivalent to the whole body, eye dose equivalent, shallow dose equivalent to the skin, and shallow dose equivalent to the extremities; and

(b) The estimated intake of radionuclides, see Section R313-15-202; and

(c) The committed effective dose equivalent assigned to the intake of radionuclides; and

(d) The specific information used to calculate the committed effective dose equivalent pursuant to Subsection R313-15-204(3); and

(e) The total effective dose equivalent when required by Section R313-15-202; and

(f) The total of the deep dose equivalent and the committed dose to the organ receiving the highest total dose.

(2) Recordkeeping Frequency. The licensee or registrant shall make entries of the records specified in Subsection R313-15-1107(1) at intervals not to exceed one year.

(3) Recordkeeping Format. The licensee or registrant shall maintain the records specified in Subsection R313-15-1107(1) on form DRC-06, in accordance with the instructions for form DRC-06, or in clear and legible records containing all the information required by form DRC-06.

(4) The licensee or registrant shall maintain the records of dose to an embryo/fetus with the records of dose to the declared pregnant woman. The declaration of pregnancy, including the estimated date of conception, shall also be kept on file, but may be maintained separately from the dose records.

(5) The licensee or registrant shall retain each required form or record until the Executive Secretary terminates each pertinent license or registration requiring the record.

R313-15-1108. Records of Dose to Individual Members of the Public.

(1) Each licensee or registrant shall maintain records sufficient to demonstrate compliance with the dose limit for individual members of the public. See Section R313-15-301.

(2) The licensee or registrant shall retain the records required by Subsection R313-15-1108(1) until the Executive Secretary terminates each pertinent license or registration requiring the record. Requirements for disposition of these records, prior to license termination, are located in Section R313-12-51 for activities licensed under these rules.

R313-15-1109. Records of Waste Disposal.

(1) Each licensee or registrant shall maintain records of the disposal of licensed or registered materials made pursuant to Sections R313-15-1002, R313-15-1003, R313-15-1004, R313-15-1005, Rule R313-25, and disposal by burial in soil, including burials authorized before January 28, 1981.

(2) The licensee or registrant shall retain the records required by Subsection R313-15-1109(1) until the Executive Secretary terminates each pertinent license or registration requiring the record.

R313-15-1110. Records of Testing Entry Control Devices for Very High Radiation Areas.

(1) Each licensee or registrant shall maintain records of tests made pursuant to Subsection R313-15-603(2)(i) on entry control devices for very high radiation areas. These records shall include the date, time, and results of each such test of function.

(2) The licensee or registrant shall retain the records required by Subsection R313-15-1110(1) for three years after the record is made.

R313-15-1111. Form of Records.

Each record required by Rule R313-15 shall be legible throughout the specified retention period. The record shall be the original or a reproduced copy or a microform, provided that the copy or microform is authenticated by authorized personnel and that the microform is capable of producing a clear copy throughout the required retention period or the record may also be stored in electronic media with the capability for producing legible, accurate, and complete records during the required retention period. Records, such as letters, drawings, and specifications, shall include all pertinent information, such as stamps, initials, and signatures. The licensee shall maintain adequate safeguards against tampering with and loss of records.

R313-15-1201. Reports of Stolen, Lost, or Missing Licensed or Registered Sources of Radiation.

(1) Telephone Reports. Each licensee or registrant shall report to the Executive Secretary by telephone as follows:

(a) Immediately after its occurrence becomes known to the licensee or registrant, stolen, lost, or missing licensed or registered radioactive material in an aggregate quantity equal to or greater than 1,000 times the quantity specified in Appendix C of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference, under such circumstances that it appears to the licensee or registrant that an exposure could result to individuals in unrestricted areas;

(b) Within 30 days after its occurrence becomes known to the licensee or registrant, lost, stolen, or missing licensed or registered radioactive material in an aggregate quantity greater than ten times the quantity specified in Appendix C of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated by reference, that is still missing.

(c) Immediately after its occurrence becomes known to the registrant, a stolen, lost, or missing radiation machine.

(2) Written Reports. Each licensee or registrant required to make a report pursuant to Subsection R313-15-1201(1) shall, within 30 days after making the telephone report, make a written report to the Executive Secretary setting forth the following information:

(a) A description of the licensed or registered source of radiation involved, including, for radioactive material, the kind, quantity, and chemical and physical form; and, for radiation machines, the manufacturer, model and serial number, type and maximum energy of radiation emitted;

(b) A description of the circumstances under which the loss or theft occurred; and

(c) A statement of disposition, or probable disposition, of the licensed or registered source of radiation involved; and

(d) Exposures of individuals to radiation, circumstances under which the exposures occurred, and the possible total effective dose equivalent to persons in unrestricted areas; and

(e) Actions that have been taken, or will be taken, to recover the source of radiation; and

(f) Procedures or measures that have been, or will be, adopted to ensure against a recurrence of the loss or theft of licensed or registered sources of radiation.

(3) Subsequent to filing the written report, the licensee or registrant shall also report additional substantive information on the loss or theft within 30 days after the licensee or registrant learns of such information.

(4) The licensee or registrant shall prepare any report filed with the Executive Secretary pursuant to Section R313-15-1201 so that names of individuals who may have received exposure to radiation are stated in a separate and detachable portion of the report.

R313-15-1202. Notification of Incidents.

(1) Immediate Notification. Notwithstanding other requirements for notification, each licensee or registrant shall immediately report each event involving a source of radiation possessed by the licensee or registrant that may have caused or threatens to cause any of the following conditions:

(a) An individual to receive:

(i) A total effective dose equivalent of 0.25 Sv (25 rem) or more; or

(ii) An eye dose equivalent of 0.75 Sv (75 rem) or more; or

(iii) A shallow dose equivalent to the skin or extremities or a total organ dose equivalent of 2.5 Gy (250 rad) or more; or

(b) The release of radioactive material, inside or outside of a restricted area, so that, had an individual been present for 24 hours, the individual could have received an intake five times the occupational ALI. This provision does not apply to locations where personnel are not normally stationed during routine operations, such as hot-cells or process enclosures.

(2) Twenty-Four Hour Notification. Each licensee or registrant shall, within 24 hours of discovery of the event, report to the Executive Secretary each event involving loss of control of a licensed or registered source of radiation possessed by the licensee or registrant that may have caused, or threatens to cause, any of the following conditions:

(a) An individual to receive, in a period of 24 hours:

(i) A total effective dose equivalent exceeding 0.05 Sv (five rem); or

(ii) An eye dose equivalent exceeding 0.15 Sv (15 rem); or

(iii) A shallow dose equivalent to the skin or extremities or a total organ dose equivalent exceeding 0.5 Sv (50 rem); or

(b) The release of radioactive material, inside or outside of a restricted area, so that, had an individual been present for 24 hours, the individual could have received an intake in excess of one occupational ALI. This provision does not apply to locations where personnel are not normally stationed during routine operations, such as hot-cells or process enclosures.

(3) The licensee or registrant shall prepare each report filed with the Executive Secretary pursuant to Section R313-15-1202 so that names of individuals who have received exposure to sources of radiation are stated in a separate and detachable portion of the report.

(4) Licensees or registrants shall make the reports required by Subsections R313-15-1202(1) and R313-15-1202(2) to the Executive Secretary by telephone, telegram, mailgram, or facsimile to the Executive Secretary.

(5) The provisions of Section R313-15-1202 do not apply to doses that result from planned special exposures, provided such doses are within the limits for planned special exposures and are reported pursuant to Section R313-15-1204.

R313-15-1203. Reports of Exposures, Radiation Levels, and Concentrations of Radioactive Material Exceeding the Constraints or Limits.

(1) Reportable Events. In addition to the notification required by Section R313-15-1202, each licensee or registrant shall submit a written report within 30 days after learning of any of the following occurrences:

(a) Incidents for which notification is required by Section R313-15-1202; or

(b) Doses in excess of any of the following:

(i) The occupational dose limits for adults in Section R313-15-201; or

(ii) The occupational dose limits for a minor in Section R313-15-207; or

(iii) The limits for an embryo/fetus of a declared pregnant woman in Section R313-15-208; or

(iv) The limits for an individual member of the public in Section R313-15-301; or

(v) Any applicable limit in the license or registration; or

(vi) The ALARA constraints for air emissions established under Subsection R313-15-101(4); or

(c) Levels of radiation or concentrations of radioactive material in:

(i) A restricted area in excess of applicable limits in the license or registration; or

(ii) An unrestricted area in excess of ten times the applicable limit set forth in Rule R313-15 or in the license or registration, whether or not involving exposure of any individual in excess of the limits in Section R313-15-301; or

(d) For licensees subject to the provisions of U.S. Environmental Protection Agency's generally applicable environmental radiation standards in 40 CFR 190, levels of radiation or releases of radioactive material in excess of those standards, or of license conditions related to those standards.

(2) Contents of Reports.

(a) Each report required by Subsection R313-15-1203(1) shall describe the extent of exposure of individuals to radiation and radioactive material, including, as appropriate:

(i) Estimates of each individual's dose; and

(ii) The levels of radiation and concentrations of radioactive material involved; and

(iii) The cause of the elevated exposures, dose rates, or concentrations; and

(iv) Corrective steps taken or planned to ensure against a recurrence, including the schedule for achieving conformance with applicable limits, ALARA constraints, generally applicable environmental standards, and associated license or registration conditions.

(b) Each report filed pursuant to Subsection R313-15-1203(1) shall include for each occupationally overexposed individual: the name, Social Security account number, and date of birth. With respect to the limit for the embryo/fetus in Section R313-15-208, the identifiers should be those of the declared pregnant woman. The report shall be prepared so that this information is stated in a separate and detachable portion of the report.

(3) All licensees or registrants who make reports pursuant to Subsection R313-15-1203(1) shall submit the report in writing to the Executive Secretary.

R313-15-1204. Reports of Planned Special Exposures.

The licensee or registrant shall submit a written report to the Executive Secretary within 30 days following any planned special exposure conducted in accordance with Section R313-15-206, informing the Executive Secretary that a planned special exposure was conducted and indicating the date the planned special exposure occurred and the information required by Section R313-15-1106.

R313-15-1205. Reports to Individuals of Exceeding Dose Limits.

When a licensee or registrant is required, pursuant to the provisions of Sections R313-15-1203 or R313-15-1204, to report to the Executive Secretary any exposure of an identified occupationally exposed individual, or an identified member of the public, to sources of radiation, the licensee or registrant shall also provide a copy of the report submitted to the Executive Secretary to the individual. This report shall be transmitted at a time no later than the transmittal to the Executive Secretary.

R313-15-1207. Notifications and Reports to Individuals.

(1) Requirements for notification and reports to individuals of exposure to radiation or radioactive material are specified in Rule R313-18.

(2) When a licensee or registrant is required pursuant to Section R313-15-1203 to report to the Executive Secretary any exposure of an individual to radiation or radioactive material, the licensee or registrant shall also notify the individual. Such notice shall be transmitted at a time not later than the transmittal to the Executive Secretary, and shall comply with the provisions of Rule R313-18.

R313-15-1208. Reports of Leaking or Contaminated Sealed Sources.

If the test for leakage or contamination required pursuant to Section R313-15-401 indicates a sealed source is leaking or contaminated, a report of the test shall be filed within five days with the Executive Secretary describing the equipment involved, the test results and the corrective action taken.

R313-15-1301. Vacating Premises.

Each specific licensee or registrant shall, no less than 30 days before vacating or relinquishing possession or control of premises which may have been contaminated with radioactive material as a

result of his activities, notify the Executive Secretary in writing of intent to vacate. When deemed necessary by the Executive Secretary, the licensee shall decontaminate the premises in such a manner that the annual total effective dose equivalent to any individual after the site is released for unrestricted use should not exceed 0.1 mSv (0.01 rem) above background and that the annual total effective dose equivalent from any specific environmental source during decommissioning activities should not exceed 0.1 mSv (0.01 rem) above background[as the Executive Secretary may specify].

R313-15-1401. Testing for Leakage or Contamination of Sealed Sources.

(1) The licensee or registrant in possession of any sealed source shall assure that:

(a) Each sealed source, except as specified in Subsection R313-15-401(2), is tested for leakage or contamination and the test results are received before the sealed source is put into use unless the licensee or registrant has a certificate from the transferor indicating that the sealed source was tested within six months before transfer to the licensee or registrant.

(b) Each sealed source that is not designed to emit alpha particles is tested for leakage or contamination at intervals not to exceed six months or at alternative intervals approved by the Executive Secretary, an Agreement State, a Licensing State, or the U.S. Nuclear Regulatory Commission.

(c) Each sealed source that is designed to emit alpha particles is tested for leakage or contamination at intervals not to exceed three months or at alternative intervals approved by the Executive Secretary, an Agreement State, a Licensing State, or the Nuclear Regulatory Commission.

(d) For each sealed source that is required to be tested for leakage or contamination, at any other time there is reason to suspect that the sealed source might have been damaged or might be leaking, the licensee or registrant shall assure that the sealed source is tested for leakage or contamination before further use.

(e) Tests for leakage for all sealed sources, except brachytherapy sources manufactured to contain radium, shall be capable of detecting the presence of 185 Bq (0.005 uCi) of radioactive material on a test sample. Test samples shall be taken from the sealed source or from the surfaces of the container in which the sealed source is stored or mounted on which one might expect contamination to accumulate. For a sealed source contained in a device, test samples are obtained when the source is in the "off" position.

(f) The test for leakage for brachytherapy sources manufactured to contain radium shall be capable of detecting an absolute leakage rate of 37 Bq (0.001 uCi) of radon-222 in a 24 hour period when the collection efficiency for radon-222 and its daughters has been determined with respect to collection method, volume and time.

(g) Tests for contamination from radium daughters shall be taken on the interior surface of brachytherapy source storage containers and shall be capable of detecting the presence of 185 Bq (0.005 uCi) of a radium daughter which has a half-life greater than four days.

(2) A licensee or registrant need not perform tests for leakage or contamination on the following sealed sources:

- (a) Sealed sources containing only radioactive material with a half-life of less than 30 days;
- (b) Sealed sources containing only radioactive material as a gas;
- (c) Sealed sources containing 3.7 MBq (100 uCi) or less of beta or photon-emitting material or 370 kBq (ten uCi) or less of alpha-emitting material;
- (d) Sealed sources containing only hydrogen-3;
- (e) Seeds of iridium-192 encased in nylon ribbon; and
- (f) Sealed sources, except teletherapy and brachytherapy sources, which are stored, not being used and identified as in storage. The licensee or registrant shall, however, test each such sealed source for leakage or contamination and receive the test results before any use or transfer unless it has been tested for leakage or contamination within six months before the date of use or transfer.
- (3) Tests for leakage or contamination from sealed sources shall be performed by persons specifically authorized by the Executive Secretary, an Agreement State, a Licensing State, or the U.S. Nuclear Regulatory Commission to perform such services.
- (4) Test results shall be kept in units of becquerel or microcurie and maintained for inspection by representatives of the Executive Secretary. Records of test results for sealed sources shall be made pursuant to Section R313-15-1104.
- (5) The following shall be considered evidence that a sealed source is leaking:
 - (a) The presence of 185 Bq (0.005 uCi) or more of removable contamination on any test sample.
 - (b) Leakage of 37 Bq (0.001 uCi) of radon-222 per 24 hours for brachytherapy sources manufactured to contain radium.
 - (c) The presence of removable contamination resulting from the decay of 185 Bq (0.005 uCi) or more of radium.
- (6) The licensee or registrant shall immediately withdraw a leaking sealed source from use and shall take action to prevent the spread of contamination. The leaking sealed source shall be repaired or disposed of in accordance with Rule R313-15.
- (7) Reports of test results for leaking or contaminated sealed sources shall be made pursuant to Section R313-15-1208.

KEY: radioactive material, contamination, waste disposal, safety
~~March 12, 1999~~2000 19-3-104
 Notice of Continuation April 30, 1998 19-3-108

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**Environmental Quality, Radiation
Control
R313-16
General Requirements Applicable to
the Installation, Registration,
Inspection, and Use of Radiation
Machines**

NOTICE OF PROPOSED RULE

(Amendment)
 DAR FILE No.: 22600
 FILED: 01/13/2000, 15:53
 RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: The definition for "facility" has been moved to Rule R313-12 and is therefore being deleted from Rule R313-16.

SUMMARY OF THE RULE OR CHANGE: The definition for "facility" was deleted from Rule R313-16. This reference has been moved to Rule R313-12.

(DAR Note: The amendment to R313-12 in under DAR No. 22598 in this *Bulletin*.)

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Section 19-3-104

ANTICIPATED COST OR SAVINGS TO:

❖**THE STATE BUDGET:** None--this rule proposes the deletion of the definition for facility in Rule R313-16. Definitions are utilized for clarification purposes. The change will not affect state budget since new regulatory requirements are not proposed.

❖**LOCAL GOVERNMENTS:** None--this rule does not impact local government. Local government does not regulate radioactive material licensees or radiation machine registrants.

❖**OTHER PERSONS:** None--this rule proposes the deletion of the definition for facility in Rule R313-16. Definitions are utilized for clarification purposes. The change will not affect other persons since new regulatory requirements are not proposed.

COMPLIANCE COSTS FOR AFFECTED PERSONS: The proposed changes to this rule will not add any compliance costs to affected licensees because the change deletes the definition for facility in Rule R313-16 and new regulatory requirements are not proposed.

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: No fiscal impact is expected for businesses since the change deletes the definition for facility in Rule R313-16 and new regulatory requirements are not proposed.

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Environmental Quality
 Radiation Control
 State of Utah Office Park, Building 2
 168 North 1950 West
 PO Box 144850
 Salt Lake City, UT 84114-4850, or
 at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:
 Julie Felice at the above address, by phone at (801) 536-4250, by FAX at (801) 533-4097, or by Internet E-mail at jfelice@deq.state.ut.us.

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS TO THE ADDRESS ABOVE NO LATER THAN 5:00 P.M. ON 03/02/2000.

THIS RULE MAY BECOME EFFECTIVE ON: 03/10/2000

AUTHORIZED BY: William J. Sinclair, Executive Secretary

R313. Environmental Quality, Radiation Control.

R313-16. General Requirements Applicable to the Installation, Registration, Inspection, and Use of Radiation Machines.

R313-16-200. Purpose and Authority.

(1) The purpose of this rule is to prescribe requirements governing the installation, registration, inspection, and use of sources of electronically produced ionizing radiation.

(2) The rules set forth herein are adopted pursuant to the provisions of Section 19-3-104(3).

R313-16-215. Definitions.

~~["Facility" means the location, building, vehicle, or complex under one administrative control, at which one or more radiation machines are installed, located or used.~~

—"Sorting Center" means a facility in which radiation machines are in storage until they are shipped out of state.

"Storage" means a condition in which a radiation machine is not being used for an extended period of time, and has been made inoperable.

R313-16-220. Exemptions.

(1) Electronic equipment that produces radiation incidental to its operation for other purposes is exempt from the registration and notification requirements of Rule R313-16, providing the dose equivalent rate averaged over an area of ten square centimeters does not exceed 0.5 mrem (5.0 uSv) per hour at five centimeters from accessible surfaces of the equipment.

(2) Radiation machines while in transit are exempt from the requirements of Section R313-16-230. See Section R313-16-250 for other applicable requirements.

(3) Television receivers are exempt from the requirements of Rule R313-16.

(4) Radiation machines while in the possession of a manufacturer, assembler, or a sorting center are exempt from the requirements of Section R313-16-230.

(5) Radiation machines owned by an agency of the Federal Government are exempt from the requirements of Rule R313-16.

R313-16-225. Responsibility for Radiation Safety Program.

(1) The registrant shall be ultimately responsible for radiation safety, but may designate another person to implement the radiation safety program. When, in the Executive Secretary's opinion, neither the registrant nor the registrant's designee is sufficiently qualified to insure safe use of the machine; the Executive Secretary may order the registrant to designate another individual who has adequate qualifications.

(2) The registrant or the registrant's designee shall:

(a) develop a detailed program of radiation safety that assures compliance with the applicable requirements of these rules, including Section R313-15-101;

(b) have instructions given concerning radiation hazards and radiation safety practices to individuals who may be occupationally exposed;

(c) have surveys made and other procedures carried out as required by these rules; and

(d) keep a copy of all reports, records, and written policies and procedures required by these rules.

R313-16-230. Registration of Radiation Machines.

(1) Ionizing radiation producing machines not exempted by Section R313-16-220 shall be registered with the Department.

(2) Registration renewal shall be required annually. The registration interval is July 1 through June 30 of the following year. The annual registration anniversary date shall be July 1. Renewal application will be considered late and late fees may be assessed if not received by the last day of August.

(3) Registration for the facility is achieved when the Executive Secretary receives the following:

(a) a current and complete application form DRC-10 for registration of radiation machines; and

(b) annual registration fees.

(4) Registration for the current fiscal year shall be acknowledged by the Executive Secretary through receipts for the remittance of the registration fee.

R313-16-231. Additional Requirements for the Issuance of a Registration for Particle Accelerators Excluding Therapeutic Radiation Machines (See Rule R313-30).

(1) In addition to the requirements of Section R313-16-230, a registrant who proposes to use a particle accelerator shall submit an application to the Executive Secretary containing the following:

(a) information demonstrating that the applicant, by reason of training and experience, is qualified to use the accelerator in question for the purpose requested in a manner that will minimize danger to public health and safety or the environment;

(b) a discussion which demonstrates that the applicant's equipment, facilities, and operating and emergency procedures are adequate to protect health and minimize danger to public health and safety or the environment;

(c) the name and qualifications of the individual, appointed by the applicant, to serve as radiation safety officer pursuant to Section R313-35-140;

(d) a description of the applicant's or the staff's experience in the use of particle accelerators and radiation safety training; and

(e) a description of the radiation safety training the applicant will provide to particle accelerator operators.

(2) Registrants who possess and use a particle accelerator that has been registered with the Department prior to January 1, 1999 shall submit a registration application that contains the information in R313-16-231(1)(a) through (e). The application shall be submitted by July 1, 1999.

R313-16-233. Notification of Intent to Provide Servicing and Services.

(1) Persons engaged in the business of installing or offering to install radiation machines or engaged in the business of furnishing or offering to furnish radiation machine servicing or services in this State shall notify the Executive Secretary of the intent to provide these services within 30 days following the

effective date of this rule or, thereafter, prior to furnishing or offering to furnish these services.

(2) The notification shall specify:

(a) that the applicable requirements of these rules have been read and understood;

(b) the services which will be provided;

(c) the training and experience that qualify for the discharge of the services; and

(d) the type of measurement instrument to be used, frequency of calibration, and source of calibration.

(3) For the purpose of Section R313-16-233, services may include but shall not be limited to:

(a) installation or servicing of radiation machines and associated radiation machine components;

(b) calibration of radiation machines or radiation measurement instruments or devices; and

(c) consultations or surveys for radiation protection or health physics (See Section R313-16-400).

(4) Individuals shall not perform the services listed in Subsection R313-16-233(3) unless they are specifically stated for that individual on the notification of intent required in Subsection R313-16-233(1) and the complete information required by Subsection R313-16-233(2) has been received by the Executive Secretary.

R313-16-235. Designation of Registrant.

The owner or lessee of a radiation machine is the registrant. The registrant shall be responsible for penalties imposed under the Executive Secretary's escalated enforcement authority, see Rule R313-14.

R313-16-240. Reciprocal Recognition of Registration or License.

Radiation machines from jurisdictions other than the State of Utah may be operated in this state for a period of less than 30 days providing that the requirements of Section R313-16-280 have been met and providing they are properly registered or licensed with the State Agency having jurisdiction over the office directing the activities of the individuals operating the radiation machines. Radiation machines operating under reciprocity may be inspected pursuant to Section R313-16-290.

R313-16-250. Report of Changes.

The registrant shall send written notification within 14 working days to the Executive Secretary when:

(1) there are changes in location or ownership of a radiation machine;

(2) radiation machines are retired from service;

(3) radiation machines are put in storage or returned to service from storage; or

(4) modifications in facility or equipment are made that might reasonably be expected to effect compliance under the terms of these rules.

R313-16-260. Approval Not Implied.

Registration does not constitute approval of activities performed under the registration and no person shall state or imply that activities under the registration have been approved by the Executive Secretary.

R313-16-270. Transferor, Assembler, or Installer Obligation.

(1) Persons who sell, lease, transfer, lend, dispose, assemble, or install a radiation machine in this state shall notify the Executive Secretary within 14 working days of the following:

(a) the name and address of the person who received the machine and also the name and address of the new registrant of the machine if not the same;

(b) the manufacturer, model, and serial number of the master control of the radiation machine and the number of x-ray tubes transferred; and

(c) the date of transfer of the radiation machine.

(2) Radiation machine equipment or accessories shall not be installed if the equipment will not meet the requirements of these rules when installation is completed.

(3) Reporting Compliance. Assemblers who install one or more components into a radiation machine system or subsystem, shall certify that the equipment meets the standards of these rules. A copy of this certification shall be transmitted to the purchaser and to the Executive Secretary within 14 working days following the completion of the installation.

(4) Certification can be accomplished by providing the following in conjunction with the information required by Section R313-16-250 and Subsection R313-16-270(1):

(a) the full name and address of the assembler and the date of assembly or installation;

(b) a statement as to whether the equipment is a replacement for other equipment, in addition to other equipment, or new equipment in a new facility;

(c) an affirmation that the applicable rules have been met;

(d) a statement of the type and intended use of the radiation machine system or subsystem, for example "radiographic-stationary general purpose x-ray;" and

(e) a list of the components which were assembled or installed into the radiation machine system or subsystem, identifying the components by type, manufacturer, model number, and serial number.

R313-16-275. Obligation of Equipment Registrant or Recipient of New Equipment.

The registrant of a radiation machine shall not allow the equipment to be put into operation until it has been determined that the facility in which it is installed meets the shielding and design requirements of Rule R313-28; see Sections R313-28-32, R313-28-200 and R313-28-450.

R313-16-280. Out-of-State Radiation Machines.

(1) Whenever a radiation machine is to be brought into the state, for either temporary or extended use, the person proposing to bring the machine into the state shall give written notice to the Executive Secretary at least three working days before the machine is to be used in the state. The notice shall include the type of radiation machine; the manufacturer model and serial number of the master control; the nature, duration, and scope of use; and the exact location where the radiation machine is to be used. If, for a specific case, the three working-day period would impose an undue hardship, the person may, upon application to the Executive Secretary, obtain permission to proceed sooner.

(2) In addition, the out-of-state person shall:

(a) comply with the applicable portions of these rules;

(b) supply the Executive Secretary other information as the Executive Secretary requests.

R313-16-290. Inspection of Radiation Machines and Facilities.

(1) Registrants shall assure that radiation machines registered pursuant to R313-16-230 are compliant with these rules. Radiation machines, facilities, and radiation safety programs are subject to inspection to assure compliance with these rules, to assist in improving radiographic imaging and to assist in lowering radiation exposure to as low as reasonably achievable levels, see R313-15-101. During an inspection of a facility, representatives of the Executive Secretary may, as a part of the inspection, accept work, performed by a person who meets the qualifications in R313-16-400, that demonstrates compliance with these rules.

(2) Inspections may, at the Executive Secretary's discretion, be done after the installation of equipment, or after a change in the facility or equipment which might cause a significant change in radiation output or hazards. Inspections may be completed in accordance with the schedule as defined in Table I.

TABLE I

FACILITY TYPE	MAXIMUM TIME BETWEEN INSPECTIONS
Hospital or Radiation Therapy Facility	one year
Medical Facility using Fluoroscopic or Computed Tomography (CT) Units	one year
Medical Facility Using General Radiographic Devices	two years
Chiropractic	two years
Dental	five years
Podiatry	five years
Veterinary	five years
Industrial Facility with High or Very High Radiation Areas Accessible to Individuals	one year
Industrial Facility Using Cabinet X-Ray Units or Units Designed for Other Industrial Purposes	five years
Other	one to five years

(3) The registrant, in a timely manner, shall pay the appropriate inspection fee after completion of the inspection.

(4) Ionizing radiation producing machines which have been officially placed in storage are exempt from inspection fees but are subject to visual verification of their status by representatives of the Executive Secretary.

R313-16-400. Qualifications an Individual May Have to Perform Radiation Safety Inspections for a Registrant.

The following are representative, but not exclusive, lists of the qualifications of those individuals who may have sufficient experience or training to perform radiation safety inspections for a registrant. These individuals shall submit a statement of their training and experience to the Executive Secretary.

- (1) Radiation therapy:
 - (a) Certified by the American Board of Radiology (A.B.R.) in radiation therapy;
 - (b) Certified by the American Board of Medical Physics in radiation therapy;
 - (c) Ph.D. plus two years of clinical therapy experience;
 - (d) M.S. plus three years of clinical therapy experience; or

- (e) B.S. plus five years of clinical therapy experience.
- (2) Radiation therapy safety and leakage survey only:
 - (a) Certified by the American Board of Health Physics (A.B.H.P.); or
 - (b) Eligible for admission to A.B.H.P. certification test.
 - (3) Diagnostic x-ray:
 - (a) Certified by the A.B.R. in diagnostic radiology (physics);
 - (b) Certified by the American Board of Medical Physics in radiation therapy;
 - (c) A.B.H.P. comprehensive certification;
 - (d) Ph.D. plus one year clinical experience or two years general experience;
 - (e) M.S. plus one year clinical experience or two years general experience;
 - (f) B.S. plus two years clinical experience or four years general experience;
 - (g) Eligible for admission to A.B.R. certification test, M.S. plus two years experience; or
 - (h) Eligible for admission to A.B.H.P. certification test:
 - (i) B.S. plus five years health physics, preferably in diagnostic x-ray surveys experience;
 - (ii) M.S. in physical sciences plus four years health physics, preferably in diagnostic x-ray surveys experience;
 - (iii) M.S. in health physics or medical physics plus 3-1/2 years health physics, preferably in diagnostic x-ray surveys experience;
 - (iv) Ph.D. in physical sciences plus 3-1/2 years health physics, preferably in diagnostic x-ray surveys experience; or
 - (v) Ph.D. in health physics or medical physics plus three years health physics, preferably in diagnostic x-ray surveys experience.

KEY: x-ray, inspection

~~August 13, 1999~~ 2000

19-3-104

Notice of Continuation March 26, 1997

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Environmental Quality, Radiation Control
R313-22
Specific Licenses

NOTICE OF PROPOSED RULE

(Amendment)

DAR FILE NO.: 22601

FILED: 01/13/2000, 15:53

RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: The proposed rulemaking is an item of United States Nuclear Regulatory Compatibility.

SUMMARY OF THE RULE OR CHANGE: The proposed rulemaking is an item of United States Nuclear Regulatory Compatibility. In Section R313-22-4, the definition of "decommission" was deleted. This definition has been moved to Rule R313-12.

Changes were made in the clarification of the references in Rule R313-22. Also, the following changes were made to Rule R313-22: 1) Subsection R313-22-35(6)(e) states that when a governmental entity assumes custody and ownership of a site, the arrangement must be deemed acceptable by the governmental entity; 2) Subsection R313-22-35(7)(c)(iv) requires all areas outside of restricted areas which contain material such that if the radioactive material license expired, a specific licensee would be required to either decontaminate the area to meet the criteria for decommissioning in Sections R313-15-401 through R313-15-406, or apply for approval for disposal under Section R313-15-1002; 3) Subsection R313-22-36(10)(b) states that, as a final step in decommissioning, the licensee shall conduct a radiation survey of the premises where the licensed activities were carried out and submit a report of the results of the survey, unless the licensee demonstrates in some other manner that the premises are suitable for release in accordance with the criteria for decommissioning in Sections R313-15-401 through R313-15-406; 4) Subsection R313-22-36(11)(c)(i) states that specific licenses, including expired licenses, will be terminated by written notice to the licensee when the executive secretary determines that documentation that a radiation survey has been performed which demonstrates that the premises are suitable for release in accordance with the criteria for decommissioning in Sections R313-15-401 through R313-15-406. Or, in accordance with Subsection R313-22-36(11)(c)(ii), the licensee may submit other information which is sufficient to demonstrate that the premises are suitable for release in accordance with the criteria for decommissioning in Sections R313-15-401 through R313-15-406.

(DAR Note: The amendment to R313-12 in under DAR No. 22598 in this *Bulletin*.)

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Sections 19-3-104 and 19-3-108

THIS RULE OR CHANGE INCORPORATES BY REFERENCE THE FOLLOWING MATERIAL: 10 CFR 32.210 (2000); 10 CFR 30.1 through 30.72, Appendix B (2000)

ANTICIPATED COST OR SAVINGS TO:

- ❖THE STATE BUDGET: No anticipated costs to the state budget since division staff currently review all terminating licenses.
- ❖LOCAL GOVERNMENTS: None--this rule does not impact local government. Local government does not regulate radioactive material licensees.
- ❖OTHER PERSONS: None--Subsection R313-22-35(2) requires applicants for a specific radioactive material license authorizing the possession and use of radioactive material of half-life greater than 120 days, and in quantities specified in Subsection R313-22-35(4), to either submit a decommissioning funding plan, or submit certification that financial assurance for decommissioning has been provided in the amount prescribed by Subsection R313-22-35(4), using one of the methods described in Subsection R313-22-35(6). This is not a new requirement.

COMPLIANCE COSTS FOR AFFECTED PERSONS: Decommissioning is expected to be relatively easy for the majority of radioactive material licensees' facilities (e.g., those that use either sealed radioactive sources or small

amounts of short-lived radioactive materials) because there is usually no residual radioactive contamination to be cleaned up and disposed of. Or, if there is any, it should be localized or it can be quickly reduced to low levels by radioactive decay. Decommissioning operations for these types of facilities will generally consist of disposing of sealed source(s) or allowing short-lived radioactive material to decay in storage, submit a form for license termination, and demonstrating (either through radiation survey or other means, such as calculation of reduction of the contamination level by radioactive decay) compliance with the requirements for license termination. Because radioactive material contamination at these facilities is expected to be negligible, or to decay to negligible levels in a short time, achieving an objective of returning these facilities to background is not an unreasonable objective and costs to licensee(s) are expected to be the current price for the disposal of radioactive material at the time of license termination or premature closure. The costs of obtaining, maintaining, and disposing of radioactive material under a specific license should be considered at the time of application for a radioactive material license. Decommissioning cost for the few radioactive material license facilities who use radioactive material in unsealed form, and which are long-lived radioactive materials, cannot be projected due to the fact that there are too many variables (e.g., the amount, the location, and the type of radioactive material contamination, and current disposal and labor costs at the time of license termination or premature closure). Section R313-22-35 requires applicants for a specific radioactive material license authorizing the possession and use of radioactive material of half-life greater than 120 days, and in quantities specified in Subsection R313-22-35(4), to either submit a decommissioning funding plan, or submit certification that financial assurance for decommissioning has been provided in the amount prescribed by Subsection R313-22-35(4), using one of the methods described in Subsection R313-22-35(6).

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: The fiscal impact of businesses regulated under this rule cannot be easily projected due to many variables (see explanation given under "compliance costs for affected persons").

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Environmental Quality
Radiation Control
State of Utah Office Park, Building 2
168 North 1950 West
PO Box 144850
Salt Lake City, UT 84114-4850, or
at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Julie Felice at the above address, by phone at (801) 536-4250, by FAX at (801) 533-4097, or by Internet E-mail at jfelice@deq.state.ut.us.

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS TO THE ADDRESS ABOVE NO LATER THAN 5:00 P.M. ON 03/02/2000.

THIS RULE MAY BECOME EFFECTIVE ON: 03/10/2000

AUTHORIZED BY: William J. Sinclair, Executive Secretary

R313. Environmental Quality, Radiation Control.

R313-22. Specific Licenses.

R313-22-1. Purpose and Authority.

(1) The purpose of this rule is to prescribe the requirements for the issuance of specific licenses.

(2) The rules set forth herein are adopted pursuant to the provisions of Subsections 19-3-104(3) and 19-3-104(6).

R313-22-2. General.

The provisions and requirements of Rule R313-22 are in addition to, and not in substitution for, other requirements of these rules. In particular the provisions of Rule R313-19 apply to applications and licenses subject to Rule R313-22.

R313-22-4. Definitions.

"Alert" means events may occur, are in progress, or have occurred that could lead to a release of radioactive material but that the release is not expected to require a response by off-site response organizations to protect persons off-site. [

~~"Decommission" means 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.]~~

"Principal activities" means activities authorized by the license which are essential to achieving the purpose(s) for which the license was issued or amended. Storage during which no licensed material is accessed for use or disposal and activities incidental to decontamination or decommissioning are not principal activities.

"Site Area Emergency" means events may occur, are in progress, or have occurred that could lead to a significant release of radioactive material and that could require a response by off-site response organizations to protect persons off-site.

R313-22-30. Specific License by Rule.

A license by rule is issued in the following circumstances, without the necessity of filing an application for a specific license as required by Subsection R313-22-32(1), and the licensee shall be subject to the applicable provisions of Sections R313-22-33, R313-22-34, R313-22-35, R313-22-36 and R313-22-37:

(1) When a site must be timely remediated of contamination by radioactive materials that are subject to licensing under these rules but are unlicensed;

(2) When radioactive materials existing as a result of improper handling, spillage, accidental contamination, or unregulated or illegal possession, transfer, or receipt, must be stored and those materials have not been licensed under these rules.

R313-22-32. Filing Application for Specific Licenses.

(1) Applications for specific licenses shall be filed on a form prescribed by the Executive Secretary.

(2) The Executive Secretary may, after the filing of the original application, and before the expiration of the license, require further statements in order to enable the Executive Secretary to determine whether the application should be granted or denied or whether a license should be modified or revoked.

(3) Applications shall be signed by the applicant or licensee or a person duly authorized to act for and on the applicant's behalf.

(4) An application for a license may include a request for a license authorizing one or more activities.

(5) In the application, the applicant may incorporate by reference information contained in previous applications, statements, or reports filed with the Executive Secretary, provided the references are clear and specific.

(6) An application for a specific license to use radioactive material in the form of a sealed source or in a device that contains the sealed source shall identify the source or device by manufacturer and model number as registered with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210, [1996]2000 ed. or the equivalent regulations of an Agreement State.

(7) As provided by Section R313-22-35, certain applications for specific licenses filed under these rules shall contain a proposed decommissioning funding plan or a certification of financial assurance for decommissioning. In the case of renewal applications submitted before January 1, 1995, this submittal may follow the renewal application but shall be submitted on or before January 1, 1995.

(8)(a) Applications to possess radioactive materials in unsealed form, on foils or plated sources, or sealed in glass in excess of the quantities in Section R313-22-90, "Quantities of Radioactive Materials Requiring Consideration of the Need for an Emergency Plan for Responding to a Release", shall contain either:

(i) An evaluation showing that the maximum dose to a individual off-site due to a release of radioactive materials would not exceed one rem effective dose equivalent or five rems to the thyroid; or

(ii) An emergency plan for responding to a release of radioactive material.

(b) One or more of the following factors may be used to support an evaluation submitted under Subsection R313-22-32(8)(a)(i):

(i) The radioactive material is physically separated so that only a portion could be involved in an accident;

(ii) All or part of the radioactive material is not subject to release during an accident because of the way it is stored or packaged;

(iii) The release fraction in the respirable size range would be lower than the release fraction shown in Section R313-22-90 due to the chemical or physical form of the material;

(iv) The solubility of the radioactive material would reduce the dose received;

(v) Facility design or engineered safety features in the facility would cause the release fraction to be lower than shown in Section R313-22-90;

(vi) Operating restrictions or procedures would prevent a release fraction as large as that shown in Section R313-22-90; or

(vii) Other factors appropriate for the specific facility.

(c) An emergency plan for responding to a release of radioactive material submitted under Subsection R313-22-32(8)(a)(ii) shall include the following information:

(i) Facility description. A brief description of the licensee's facility and area near the site.

(ii) Types of accidents. An identification of each type of radioactive materials accident for which protective actions may be needed.

(iii) Classification of accidents. A classification system for classifying accidents as alerts or site area emergencies.

(iv) Detection of accidents. Identification of the means of detecting each type of accident in a timely manner.

(v) Mitigation of consequences. A brief description of the means and equipment for mitigating the consequences of each type of accident, including those provided to protect workers on-site, and a description of the program for maintaining equipment.

(vi) Assessment of releases. A brief description of the methods and equipment to assess releases of radioactive materials.

(vii) Responsibilities. A brief description of the responsibilities of licensee personnel should an accident occur, including identification of personnel responsible for promptly notifying off-site response organizations and the Executive Secretary; also responsibilities for developing, maintaining, and updating the plan.

(viii) Notification and coordination. A commitment to and a brief description of the means to promptly notify off-site response organizations and request off-site assistance, including medical assistance for the treatment of contaminated injured on-site workers when appropriate. A control point shall be established. The notification and coordination shall be planned so that unavailability of some personnel, parts of the facility, and some equipment will not prevent the notification and coordination. The licensee shall also commit to notify the Executive Secretary immediately after notification of the appropriate off-site response organizations and not later than one hour after the licensee declares an emergency.

NOTE: These reporting requirements do not supersede or release licensees of complying with the requirements under the Emergency Planning and Community Right-to-Know Act of 1986, Title III, Public Law 99-499 or other state or federal reporting requirements, including 40 CFR 302, 1992 ed.

(ix) Information to be communicated. A brief description of the types of information on facility status, radioactive releases, and recommended protective actions, if necessary, to be given to off-site response organizations and to the Executive Secretary.

(x) Training. A brief description of the frequency, performance objectives and plans for the training that the licensee will provide workers on how to respond to an emergency including special instructions and orientation tours the licensee would offer to fire, police, medical and other emergency personnel. The training shall familiarize personnel with site-specific emergency procedures. Also, the training shall thoroughly prepare site personnel for their responsibilities in the event of accident scenarios postulated as most probable for the specific site including the use of team training for the scenarios.

(xi) Safe shutdown. A brief description of the means of restoring the facility to a safe condition after an accident.

(xii) Exercises. Provisions for conducting quarterly communications checks with off-site response organizations and biennial on-site exercises to test response to simulated emergencies. Quarterly communications checks with off-site response organizations shall include the check and update of all necessary telephone numbers. The licensee shall invite off-site response

organizations to participate in the biennial exercises. Participation of off-site response organizations in biennial exercises although recommended is not required. Exercises shall use accident scenarios postulated as most probable for the specific site and the scenarios shall not be known to most exercise participants. The licensee shall critique each exercise using individuals not having direct implementation responsibility for the plan. Critiques of exercises shall evaluate the appropriateness of the plan, emergency procedures, facilities, equipment, training of personnel, and overall effectiveness of the response. Deficiencies found by the critiques shall be corrected.

(xiii) Hazardous chemicals. A certification that the applicant has met its responsibilities under the Emergency Planning and Community Right-to-Know Act of 1986, Title III, Public Law 99-499, if applicable to the applicant's activities at the proposed place of use of the radioactive material.

(d) The licensee shall allow the off-site response organizations expected to respond in case of an accident 60 days to comment on the licensee's emergency plan before submitting it to the Executive Secretary. The licensee shall provide any comments received within the 60 days to the Executive Secretary with the emergency plan.

R313-22-33. General Requirements for the Issuance of Specific Licenses.

(1) A license application shall be approved if the Executive Secretary determines that:

(a) the applicant and all personnel who will be handling the radioactive material are qualified by reason of training and experience to use the material in question for the purpose requested in accordance with these rules in a manner as to minimize danger to public health and safety or the environment;

(b) the applicant's proposed equipment, facilities, and procedures are adequate to minimize danger to public health and safety or the environment;

(c) the applicant's facilities are permanently located in Utah, otherwise the applicant shall seek reciprocal recognition as required by Section R313-19-30;

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

(e) the applicant satisfies applicable special requirements in Sections R313-22-50[;] and R313-22-75, and Rules R313-25, R313-32, R313-34, R313-36, or R313-38; and

(f) in the case of an application for a license to receive and possess radioactive material for commercial waste disposal by land burial, or for the conduct of other activities which the Executive Secretary determines will significantly affect the quality of the environment, the Executive Secretary, before commencement of construction of the plant or facility in which the activity will be conducted, has concluded, after weighing the environmental, economic, technical and other benefits against environmental costs and considering available alternatives, that the action called for is the issuance of the proposed license, with any appropriate conditions to protect environmental values. The Executive Secretary shall respond to the application within 60 days. Commencement of construction prior to a response and conclusion shall be grounds for denial of a license to receive and possess radioactive material in the plant or facility. As used in this paragraph the term "commencement of construction" means

clearing of land, excavation, or other substantial action that would adversely affect the environment of a site. The term does not mean site exploration, necessary borings to determine foundation conditions, or other preconstruction monitoring or testing to establish background information related to the suitability of the site or the protection of environmental values.

R313-22-34. Issuance of Specific Licenses.

(1) Upon a determination that an application meets the requirements of the Act and the rules of the Board, the Executive Secretary will issue a specific license authorizing the proposed activity in a form and containing conditions and limitations as the Executive Secretary deems appropriate or necessary.

(2) The Executive Secretary may incorporate in licenses at the time of issuance, additional requirements and conditions with respect to the licensee's receipt, possession, use and transfer of radioactive material subject to Rule R313-22 as he deems appropriate or necessary in order to:

- (a) minimize danger to public health and safety or the environment;
- (b) require reports and the keeping of records, and to provide for inspections of activities under the license as may be appropriate or necessary; and
- (c) prevent loss or theft of material subject to Rule R313-22.

R313-22-35. Financial Assurance and Recordkeeping for Decommissioning.

(1) Applicants for a specific license authorizing the possession and use of unsealed radioactive material of half-life greater than 120 days and in quantities exceeding 10^5 times the applicable quantities set forth in Appendix B of 10 CFR 30.1 through 30.72, [1996]2000 ed., which is incorporated by reference, shall submit a decommissioning funding plan as described in Subsection R313-22-35(5). The decommissioning funding plan shall also be submitted when a combination of radionuclides is involved if R divided by 10^5 is greater than one, where R is defined here as the sum of the ratios of the quantity of each radionuclide to the applicable value in Appendix B of 10 CFR 30.1 through 30.72, [1996]2000 ed., which is incorporated by reference.

(2) Applicants for a specific license authorizing possession and use of radioactive material of half-life greater than 120 days and in quantities specified in Subsection R313-22-35(4) shall either:

- (a) submit a decommissioning funding plan as described in Subsection R313-22-35(5); or
- (b) submit a certification that financial assurance for decommissioning has been provided in the amount prescribed by Subsection R313-22-35(4) using one of the methods described in Subsection R313-22-35(6). For an applicant, this certification may state that the appropriate assurance will be obtained after the application has been approved and the license issued but before the receipt of licensed material. If the applicant defers execution of the financial instrument until after the license has been issued, a signed original of the financial instrument obtained to satisfy the requirements of Subsection R313-22-35(6) shall be submitted to the Executive Secretary before receipt of licensed material. If the applicant does not defer execution of the financial instrument, the applicant shall submit to the Executive Secretary, as part of the certification, a signed original of the financial instrument obtained to satisfy the requirements in Subsection R313-22-35(6).

(3)(a) Holders of a specific license issued on or after January 1, 1995, which is of a type described in Subsections R313-22-35(1) or (2) shall provide financial assurance for decommissioning in accordance with the criteria set forth in Section R313-22-35.

(b) Holders of a specific license issued before January 1, 1995, and of a type described in Subsection R313-22-35(1) shall submit, on or before January 1, 1995, a decommissioning funding plan as described in Subsection R313-22-35(5) or a certification of financial assurance for decommissioning in an amount at least equal to \$750,000 in accordance with the criteria set forth in Section R313-22-35. If the licensee submits the certification of financial assurance rather than a decommissioning funding plan, the licensee shall include a decommissioning funding plan in any application for license renewal.

(c) Holders of a specific license issued before January 1, 1995, and of a type described in Subsection R313-22-35(2) shall submit, on or before January 1, 1995, a decommissioning funding plan as described in Subsection R313-22-35(5) or a certification of financial assurance for decommissioning in accordance with the criteria set forth in Section R313-22-35.

(d) A licensee who has submitted an application before January 1, 1995, for renewal of license in accordance with Section R313-22-37 shall provide financial assurance for decommissioning in accordance with Subsections R313-22-35(1) and (2). This assurance shall be submitted before January 1, 1997.

(4) Table of required amounts of financial assurance for decommissioning by quantity of material:

TABLE	
Greater than 10^4 but less than or equal to 10^5 times the applicable quantities of radioactive material, as defined in Appendix B of 10 CFR 30.1 through 30.72, [1996]2000 ed., which is incorporated by reference, in unsealed form. For a combination of radionuclides, if R, as defined in <u>Subsection R313-22-35(1)</u> divided by 10^4 is greater than one but R divided by 10^5 is less than or equal to one:	\$750,000
Greater than 10^3 but less than or equal to 10^4 times the applicable quantities of radioactive material, as defined in Appendix B of 10 CFR 30.1 through 30.72, [1996]2000 ed., which is incorporated by reference, in unsealed form. For a combination of radionuclides, if R, as defined in <u>Subsection R313-22-35(1)</u> divided by 10^3 is greater than one but R divided by 10^4 is less than or equal to one:	\$150,000
Greater than 10^{10} times the applicable quantities of radioactive material, as defined in Appendix B of 10 CFR 30.1 through 30.72, [1996]2000 ed., which is incorporated by reference, in sealed sources or plated foils. For combination of radionuclides, if R, as defined in <u>R313-22-35(1)</u> , divided by 10^{10} is greater than one:	\$75,000

(5) A decommissioning funding plan shall contain a cost estimate for decommissioning and a description of the method of assuring funds for decommissioning from Subsection R313-22-35(6), including means for adjusting cost estimates and associated

funding levels periodically over the life of the facility. The decommissioning funding plan shall also contain a certification by the licensee that financial assurance for decommissioning has been provided in the amount of the cost estimate for decommissioning and a signed original of the financial instrument obtained to satisfy the requirements of Section R313-22-35(6).

(6) Financial assurance for decommissioning shall be provided by one or more of the following methods:

(a) Prepayment. Prepayment is the deposit prior to the start of operation into an account segregated from licensee assets and outside the licensee's administrative control of cash or liquid assets so that the amount of funds would be sufficient to pay decommissioning costs. Prepayment may be in the form of a trust, escrow account, government fund, certificate of deposit, or deposit of government securities;

(b) A surety method, insurance, or other guarantee method. These methods shall guarantee that decommissioning costs will be paid. A surety method may be in the form of a surety bond, letter of credit, or line of credit. A parent company guarantee of funds for decommissioning costs based on a financial test may be used if the guarantee and test are as contained in Section R313-22-35(8). A parent company guarantee may not be used in combination with other financial methods to satisfy the requirements of Section R313-22-35. A guarantee of funds by the applicant or licensee for decommissioning costs based on a financial test may be used if the guarantee and test are as contained in Section R313-22-35(9). A guarantee by the applicant or licensee may not be used in combination with any other financial methods to satisfy the requirements of Section R313-22-35 or in any situation where the applicant or licensee has a parent company holding majority control of the voting stock of the company. A surety method or insurance used to provide financial assurance for decommissioning shall contain the following conditions:

(i) the surety method or insurance shall be open-ended or, if written for a specified term, such as five years, shall be renewed automatically unless 90 days or more prior to the renewal date the issuer notifies the Executive Secretary, the beneficiary, and the licensee of its intention not to renew. The surety method or insurance shall also provide that the full face amount be paid to the beneficiary automatically prior to the expiration without proof of forfeiture if the licensee fails to provide a replacement acceptable to the Executive Secretary within 30 days after receipt of notification of cancellation,

(ii) the surety method or insurance shall be payable to a trust established for decommissioning costs. The trustee and trust shall be acceptable to the Executive Secretary. An acceptable trustee includes an appropriate state or federal government agency or an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency, and

(iii) the surety method or insurance shall remain in effect until the Executive Secretary has terminated the license;

(c) An external sinking fund in which deposits are made at least annually, coupled with a surety method or insurance, the value of which may decrease by the amount being accumulated in the sinking fund. An external sinking fund is a fund established and maintained by setting aside funds periodically in an account segregated from licensee assets and outside the licensee's administrative control in which the total amount of funds would be

sufficient to pay decommissioning costs at the time termination of operation is expected. An external sinking fund may be in the form of a trust, escrow account, government fund, certificate of deposit, or deposit of government securities. The surety or insurance provisions shall be as stated in Section R313-22-35(6)(b); ~~or~~

(d) In the case of Federal, State or local government licensees, a statement of intent containing a cost estimate for decommissioning or an amount based on the Table in Section R313-22-35(4) and indicating that funds for decommissioning will be obtained when necessary~~[-]; or~~

(e) When a governmental entity is assuming custody and ownership of a site, an arrangement that is deemed acceptable by such governmental entity.

(7) Persons licensed under Rule R313-22 shall keep records of information important to the decommissioning of a facility in an identified location until the site is released for unrestricted use. Before licensed activities are transferred or assigned in accordance with Section R313-19-34(2), licensees shall transfer all records described in Sections R313-22-35(7)(a) through (d) to the new licensee. In this case, the new licensee will be responsible for maintaining these records until the license is terminated. If records important to the decommissioning of a facility are kept for other purposes, reference to these records and their locations may be used. Information the Executive Secretary considers important to decommissioning consists of the following:

(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 shall include any known information on identification of involved nuclides, quantities, forms, and concentrations;

(b) as-built drawings and modification 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) except for areas containing only sealed sources, provided the sources have not leaked or no contamination remains after a leak, or radioactive materials having only half-lives of less than 65 years, a list contained in a single document and updated every two years, including all of the following:

(i) all areas designated and formerly designated as restricted areas as defined under Section R313-12-3;

(ii) all areas outside of restricted areas that require documentation under Section R313-22-35(7)(a);

(iii) all areas outside of restricted areas where current and previous wastes have been buried as documented under Section R313-15-1109; and

(iv) all areas outside of restricted areas which contain material such that, if the license expired, the licensee would be required to either decontaminate the area to ~~[unrestricted release levels]~~meet the criteria for decommissioning in Sections R313-15-401 through

R313-15-406, or apply for approval for disposal under Section R313-15-1002; and

(d) records of the cost estimate performed for the decommissioning funding plan or of the amount certified for decommissioning, and records of the funding method used for assuring funds if either a funding plan or certification is used.

(8) Criteria relating to use of financial tests and parent company guarantees for providing reasonable assurance of funds for decommissioning.

(a) To pass the financial test referred to in Subsection R313-22-35(6)(b), the parent company shall meet one of the following criteria:

(i) The parent company shall have all of the following:

(A) Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5;

(B) Net working capital and tangible net worth each at least six times the current decommissioning cost estimates, or prescribed amount if a certification is used;

(C) Tangible net worth of at least \$10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the current decommissioning cost estimates, or prescribed amount if a certification is used; or

(ii) The parent company shall have all of the following:

(A) A current rating for its most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A or Baa as issued by Moody's;

(B) Tangible net worth at least six times the current decommissioning cost estimate, or prescribed amount if a certification is used;

(C) Tangible net worth of at least \$10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the current decommissioning cost estimates, or prescribed amount if certification is used.

(b) The parent company's independent certified public accountant shall have compared the data used by the parent company in the financial test, which is derived from the independently audited, year end financial statements for the latest fiscal year, with the amounts in such financial statement. In connection with that procedure the licensee shall inform the Executive Secretary within 90 days of any matters coming to the auditor's attention which cause the auditor to believe that the data specified in the financial test should be adjusted and that the company no longer passes the test.

(c)(i) After the initial financial test, the parent company shall repeat the passage of the test within 90 days after the close of each succeeding fiscal year.

(ii) If the parent company no longer meets the requirements of Subsection R313-22-35(8)(a) the licensee shall send notice to the Executive Secretary of intent to establish alternative financial assurance as specified in Section R313-22-35. The notice shall be sent by certified mail within 90 days after the end of the fiscal year for which the year end financial data show that the parent company no longer meets the financial test requirements. The licensee shall

provide alternate financial assurance within 120 days after the end of such fiscal year.

(d) The terms of a parent company guarantee which an applicant or licensee obtains shall provide that:

(i) The parent company guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the licensee and the Executive Secretary. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the licensee and the Executive Secretary, as evidenced by the return receipts.

(ii) If the licensee fails to provide alternate financial assurance as specified in Section R313-22-35 within 90 days after receipt by the licensee and Executive Secretary of a notice of cancellation of the parent company guarantee from the guarantor, the guarantor will provide such alternative financial assurance in the name of the licensee.

(iii) The parent company guarantee and financial test provisions shall remain in effect until the Executive Secretary has terminated the license.

(iv) If a trust is established for decommissioning costs, the trustee and trust shall be acceptable to the Executive Secretary. An acceptable trustee includes an appropriate State or Federal Government agency or an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(9) Criteria relating to use of financial tests and self guarantees for providing reasonable assurance of funds for decommissioning.

(a) To pass the financial test referred to in Subsection R313-22-35(6)(b), a company shall meet all of the following criteria:

(i) Tangible net worth at least ten times the total current decommissioning cost estimate, or the current amount required if certification is used, for all decommissioning activities for which the company is responsible as self-guaranteeing licensee and as parent-guarantor;

(ii) Assets located in the United States amounting to at least 90 percent of total assets or at least ten times the total current decommissioning cost estimate, or the current amount required if certification is used, for all decommissioning activities for which the company is responsible as self-guaranteeing licensee and as parent-guarantor; and

(iii) A current rating for its most recent bond issuance of AAA, AA, or A as issued by Standard and Poor's, or Aaa, Aa, or A as issued by Moody's.

(b) To pass the financial test, a company shall meet all of the following additional requirements:

(i) The company shall have at least one class of equity securities registered under the Securities Exchange Act of 1934;

(ii) The company's independent certified public accountant shall have compared the data used by the company in the financial test which is derived from the independently audited, yearend financial statements for the latest fiscal year, with the amounts in such financial statement. In connection with that procedure, the licensee shall inform the Executive Secretary within 90 days of any matters coming to the attention of the auditor that cause the auditor to believe that the data specified in the financial test should be adjusted and that the company no longer passes the test; and

(iii) After the initial financial test, the company shall repeat passage of the test within 90 days after the close of each succeeding fiscal year.

(c) If the licensee no longer meets the requirements of Subsection R313-22-35(9)(a), the licensee shall send immediate notice to the Executive Secretary of its intent to establish alternate financial assurance as specified in Section R313-22-35 within 120 days of such notice.

(d) The terms of a self-guarantee which an applicant or licensee furnishes shall provide that:

(i) The guarantee will remain in force unless the licensee sends notice of cancellation by certified mail to the Executive Secretary. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by the Executive Secretary, as evidenced by the return receipt.

(ii) The licensee shall provide alternative financial assurance as specified in Section R313-22-35 within 90 days following receipt by the Executive Secretary of a notice of a cancellation of the guarantee.

(iii) The guarantee and financial test provisions shall remain in effect until the Executive Secretary has terminated the license or until another financial assurance method acceptable to the Executive Secretary has been put in effect by the licensee.

(iv) The licensee shall promptly forward to the Executive Secretary and the licensee's independent auditor all reports covering the latest fiscal year filed by the licensee with the Securities and Exchange Commission pursuant to the requirements of section 13 of the Securities and Exchange Act of 1934.

(v) If, at any time, the licensee's most recent bond issuance ceases to be rated in a category of "A" or above by either Standard and Poor's or Moody's, the licensee shall provide notice in writing of such fact to the Executive Secretary within 20 days after publication of the change by the rating service. If the licensee's most recent bond issuance ceases to be rated in any category of A or above by both Standard and Poor's and Moody's, the licensee no longer meets the requirements of Subsection R313-22-35(9)(a).

(vi) The applicant or licensee shall provide to the Executive Secretary a written guarantee, a written commitment by a corporate officer, which states that the licensee will fund and carry out the required decommissioning activities or, upon issuance of an order by the Board, the licensee shall set up and fund a trust in the amount of the current cost estimates for decommissioning.

R313-22-36. Expiration and Termination of Licenses and Decommissioning of Sites and Separate Buildings or Outdoor Areas.

(1) A specific license expires at the end of the day on the expiration date stated in the license unless the licensee has filed an application for renewal under Section R313-22-37 no less than 30 days before the expiration date stated in the existing license. If an application for renewal has been filed at least 30 days prior to the expiration date stated in the existing license, the existing license expires at the end of the day on which the Executive Secretary makes a final determination to deny the renewal application or, if the determination states an expiration date, the expiration date stated in the determination.

(2) A specific license revoked by the Executive Secretary expires at the end of the day on the date of the Executive Secretary's final determination to revoke the license, or on the expiration date stated in the determination, or as otherwise provided by an Order issued by the Executive Secretary.

(3) A specific license continues in effect, beyond the expiration date if necessary, with respect to possession of radioactive material until the Executive Secretary notifies the licensee in writing that the license is terminated. During this time, the licensee shall:

(a) limit actions involving radioactive material to those related to decommissioning; and

(b) continue to control entry to restricted areas until they are suitable for release so that there is not an undue hazard to public health and safety or the environment.

(4) Within 60 days of the occurrence of any of the following, a licensee shall provide notification to the Executive Secretary in writing of such occurrence, and either begin decommissioning its site, or any separate building or outdoor area that contains residual radioactivity so that the building or outdoor area is suitable for release so that there is not an undue hazard to public health and safety or the environment, or submit within 12 months of notification a decommissioning plan, if required by Subsection R313-22-36(6)(7), and begin decommissioning upon approval of that plan if:

(a) the license has expired pursuant to Subsections R313-22-36(1) or (2); or

(b) 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 because of an undue hazard to public health and safety or the environment; or

(c) no principal activities under the license have been conducted for a period of 24 months; or

(d) 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 because of an undue hazard to public health and safety or the environment.

(5) Coincident with the notification required by Subsection R313-22-36(4), the licensee shall maintain in effect all decommissioning financial assurances established by the licensee pursuant to Section R313-22-35 in conjunction with a license issuance or renewal or as required by Section R313-22-36. The amount of the financial assurance must be increased, or may be decreased, as appropriate, to cover the detailed cost estimate for decommissioning established pursuant to Subsection R313-22-36(7)(d)(v).

(a) A licensee who has not provided financial assurance to cover the detailed cost estimate submitted with the decommissioning plan shall do so on or before August 15, 1997.

(b) Following approval of the decommissioning plan, a licensee may reduce the amount of the financial assurance as decommissioning proceeds and radiological contamination is reduced at the site with the approval of the Executive Secretary.

(6) The Executive Secretary may grant a request to extend the time periods established in Subsection R313-22-36(4) if the Executive Secretary determines that this relief is not detrimental to the public health and safety and is otherwise in the public interest. The request must be submitted no later than 30 days before notification pursuant to Subsection R313-22-36(4). The schedule for decommissioning set forth in Subsection R313-22-36(4) may not commence until the Executive Secretary has made a determination on the request.

(7)(a) A decommissioning plan shall be submitted if required by license condition or if the procedures and activities necessary to carry out decommissioning of the site or separate building or outdoor area have not been previously approved by the Executive Secretary 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.

(b) The Executive Secretary may approve an alternate schedule for submittal of a decommissioning plan required pursuant to Subsection R313-22-36(4) if the Executive Secretary determines that the alternative schedule is necessary to the effective conduct of decommissioning operations and presents no undue risk from radiation to the public health and safety and is otherwise in the public interest.

(c) Procedures such as those listed in Subsection R313-22-36(7)(a) with potential health and safety impacts may not be carried out prior to approval of the decommissioning plan.

(d) The proposed decommissioning plan for the site or separate building or outdoor area must include:

- (i) a description of the conditions of the site or separate building or outdoor area sufficient to evaluate the acceptability of the plan;
- (ii) a description of planned decommissioning activities;
- (iii) a description of methods used to ensure protection of workers and the environment against radiation hazards during decommissioning;
- (iv) a description of the planned final radiation survey; and
- (v) an updated detailed cost estimate for decommissioning, comparison of that estimate with present funds set aside for decommissioning, and a plan for assuring the availability of adequate funds for completion of decommissioning.

(vi) For decommissioning plans calling for completion of decommissioning later than 24 months after plan approval, the plan shall include a justification for the delay based on the criteria in Subsection R313-22-36(8).

(e) The proposed decommissioning plan will be approved by the Executive Secretary if the information therein demonstrates that the decommissioning will be completed as soon as practical and that the health and safety of workers and the public will be adequately protected.

(8)(a) Except as provided in Subsection R313-22-36(9), licensees shall complete decommissioning of the site or separate building or outdoor area as soon as practical but no later than 24 months following the initiation of decommissioning.

(b) Except as provided in Subsection R313-22-36(9), when decommissioning involves the entire site, the licensee shall request license termination as soon as practical but no later than 24 months following the initiation of decommissioning.

(9) The Executive Secretary may approve a request for an alternative schedule for completion of decommissioning of the site or separate building or outdoor area, and license termination if appropriate, if the Executive Secretary determines that the alternative is warranted by consideration of the following:

- (a) whether it is technically feasible to complete decommissioning within the allotted 24-month period;
- (b) whether sufficient waste disposal capacity is available to allow completion of decommissioning within the allotted 24-month period;
- (c) whether a significant volume reduction in wastes requiring disposal will be achieved by allowing short-lived radionuclides to decay;
- (d) whether a significant reduction in radiation exposure to workers can be achieved by allowing short-lived radionuclides to decay; and

(e) other site-specific factors which the Executive Secretary may consider appropriate on a case-by-case basis, such as the regulatory requirements of other government agencies, lawsuits, ground-water treatment activities, monitored natural ground-water restoration, actions that could result in more environmental harm than deferred cleanup, and other factors beyond the control of the licensee.

(10) As the final step in decommissioning, the licensee shall:

(a) certify the disposition of all licensed material, including accumulated wastes, by submitting a completed Form DRC-14 or equivalent information; and

(b) conduct a radiation survey of the premises where the licensed activities were carried out and submit a report of the results of this survey, unless the licensee demonstrates in some other manner that the premises are suitable for release ~~[in some other manner]~~ in accordance with the criteria for decommissioning in Sections R313-15-401 through R313-15-406. The licensee shall, as appropriate:

(i) report levels of gamma radiation in units of millisieverts (microroentgen) per hour at one meter from surfaces, and report levels of radioactivity, including alpha and beta, in units of megabecquerels (disintegrations per minute or microcuries) per 100 square centimeters--removable and fixed-- for surfaces, megabecquerels (microcuries) per milliliter for water, and becquerels (picocuries) per gram for solids such as soils or concrete; and

(ii) specify the survey instrument(s) used and certify that each instrument is properly calibrated and tested.

(11) Specific licenses, including expired licenses, will be terminated by written notice to the licensee when the Executive Secretary determines that:

- (a) radioactive material has been properly disposed;
- (b) reasonable effort has been made to eliminate residual radioactive contamination, if present; and

(c) documentation is provided to the Executive Secretary that:

- (i) a radiation survey has been performed which demonstrates that the premises are suitable for release ~~[so that there is not an undue hazard to public health and safety or the environment]~~ in accordance with the criteria for decommissioning in Sections R313-15-401 through R313-15-406; or

(ii) other information submitted by the licensee is sufficient to demonstrate that the premises are suitable for release ~~[so that there is not an undue hazard to public health and safety or the~~

environment]in accordance with the criteria for decommissioning in Sections R313-15-401 through R313-15-406.

R313-22-37. Renewal of Licenses.

Application for renewal of a specific license shall be filed on a form prescribed by the Executive Secretary and in accordance with Section R313-22-32.

R313-22-38. Amendment of Licenses at Request of Licensee.

Applications for amendment of a license shall be filed in accordance with Section R313-22-32 and shall specify the respects in which the licensee desires the license to be amended and the grounds for the amendment.

R313-22-39. Executive Secretary Action on Applications to Renew or Amend.

In considering an application by a licensee to renew or amend the license, the Executive Secretary will use the criteria set forth in Sections R313-22-33, R313-22-50, and R313-22-75 and in Rules R313-25, R313-32, R313-34, R313-36, or R313-38, as applicable.

R313-22-50. Special Requirements for Specific Licenses of Broad Scope.

Authority to transfer possession or control by the manufacturer, processor, or producer of any equipment, device, commodity or other product containing byproduct material whose subsequent possession, use, transfer and disposal by all other persons who are exempted from regulatory requirements may be obtained only from the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

(1) The different types of broad licenses are set forth below:

(a) A "Type A specific license of broad scope" is a specific license authorizing receipt, acquisition, ownership, possession, use and transfer of any chemical or physical form of the radioactive material specified in the license, but not exceeding quantities specified in the license, for any authorized purpose. The quantities specified are usually in the multicurie range.

(b) A "Type B specific license of broad scope" is a specific license authorizing receipt, acquisition, ownership, possession, use and transfer of any chemical or physical form of radioactive material specified in Section R313-22-100 for any authorized purpose. The possession limit for a Type B broad license, if only one radionuclide is possessed thereunder, is the quantity specified for that radionuclide in Section R313-22-100, Column I. If two or more radionuclides are possessed thereunder, the possession limits are determined as follows: For each radionuclide, determine the ratio of the quantity possessed to the applicable quantity specified in Section R313-22-100, Column I, for that radionuclide. The sum of the ratios for the radionuclides possessed under the license shall not exceed unity.

(c) A "Type C specific license of broad scope" is a specific license authorizing receipt, acquisition, ownership, possession, use and transfer of any chemical or physical form of radioactive material specified in Section R313-22-100, for any authorized purpose. The possession limit for a Type C broad license, if only one radionuclide is possessed thereunder, is the quantity specified for that radionuclide in Section R313-22-100, Column II. If two or more radionuclides are possessed thereunder, the possession limits are determined as follows: For each radionuclide, determine the

ratio of the quantity possessed to the applicable quantity specified in Section R313-22-100, Column II, for that radionuclide. The sum of the ratios for the radionuclides possessed under the license shall not exceed unity.

(2) An application for a Type A specific license of broad scope shall be approved if all of the following are complied with:

(a) the applicant satisfies the general requirements specified in Section R313-22-33;

(b) the applicant has engaged in a reasonable number of activities involving the use of radioactive material; and

(c) the applicant has established administrative controls and provisions relating to organization and management, procedures, recordkeeping, material control and accounting, and management review that are necessary to assure safe operations, including:

(i) the establishment of a radiation safety committee composed of such persons as a radiation safety officer, a representative of management, and persons trained and experienced in the safe use of radioactive material;

(ii) the appointment of a radiation safety officer who is qualified by training and experience in radiation protection, and who is available for advice and assistance on radiation safety matters; and

(iii) the establishment of appropriate administrative procedures to assure:

(A) control of procurement and use of radioactive material,

(B) completion of safety evaluations of proposed uses of radioactive material which take into consideration such matters as the adequacy of facilities and equipment, training and experience of the user, and the operating or handling procedures, and

(C) review, approval, and recording by the radiation safety committee of safety evaluations of proposed uses prepared in accordance with Subsection R313-22-50(2)(c)(iii)(B) prior to use of the radioactive material.

(3) An application for a Type B specific license of broad scope shall be approved if all of the following are complied with:

(a) the applicant satisfies the general requirements specified in Section R313-22-33;

(b) the applicant has established administrative controls and provisions relating to organization and management, procedures, recordkeeping, material control and accounting, and management review that are necessary to assure safe operations, including:

(i) the appointment of a radiation safety officer who is qualified by training and experience in radiation protection, and who is available for advice and assistance on radiation safety matters; and

(ii) the establishment of appropriate administrative procedures to assure:

(A) control of procurement and use of radioactive material,

(B) completion of safety evaluations of proposed uses of radioactive material which take into consideration such matters as the adequacy of facilities and equipment, training and experience of the user, and the operating or handling procedures, and

(C) review, approval, and recording by the radiation safety officer of safety evaluations of proposed uses prepared in accordance with Subsection R313-22-50(3)(b)(iii)(B) prior to use of the radioactive material.

(4) An application for a Type C specific license of broad scope shall be approved, if:

(a) the applicant satisfies the general requirements specified in Section R313-22-33;

(b) the applicant submits a statement that radioactive material will be used only by, or under the direct supervision of individuals, who have received:

(i) a college degree at the bachelor level, or equivalent training and experience, in the physical or biological sciences or in engineering; and

(ii) at least forty hours of training and experience in the safe handling of radioactive material, and in the characteristics of ionizing radiation, units of radiation dose and quantities, radiation detection instrumentation, and biological hazards of exposure to radiation appropriate to the type and forms of radioactive material to be used; and

(c) the applicant has established administrative controls and provisions relating to procurement of radioactive material, procedures, recordkeeping, material control and accounting, and management review necessary to assure safe operations.

(5) Specific licenses of broad scope are subject to the following conditions:

(a) unless specifically authorized by the Executive Secretary, persons licensed pursuant to this section shall not:

(i) conduct tracer studies in the environment involving direct release of radioactive material;

(ii) receive, acquire, own, possess, use, or transfer devices containing 100,000 curies (3.7 PBq) or more of radioactive material in sealed sources used for irradiation of materials;

(iii) conduct activities for which a specific license issued by the Executive Secretary under Section R313-22-75, and Rules R313-25, R313-32 or R313-36 is required; or

(iv) add or cause the addition of radioactive material to a food, beverage, cosmetic, drug or other product designed for ingestion or inhalation by, or application to, a human being.

(b) Type A specific licenses of broad scope issued under Rule R313-22 shall be subject to the condition that radioactive material possessed under the license may only be used by, or under the direct supervision of, individuals approved by the licensee's radiation safety committee.

(c) Type B specific license of broad scope issued under Rule R313-22 shall be subject to the condition that radioactive material possessed under the license may only be used by, or under the direct supervision of, individuals approved by the licensee's radiation safety officer.

(d) Type C specific license of broad scope issued under Rule R313-22 shall be subject to the condition that radioactive material possessed under the license may only be used, by or under the direct supervision of, individuals who satisfy the requirements of Subsection R313-22-50(4).

R313-22-75. Special Requirements for a Specific License to Manufacture, Assemble, Repair, or Distribute Commodities, Products, or Devices Which Contain Radioactive Material.

(1) Licensing the introduction of radioactive material into products in exempt concentrations.

(a) In addition to the requirements set forth in Section R313-22-33, a specific license authorizing the introduction of radioactive material into a product or material owned by or in the possession of the licensee or another to be transferred to persons exempt under Subsection R313-19-13(2)(a) will be issued if:

(i) the applicant submits a description of the product or material into which the radioactive material will be introduced, intended use of the radioactive material and the product or material into which it is introduced, method of introduction, initial concentration of the radioactive material in the product or material, control methods to assure that no more than the specified concentration is introduced into the product or material, estimated time interval between introduction and transfer of the product or material, and estimated concentration of the radioactive material in the product or material at the time of transfer; and

(ii) the applicant provides reasonable assurance that the concentrations of radioactive material at the time of transfer will not exceed the concentrations in Section R313-19-70, that reconcentration of the radioactive material in concentrations exceeding those in Section R313-19-70 is not likely, that use of lower concentrations is not feasible, and that the product or material is not likely to be incorporated in any food, beverage, cosmetic, drug or other commodity or product designed for ingestion or inhalation by, or application to a human being.

(b) Persons licensed under Subsection R313-22-75(1) shall file an annual report with the Executive Secretary which shall identify the type and quantity of products or materials into which radioactive material has been introduced during the reporting period; name and address of the person who owned or possessed the product and material, into which radioactive material has been introduced, at the time of introduction; the type and quantity of radionuclide introduced into the product or material; and the initial concentrations of the radionuclide in the product or material at time of transfer of the radioactive material by the licensee. If no transfers of radioactive material have been made pursuant to Subsection R313-22-75(1) during the reporting period, the report shall so indicate. The report shall cover the year ending June 30, and shall be filed within thirty days thereafter.

(2) Licensing the distribution of radioactive material in exempt quantities. Authority to transfer possession or control by the manufacturer, processor or producer of equipment, devices, commodities or other products containing byproduct material whose subsequent possession, use, transfer, and disposal by other persons who are exempted from regulatory requirements may be obtained only from the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

(a) An application for a specific license to distribute naturally occurring and accelerator-produced radioactive material (NARM) to persons exempted from these rules pursuant to Subsection R313-19-13(2)(b) will be approved if:

(i) the radioactive material is not contained in a food, beverage, cosmetic, drug or other commodity designed for ingestion or inhalation by, or application to, a human being;

(ii) the radioactive material is in the form of processed chemical elements, compounds, or mixtures, tissue samples, bioassay samples, counting standards, plated or encapsulated sources, or similar substances, identified as radioactive and to be used for its radioactive properties, but is not incorporated into a manufactured or assembled commodity, product, or device intended for commercial distribution; and

(iii) the applicant submits copies of prototype labels and brochures and the Executive Secretary approves the labels and brochures;

(b) The license issued under Subsection R313-22-75(2)(a) is subject to the following conditions:

(i) No more than ten exempt quantities shall be sold or transferred in a single transaction. However, an exempt quantity may be composed of fractional parts of one or more of the exempt quantities provided the sum of the fractions shall not exceed unity.

(ii) Exempt quantities shall be separated and individually packaged. No more than ten packaged exempt quantities shall be contained in any outer package for transfer to persons exempt pursuant to Subsection R313-19-13(2)(b). The outer package shall not allow the dose rate at the external surface of the package to exceed 0.5 millirem (5.0 uSv) per hour.

(iii) The immediate container of a quantity or separately packaged fractional quantity of radioactive material shall bear a durable, legible label which:

(A) identifies the radionuclide and the quantity of radioactivity; and

(B) bears the words "Radioactive Material."

(iv) In addition to the labeling information required by Subsection R313-22-75(2)(b)(iii), the label affixed to the immediate container, or an accompanying brochure, shall:

(A) state that the contents are exempt from Licensing State requirements;

(B) bear the words "Radioactive Material - Not for Human Use - Introduction into Foods, Beverages, Cosmetics, Drugs, or Medicinals, or into Products Manufactured for Commercial Distribution is Prohibited - Exempt Quantities Should Not Be Combined;" and

(C) set forth appropriate additional radiation safety precautions and instructions relating to the handling, use, storage and disposal of the radioactive material.

(c) Persons licensed under Subsection R313-22-75(2) shall maintain records identifying, by name and address, persons to whom radioactive material is transferred for use under Subsection R313-19-13(2)(b) or the equivalent regulations of a Licensing State, and stating the kinds and quantities of radioactive material transferred. An annual summary report stating the total quantity of radionuclides transferred under the specific license shall be filed with the Executive Secretary. Reports shall cover the year ending June 30, and shall be filed within thirty days thereafter. If no transfers of radioactive material have been made pursuant to Subsection R313-22-75(2) during the reporting period, the report shall so indicate.

(3) Licensing the incorporation of naturally occurring and accelerator-produced radioactive material (NARM) into gas and aerosol detectors. An application for a specific license authorizing the incorporation of NARM into gas and aerosol detectors to be distributed to persons exempt under Subsection R313-19-13(2)(c)(iii) will be approved if the application satisfies requirements equivalent to those contained in 10 CFR 32.26. The maximum quantity of radium-226 in each device shall not exceed 0.1 microcurie (3.7 kBq).

(4) Licensing the manufacture and distribution of devices to persons generally licensed under Subsection R313-21-22(4).

(a) An application for a specific license to manufacture or distribute devices containing radioactive material, excluding special nuclear material, to persons generally licensed under Subsection R313-21-22(4) or equivalent regulations of the U.S. Nuclear

Regulatory Commission, an Agreement State or a Licensing State will be approved if:

(i) the applicant satisfies the general requirements of Section R313-22-33;

(ii) the applicant submits sufficient information relating to the design, manufacture, prototype testing, quality control, labels, proposed uses, installation, servicing, leak testing, operating and safety instructions, and potential hazards of the device to provide reasonable assurance that:

(A) the device can be safely operated by persons not having training in radiological protection,

(B) under ordinary conditions of handling, storage and use of the device, the radioactive material contained in the device will not be released or inadvertently removed from the device, and it is unlikely that a person will receive in one year, a dose in excess of ten percent of the annual limits specified in Subsection R313-15-201(1), and

(C) under accident conditions, such as fire and explosion, associated with handling, storage and use of the device, it is unlikely that a person would receive an external radiation dose or dose commitment in excess of the following organ doses:

TABLE

Whole body; head and trunk; active blood-forming organs; gonads; or lens of eye	<u>150.0 mSv</u> (15 rems) [(+150.0 mSv)]
Hands and forearms; feet and ankles; localized areas of skin averaged over areas no larger than one square centimeter	<u>2.0 Sv</u> (200 rems) [(+2.0 Sv)]
Other organs	<u>500.0 mSv</u> (50 rems) [(+500.0 mSv)]; and

(iii) each device bears a durable, legible, clearly visible label or labels approved by the Executive Secretary, which contain in a clearly identified and separate statement:

(A) instructions and precautions necessary to assure safe installation, operation and servicing of the device; documents such as operating and service manuals may be identified in the label and used to provide this information,

(B) the requirement, or lack of requirement, for leak testing, or for testing an "on-off" mechanism and indicator, including the maximum time interval for testing, and the identification of radioactive material by radionuclide, quantity of radioactivity, and date of determination of the quantity, and

(C) the information called for in one of the following statements, as appropriate, in the same or substantially similar form:

(I) "The receipt, possession, use and transfer of this device, Model No., Serial No., are subject to a general license or the equivalent, and the regulations of the U.S. Nuclear Regulatory Commission or a state with which the U.S. Nuclear Regulatory Commission has entered into an agreement for the exercise of regulatory authority. This label shall be maintained on the device in a legible condition. Removal of this label is prohibited." The label shall be printed with the words "CAUTION -RADIOACTIVE MATERIAL" and the name of the manufacturer or distributor shall appear on the label. The model, serial number, and name of the manufacturer or distributor may be omitted from

this label provided the information is elsewhere specified in labeling affixed to the device.

(II) "The receipt, possession, use and transfer of this device, Model No., Serial No., are subject to a general license or the equivalent, and the regulations of a Licensing State. This label shall be maintained on the device in a legible condition. Removal of this label is prohibited." The label shall be printed with the words "CAUTION - RADIOACTIVE MATERIAL" and the name of the manufacturer or distributor shall appear on the label. The model, serial number, and name of the manufacturer or distributor may be omitted from this label provided the information is elsewhere specified in labeling affixed to the device.

(b) In the event the applicant desires that the device be required to be tested at intervals longer than six months, either for proper operation of the "on-off" mechanism and indicator, if any, or for leakage of radioactive material or for both, the applicant shall include in the application sufficient information to demonstrate that a longer interval is justified by performance characteristics of the device or similar devices and by design features which have a significant bearing on the probability or consequences of leakage of radioactive material from the device or failure of the "on-off" mechanism and indicator. In determining the acceptable interval for the test for leakage of radioactive material, the Executive Secretary will consider information which includes, but is not limited to:

- (i) primary containment, or source capsule;
- (ii) protection of primary containment;
- (iii) method of sealing containment;
- (iv) containment construction materials;
- (v) form of contained radioactive material;
- (vi) maximum temperature withstood during prototype tests;
- (vii) maximum pressure withstood during prototype tests;
- (viii) maximum quantity of contained radioactive material;
- (ix) radiotoxicity of contained radioactive material; and
- (x) operating experience with identical devices or similarly designed and constructed devices.

(c) In the event the applicant desires that the general licensee under Subsection R313-21-22(4), or under equivalent regulations of the U.S. Nuclear Regulatory Commission, an Agreement State or a Licensing State be authorized to install the device, collect the sample to be analyzed by a specific licensee for leakage of radioactive material, service the device, test the "on-off" mechanism and indicator, or remove the device from installation, the applicant shall include in the application written instructions to be followed by the general licensee, estimated calendar quarter doses associated with this activity or activities, and basis for these estimates. The submitted information shall demonstrate that performance of this activity or activities by an individual untrained in radiological protection, in addition to other handling, storage, and use of devices under the general license, is unlikely to cause that individual to receive a dose in excess of ten percent of the annual limits specified in Subsection R313-15-201(1).

(d) Persons licensed under Subsection R313-22-75(4) to distribute devices to generally licensed persons shall:

(i) furnish a copy of the general license contained in Subsection R313-21-22(4) to each person to whom the person directly or through an intermediate person transfers radioactive material in a device for use pursuant to the general license contained in Subsection R313-21-22(4);

(ii) furnish a copy of the general license contained in the U.S. Nuclear Regulatory Commission's, Agreement State's, or Licensing State's regulation equivalent to Subsection R313-21-22(4), or alternatively, furnish a copy of the general license contained in Subsection R313-21-22(4) to each person to whom he directly or through an intermediate person transfers radioactive material in a device for use pursuant to the general license of the U.S. Nuclear Regulatory Commission, the Agreement State or the Licensing State. If a copy of the general license in Subsection R313-21-22(4) is furnished to such a person, it shall be accompanied by a note explaining that the use of the device is regulated by the U.S. Nuclear Regulatory Commission, Agreement State or Licensing State under requirements substantially the same as those in Subsection R313-21-22(4);

(iii) report to the Executive Secretary all transfers of such devices to persons for use under the general license in Subsection R313-21-22(4). The reports shall identify the general licensee by name and address, an individual by name or position who may constitute a point of contact between the Executive Secretary and the general licensee, the type and model number of device transferred, and the quantity and type of radioactive material contained in the device. If one or more intermediate persons will temporarily possess the device at the intended place of use prior to its possession by the user, the report shall include identification of each intermediate person by name, address, contact, and relationship to the intended user. If no transfers have been made to persons generally licensed under Subsection R313-21-22(4) during the reporting period, the report shall so indicate. The report shall cover each calendar quarter and shall be filed within thirty days thereafter;

(iv) furnish reports to other agencies.

(A) Report to the U.S. Nuclear Regulatory Commission all transfers of those devices to persons for use under the U.S. Nuclear Regulatory Commission general license in 10 CFR 31.5.

(B) Report to the responsible State agency all transfers of devices manufactured and distributed pursuant to Subsection R313-22-75(4) for use under a general license in that State's regulations equivalent to Subsection R313-21-22(4).

(C) The reports shall identify each general licensee by name and address, an individual by name or position who may constitute a point of contact between the responsible agency and general licensee, the type and model of the device transferred, and the quantity and type of radioactive material contained in the device. If one or more intermediate persons will temporarily possess the device at the intended place of use prior to its possession by the user, the report shall include identification of each intermediate person by name, address, contact, and relationship to the intended user. The report shall be submitted within thirty days after the end of each calendar quarter in which a device is transferred to the generally licensed person.

(D) If transfers have not been made to U.S. Nuclear Regulatory Commission licensees during the reporting period, this information shall be reported to the U.S. Nuclear Regulatory Commission.

(E) If transfers have not been made to general licensees within a particular state during the reporting period, this information shall be reported to the responsible state agency upon request of that agency; and

(v) keep records showing the name, address and the point of contact for each general licensee to whom the person directly or through an intermediate person transfers radioactive material in devices for use pursuant to the general license provided in Subsection R313-21-22(4), or equivalent regulations of the U.S. Nuclear Regulatory Commission, an Agreement State or a Licensing State. The records shall show the date of each transfer, the radionuclide and the quantity of radioactivity in each device transferred, the identity of intermediate persons, and compliance with the report requirements of Subsection R313-22-75(4).

(5) Special requirements for the manufacture, assembly or repair of luminous safety devices for use in aircraft. An application for a specific license to manufacture, assemble or repair luminous safety devices containing tritium or promethium-147 for use in aircraft for distribution to persons generally licensed under Subsection R313-21-22(5) will be approved if:

(a) the applicant satisfies the general requirements of Section R313-22-33; and

(b) the applicant satisfies the requirements of 10 CFR 32.53 through 32.56 and 32.101, or their equivalent.

(6) Special requirements for license to manufacture calibration sources containing americium-241, plutonium or radium-226 for distribution to persons generally licensed under Subsection R313-21-22(7). An application for a specific license to manufacture calibration and reference sources containing americium-241, plutonium or radium-226 to persons generally licensed under Subsection R313-21-22(7) will be approved if:

(a) the applicant satisfies the general requirements of Section R313-22-33; and

(b) the applicant satisfies the requirements of 10 CFR 32.57 through 32.59, 32.102 and 10 CFR 70.39, or their equivalent.

(7) Manufacture and distribution of radioactive material for certain in vitro clinical or laboratory testing under general license. An application for a specific license to manufacture or distribute radioactive material for use under the general license of Subsection R313-21-22(9) will be approved if:

(a) the applicant satisfies the general requirements specified in Section R313-22-33;

(b) the radioactive material is to be prepared for distribution in prepackaged units of:

(i) iodine-125 in units not exceeding ten microcuries (370.0 kBq) each;

(ii) iodine-131 in units not exceeding ten microcuries (370.0 kBq) each;

(iii) carbon-14 in units not exceeding ten microcuries (370.0 kBq) each;

(iv) hydrogen-3 (tritium) in units not exceeding 50 microcuries (1.85 MBq) each;

(v) iron-59 in units not exceeding 20 microcuries (740.0 kBq) each;

(vi) cobalt-57 in units not exceeding ten microcuries (370.0 kBq) each;

(vii) selenium-75 in units not exceeding ten microcuries (370.0 kBq) each; or

(viii) mock iodine-125 in units not exceeding 0.05 microcurie (1.85 kBq) of iodine-129 and 0.005 microcurie (185.0 Bq) of americium-241 each;

(c) prepackaged units bear a durable, clearly visible label:

(i) identifying the radioactive contents as to chemical form and radionuclide, and indicating that the amount of radioactivity does not exceed ten microcuries (370.0 kBq) of iodine-125, iodine-131, carbon-14, cobalt-57, or selenium-75; 50 microcuries (1.85 MBq) of hydrogen-3 (tritium); 20 microcuries (740.0 kBq) of iron-59; or Mock Iodine-125 in units not exceeding 0.05 microcuries (1.85 kBq) of iodine-129 and 0.005 microcurie (185.0 Bq) of americium-241 each; and

(ii) displaying the radiation caution symbol described in Section R313-15-901 and the words, "CAUTION, RADIOACTIVE MATERIAL", and "Not for Internal or External Use in Humans or Animals";

(d) one of the following statements, as appropriate, or a substantially similar statement which contains the information called for in one of the following statements, appears on a label affixed to each prepackaged unit or appears in a leaflet or brochure which accompanies the package:

(i) "This radioactive material shall be received, acquired, possessed and used only by physicians, veterinarians, clinical laboratories or hospitals and only for in vitro clinical or laboratory tests not involving internal or external administration of the material, or the radiation therefrom, to human beings or animals. Its receipt, acquisition, possession, use and transfer are subject to the regulations and a general license of the U.S. Nuclear Regulatory Commission or of a state with which the U.S. Nuclear Regulatory Commission has entered into an agreement for the exercise of regulatory authority.

.....
Name of Manufacturer"

(ii) "This radioactive material shall be received, acquired, possessed and used only by physicians, veterinarians, clinical laboratories or hospitals and only for in vitro clinical or laboratory tests not involving internal or external administration of the material, or the radiation therefrom, to human beings or animals. Its receipt, acquisition, possession, use and transfer are subject to the regulations and a general license of a Licensing State.

.....
Name of Manufacturer"

(e) the label affixed to the unit, or the leaflet or brochure which accompanies the package, contains adequate information as to the precautions to be observed in handling and storing radioactive material. In the case of the Mock Iodine-125 reference or calibration source, the information accompanying the source shall also contain directions to the licensee regarding the waste disposal requirements set out in Section R313-15-1001.

(8) Licensing the manufacture and distribution of ice detection devices. An application for a specific license to manufacture and distribute ice detection devices to persons generally licensed under Subsection R313-21-22(10) will be approved if:

(a) the applicant satisfies the general requirements of Section R313-22-33; and

(b) the criteria of 10 CFR 32.61, 32.62, 32.103 are met.

(9) Manufacture and distribution of radiopharmaceuticals containing radioactive material for medical use under group licenses.

(a) An application for a specific license to manufacture and distribute radiopharmaceuticals containing radioactive material for use by persons licensed pursuant to Rule R313-32 will be approved if:

(i) the applicant satisfies the general requirements specified in Section R313-22-33;

(ii) the applicant submits evidence that the applicant is at least one of the following:

(A) registered or licensed with the U.S. Food and Drug Administration (FDA) as a drug manufacturer;

(B) registered or licensed with a state agency as a drug manufacturer;

(C) licensed as a pharmacy by a State Board of Pharmacy; or

(D) operating as a nuclear pharmacy within a medical institution.

(iii) the applicant submits information on the radionuclide; the chemical and physical form; the maximum activity per vial, syringe, generator, or other container of the radioactive drug; and the shielding provided by the packaging to show it is appropriate for the safe handling and storage of the radioactive drugs by medical use licensees; and

(iv) the applicant satisfies the following labeling requirements:

(A) A label is affixed to each transport radiation shield, whether it is constructed of lead, glass, plastic, or other material, of a radioactive drug to be transferred for commercial distribution. The label must include the radiation symbol and the words "CAUTION, RADIOACTIVE MATERIAL" or "DANGER, RADIOACTIVE MATERIAL"; the name of the radioactive drug or its abbreviation; and the quantity of radioactivity at a specified date and time. For radioactive drugs with a half life greater than 100 days, the time may be omitted.

(B) A label is affixed to each syringe, vial, or other container used to hold a radioactive drug to be transferred for commercial distribution. The label must include the radiation symbol and the words "CAUTION, RADIOACTIVE MATERIAL" or "DANGER, RADIOACTIVE MATERIAL" and an identifier that ensures that the syringe, vial, or other container can be correlated with the information on the transport radiation shield label.

(b) A licensee described by Subsections R313-22-75(9)(a)(ii)(C) or (D):

(i) May prepare radioactive drugs for medical use, as defined in Section R313-32-2, provided that the radioactive drug is prepared by either an authorized nuclear pharmacist, as specified in Subsections R313-22-75(9)(b)(ii) and (iii), or an individual under the supervision of an authorized nuclear pharmacist as specified in Section R313-32-25.

(ii) May allow a pharmacist to work as an authorized nuclear pharmacist if:

(A) this individual qualifies as an authorized nuclear pharmacist as defined in Section R313-32-2;

(B) this individual meets the requirements specified in Subsection R313-32-980(2) and Section R313-32-972 and the licensee has received an approved license amendment identifying this individual as an authorized nuclear pharmacist; or

(C) this individual is designated as an authorized nuclear pharmacist in accordance with Subsection R313-22-75(9)(b)(iii).

(iii) The actions authorized in Subsections R313-22-75(9)(b)(i) and (ii) are permitted in spite of more restrictive language in license conditions.

(iv) May designate a pharmacist, as defined in Section R313-32-2, as an authorized nuclear pharmacist if the individual is identified as of January 1, 1997 as an "authorized user" on a nuclear pharmacy license issued by the Executive Secretary under Subsection R313-22-75(9).

(v) Shall provide to the Executive Secretary a copy of each individual's certification by the Board of Pharmaceutical Specialties, the U.S. Nuclear Regulatory Commission or Agreement State license, or the permit issued by a licensee of broad scope, and a copy of the state pharmacy licensure or registration, no later than 30 days after the date that the licensee allows, pursuant to Subsections R313-22-75(9)(b)(ii)(A) and (B), the individual to work as an authorized nuclear pharmacist.

(c) A licensee shall possess and use instrumentation to measure the radioactivity of radioactive drugs. The licensee shall have procedures for use of the instrumentation. The licensee shall measure, by direct measurement or by combination of measurements and calculations, the amount of radioactivity in dosages of alpha-, beta-, or photon-emitting radioactive drugs prior to transfer for commercial distribution. In addition, the licensee shall:

(i) perform tests before initial use, periodically, and following repair, on each instrument for accuracy, linearity, and geometry dependence, as appropriate for the use of the instrument; and make adjustments when necessary; and

(ii) check each instrument for constancy and proper operation at the beginning of each day of use.

(d) Nothing in Subsection R313-22-75(9) relieves the licensee from complying with applicable FDA, or Federal, and State requirements governing radioactive drugs.

(10) Manufacture and distribution of sources or devices containing radioactive material for medical use. An application for a specific license to manufacture and distribute sources and devices containing radioactive material to persons licensed pursuant to Section R313-32-18 for use as a calibration or reference source or for the uses listed in Sections R313-32-400 and R313-32-500 will be approved if:

(a) the applicant satisfies the general requirements in Section R313-22-33;

(b) the applicant submits sufficient information regarding each type of source or device pertinent to an evaluation of its radiation safety, including:

(i) the radioactive material contained, its chemical and physical form and amount,

(ii) details of design and construction of the source or device,

(iii) procedures for, and results of, prototype tests to demonstrate that the source or device will maintain its integrity under stresses likely to be encountered in normal use and accidents,

(iv) for devices containing radioactive material, the radiation profile of a prototype device,

(v) details of quality control procedures to assure that production sources and devices meet the standards of the design and prototype tests,

(vi) procedures and standards for calibrating sources and devices,

(vii) legend and methods for labeling sources and devices as to their radioactive content, and

(viii) instructions for handling and storing the source or device from the radiation safety standpoint, these instructions are to be

included on a durable label attached to the source or device or attached to a permanent storage container for the source or device; provided that instructions which are too lengthy for a label may be summarized on the label and printed in detail on a brochure which is referenced on the label;

(c) the label affixed to the source or device, or to the permanent storage container for the source or device, contains information on the radionuclide, quantity and date of assay, and a statement that the source or device is licensed by the Executive Secretary for distribution to persons licensed pursuant to Sections R313-32-18, R313-32-400, and R313-32-500 or under equivalent regulations of the U.S. Nuclear Regulatory Commission, an Agreement State or a Licensing State; provided that labeling for sources which do not require long term storage may be on a leaflet or brochure which accompanies the source;

(d) in the event the applicant desires that the source or device be required to be tested for leakage of radioactive material at intervals longer than six months, the applicant shall include in the application sufficient information to demonstrate that a longer interval is justified by performance characteristics of the source or device or similar sources or devices and by design features that have a significant bearing on the probability or consequences of leakage of radioactive material from the source; and

(e) in determining the acceptable interval for test of leakage of radioactive material, the Executive Secretary shall consider information that includes, but is not limited to:

- (i) primary containment or source capsule,
- (ii) protection of primary containment,
- (iii) method of sealing containment,
- (iv) containment construction materials,
- (v) form of contained radioactive material,
- (vi) maximum temperature withstood during prototype tests,
- (vii) maximum pressure withstood during prototype tests,
- (viii) maximum quantity of contained radioactive material,
- (ix) radiotoxicity of contained radioactive material, and
- (x) operating experience with identical sources or devices or similarly designed and constructed sources or devices.

(11) Requirements for license to manufacture and distribute industrial products containing depleted uranium for mass-volume applications.

(a) An application for a specific license to manufacture industrial products and devices containing depleted uranium for use pursuant to Subsection R313-21-21([#]5) or equivalent regulations of the U.S. Nuclear Regulatory Commission or an Agreement State will be approved if:

(i) the applicant satisfies the general requirements specified in Section R313-22-33;

(ii) the applicant submits sufficient information relating to the design, manufacture, prototype testing, quality control procedures, labeling or marking, proposed uses and potential hazards of the industrial product or device to provide reasonable assurance that possession, use or transfer of the depleted uranium in the product or device is not likely to cause an individual to receive a radiation dose in excess of ten percent of the annual limits specified in Subsection R313-15-201(1); and

(iii) the applicant submits sufficient information regarding the industrial product or device and the presence of depleted uranium for a mass-volume application in the product or device to provide

reasonable assurance that unique benefits will accrue to the public because of the usefulness of the product or device.

(b) In the case of an industrial product or device whose unique benefits are questionable, the Executive Secretary will approve an application for a specific license under Subsection R313-22-75(11) only if the product or device is found to combine a high degree of utility and low probability of uncontrolled disposal and dispersal of significant quantities of depleted uranium into the environment.

(c) The Executive Secretary may deny an application for a specific license under Subsection R313-22-75(11) if the end use of the industrial product or device cannot be reasonably foreseen.

(d) Persons licensed pursuant to Subsection R313-22-75(11)(a) shall:

(i) maintain the level of quality control required by the license in the manufacture of the industrial product or device, and in the installation of the depleted uranium into the product or device;

(ii) label or mark each unit to:

(A) identify the manufacturer of the product or device and the number of the license under which the product or device was manufactured, the fact that the product or device contains depleted uranium, and the quantity of depleted uranium in each product or device; and

(B) state that the receipt, possession, use and transfer of the product or device are subject to a general license or the equivalent and the regulations of the U.S. Nuclear Regulatory Commission or an Agreement State;

(iii) assure that the uranium before being installed in each product or device has been impressed with the following legend clearly legible through a plating or other covering: "Depleted Uranium";

(iv) furnish to each person to whom depleted uranium in a product or device is transferred for use pursuant to the general license contained in Subsection R313-21-21([#]5) or its equivalent:

(A) a copy of the general license contained in Subsection R313-21-21([#]5) and a copy of form DRC-12; or

(B) a copy of the general license contained in the U.S. Nuclear Regulatory Commission's or Agreement State's regulation equivalent to Subsection R313-21-21([#]5) and a copy of the U.S. Nuclear Regulatory Commission's or Agreement State's certificate, or alternatively, furnish a copy of the general license contained in Subsection R313-21-21([#]5) and a copy of form DRC-12 with a note explaining that use of the product or device is regulated by the U.S. Nuclear Regulatory Commission or an Agreement State under requirements substantially the same as those in Subsection R313-21-21([#]5);

(v) report to the Executive Secretary all transfers of industrial products or devices to persons for use under the general license in Subsection R313-21-21([#]5). The report shall identify each general licensee by name and address, an individual by name or position who may constitute a point of contact between the Executive Secretary and the general licensee, the type and model number of device transferred, and the quantity of depleted uranium contained in the product or device. The report shall be submitted within thirty days after the end of the calendar quarter in which the product or device is transferred to the generally licensed person. If no transfers have been made to persons generally licensed under Subsection R313-21-21([#]5) during the reporting period, the report shall so indicate;

(vi) provide certain other reports as follows:

(A) report to the U.S. Nuclear Regulatory Commission all transfers of industrial products or devices to persons for use under the U.S. Nuclear Regulatory Commission general license in 10 CFR 40.25;

(B) report to the responsible state agency all transfers of devices manufactured and distributed pursuant to Subsection R313-22-75(11) for use under a general license in that state's regulations equivalent to Subsection R313-21-21(4)5,

(C) reports shall identify each general licensee by name and address, an individual by name or position who may constitute a point of contact between the agency and the general licensee, the type and model number of the device transferred, and the quantity of depleted uranium contained in the product or device. The report shall be submitted within thirty days after the end of each calendar quarter in which a product or device is transferred to the generally licensed person,

(D) if no transfers have been made to U.S. Nuclear Regulatory Commission licensees during the reporting period, this information shall be reported to the U.S. Nuclear Regulatory Commission, and

(E) if no transfers have been made to general licensees within a particular Agreement State during the reporting period, this information shall be reported to the responsible Agreement State agency upon the request of that agency; and

(vii) records shall be kept showing the name, address and point of contact for each general licensee to whom the person transfers depleted uranium in industrial products or devices for use pursuant to the general license provided in Subsection R313-21-21(4)5 or equivalent regulations of the U.S. Nuclear Regulatory Commission or an Agreement State. The records shall be maintained for a period of two years and shall show the date of each transfer, the quantity of depleted uranium in the product or device transferred, and compliance with the report requirements of Subsection R313-22-75(11).

R313-22-90. Quantities of Radioactive Materials Requiring Consideration of the Need for an Emergency Plan for Responding to a Release. Refer to Subsection R313-22-32(8).

Radioactive Material(1)	Release Fraction	Quantity (curies)
Actinium-228	0.001	4,000
Americium-241	.001	2
Americium-242	.001	2
Americium-243	.001	2
Antimony-124	.01	4,000
Antimony-126	.01	6,000
Barium-133	.01	10,000
Barium-140	.01	30,000
Bismuth-207	.01	5,000
Bismuth-210	.01	600
Cadmium-109	.01	1,000
Cadmium-113	.01	80
Calcium-45	.01	20,000
Californium-252 (20 mg)	.001	9
Carbon-14	.01	50,000
	Non C0	
Cerium-141	.01	10,000
Cerium-144	.01	300
Cesium-134	.01	2,000

Cesium-137	.01	3,000
Chlorine-36	.5	100
Chromium-51	.01	300,000
Cobalt-60	.001	5,000
Copper-64	.01	200,000
Curium-242	.001	60
Curium-243	.001	3
Curium-244	.001	4
Curium-245	.001	2
Europium-152	.01	500
Europium-154	.01	400
Europium-155	.01	3,000
Germanium-68	.01	2,000
Gadolinium-153	.01	5,000
Gold-198	.01	30,000
Hafnium-172	.01	400
Hafnium-181	.01	7,000
Holmium-166m	.01	100
Hydrogen-3	.5	20,000
Iodine-125	.5	10
Iodine-131	.5	10
Indium-114m	.01	1,000
Iridium-192	.001	40,000
Iron-55	.01	40,000
Iron-59	.01	7,000
Krypton-85	1.0	6,000,000
Lead-210	.01	8
Manganese-56	.01	60,000
Mercury-203	.01	10,000
Molybdenum-99	.01	30,000
Neptunium-237	.001	2
Nickel-63	.01	20,000
Niobium-94	.01	300
Phosphorus-32	.5	100
Phosphorus-33	.5	1,000
Polonium-210	.01	10
Potassium-42	.01	9,000
Promethium-145	.01	4,000
Promethium-147	.01	4,000
Ruthenium-106	.01	200
Samarium-151	.01	4,000
Scandium-46	.01	3,000
Selenium-75	.01	10,000
Silver-110m	.01	1,000
Sodium-22	.01	9,000
Sodium-24	.01	10,000
Strontium-89	.01	3,000
Strontium-90	.01	90
Sulfur-35	.5	900
Technetium-99	.01	10,000
Technetium-99m	.01	400,000
Tellurium-127m	.01	5,000
Tellurium-129m	.01	5,000
Terbium-160	.01	4,000
Thulium-170	.01	4,000
Tin-113	.01	10,000
Tin-123	.01	3,000
Tin-126	.01	1,000
Titanium-44	.01	100
Vanadium-48	.01	7,000
Xenon-133	1.0	900,000
Yttrium-91	.01	2,000
Zinc-65	.01	5,000
Zirconium-93	.01	400
Zirconium-95	.01	5,000
Any other beta-gamma emitter	.01	10,000
Mixed fission products	.01	1,000
Mixed corrosion products	.01	10,000
Contaminated equipment, beta-gamma	.001	10,000
Irradiated material, any form other than solid noncombustible	.01	1,000
Irradiated material, solid noncombustible	.001	10,000
Mixed radioactive waste, beta-gamma	.01	1,000

Packaged mixed waste, beta-gamma(2)	.001	10,000
Any other alpha emitter	.001	2
Contaminated equipment, alpha	.0001	20
Packaged waste, alpha(2)	.0001	20
Combinations of radioactive materials listed above(1)	-----	-----

(1) For combinations of radioactive materials, consideration of the need for an emergency plan is required if the sum of the ratios of the quantity of each radioactive material authorized to the quantity listed for that material in Section R313-22-90 exceeds one.

(2) Waste packaged in Type B containers does not require an emergency plan.

R313-22-100. Limits for Broad Licenses. Refer to Section R313-22-50.

TABLE

RADIOACTIVE MATERIAL	COLUMN I	COLUMN II CURIES
Antimony-122	1	0.01
Antimony-124	1	0.01
Antimony-125	1	0.01
Arsenic-73	10	0.1
Arsenic-74	1	0.01
Arsenic-76	1	0.01
Arsenic-77	10	0.1
Barium-131	10	0.1
Barium-140	1	0.01
Beryllium-7	10	0.1
Bismuth-210	0.1	0.001
Bromine-82	10	0.1
Cadmium-109	1	0.01
Cadmium-115m	1	0.01
Cadmium-115	10	0.1
Calcium-45	1	0.01
Calcium-47	10	0.1
Carbon-14	100	1
Cerium-141	10	0.1
Cerium-143	10	0.1
Cerium-144	0.1	0.001
Cesium-131	100	1
Cesium-134m	100	1
Cesium-134	0.1	0.001
Cesium-135	1	0.01
Cesium-136	10	0.1
Cesium-137	0.1	0.001
Chlorine-36	1	0.01
Chlorine-38	100	1
Chromium-51	100	1
Cobalt-57	10	0.1
Cobalt-58m	100	1
Cobalt-58	1	0.01
Cobalt-60	0.1	0.001
Copper-64	10	0.1
Dysprosium-165	100	1
Dysprosium-166	10	0.1
Erbium-169	10	0.1
Erbium-171	10	0.1
Europium-152 (9.2h)	10	0.1
Europium-152 (13y)	0.1	0.001
Europium-154	0.1	0.001
Europium-155	1	0.01
Fluorine-18	100	1
Gadolinium-153	1	0.01
Gadolinium-159	10	0.1
Gallium-72	10	0.1
Germanium-71	100	1
Gold-198	10	0.1
Gold-199	10	0.1

Hafnium-181	1	0.01
Holmium-166	10	0.1
Hydrogen-3	100	1
Indium-113m	100	1
Indium-114m	1	0.01
Indium-115m	100	1
Indium-115	1	0.01
Iodine-125	0.1	0.001
Iodine-126	0.1	0.001
Iodine-129	0.1	0.01
Iodine-131	0.1	0.001
Iodine-132	10	0.1
Iodine-133	1	0.01
Iodine-134	10	0.1
Iodine-135	1	0.01
Iridium-192	1	0.01
Iridium-194	10	0.1
Iron-55	10	0.1
Iron-59	1	0.01
Krypton-85	100	1
Krypton-87	10	0.1
Lanthanum-140	1	0.01
Lutetium-177	10	0.1
Manganese-52	1	0.01
Manganese-54	1	0.01
Manganese-56	10	0.1
Mercury-197m	10	0.1
Mercury-197	10	0.1
Mercury-203	1	0.01
Molybdenum-99	10	0.1
Neodymium-147	10	0.1
Neodymium-149	10	0.1
Nickel-59	10	0.1
Nickel-63	1	0.01
Nickel-65	10	0.1
Niobium-93m	1	0.01
Niobium-95	1	0.01
Niobium-97	100	1
Osmium-185	1	0.01
Osmium-191m	100	1
Osmium-191	10	0.1
Osmium-193	10	0.1
Palladium-103	10	0.1
Palladium-109	10	0.1
Phosphorus-32	1	0.01
Platinum-191	10	0.1
Platinum-193m	100	1
Platinum-193	10	0.1
Platinum-197m	100	1
Platinum-197	10	0.1
Polonium-210	0.01	0.0001
Potassium-42	1	0.01
Praseodymium-142	10	0.1
Praseodymium-143	10	0.1
Promethium-147	1	0.01
Promethium-149	10	0.1
Radium-226	0.01	0.0001
Rhenium-186	10	0.1
Rhenium-188	10	0.1
Rhodium-103m	1,000	10
Rhodium-105	10	0.1
Rubidium-86	1	0.01
Rubidium-87	1	0.01
Ruthenium-97	100	1
Ruthenium-103	1	0.01
Ruthenium-105	10	0.1
Ruthenium-106	0.1	0.001
Samarium-151	1	0.01
Samarium-153	10	0.1
Scandium-46	1	0.01
Scandium-47	10	0.1
Scandium-48	1	0.01
Selenium-75	1	0.01
Silicon-31	10	0.1

Silver-105	1	0.01
Silver-110m	0.1	0.001
Silver-111	10	0.1
Sodium-22	0.1	0.001
Sodium-24	1	0.01
Strontium-85m	1,000	10
Strontium-85	1	0.01
Strontium-89	1	0.01
Strontium-90	0.01	0.0001
Strontium-91	10	0.1
Strontium-92	10	0.1
Sulphur-35	10	0.1
Tantalum-182	1	0.01
Technetium-96	10	0.1
Technetium-97m	10	0.1
Technetium-97	10	0.1
Technetium-99m	100	1
Technetium-99	1	0.01
Tellurium-125m	1	0.01
Tellurium-127m	1	0.01
Tellurium-127	10	0.1
Tellurium-129m	1	0.01
Tellurium-129	100	1
Tellurium-131m	10	0.1
Tellurium-132	1	0.01
Terbium-160	1	0.01
Thallium-200	10	0.1
Thallium-201	10	0.1
Thallium-202	10	0.1
Thallium-204	1	0.01
Thulium-170	1	0.01
Thulium-171	1	0.01
Tin-113	1	0.01
Tin-125	1	0.01
Tungsten-181	1	0.01
Tungsten-185	1	0.01
Tungsten-187	10	0.1
Vanadium-48	1	0.01
Xenon-131m	1,000	10
Xenon-133	100	1
Xenon-135	100	1
Ytterbium-175	10	0.1
Yttrium-90	1	0.01
Yttrium-91	1	0.01
Yttrium-92	10	0.1
Yttrium-93	1	0.01
Zinc-65	1	0.01
Zinc-69m	10	0.1
Zinc-69	100	1
Zirconium-93	1	0.01
Zirconium-95	1	0.01
Zirconium-97	1	0.01
Any radioactive material other than source material, special nuclear material, or alpha-emitting radioactive material not listed above	0.1	0.001

R313-22-210. Registration of Product Information.

Licensees who manufacture or initially distribute a sealed source or device containing a sealed source whose product is intended for use under a specific license or general license are deemed to have provided reasonable assurance that the radiation safety properties of the source or device are adequate to protect health and minimize danger to life and the environment if the sealed source or device has been evaluated in accordance with 10 CFR 32.210, ~~[1996]~~2000 ed. or equivalent regulations of an Agreement State.

KEY: specific licenses, decommissioning, broad scope, radioactive material
~~[July 18, 1997]~~2000 **19-3-104**
 Notice of Continuation May 1, 1997 **19-3-108**

◆ ————— ◆
Environmental Quality, Radiation Control
R313-25
License Requirements for Land Disposal of Radioactive Waste - General Provisions

NOTICE OF PROPOSED RULE
 (Amendment)
 DAR FILE NO.: 22602
 FILED: 01/13/2000, 15:53
 RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: To incorporate a requirement of Rule R317-6 and provide clarification of wording and references in Subsection R313-25-3(1).

SUMMARY OF THE RULE OR CHANGE: The proposed rulemaking incorporates a requirement of Rule R317-6 and provides clarification of wording and references in Subsection R313-25-3(1).

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Sections 19-3-104 and 19-3-108

ANTICIPATED COST OR SAVINGS TO:

❖**THE STATE BUDGET:** None--this rule incorporates a requirement of Rule R317-6 and provides clarification of wording and references in Subsection R313-25-3(1). The change will not affect the state budget since new regulatory requirements are not proposed.

❖**LOCAL GOVERNMENTS:** None--this rule does not impact local government. Local government does not regulate radioactive material licensees.

❖**OTHER PERSONS:** None--this rule incorporates a requirement of Rule R317-6 and provides clarification of wording and references in Subsection R313-25-3(1). The change will not affect other persons since new regulatory requirements are not proposed.

COMPLIANCE COSTS FOR AFFECTED PERSONS: The proposed changes to this rule will not add any compliance costs to affected licensees because the change incorporates a requirement of Rule R317-6 and provides clarification of wording and references in Subsection R313-25-3(1). New regulatory requirements are not proposed.

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: No fiscal impact is expected for businesses since the change incorporates a requirement of Rule R317-6 and provides clarification of wording and references in Subsection R313-25-3(1). New regulatory requirements are not proposed.

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Environmental Quality
Radiation Control
State of Utah Office Park, Building 2
168 North 1950 West
PO Box 144850
Salt Lake City, UT 84114-4850, or
at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Julie Felice at the above address, by phone at (801) 536-4250, by FAX at (801) 533-4097, or by Internet E-mail at jfelice@deq.state.ut.us.

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS TO THE ADDRESS ABOVE NO LATER THAN 5:00 P.M. ON 03/02/2000.

THIS RULE MAY BECOME EFFECTIVE ON: 03/10/2000

AUTHORIZED BY: William J. Sinclair, Executive Secretary

R313. Environmental Quality, Radiation Control.

R313-25. License Requirements for Land Disposal of Radioactive Waste - General Provisions.

R313-25-1. Purpose and Scope.

The rules in this chapter establish procedures, criteria, and terms and conditions upon which the Department issues licenses for the land disposal of wastes received from other persons. The requirements of R313-25 are in addition to, and not in substitution for, other applicable requirements of these rules.

R313-25-2. Definitions.

As used in R313-25, the following definitions apply:

"Active maintenance" means significant activity needed during the period of institutional control to maintain a reasonable assurance that the performance objectives in R313-25-19 and R313-25-20 are met. Active maintenance may include the pumping and treatment of water from a disposal unit, the replacement of a disposal unit cover, or other episodic or continuous measures. Active maintenance does not include custodial activities like repair of fencing, repair or replacement of monitoring equipment, revegetation, minor additions to soil cover, minor repair of disposal unit covers, and general disposal site upkeep.

"Buffer zone" means a portion of the disposal site that is controlled by the licensee and that lies under the disposal units and between the disposal units and the boundary of the site.

"Commencement of construction" means clearing of land, excavation, or other substantial action that could adversely affect the environment of a land disposal facility. The term does not mean disposal site exploration, necessary roads for disposal site

exploration, borings to determine foundation conditions, or other preconstruction monitoring or testing to establish background information related to the suitability of the disposal site or the protection of environmental values.

"Custodial agency" means an agency of the government designated to act on behalf of the government owner of the disposal site.

"Disposal" means the isolation of wastes from the biosphere by placing them in a land disposal facility.

"Disposal site" means that portion of a land disposal facility which is used for disposal of waste. It consists of disposal units and a buffer zone.

"Disposal unit" means a discrete portion of the disposal site into which waste is placed for disposal. For near-surface disposal, the disposal unit may be a trench.

"Engineered barrier" means a man-made structure or device intended to improve the land disposal facility's performance under R313-25.

"Hydrogeologic unit" means a soil or rock unit or zone that has a distinct influence on the storage or movement of ground water.

"Inadvertent intruder" means a person who may enter the disposal site after closure and engage in activities unrelated to post closure management, such as agriculture, dwelling construction, or other pursuits which could, by disturbing the site, expose individuals to radiation.

"Intruder barrier" means a sufficient depth of cover over the waste that inhibits contact with waste and helps to ensure that radiation exposures to an inadvertent intruder will meet the performance objectives set forth in R313-25, or engineered structures that provide equivalent protection to the inadvertent intruder.

"Land disposal facility" means the land, buildings and structures, and equipment which are intended to be used for the disposal of radioactive waste.

"Monitoring" means observing and making measurements to provide data to evaluate the performance and characteristics of the disposal site.

"Near-surface disposal facility" means a land disposal facility in which waste is disposed of within approximately the upper 30 meters of the earth's surface.

"Site closure and stabilization" means those actions that are taken upon completion of operations that prepare the disposal site for custodial care, and that assure that the disposal site will remain stable and will not need ongoing active maintenance.

"Stability" means structural stability.

"Surveillance" means monitoring and observation of the disposal site to detect needs for maintenance or custodial care, to observe evidence of intrusion, and to ascertain compliance with other license and regulatory requirements.

"Treatment" means the stabilization or the reduction in volume of waste by a chemical or a physical process.

"Waste" means those low-level radioactive wastes as defined in Section 19-3-102 that are acceptable for disposal in a land disposal facility. For the purposes of this definition, low-level waste has the same meaning as it does in the Low-Level Radioactive Waste Policy Act, Pub.L. 96-573, 94 Stat. 3347; thus, the term denotes radioactive waste not classified as high-level radioactive waste, transuranic waste, spent nuclear fuel, waste does

not mean byproduct material as defined in 42 U.S.C. 2011(e)(2) of the Atomic Energy Act, uranium or thorium tailings and waste.

R313-25-3. Siting Criteria and Pre-licensing Plan Approval for Commercial Radioactive Waste Disposal Facilities.

(1) Persons proposing to construct or operate commercial radioactive waste disposal facilities, including waste incinerators, shall obtain a plan approval from the Executive Secretary before applying for a license. Plans shall meet the siting criteria and plan approval requirements of Section R313-25-3 and ~~[R313-]~~Section 19-3-105.

(2) The siting criteria and plan approval requirements in R313-25-3 apply to preclicensing plan approval applications.

(3) Treatment and disposal facilities, including commercial radioactive waste incinerators, shall not be located:

(a) within or underlain by:

(i) national, state, and county parks, monuments, and recreation areas; designated wilderness and wilderness study areas; wild and scenic river areas;

(ii) ecologically and scientifically significant natural areas, including wildlife management areas and habitats for listed or proposed endangered species as designated by federal law;

(iii) 100 year floodplains;

(iv) areas 200 feet from Holocene faults;

(v) underground mines, salt domes and salt beds;

(vi) dam failure flood areas;

(vii) areas subject to landslide, mud flow, or other earth movement, unless adverse impacts can be mitigated;

(viii) farmlands classified or evaluated as "prime", "unique", or of "statewide importance" by the U.S. Department of Agricultural Soil Conservation Service under the Prime Farmland Protection Act;

(ix) areas five miles of existing permanent dwellings, residential areas, and other habitable structures, including schools, churches, and historic structures;

(x) areas five miles of surface waters including intermittent streams, perennial streams, rivers, lakes, reservoirs, and wetlands;

(xi) areas 100 feet of uranium mill tailings;

(xii) areas 1000 feet of archeological sites to which adverse impacts cannot reasonably be mitigated;

(xiii) recharge zones of aquifers containing ground water which has a total dissolved solids content of less than 10,000 mg/l; or

(xiv) drinking water source protection areas designated by the State Drinking Water Committee;

(b) in areas:

(i) above or underlain by aquifers containing ground water which has a total dissolved solids content of less than 500 mg/l and which aquifers do not exceed state ground water standards for pollutants;

(ii) above or underlain by aquifers containing ground water which has a total dissolved solids content between 3000 and 10,000 mg/l when the distance from the surface to the ground water is less than 100 ft.;

(iii) areas, such as areas of extensive withdrawal of water, gas, or oil;

(iv) above or underlain by weak and unstable soils, including soils that lose their ability to support foundations as a result of hydrocompaction, expansion, or shrinkage;

(v) above or underlain by karst terrains.

(4) Incinerators associated with land disposal facilities may not be located above aquifers containing ground water which has a total dissolved solids content below 3000 mg/l. Incinerators not associated with ground disposal facilities shall not be located above aquifers containing ground water which has a total dissolved solids content below 500 mg/l.

(5) Facilities may not be located within a distance to existing drinking water wells and watersheds for public water supplies of one year ground water travel time plus 1000 feet for incinerators and of five years ground water travel time plus 1000 feet for land disposal facilities.

(6) The plan approval application shall include hydraulic conductivity and other information necessary to estimate adequately the ground water travel distance.

(7) The plan approval application shall include the results of studies adequate to identify the presence of ground water aquifers in the area of the proposed site and to assess the quality of the ground water of all aquifers identified in the area of the proposed site.

(8) The Executive Secretary may require the applicant to conduct vadose zone or other near surface monitoring.

(9) Emergency response and safety.

(a) The plan approval application shall demonstrate the availability and adequacy of emergency services, including medical and fire response. The application shall provide evidence that the applicant has coordinated emergency response plans with local and regional emergency response resources.

(b) The plan approval application shall include plans for responding to emergencies both at the site and those involving the transport of wastes within the state. Details of the proposed emergency response plan shall be given in the plan approval application and will be stipulated in the plan approval and radioactive materials license.

(c) The plan approval application shall show proposed routes for transportation of radioactive wastes within the state. The Executive Secretary will not approve plans that propose radioactive waste transportation routes over roads or bridges where weight restrictions would be exceeded. The Executive Secretary will not approve plans that pose adverse impact or risk of harm to inhabited areas. The plan approval application shall address risks to inhabited areas, including both residential and non-residential areas; the width, condition, and types of roads to be used; roadside development on proposed routes; seasonal and climatic factors which may affect safety; alternate emergency access to the facility; the type, size, and configuration of vehicles proposed to haul wastes; transportation restrictions on proposed routes; and the transportation means and routes available to evacuate the population at risk in the event of accidents, including spills and fires.

(10) Siting Authority. The Executive Secretary recognizes that Titles 10 and 17 of the Utah Code give cities and counties authority for local use planning and zoning. Nothing in R313-25-3 precludes cities and counties from establishing additional requirements as provided by applicable state and federal law.

R313-25-4. License Required.

(1) Persons shall not receive, possess, or dispose of waste at a land disposal facility unless authorized by a license issued by the Executive Secretary pursuant to R313-25 and R313-22.

(2) Persons shall file an application with the Executive Secretary pursuant to R313-22-32 and obtain a license as provided in R313-25 before commencement of construction of a land disposal facility. Failure to comply with this requirement may be grounds for denial of a license and other penalties established by law and rules.

R313-25-5. Content of Application.

In addition to the requirements set forth in R313-22-33, an application to receive from others, possess, and dispose of wastes shall consist of general information, specific technical information, institutional information, and financial information as set forth in R313-25-6 through R313-25-10.

R313-25-6. General Information.

The general information shall include the following:

(1) identity of the applicant including:

(a) the full name, address, telephone number, and description of the business or occupation of the applicant;

(b) if the applicant is a partnership, the names and addresses of the partners and the principal location where the partnership does business;

(c) if the applicant is a corporation or an unincorporated association;

(i) the state where it is incorporated or organized and the principal location where it does business; and

(ii) the names and addresses of its directors and principal officers; and

(d) if the applicant is acting as an agent or representative of another person in filing the application, the applicant shall provide, with respect to the other person, information required under R313-25-6(1).

(2) Qualifications of the applicant shall include the following:

(a) the organizational structure of the applicant, both offsite and onsite, including a description of lines of authority and assignments of responsibilities, whether in the form of administrative directives, contract provisions, or otherwise;

(b) the technical qualifications, including training and experience of the applicant and members of the applicant's staff, to engage in the proposed activities. Minimum training and experience requirements for personnel filling key positions described in R313-25-6(2)(a) shall be provided;

(c) a description of the applicant's personnel training program; and

(d) the plan to maintain an adequate complement of trained personnel to carry out waste receipt, handling, and disposal operations in a safe manner.

(3) A description of:

(a) the location of the proposed disposal site;

(b) the general character of the proposed activities;

(c) the types and quantities of waste to be received, possessed, and disposed of;

(d) plans for use of the land disposal facility for purposes other than disposal of wastes; and

(e) the proposed facilities and equipment; and

(4) proposed schedules for construction, receipt of waste, and first emplacement of waste at the proposed land disposal facility.

R313-25-7. Specific Technical Information.

The application shall include certain technical information. The following information is needed to determine whether or not the applicant can meet the performance objectives and the applicable technical requirements of R313-25:

(1) A description of the natural and demographic disposal site characteristics shall be based on and determined by disposal site selection and characterization activities. The description shall include geologic, geochemical, geotechnical, hydrologic, ecologic, archaeological, meteorologic, climatologic, and biotic features of the disposal site and vicinity.

(2) Descriptions of the design features of the land disposal facility and of the disposal units for near-surface disposal shall include those design features related to infiltration of water; integrity of covers for disposal units; structural stability of backfill, wastes, and covers; contact of wastes with standing water; disposal site drainage; disposal site closure and stabilization; elimination to the extent practicable of long-term disposal site maintenance; inadvertent intrusion; occupational exposures; disposal site monitoring; and adequacy of the size of the buffer zone for monitoring and potential mitigative measures.

(3) Descriptions of the principal design criteria and their relationship to the performance objectives.

(4) Descriptions of the natural events or phenomena on which the design is based and their relationship to the principal design criteria.

(5) Descriptions of codes and standards which the applicant has applied to the design, and will apply to construction of the land disposal facilities.

(6) Descriptions of the construction and operation of the land disposal facility. The description shall include as a minimum the methods of construction of disposal units; waste emplacement; the procedures for and areas of waste segregation; types of intruder barriers; onsite traffic and drainage systems; survey control program; methods and areas of waste storage; and methods to control surface water and ground water access to the wastes. The description shall also include a description of the methods to be employed in the handling and disposal of wastes containing chelating agents or other non-radiological substances which might affect meeting the performance objectives of R313-25

(7) A description of the disposal site closure plan, including those design features which are intended to facilitate disposal site closures and to eliminate the need for active maintenance after closure.

(8) Identification of the known natural resources at the disposal site whose exploitation could result in inadvertent intrusion into the wastes after removal of active institutional control.

(9) Descriptions of the kind, amount, classification and specifications of the radioactive material proposed to be received, possessed, and disposed of at the land disposal facility.

(10) Descriptions of quality assurance programs, tailored to low-level waste disposal, including audit and managerial controls, for the determination of natural disposal site characteristics and for quality control during the design, construction, operation, and closure of the land disposal facility and the receipt, handling, and emplacement of waste.

(11) A description of the radiation safety program for control and monitoring of radioactive effluents to ensure compliance with the performance objective in R313-25-19 and monitoring of occupational radiation exposure to ensure compliance with the requirements of R313-15 and to control contamination of personnel, vehicles, equipment, buildings, and the disposal site. The applicant shall describe procedures, instrumentation, facilities, and equipment appropriate to both routine and emergency operations.

(12) A description of the environmental monitoring program to provide data and to evaluate potential health and environmental impacts and the plan for taking corrective measures if migration is indicated.

(13) Descriptions of the administrative procedures that the applicant will apply to control activities at the land disposal facility.

(14) A description of the facility electronic recordkeeping system as required in R313-25-33.

R313-25-8. Technical Analyses.

The specific technical information shall also include the following analyses needed to demonstrate that the performance objectives of R313-25 will be met:

(1) Analyses demonstrating that the general population will be protected from releases of radioactivity shall consider the pathways of air, soil, ground water, surface water, plant uptake, and exhumation by burrowing animals. The analyses shall clearly identify and differentiate between the roles performed by the natural disposal site characteristics and design features in isolating and segregating the wastes. The analyses shall clearly demonstrate a reasonable assurance that the exposures to humans from the release of radioactivity will not exceed the limits set forth in R313-25-19.

(2) Analyses of the protection of inadvertent intruders shall demonstrate a reasonable assurance that the waste classification and segregation requirements will be met and that adequate barriers to inadvertent intrusion will be provided.

(3) Analysis of the protection of individuals during operations shall include assessments of expected exposures due to routine operations and likely accidents during handling, storage, and disposal of waste. The analysis shall provide reasonable assurance that exposures will be controlled to meet the requirements of R313-15.

(4) Analyses of the long-term stability of the disposal site shall be based upon analyses of active natural processes including erosion, mass wasting, slope failure, settlement of wastes and backfill, infiltration through covers over disposal areas and adjacent soils, and surface drainage of the disposal site. The analyses shall provide reasonable assurance that there will not be a need for ongoing active maintenance of the disposal site following closure.

R313-25-9. Institutional Information.

The institutional information submitted by the applicant shall include:

(1) A certification by the federal or state agency which owns the disposal site that the agency is prepared to accept transfer of the license when the provisions of R313-25-16 are met and will assume responsibility for institutional control after site closure and for post-closure observation and maintenance.

(2) Evidence, if the proposed disposal site is on land not owned by the federal or a state government, that arrangements have

been made for assumption of ownership in fee by the federal or a state agency.

R313-25-10. Financial Information.

This information shall demonstrate that the applicant is financially qualified to carry out the activities for which the license is sought. The information shall meet other financial assurance requirements of R313-25.

R313-25-11. Requirements for Issuance of a License.

A license for the receipt, possession, and disposal of waste containing radioactive material will be issued by the Executive Secretary upon finding that:

(1) the issuance of the license will not constitute an unreasonable risk to the health and safety of the public;

(2) the applicant is qualified by reason of training and experience to carry out the described disposal operations in a manner that protects health and minimizes danger to life or property;

(3) the applicant's proposed disposal site, disposal design, land disposal facility operations, including equipment, facilities, and procedures, disposal site closure, and post-closure institutional control, are adequate to protect the public health and safety as specified in the performance objectives of R313-25-19;

(4) the applicant's proposed disposal site, disposal site design, land disposal facility operations, including equipment, facilities, and procedures, disposal site closure, and post-closure institutional control are adequate to protect the public health and safety in accordance with the performance objectives of R313-25-20;

(5) the applicant's proposed land disposal facility operations, including equipment, facilities, and procedures, are adequate to protect the public health and safety in accordance with R313-15;

(6) the applicant's proposed disposal site, disposal site design, land disposal facility operations, disposal site closure, and post-closure institutional control plans are adequate to protect the public health and safety in that they will provide reasonable assurance of the long-term stability of the disposed waste and the disposal site and will eliminate to the extent practicable the need for continued maintenance of the disposal site following closure;

(7) the applicant's demonstration provides reasonable assurance that the requirements of R313-25 will be met;

(8) the applicant's proposal for institutional control provides reasonable assurance that control will be provided for the length of time found necessary to ensure the findings in R313-25-11(3) through (6) and that the institutional control meets the requirements of R313-25-28.

(9) the financial or surety arrangements meet the requirements of R313-25.

R313-25-12. Conditions of Licenses.

(1) A license issued under R313-25, or a right thereunder, may not be transferred, assigned, or disposed of, either voluntarily or involuntarily, directly or indirectly, through transfer of control of the license to a person, unless the Executive Secretary finds, after securing full information, that the transfer is in accordance with the provisions of the Radiation Control Act and Rules and gives his consent in writing in the form of a license amendment.

(2) The Executive Secretary may require the licensee to submit written statements under oath.

(3) The license will be terminated only on the full implementation of the final closure plan, including post-closure observation and maintenance, as approved by the Executive Secretary.

(4) The licensee shall submit to the provisions of the Act now or hereafter in effect, and to all findings and orders of the Executive Secretary. The terms and conditions of the license are subject to amendment, revision, or modification, by reason of amendments to, or by reason of rules, and orders issued in accordance with the terms of the Act and these rules.

(5) Persons licensed by the Executive Secretary pursuant to R313-25 shall confine possession and use of the materials to the locations and purposes authorized in the license.

(6) The licensee shall not dispose of waste until the Executive Secretary has inspected the land disposal facility and has found it to conform with the description, design, and construction described in the application for a license.

(7) The Executive Secretary may incorporate, by rule or order, into licenses at the time of issuance or thereafter, additional requirements and conditions with respect to the licensee's receipt, possession, and disposal of waste as the Executive Secretary deems appropriate or necessary in order to:

(a) protect health or to minimize danger to life or property;

(b) require reports and the keeping of records, and to provide for inspections of licensed activities as the Executive Secretary deems necessary or appropriate to effectuate the purposes of the Radiation Control Act and Rules.

(8) The authority to dispose of wastes expires on the expiration date stated in the license. An expiration date on a license applies only to the above ground activities and to the authority to dispose of waste. Failure to renew the license shall not relieve the licensee of responsibility for implementing site closure, post-closure observation, and transfer of the license to the site owner.

R313-25-13. Application for Renewal or Closure.

(1) An application for renewal or an application for closure under R313-25-14 shall be filed at least 90 days prior to license expiration.

(2) Applications for renewal of a license shall be filed in accordance with R313-25-5 through 25-10. Applications for closure shall be filed in accordance with R313-25-14. Information contained in previous applications, statements, or reports filed with the Executive Secretary under the license may be incorporated by reference if the references are clear and specific.

(3) If a licensee has filed an application in proper form for renewal of a license, the license shall not expire unless and until the Executive Secretary has taken final action to deny application for renewal.

(4) In evaluating an application for license renewal, the Executive Secretary will apply the criteria set forth in R313-25-11.

R313-25-14. Contents of Application for Site Closure and Stabilization.

(1) Prior to final closure of the disposal site, or as otherwise directed by the Executive Secretary, the licensee shall submit an application to amend the license for closure. This closure application shall include a final revision and specific details of the

disposal site closure plan included in the original license application submitted and approved under R313-25-7(7). The plan shall include the following:

(a) additional geologic, hydrologic, or other data pertinent to the long-term containment of emplaced wastes obtained during the operational period;

(b) the results of tests, experiments, or other analyses relating to backfill of excavated areas, closure and sealing, waste migration and interaction with emplacement media, or other tests, experiments, or analyses pertinent to the long-term containment of emplaced waste within the disposal site;

(c) proposed revision of plans for:

(i) decontamination or dismantlement of surface facilities;

(ii) backfilling of excavated areas; or

(iii) stabilization of the disposal site for post-closure care.

(d) Significant new information regarding the environmental impact of closure activities and long-term performance of the disposal site.

(2) Upon review and consideration of an application to amend the license for closure submitted in accordance with R313-25-14(1), the Executive Secretary shall issue an amendment authorizing closure if there is reasonable assurance that the long-term performance objectives of R313-25 will be met.

R313-25-15. Post-Closure Observation and Maintenance.

The licensee shall observe, monitor, and carry out necessary maintenance and repairs at the disposal site until the site closure is complete and the license is transferred by the Executive Secretary in accordance with R313-25-16. The licensee shall remain responsible for the disposal site for an additional five years. The Executive Secretary may approve closure plans that provide for shorter or longer time periods of post-closure observation and maintenance, if sufficient rationale is developed for the variance.

R313-25-16. Transfer of License.

Following closure and the period of post-closure observation and maintenance, the licensee may apply for an amendment to transfer the license to the disposal site owner. The license shall be transferred when the Executive Secretary finds:

(1) that the disposal site was closed according to the licensee's approved disposal site closure plan;

(2) that the licensee has provided reasonable assurance that the performance objectives of R313-25 have been met;

(3) that funds for care and records required by R313-25-33(4) and (5) have been transferred to the disposal site owner;

(4) that the post-closure monitoring program is operational and can be implemented by the disposal site owner; and

(5) that the Federal or State agency which will assume responsibility for institutional control of the disposal site is prepared to assume responsibility and ensure that the institutional requirements found necessary under R313-25-11(8) will be met.

R313-25-17. Termination of License.

(1) Following the period of institutional control needed to meet the requirements of R313-25-11, the licensee may apply for an amendment to terminate the license.

(2) This application will be reviewed in accordance with the provisions of R313-22-32.

(3) A license shall be terminated only when the Executive Secretary finds:

(a) that the institutional control requirements of R313-25-11(8) have been met;

(b) that additional requirements resulting from new information developed during the institutional control period have been met;

(c) that permanent monuments or markers warning against intrusion have been installed; and

(d) that records required by R313-25-33(4) and (5) have been sent to the party responsible for institutional control of the disposal site and a copy has been sent to the Executive Secretary immediately prior to license termination.

R313-25-18. General Requirement.

Land disposal facilities shall be sited, designed, operated, closed, and controlled after closure so that reasonable assurance exists that exposures to individuals do not exceed the limits stated in R313-25-19 and 25-22.

R313-25-19. Protection of the General Population from Releases of Radioactivity.

Concentrations of radioactive material which may be released to the general environment in ground water, surface water, air, soil, plants or animals shall not result in an annual dose exceeding an equivalent of 0.25 mSv (0.025 rem)~~[25 millirems (0.25 mSv)]~~ to the whole body, 0.75 mSv (0.075 rem)~~[75 millirems (0.75 mSv)]~~ to the thyroid, and 0.25 mSv (0.025 rem)~~[25 millirems (0.25 mSv)]~~ to any other organ of any member of the public. No greater than 0.04 mSv (0.004 rem) committed effective dose equivalent or total effective dose equivalent to any member of the public shall come from groundwater. Reasonable efforts should be made to maintain releases of radioactivity in effluents to the general environment as low as is reasonably achievable.

R313-25-20. Protection of Individuals from Inadvertent Intrusion.

Design, operation, and closure of the land disposal facility shall ensure protection of any individuals inadvertently intruding into the disposal site and occupying the site or contacting the waste after active institutional controls over the disposal site are removed.

R313-25-21. Protection of Individuals During Operations.

Operations at the land disposal facility shall be conducted in compliance with the standards for radiation protection set out in R313-15 of these rules, except for release of radioactivity in effluents from the land disposal facility, which shall be governed by R313-25-19. Every reasonable effort should be made to maintain radiation exposures as low as is reasonably achievable, ALARA.

R313-25-22. Stability of the Disposal Site After Closure.

The disposal facility shall be sited, designed, used, operated, and closed to achieve long-term stability of the disposal site and to eliminate, to the extent practicable, the need for ongoing active maintenance of the disposal site following closure so that only surveillance, monitoring, or minor custodial care are required.

R313-25-23. Disposal Site Suitability Requirements for Land Disposal - Near-Surface Disposal.

(1) The primary emphasis in disposal site suitability is given to isolation of wastes and to disposal site features that ensure that the long-term performance objectives are met.

(2) The disposal site shall be capable of being characterized, modeled, analyzed and monitored.

(3) Within the region where the facility is to be located, a disposal site should be selected so that projected population growth and future developments are not likely to affect the ability of the disposal facility to meet the performance objectives of R313-25.

(4) Areas shall be avoided having known natural resources which, if exploited, would result in failure to meet the performance objectives of R313-25.

(5) The disposal site shall be generally well drained and free of areas of flooding or frequent ponding. Waste disposal shall not take place in a 100-year flood plain, coastal high-hazard area or wetland, as defined in Executive Order 11988, "Floodplain Management Guidelines."

(6) Upstream drainage areas shall be minimized to decrease the amount of runoff which could erode or inundate waste disposal units.

(7) The disposal site shall provide sufficient depth to the water table that ground water intrusion, perennial or otherwise, into the waste will not occur. The Executive Secretary will consider an exception to this requirement to allow disposal below the water table if it can be conclusively shown that disposal site characteristics will result in molecular diffusion being the predominant means of radionuclide movement and the rate of movement will result in the performance objectives being met. In no case will waste disposal be permitted in the zone of fluctuation of the water table.

(8) The hydrogeologic unit used for disposal shall not discharge ground water to the surface within the disposal site.

(9) Areas shall be avoided where tectonic processes such as faulting, folding, seismic activity, vulcanism, or similar phenomena may occur with such frequency and extent to significantly affect the ability of the disposal site to meet the performance objectives of R313-25 or may preclude defensible modeling and prediction of long-term impacts.

(10) Areas shall be avoided where surface geologic processes such as mass wasting, erosion, slumping, landsliding, or weathering occur with sufficient such frequency and extent to significantly affect the ability of the disposal site to meet the performance objectives of R313-25, or may preclude defensible modeling and prediction of long-term impacts.

(11) The disposal site shall not be located where nearby facilities or activities could adversely impact the ability of the site to meet the performance objectives of R313-25 or significantly mask the environmental monitoring program.

R313-25-24. Disposal Site Design for Near-Surface Land Disposal.

(1) Site design features shall be directed toward long-term isolation and avoidance of the need for continuing active maintenance after site closure.

(2) The disposal site design and operation shall be compatible with the disposal site closure and stabilization plan and lead to disposal site closure that provides reasonable assurance that the performance objectives will be met.

(3) The disposal site shall be designed to complement and improve, where appropriate, the ability of the disposal site's natural characteristics to assure that the performance objectives will be met.

(4) Covers shall be designed to minimize, to the extent practicable, water infiltration, to direct percolating or surface water away from the disposed waste, and to resist degradation by surface geologic processes and biotic activity.

(5) Surface features shall direct surface water drainage away from disposal units at velocities and gradients which will not result in erosion that will require ongoing active maintenance in the future.

(6) The disposal site shall be designed to minimize to the extent practicable the contact of water with waste during storage, the contact of standing water with waste during disposal, and the contact of percolating or standing water with wastes after disposal.

R313-25-25. Near Surface Land Disposal Facility Operation and Disposal Site Closure.

(1) Wastes designated as Class A pursuant to R313-15-307 of these rules shall be segregated from other wastes by placing them in disposal units which are sufficiently separated from disposal units for the other waste classes so that any interaction between Class A wastes and other wastes will not result in the failure to meet the performance objectives of R313-25. This segregation is not necessary for Class A wastes if they meet the stability requirements of R313-15-308(2).

(2) Wastes designated as Class C pursuant to R313-15-307 shall be disposed of so that the top of the waste is a minimum of five meters below the top surface of the cover or shall be disposed of with intruder barriers that are designed to protect against an inadvertent intrusion for at least 500 years.

(3) Except as provided in R313-25-1(1), only waste classified as Class A, B, or C shall be acceptable for near-surface disposal. Wastes shall be disposed of in accordance with the requirements of R313-25-25(4) through 11.

(4) Wastes shall be emplaced in a manner that maintains the package integrity during emplacement, minimizes the void spaces between packages, and permits the void spaces to be filled.

(5) Void spaces between waste packages shall be filled with earth or other material to reduce future subsidence within the fill.

(6) Waste shall be placed and covered in a manner that limits the radiation dose rate at the surface of the cover to levels that at a minimum will permit the licensee to comply with all provisions of R313-15-105 at the time the license is transferred pursuant to R313-25-16.

(7) The boundaries and locations of disposal units shall be accurately located and mapped by means of a land survey. Near-surface disposal units shall be marked in such a way that the boundaries of the units can be easily defined. Three permanent survey marker control points, referenced to United States Geological Survey or National Geodetic Survey control stations, shall be established on the site to facilitate surveys. The United States Geological Survey or National Geodetic Survey control stations shall provide horizontal and vertical controls as checked

against United States Geological Survey or National Geodetic Survey record files.

(8) A buffer zone of land shall be maintained between any buried waste and the disposal site boundary and beneath the disposed waste. The buffer zone shall be of adequate dimensions to carry out environmental monitoring activities specified in R313-25-26(4) and take mitigative measures if needed.

(9) Closure and stabilization measures as set forth in the approved site closure plan shall be carried out as the disposal units are filled and covered.

(10) Active waste disposal operations shall not have an adverse effect on completed closure and stabilization measures.

(11) Only wastes containing or contaminated with radioactive material shall be disposed of at the disposal site.

(12) Proposals for disposal of waste that are not generally acceptable for near-surface disposal because the wastes form and disposal methods shall be different and, in general, more stringent than those specified for Class C waste, may be submitted to the Executive Secretary for approval.

R313-25-26. Environmental Monitoring.

(1) At the time a license application is submitted, the applicant shall have conducted a preoperational monitoring program to provide basic environmental data on the disposal site characteristics. The applicant shall obtain information about the ecology, meteorology, climate, hydrology, geology, geochemistry, and seismology of the disposal site. For those characteristics that are subject to seasonal variation, data shall cover at least a 12-month period.

(2) During the land disposal facility site construction and operation, the licensee shall maintain an environmental monitoring program. Measurements and observations shall be made and recorded to provide data to evaluate the potential health and environmental impacts during both the construction and the operation of the facility and to enable the evaluation of long-term effects and need for mitigative measures. The monitoring system shall be capable of providing early warning of releases of waste from the disposal site before they leave the site boundary.

(3) After the disposal site is closed, the licensee responsible for post-operational surveillance of the disposal site shall maintain a monitoring system based on the operating history and the closure and stabilization of the disposal site. The monitoring system shall be capable of providing early warning of releases of waste from the disposal site before they leave the site boundary.

(4) The licensee shall have plans for taking corrective measures if the environmental monitoring program detects migration of waste which would indicate that the performance objectives may not be met.

R313-25-27. Alternative Requirements for Design and Operations.

The Executive Secretary may, upon request or on his own initiative, authorize provisions other than those set forth in R313-25-24 and 25-26 for the segregation and disposal of waste and for the design and operation of a land disposal facility on a specific basis, if it finds reasonable assurance of compliance with the performance objectives of R313-25.

R313-25-28. Institutional Requirements.

(1) Land Ownership. Disposal of waste received from other persons may be permitted only on land owned in fee by the Federal or a State government.

(2) Institutional Control. The land owner or custodial agency shall conduct an institutional control program to physically control access to the disposal site following transfer of control of the disposal site from the disposal site operator. The institutional control program shall also include, but not be limited to, conducting an environmental monitoring program at the disposal site, periodic surveillance, minor custodial care, and other equivalents as determined by the Executive Secretary, and administration of funds to cover the costs for these activities. The period of institutional controls will be determined by the Executive Secretary, but institutional controls may not be relied upon for more than 100 years following transfer of control of the disposal site to the owner.

R313-25-30. Applicant Qualifications and Assurances.

The applicant shall show that it either possesses the necessary funds, or has reasonable assurance of obtaining the necessary funds, or by a combination of the two, to cover the estimated costs of conducting all licensed activities over the planned operating life of the project, including costs of construction and disposal.

R313-25-31. Funding for Disposal Site Closure and Stabilization.

(1) The applicant shall provide assurances prior to the commencement of operations that sufficient funds will be available to carry out disposal site closure and stabilization, including:

(a) decontamination or dismantlement of land disposal facility structures, and

(b) closure and stabilization of the disposal site so that following transfer of the disposal site to the site owner, the need for ongoing active maintenance is eliminated to the extent practicable and only minor custodial care, surveillance, and monitoring are required. These assurances shall be based on Executive Secretary approved cost estimates reflecting the Executive Secretary approved plan for disposal site closure and stabilization. The applicant's cost estimates shall take into account total costs that would be incurred if an independent contractor were hired to perform the closure and stabilization work.

(2) In order to avoid unnecessary duplication and expense, the Executive Secretary will accept financial sureties that have been consolidated with earmarked financial or surety arrangements established to meet requirements of Federal or other State agencies or local governmental bodies for decontamination, closure, and stabilization. The Executive Secretary will accept these arrangements only if they are considered adequate to satisfy the requirements of R313-25-31 and if they clearly identify that the portion of the surety which covers the closure of the disposal site is clearly identified and committed for use in accomplishing these activities.

(3) The licensee's financial or surety arrangement shall be submitted annually for review by the Executive Secretary to assure that sufficient funds will be available for completion of the closure plan.

(4) The amount of the licensee's financial or surety arrangement shall change in accordance with changes in the predicted costs of closure and stabilization. Factors affecting

closure and stabilization cost estimates include inflation, increases in the amount of disturbed land, changes in engineering plans, closure and stabilization that have already been accomplished, and other conditions affecting costs. The financial or surety arrangement shall be sufficient at all times to cover the costs of closure and stabilization of the disposal units that are expected to be used before the next license renewal.

(5) The financial or surety arrangement shall be written for a specified period of time and shall be automatically renewed unless the person who issues the surety notifies the Executive Secretary; the beneficiary, the site owner; and the principal, the licensee, not less than 90 days prior to the renewal date of its intention not to renew. In such a situation, the licensee shall submit a replacement surety within 30 days after notification of cancellation. If the licensee fails to provide a replacement surety acceptable to the Executive Secretary, the beneficiary may collect on the original surety.

(6) Proof of forfeiture shall not be necessary to collect the surety so that, in the event that the licensee could not provide an acceptable replacement surety within the required time, the surety shall be automatically collected prior to its expiration. The conditions described above shall be clearly stated on surety instruments.

(7) Financial or surety arrangements generally acceptable to the Executive Secretary include surety bonds, cash deposits, certificates of deposit, deposits of government securities, escrow accounts, irrevocable letters or lines of credit, trust funds, and combinations of the above or other types of arrangements as may be approved by the Executive Secretary. Self-insurance, or an arrangement which essentially constitutes self-insurance, will not satisfy the surety requirement for private sector applicants.

(8) The licensee's financial or surety arrangement shall remain in effect until the closure and stabilization program has been completed and approved by the Executive Secretary, and the license has been transferred to the site owner.

R313-25-32. Financial Assurances for Institutional Controls.

(1) Prior to the issuance of the license, the applicant shall provide for Executive Secretary approval, a binding arrangement, between the applicant and the disposal site owner that ensures that sufficient funds will be available to cover the costs of monitoring and required maintenance during the institutional control period. The binding arrangement shall be reviewed annually by the Executive Secretary to ensure that changes in inflation, technology, and disposal facility operations are reflected in the arrangements.

(2) Subsequent changes to the binding arrangement specified in R313-25-32(1) relevant to institutional control shall be submitted to the Executive Secretary for prior approval.

R313-25-33. Maintenance of Records, Reports, and Transfers.

(1) Licensees shall maintain records and make reports in connection with the licensed activities as may be required by the conditions of the license or by the rules and orders of the Executive Secretary.

(2) Records which are required by these rules or by license conditions shall be maintained for a period specified by the appropriate rules or by license condition. If a retention period is not otherwise specified, these records shall be maintained and transferred to the officials specified in R313-25-33(4) as a condition

of license termination unless the Executive Secretary otherwise authorizes their disposition.

(3) Records which shall be maintained pursuant to R313-25 may be the original or a reproduced copy or microfilm if this reproduced copy or microfilm is capable of producing copy that is clear and legible at the end of the required retention period.

(4) Notwithstanding R313-25-33(1) through (3), copies of records of the location and the quantity of wastes contained in the disposal site shall be transferred upon license termination to the chief executive of the nearest municipality, the chief executive of the county in which the facility is located, the county zoning board or land development and planning agency, the State Governor, and other state, local, and federal governmental agencies as designated by the Executive Secretary at the time of license termination.

(5) Following receipt and acceptance of a shipment of waste, the licensee shall record the date that the shipment is received at the disposal facility, the date of disposal of the waste, a traceable shipment manifest number, a description of any engineered barrier or structural overpack provided for disposal of the waste, the location of disposal at the disposal site, the condition of the waste packages as received, discrepancies between the materials listed on the manifest and those received, the volume of any pallets, bracing, or other shipping or onsite generated materials that are contaminated, and are disposed of as contaminated or suspect materials, and evidence of leakage or damaged packages or radiation or contamination levels in excess of limits specified in U.S. Department of Transportation and Executive Secretary regulations or rules. The licensee shall briefly describe repackaging operations of the waste packages included in the shipment, plus other information required by the Executive Secretary as a license condition.

(6) Licensees authorized to dispose of waste received from other persons shall file a copy of their financial report or a certified financial statement annually with the Executive Secretary in order to update the information base for determining financial qualifications.

(7)(a) Licensees authorized to dispose of waste received from other persons, pursuant to R313-25, shall submit annual reports to the Executive Secretary. Reports shall be submitted by the end of the first calendar quarter of each year for the preceding year.

(b) The reports shall include:

(i) specification of the quantity of each of the principal contaminants released to unrestricted areas in liquid and in airborne effluents during the preceding year;

(ii) the results of the environmental monitoring program;

(iii) a summary of licensee disposal unit survey and maintenance activities;

(iv) a summary, by waste class, of activities and quantities of radionuclides disposed of;

(v) instances in which observed site characteristics were significantly different from those described in the application for a license; and

(vi) other information the Executive Secretary may require.

(c) If the quantities of waste released during the reporting period, monitoring results, or maintenance performed are significantly different from those predicted, the report shall cover this specifically.

(8) In addition to the other requirements in R313-25-33, the licensee shall store, or have stored, manifest and other information

pertaining to receipt and disposal of radioactive waste in an electronic recordkeeping system.

(a) The manifest information that must be electronically stored is:

(i) that required in Appendix G of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated into these rules by reference, with the exception of shipper and carrier telephone numbers and shipper and consignee certifications; and

(ii) that information required in R313-25-33(5).

(b) As specified in facility license conditions, the licensee shall report the stored information, or subsets of this information, on a computer-readable medium.

R313-25-34. Tests on Land Disposal Facilities.

Licensees shall perform, or permit the Executive Secretary to perform, any tests the Executive Secretary deems appropriate or necessary for the administration of the rules in R313-25, including, but not limited to, tests of;

(1) wastes;

(2) facilities used for the receipt, storage, treatment, handling or disposal of wastes;

(3) radiation detection and monitoring instruments; or

(4) other equipment and devices used in connection with the receipt, possession, handling, treatment, storage, or disposal of waste.

R313-25-35. Executive Secretary Inspections of Land Disposal Facilities.

(1) Licensees shall afford to the Executive Secretary, at reasonable times, opportunity to inspect waste not yet disposed of, and the premises, equipment, operations, and facilities in which wastes are received, possessed, handled, treated, stored, or disposed of.

(2) Licensees shall make available to the Executive Secretary for inspection, upon reasonable notice, records kept by it pursuant to these rules. Authorized representatives of the Executive Secretary may copy and take away copies of, for the Executive Secretary's use, any records required to be kept pursuant to R313-25.

KEY: radiation, radioactive waste disposal

~~[January 23, 1998]~~2000

19-3-104

Notice of Continuation May 1, 1997

19-3-108



Environmental Quality, Radiation Control

R313-34

Requirements for Irradiators

NOTICE OF PROPOSED RULE

(Amendment)

DAR FILE NO.: 22603

FILED: 01/13/2000, 15:53

RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: The proposed changes are necessary before a Five-Year Notice of Review and Statement of Continuation form can be filed by the division.

SUMMARY OF THE RULE OR CHANGE: Changes correct references used in this rule and add clarity in the application of 10 CFR 36 (2000), incorporated into this rule by reference.

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Section 19-3-104

FEDERAL REQUIREMENT FOR THIS RULE: 10 CFR 36 (2000)

THIS RULE OR CHANGE INCORPORATES BY REFERENCE THE FOLLOWING MATERIAL: 10 CFR 36 (2000)

ANTICIPATED COST OR SAVINGS TO:

❖THE STATE BUDGET: None--the changes being made are clarification in nature. Staff workload is not affected.

❖LOCAL GOVERNMENTS: None--this rule does not impact local government. Local government does not regulate radioactive material licensees.

❖OTHER PERSONS: None--The changes being made are clarification in nature and no additional requirements are being proposed.

COMPLIANCE COSTS FOR AFFECTED PERSONS: There is only one licensee affected. The proposed changes to this rule will not add any compliance costs to the affected licensee because they are clarification in nature and do not propose any new requirements.

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: No fiscal impact is expected for businesses since the changes are clarification in nature and no new requirements are being proposed.

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Environmental Quality
Radiation Control
State of Utah Office Park, Building 2
168 North 1950 West
PO Box 144850
Salt Lake City, UT 84114-4850, or
at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Julie Felice at the above address, by phone at (801) 536-4250, by FAX at (801) 533-4097, or by Internet E-mail at jfelice@deq.state.ut.us.

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS TO THE ADDRESS ABOVE NO LATER THAN 5:00 P.M. ON 03/02/2000.

THIS RULE MAY BECOME EFFECTIVE ON: 03/10/2000

AUTHORIZED BY: William J. Sinclair, Executive Secretary

R313. Environmental Quality, Radiation Control.**R313-34. Requirements for Irradiators.****R313-34-1. Purpose and Authority.**

(1) Rule R313-34 prescribes requirements for the issuance of licenses authorizing the use of sealed sources containing radioactive materials in irradiators used to irradiate objects or materials using gamma radiation.

(2) The rules set forth herein are adopted pursuant to the provisions of Subsections 19-3-104(3) and 19-3-104(6).

(3) The requirements of Rule R313-34 are in addition to, and not in substitution for, the other requirements of these rules.

R313-34-2. Scope.

(1) ~~[The r]Rule[s in]~~ R313-34 shall apply to panoramic irradiators that have either dry or wet storage of the radioactive sealed sources; underwater irradiators in which both the source and the product being irradiated are under water; and irradiators whose dose rates exceed 5 grays (500 rads) per hour at 1 meter from the radioactive sealed sources in air or in water, as applicable for the irradiator type.

(2) The requirements of Rule R313-34 shall not apply to self-contained dry-source-storage irradiators in which both the source and the area subject to irradiation are contained within a device and are not accessible by personnel, medical radiology or teletherapy, the irradiation of materials for nondestructive testing purposes, gauging, or open-field agricultural irradiations.

R313-34-3. Clarifications or Exemptions.

For purposes of Rule R313-34, 10 CFR 36, ~~[1994]~~2000 ed., is incorporated by reference with the following clarifications or exceptions:

(1) The exclusion of the following 10 CFR sections: 36.1, 36.5, 36.8, 36.11, 36.17, 36.19(a), 36.91, and 36.93;

(2) The substitution of the following:

(a) Radiation Control Act for Atomic Energy Act of 1954;

(b) Utah Radiation Control Rules for the reference to NRC regulations and the Commission's regulations;

(c) The Executive Secretary or the Executive Secretary's for the Commission or the Commission's, and NRC[-and Agreement State] in the following 10 CFR sections: 36.13, 36.13(f), 36.15, 36.19(b), 36.53(c), 36.69, and 36.81(a), 36.81(d) and 36.81(e); and (d) In 10 CFR 36.51(a)(1), Rule R313-15 for NRC;

(3) Appendix B of 10 CFR ~~[20.1001 to 20.2402]~~Part 20 refers to the ~~[1993]~~2000 ed. of 10 CFR; and

(4) The substitution of Title R313 references for the following 10 CFR references:

(a) Section R313-12-51 for reference to 10 CFR 30.51;

(b) Rule R313-15 for the reference to 10 CFR 20;

(c) Subsection R313-15-501(3) for the reference to 10 CFR 20.1501(c);

(d) Section R313-15-902 for the reference to 10 CFR 20.1902;

(e) Rule R313-18 for the reference to 10 CFR 19;

(f) Section R313-19-41 for the reference to 10 CFR 30.41;

(g) Section R313-19-50 for the reference to 10 CFR 30.50;

(h) Section R313-22-33 for the reference to 10 CFR 30.33;

(i) Section R313-22-210 for the reference to 10 CFR 32.210;

([i]j) Section R313-22-35 for the reference to 10 CFR 30.35;
and
([j]k) Rule R313-70 for the reference to 10 CFR 170.31.

KEY: irradiator, survey, radiation, radiation safety
~~August 11, 1995~~ **2000 19-3-104**



Lieutenant Governor, Elections
R623-1
Lieutenant Governor's Procedure for
Regulation of Lobbyist Activities

NOTICE OF PROPOSED RULE
(Amendment)
DAR FILE NO.: 22612
FILED: 01/14/2000, 16:39
RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: The changes are to clarify two of the sections to better represent the intent of the rule and delete language that may be in violation of statutes.

SUMMARY OF THE RULE OR CHANGE: 1) Clarify a section to further explain the information the lobbyist is required to provide upon applying for a license and how that information must be submitted; 2) clarify the lieutenant governor's procedure for approval of a license, which makes it clear that a license is effective upon being submitted to the lieutenant governor's office and there is no waiting time involved; 3) delete three subsections that may be in conflict with other statutes, including a code reference to intentionally filing false information on a lobbyist registration form, denying access to hearings for late report violations, and notifying the lobbyist's employer of a suspension.

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Section 36-11-404

ANTICIPATED COST OR SAVINGS TO:

❖**THE STATE BUDGET:** The amendments to the rule create no new additional costs or savings. For information on the costs associated with this rule, please see original rule filed.

(**DAR Note:** R623-1 was a proposed new rule that is effective as of January 1, 2000. It was published in the November 15, 1999, issue of the *Utah State Bulletin* under DAR No. 22481.)

❖**LOCAL GOVERNMENTS:** The amendments to the rule create no new additional costs or savings. For information on the costs associated with this rule, please see original rule filed.

❖**OTHER PERSONS:** The amendments to the rule create no new additional costs or savings. For information on the costs associated with this rule, please see original rule filed.

COMPLIANCE COSTS FOR AFFECTED PERSONS: The amendments to the rule create no new additional costs or savings. For information on the costs associated with this rule, please see original rule filed.

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: The amendments to the rule create no new additional costs or savings. For information on the costs associated with this rule, please see original rule filed.

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Lieutenant Governor
Elections
115 State Capitol
Salt Lake City, UT 84114, or
at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Amy Naccarato, Director at the above address, by phone at (801) 538-1041, by FAX at (801) 538-1133, or by Internet E-mail at anaccara@gov.state.ut.us.

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS TO THE ADDRESS ABOVE NO LATER THAN 5:00 P.M. ON 03/02/2000.

THIS RULE MAY BECOME EFFECTIVE ON: 03/03/2000

AUTHORIZED BY: Amy Naccarato, Director

R623. Lieutenant Governor, Elections.

R623-1. Lieutenant Governor's Procedure for Regulation of Lobbyist Activities.

R623-1-1. Purpose.

Pursuant to Utah Code Section 36-11-404 this rule provides procedures for the lieutenant governor's office to:

- A. Issue lobbyist licenses;
- B. Disapprove lobbyist applications;
- C. Suspend and revoke lobbyist licenses;
- D. Reinstate lobbyist licenses; and
- E. Appoint administrative law judges.

R623-1-2. Authority.

This rule is required by Utah Code Section 36-11-404.

R623-1-3. Definitions.

In addition to the terms defined in Utah Code Section 36-11-102, the following definitions apply:

- A. "Director" means the director of the state elections office.
- B. "Register" means the process of obtaining a lobbying license as required by Sections 36-11-103 and 36-11-105.
- C. "Report" means any report required under Sections 36-11-201 and 36-11-202.

R623-1-4. Registration/License Application Procedure.

- A. In order to register and obtain a license, a lobbyist shall:

1. ~~[Obtain a registration/license application form from the lieutenant governor's office;]File a registration/license application statement in compliance with the provisions of Section 36-11-103. The lieutenant governor's office shall make available forms that comply with Section 36-11-103.~~

2. Submit the completed form to the lieutenant governor's office; and

3. Pay the \$25 registration fee.

B. Upon receipt of a completed lobbyist registration/license application form the lieutenant governor's office shall:

1. Review the registration form for accuracy, completeness and compliance with the law;

2. Approve or disapprove the registration/license application; and

3. Notify the lobbyist in writing within 30 days of approval or disapproval.

C. ~~[The lobbyist license shall become effective upon approval by the lieutenant governor's office.]An applicant who has not been convicted of any of the offenses listed in Section 36-11-105(2)(a)(i), and who has not had a civil penalty imposed as described in Section 36-11-105(2)(a)(ii), may commence lobbying activities upon filing of a completed registration/license application form with the lieutenant governor's office and payment of the registration fee.~~

R623-1-5. Disapproval of Application.

A. A lobbyist who is convicted of violation of any of the offenses listed in Utah Code Section 36-11-105, shall have his application for license disapproved by the lieutenant governor's office and a license will not be issued.

B. The lobbyist will receive written notice of the license disapproval from the lieutenant governor's office within 30 days.

R623-1-6. Suspensions, Revocations and Fines.

A. Registration and reporting violations.

1. In addition to any fines imposed under 36-11-401, a lobbyist license may be suspended for any of the following willful and knowing violations of Section 36-11-103,~~[Subsection 36-11-105(2)(a)(ii)(B);]~~ Sections 36-11-201 and 36-11-202:

a. Failure to register;

b. Failure to file a year end or supplemental report on or before the statutory due date;

c. Failure to file a year end or supplemental report;

d. Filing a report or other document that contains materially false information or the omission of material information; including, but not limited to, the failure to list all principals for which the lobbyist works or is hired as an independent contractor;

e. Failure to update a registration when a lobbyist accepts a new client for lobbying; or

f. Otherwise violating Sections 36-11-103, 36-11-201 or 36-11-202.

2. If a fine or other penalty is imposed more than once under the immediately preceding section, suspension or permanent revocation of the lobbyist license shall be imposed.

3. The determination of the penalty to be imposed will be made by following the procedures as provided by Section R623-1-7.

B. Illegal Activities of lobbyists.

1. If the lieutenant governor's office discovers or receives evidence of a possible violation of Sections 36-11-301 to 305, the evidence will be sent to the appropriate county attorney or district attorney's office for prosecution.

2. If a lobbyist is convicted of a violation of Sections 36-11-301, 36-11-302, or 36-11-303, the lieutenant governor shall revoke the lobbyist license for one year as required by Subsection 36-11-401(3) and give the lobbyist notice of the same, together with notice of the lobbyist's right to request a hearing under Section R623-1-9.

3. If the county or district attorney does not prosecute a possible violation under Sections 36-11-302 or 36-11-303, the lieutenant governor's office shall review the evidence to determine if a civil fine or suspension may be appropriate following the procedures for civil enforcement set forth in Section R623-1-7.

4. If a lobbyist is convicted of a violation of any of the Title 76 Criminal Code Sections referenced in Subsection 36-11-401(2), suspension of up to three years or permanent revocation of the lobbyist license shall be imposed, but no civil fine may be imposed. The determination of whether to revoke or suspend a lobbyist license and for what length of time shall be made following the procedures for civil enforcement as provided by Section R623-1-7.

R623-1-7. Enforcement.

A. Any person with evidence of a possible violation of the Lobbyist Disclosure and Regulation Act may provide such evidence to the director in the lieutenant governor's office or may file a complaint with such officer. If the evidence is of a criminal violation, the person may report the information directly to the appropriate county attorney or district attorney.

B. If the director discovers or receives evidence of a criminal violation, such evidence shall be provided to the appropriate county or district attorney and any civil enforcement actions will proceed as set forth in Subsection R623-1-6(B).

C. If the director discovers or receives evidence of a violation of a civil provision, the director will investigate the alleged violation and make a determination regarding what fine and/or suspension or revocation should be imposed, if any.

1. Fines for reports not filed on or before the statutory due date shall not be less than \$50 per day for each day the report is late.

2. Extenuating circumstances may be considered before a penalty is imposed.[]

~~3. Hearings shall not be available to dispute late report violations.]~~

D. The director shall give notice of the recommended penalty to the lobbyist, and if a complaint was filed, to the complainant.

E. If either the lobbyist or the complainant desire to contest the recommended penalty, they or either of them may do so by requesting a hearing within fifteen (15) days of receipt of the notice of the recommended penalty. If neither file a request for a hearing within the fifteen day period, the recommended penalty will be the penalty imposed for the violation. The notice of recommended penalty shall include a notice of hearing rights.

F. The administrative law judge for the hearing is not bound by the recommended penalty and may impose a penalty greater or less than the recommended penalty, as seems justified by the evidence.

G. If a lobbyist license is suspended or revoked, the lieutenant governor's office shall remove the lobbyist's name from the official list and notify the following of such:

1. The speaker of the house of representatives;
2. The president of the senate; and
3. The governor[; ~~and~~
- ~~4. All principals for which the lobbyist works or is hired as an independent contractor, as listed on the lobbyist registration form].~~

R623-1-8. Hearings, Appointment of Administrative Law Judges.

A. Hearings will be conducted as informal adjudicative proceedings under the Administrative Procedures Act.

B. The lieutenant governor's office shall appoint administrative law judges from state agencies to act as presiding officers over adjudicative proceedings.

R623-1-9. Reinstatement of a Lobbyist License.

A. A lobbyist whose license is suspended or revoked may apply for reinstatement as provided by Section 36-11-402.

B. The lieutenant governor's office shall not reinstate any lobbyist license until the lobbyist pays any fines that have been imposed and the reinstatement fee provided by Section 36-11-402.

KEY: lobbyist

~~[January 1,]2000~~

36-11-404



End of the Notices of Proposed Rules Section

FIVE-YEAR NOTICES OF REVIEW AND STATEMENTS OF CONTINUATION

Within five years of an administrative rule's original enactment or last five-year review, the responsible agency is required to review the rule. This review is designed to remove obsolete rules from the *Utah Administrative Code*.

Upon reviewing a rule, an agency may: repeal the rule by filing a PROPOSED RULE; continue the rule as it is by filing a NOTICE OF REVIEW AND STATEMENT OF CONTINUATION (NOTICE); or amend the rule by filing a PROPOSED RULE and by filing a NOTICE. By filing a NOTICE, the agency indicates that the rule is still necessary.

NOTICES are not followed by the rule text. The rule text that is being continued may be found in the most recent edition of the *Utah Administrative Code*. The rule text may also be inspected at the agency or the Division of Administrative Rules. NOTICES are effective when filed. NOTICES are governed by *Utah Code* Section 63-46a-9 (1996).

Agriculture and Food, Regulatory Services **R70-630**

Water Vending Machine

FIVE-YEAR NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

DAR FILE NO.: 22596
FILED: 01/11/2000, 15:44
RECEIVED BY: NL

NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

CONCISE EXPLANATION OF THE PARTICULAR STATUTORY PROVISIONS UNDER WHICH THE RULE IS ENACTED AND HOW THESE PROVISIONS AUTHORIZE OR REQUIRE THE RULE: Title 4, Chapter 5, authorizes the Department of Agriculture and Food to make and enforce regulations pertaining to the Utah Wholesome Food Act.

SUMMARY OF WRITTEN COMMENTS RECEIVED DURING AND SINCE THE LAST FIVE-YEAR REVIEW OF THE RULE FROM INTERESTED PERSONS SUPPORTING OR OPPOSING THE RULE: No written comments were received.

REASONED JUSTIFICATION FOR CONTINUATION OF THE RULE, INCLUDING REASONS WHY THE AGENCY DISAGREES WITH COMMENTS IN OPPOSITION TO THE RULE, IF ANY: The Department of Agriculture and Food needs the water vending rule to set a standard for water vending machines and to regulate the treated water in case there might be a problem.

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Agriculture and Food
Regulatory Services
350 North Redwood Road
PO Box 146500
Salt Lake City, UT 84114-6500, or
at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Becky Shreeve at the above address, by phone at (801) 538-7149, by FAX at (801) 538-7126, or Internet E-mail at agmain.bshreeve@state.ut.us.

AUTHORIZED BY: Cary G. Peterson, Commissioner

EFFECTIVE: 01/11/2000



Labor Commission, Industrial Accidents **R612-8**

Designation of the Initial Assessment of Noncompliance Penalties as an "Informal" Proceeding

FIVE-YEAR NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

DAR FILE NO.: 22592
FILED: 01/03/2000, 15:11
RECEIVED BY: NL

NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

CONCISE EXPLANATION OF THE PARTICULAR STATUTORY PROVISIONS UNDER WHICH THE RULE IS ENACTED AND HOW THESE PROVISIONS AUTHORIZE OR REQUIRE THE RULE: Section 34A-1-104 of the Labor Commission Act, in conjunction with Section 63-46b-4 of the Administrative Procedures Act, authorizes the commission to designate various adjudicative proceedings as either "formal" or "informal." Section 34A-2-211 of the Workers' Compensation Act establishes an adjudicative procedure for assessing penalties against employers who fail to provide workers' compensation insurance coverage. Rule R612-8 designates the initial level of such proceedings as "informal," and any subsequent proceedings as "formal."

SUMMARY OF WRITTEN COMMENTS RECEIVED DURING AND SINCE THE LAST FIVE-YEAR REVIEW OF THE RULE FROM INTERESTED PERSONS SUPPORTING OR OPPOSING THE RULE: No written comments have been received either supporting or opposing the rule. Oral comments have supported the rule.

REASONED JUSTIFICATION FOR CONTINUATION OF THE RULE, INCLUDING REASONS WHY THE AGENCY DISAGREES WITH COMMENTS IN OPPOSITION TO THE RULE, IF ANY: Because the penalty assessment procedures of Section 34A-2-211 remain in effect, it remains necessary to designate the various components of that procedure as either "informal" or "formal" under the Administrative Procedures Act.

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Labor Commission
Industrial Accidents
Third Floor, Heber M. Wells Office Building
160 East 300 South
PO Box 146600
Salt Lake City, UT 84114-6600, or
at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Joyce Sewell at the above address, by phone at (801) 530-6988, by FAX at (801) 530-6804, or Internet E-mail at icmain.jsewell@email.state.ut.us.

AUTHORIZED BY: R. Lee Ellertson, Commissioner

EFFECTIVE: 01/03/2000

rulemaking process, or even the emergency rulemaking process established under Title 63. Although the statutory authorization for expedited rules instructs the director of the agency to establish a "procedure" to enact expedited rules, it was deemed prudent to codify this "procedure" in rule. Rule R850-10 establishes a procedure for promulgating "expedited" rules.

SUMMARY OF WRITTEN COMMENTS RECEIVED DURING AND SINCE THE LAST FIVE-YEAR REVIEW OF THE RULE FROM INTERESTED PERSONS SUPPORTING OR OPPOSING THE RULE: No comments have been received concerning this rule.

REASONED JUSTIFICATION FOR CONTINUATION OF THE RULE, INCLUDING REASONS WHY THE AGENCY DISAGREES WITH COMMENTS IN OPPOSITION TO THE RULE, IF ANY: The rule provides a structured, consistent approach to carry out the direction of the legislature as provided by statute in Subsection 53C-1-201(3)(a)(ii). The need to enact expedited rules continues to exist, and is expected to be necessary into the future as business needs change due to changing market places and the need to react quickly to time-sensitive business opportunities.

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

School and Institutional Trust Lands
Administration
Suite 500
675 East 500 South
Salt Lake City, UT 84102-2818, or
at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Kevin S. Carter at the above address, by phone at (801) 538-5100, by FAX at (801) 355-0922, or Internet E-mail at kcarter.tlmain@state.ut.us.

AUTHORIZED BY: Kevin S. Carter, Assistant Director-Surface

EFFECTIVE: 01/04/2000

◆ ————— ◆
**School and Institutional Trust Lands,
Administration
R850-10
Expedited Rulemaking**

**FIVE-YEAR NOTICE OF REVIEW AND
STATEMENT OF CONTINUATION**

DAR FILE NO.: 22594
FILED: 01/04/2000, 10:53
RECEIVED BY: NL

**NOTICE OF REVIEW AND
STATEMENT OF CONTINUATION**

CONCISE EXPLANATION OF THE PARTICULAR STATUTORY PROVISIONS UNDER WHICH THE RULE IS ENACTED AND HOW THESE PROVISIONS AUTHORIZE OR REQUIRE THE RULE: When this agency was created in 1994, the legislature recognized that agency duties and responsibilities were dissimilar to typical governmental functions (see Section 53C-1-102). Consequently, rulemaking flexibility was provided. Subsection 53C-1-201(3)(a)(ii) specifically authorizes an "expedited" rulemaking process, outside of the traditional

◆ ————— ◆
**End of the Five-Year Notices of Review
and Statements of Continuation Section**

NOTICES OF RULE EFFECTIVE DATES

These are the effective dates of PROPOSED RULES or CHANGES IN PROPOSED RULES published in earlier editions of the *Utah State Bulletin*. These effective dates are at least 31 days and not more than 120 days after the date the following rules were published.

Abbreviations

AMD = Amendment
CPR = Change in Proposed Rule
NEW = New Rule
R&R = Repeal and Reenact
REP = Repeal

Commerce

Occupational and Professional Licensing
No. 22482 (AMD): R156-57. Respiratory Care Practices Act Rules.
Published: December 1, 1999
Effective: January 4, 2000

No. 22507 (AMD): R156-71. Naturopathic Physician Practice Act Rules.
Published: December 1, 1999
Effective: January 4, 2000

Human Services

Recovery Services
No. 22487 (REP): R527-24. Good Cause.
Published: December 1, 1999
Effective: January 10, 2000

No. 22488 (AMD): R527-475. State Tax Refund Intercept.
Published: December 1, 1999
Effective: January 10, 2000

Insurance

Administration
No. 22506 (NEW): R590-198. Valuation of Life Insurance Policies Rule.
Published: December 1, 1999
Effective: January 4, 2000

Natural Resources

Parks and Recreation
No. 22474 (AMD): R651-611. Fee Schedule.
Published: November 15, 1999
Effective: January 3, 2000

Wildlife Resources
No. 22392 (AMD): R657-13. Taking Fish and Crayfish.
Published: October 15, 1999
Effective: January 3, 2000

Professional Practices Advisory Commission

Administration
No. 22504 (AMD): R686-100. Professional Practices Advisory Commission, Rules of Procedure: Complaints and Hearings.
Published: December 1, 1999
Effective: January 5, 2000

No. 22505 (AMD): R686-103. Professional Practices and Conduct for Utah Educators.
Published: December 1, 1999
Effective: January 5, 2000

End of the Notices of Rule Effective Dates Section

**RULES INDEX
BY AGENCY (CODE NUMBER)
AND
BY KEYWORD (SUBJECT)**

The *Rules Index* is a cumulative index that reflects all effective changes to Utah's administrative rules. The current *Index* lists changes made effective from January 2, 2000, including notices of effective date received through January 14, 2000, the effective dates of which are no later than February 1, 2000. The *Rules Index* is published in the *Utah State Bulletin* and in the annual *Index of Changes*. Nonsubstantive changes, while not published in the *Bulletin*, do become part of the *Utah Administrative Code (Code)* and are included in this *Index*, as well as 120-Day (Emergency) rules that do not become part of the *Code*. The rules are indexed by Agency (Code Number) and Keyword (Subject).

A copy of the *Rules Index* is available for public inspection at the Division of Administrative Rules (4120 State Office Building, Salt Lake City, UT), or may be viewed online at the Division's web site (<http://www.rules.state.ut.us/>).

RULES INDEX - BY AGENCY (CODE NUMBER)

ABBREVIATIONS

AMD = Amendment	NSC = Nonsubstantive rule change
CPR = Change in proposed rule	REP = Repeal
EMR = Emergency rule (120 day)	R&R = Repeal and reenact
NEW = New rule	* = Text too long to print in <i>Bulletin</i> , or repealed text not printed in <i>Bulletin</i>
5YR = Five-Year Review	
EXD = Expired	

CODE REFERENCE	TITLE	FILE NUMBER	ACTION	EFFECTIVE DATE	BULLETIN ISSUE/PAGE
AGRICULTURE AND FOOD					
<u>Regulatory Services</u>					
R70-630	Water Vending Machine	22596	5YR	01/11/2000	2000-3/91
COMMERCE					
<u>Occupational and Professional Licensing</u>					
R156-57	Respiratory Care Practices Act Rules	22482	AMD	01/04/2000	99-23/13
R156-71	Naturopathic Physician Practice Act Rules	22507	AMD	01/04/2000	99-23/14
HUMAN SERVICES					
<u>Recovery Services</u>					
R527-24	Good Cause	22487	REP	01/10/2000	99-23/86
R527-475	State Tax Refund Intercept	22488	AMD	01/10/2000	99-23/87
INSURANCE					
<u>Administration</u>					
R590-198	Valuation of Life Insurance Policies Rule	22506	NEW	01/04/2000	99-23/90

CODE REFERENCE	TITLE	FILE NUMBER	ACTION	EFFECTIVE DATE	BULLETIN ISSUE/PAGE
LABOR COMMISSION					
<u>Industrial Accidents</u>					
R612-8	Designation of the Initial Assessment of Noncompliance Penalties as an "Informal" Proceeding	22592	5YR	01/03/2000	2000-3/91
NATURAL RESOURCES					
<u>Parks and Recreation</u>					
R651-611	Fee Schedule	22474	AMD	01/03/2000	99-22/17
<u>Wildlife Resources</u>					
R657-13	Taking Fish and Crayfish	22392	AMD	01/03/2000	99-20/31
PROFESSIONAL PRACTICES ADVISORY COMMISSION					
<u>Administration</u>					
R686-100	Professional Practices Advisory Commission, Rules of Procedure: Complaints and Hearings	22504	AMD	01/05/2000	99-23/96
R686-103	Professional Practices and Conduct for Utah Educators	22505	AMD	01/05/2000	99-23/105
SCHOOL AND INSTITUTIONAL TRUST LANDS					
<u>Administration</u>					
R850-10	Expedited Rulemaking	22594	5YR	01/04/2000	2000-3/92

RULES INDEX - BY KEYWORD (SUBJECT)

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AMD = Amendment
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KEYWORD AGENCY	FILE NUMBER	CODE REFERENCE	ACTION	EFFECTIVE DATE	BULLETIN ISSUE/PAGE
ADMINISTRATIVE PROCEDURES					
School and Institutional Trust Lands, Administration	22594	R850-10	5YR	01/04/2000	2000-3/92
AFDC (Aid to Families with Dependent Children)					
Human Services, Recovery Services	22487	R527-24	REP	01/10/2000	99-23/86

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<u>KEYWORD</u> AGENCY	FILE NUMBER	CODE REFERENCE	ACTION	EFFECTIVE DATE	BULLETIN ISSUE/PAGE
<u>CHILD SUPPORT</u>					
Human Services, Recovery Services	22487	R527-24	REP	01/10/2000	99-23/86
	22488	R527-475	AMD	01/10/2000	99-23/87
<u>CONDUCT</u>					
Professional Practices Advisory Commission, Administration	22504	R686-100	AMD	01/05/2000	99-23/96
<u>DISCIPLINARY ACTIONS</u>					
Professional Practices Advisory Commission, Administration	22505	R686-103	AMD	01/05/2000	99-23/105
<u>EDUCATORS</u>					
Professional Practices Advisory Commission, Administration	22505	R686-103	AMD	01/05/2000	99-23/105
<u>FEES</u>					
Natural Resources, Parks and Recreation	22474	R651-611	AMD	01/03/2000	99-22/17
<u>FISH</u>					
Natural Resources, Wildlife Resources	22392	R657-13	AMD	01/03/2000	99-20/31
<u>FISHING</u>					
Natural Resources, Wildlife Resources	22392	R657-13	AMD	01/03/2000	99-20/31
<u>FOOD INSPECTION</u>					
Agriculture and Food, Regulatory Services	22596	R70-630	5YR	01/11/2000	2000-3/91
<u>GOOD CAUSE</u>					
Human Services, Recovery Services	22487	R527-24	REP	01/10/2000	99-23/86
<u>HEARINGS</u>					
Professional Practices Advisory Commission, Administration	22504	R686-100	AMD	01/05/2000	99-23/96
<u>INFORMAL ADJUDICATIVE PROCEEDINGS</u>					
Labor Commission, Industrial Accidents	22592	R612-8	5YR	01/03/2000	2000-3/91
<u>INSURANCE COMPANIES</u>					
Insurance, Administration	22506	R590-198	NEW	01/04/2000	99-23/90
<u>LICENSING</u>					
Commerce, Occupational and Professional Licensing	22482	R156-57	AMD	01/04/2000	99-23/13
	22507	R156-71	AMD	01/04/2000	99-23/14
<u>NATUROPATHIC PHYSICIANS</u>					
Commerce, Occupational and Professional Licensing	22507	R156-71	AMD	01/04/2000	99-23/14
<u>NATUROPATHS</u>					
Commerce, Occupational and Professional Licensing	22507	R156-71	AMD	01/04/2000	99-23/14
<u>PARKS</u>					
Natural Resources, Parks and Recreation	22474	R651-611	AMD	01/03/2000	99-22/17
<u>PENALTIES</u>					
Labor Commission, Industrial Accidents	22592	R612-8	5YR	01/03/2000	2000-3/91

<u>KEYWORD</u> AGENCY	FILE NUMBER	CODE REFERENCE	ACTION	EFFECTIVE DATE	BULLETIN ISSUE/PAGE
<u>RESPIRATORY CARE</u>					
Commerce, Occupational and Professional Licensing	22482	R156-57	AMD	01/04/2000	99-23/13
<u>RULEMAKING PROCEDURES</u>					
School and Institutional Trust Lands, Administration	22594	R850-10	5YR	01/04/2000	2000-3/92
<u>TEACHER CERTIFICATION</u>					
Professional Practices Advisory Commission, Administration	22504	R686-100	AMD	01/05/2000	99-23/96
<u>UNINSURED EMPLOYERS</u>					
Labor Commission, Industrial Accidents	22592	R612-8	5YR	01/03/2000	2000-3/91
<u>WILDLIFE</u>					
Natural Resources, Wildlife Resources	22392	R657-13	AMD	01/03/2000	99-20/31
<u>WILDLIFE LAW</u>					
Natural Resources, Wildlife Resources	22392	R657-13	AMD	01/03/2000	99-20/31
<u>WORKER'S COMPENSATION</u>					
Labor Commission, Industrial Accidents	22592	R612-8	5YR	01/03/2000	2000-3/91