## DEPARTMENT OF HEALTH, CENTER FOR HEALTH PROTECTION

**SUBJECT:** Control of Sources of Ionizing Radiation

**<u>DESCRIPTION</u>**: The Radiation Control Section is initiating the process for the revision of the Arkansas State Board of Health <u>Rules and Regulations for Control of Sources of Ionizing Radiation</u>. The Section regulates the possession and use of x-ray machines, accelerators, and radioactive material in the State of Arkansas. Revisions to radioactive material regulations are driven by our agreement with the U.S. Nuclear Regulatory Commission (NRC). The State of Arkansas, as an Agreement State, is expected to have regulations that are compatible with NRC regulations. In order to maintain this compatibility, the following NRC regulation amendments are being addressed, as listed below:

• Physical Protection of Byproduct Material – The objective of this rule is to provide reasonable assurance of preventing theft or diversion of Category 1 and Category 2 quantities of radioactive material. Category 1 and Category 2 thresholds are based on the quantities established by the International Atomic Energy Agency (IAEA) in its Code of Conduct on the Safety and Security of Radioactive Sources, which the NRC endorses. The regulations also include security requirements for the transportation of irradiated reactor fuel that weighs 100 grams or less in net weight of irradiated fuel. The rule affects any licensee that possesses an aggregated Category 1 or Category 2 quantity of radioactive material, any licensee that transports these materials using ground transportation, and any licensee that transports small quantities of irradiated reactor fuel.

(Sections 2, 3, 4, 9, and a new Section 12)

- Distribution of Source Material to Exempt Persons and to General Licensees and Revision of General License and Exemptions The purpose of this amendment is to require that the initial distribution of source material to exempt persons or to general licensees be explicitly authorized by a specific license, which includes new reporting requirements. The rule is intended to provide timely information on the types and quantities of source material distributed for use either under exemption or by general licensees. In addition, the rule modifies the existing possession and use requirements of the general license for small quantities of source material to better align the requirements with current health and safety standards. Finally, the rule revises, clarifies, or deletes certain source material exemptions from licensing to make the exemptions more risk informed. This rule affects manufacturers and distributors of certain products and materials containing source material and certain persons using source material under general license and exemptions from licensing. (Section 2)
- Safeguards Information Modified Handling Categorization, Change for Materials Facilities The objective of this rule is to remove the Safeguards Information Modified Handling (SGI-M) designation of the security-related information for large irradiators, manufacturers and distributors, and for transport of Category 1 quantities of radioactive material. The SGI-M designation will also be removed from security-related

information for the transportation of irradiated reactor fuel that weighs 100 grams or less in net weight of irradiated fuel. These types of security-related information will no longer be designated as SGI-M and will be protected under the physical protection of byproduct material regulations.

Also, the sections not in conjunction with a particular NRC regulation amendment have been added, revised, or deleted in keeping with NRC compatibility.

**PUBLIC COMMENT:** A public hearing was held on this rule on June 4, 2015. The public comment period expired June 4, 2015. The Department received the following public comment:

#### U.S. Nuclear Regulatory Commission

COMMENT: Arkansas' regulation states, "Special nuclear material means (1) plutonium, uranium 233, uranium enriched in the isotope 233 or in the isotope 235, and any other material which the Department, pursuant to the provisions of section 51 of the act, determines to be special nuclear material . . .". Arkansas has changed the word "Commission" to "Department". As the State cannot determine what is considered special nuclear material under the AEA, Arkansas needs to retain the reference to the NRC. Arkansas needs to make the above change in order to meet the Compatibility Category A designation assigned to 10 CFR Parts 70.4 and 20.1003.

**RESPONSE:** "Department" was made to say "Commission" in the added special nuclear material definition found in RH-200 and in the current special nuclear material definition found in RH-1100.

The proposed effective date for the final rule March 1, 2016.

**CONTROVERSY:** This is not expected to be controversial.

<u>FINANCIAL IMPACT</u>: This proposed rule impacts any licensee that possesses an aggregated Category 1 or Category 2 quantity of radioactive material and any licensee that transports these materials using ground transportation. Estimated increased cost is dependent on a multitude of factors.

Regarding the financial impact, the written findings include the following:

1) The potential financial impact regarding a portion of this rule package is due to a U.S. Nuclear Regulatory Commission amendment of its regulations to establish security requirements for the use and transport of Category 1 and Category 2 quantities of radioactive material. As an Agreement State, the State of Arkansas is required to have regulations that are compatible with NRC regulations. The NRC considers the aforementioned quantities of radioactive material to be risk significant and, therefore, to warrant additional protection. Category 1 and Category 2 thresholds are based on the quantities established by the International Atomic Energy Agency (IAEA) in its Code of Conduct on the Safety and Security of Radioactive Sources, which the NRC endorses.

The objective of this rule is to provide reasonable assurance of preventing theft or diversion of Category 1 and Category 2 quantities of radioactive material. The regulations also include security requirements for the transportation of irradiated reactor fuel that weighs 100 grams or less in net weight of irradiated fuel. The rule affects any licensee that possesses an aggregated Category 1 or Category 2 quantity of radioactive material, any licensee that transports these materials using ground transportation, and any licensee that transports small quantities of irradiated reactor fuel.

- 2) Pursuant to Section 274 of the Atomic Energy Act, 1954, the State of Arkansas, as a function of our Agreement State program, must have regulations that satisfy the compatibility and health and safety categories established in the NRC's Office of Nuclear Material Safety and Safeguards (NMSS) Procedure SA-200.
- 3) The NRC has long participated in efforts to ensure radioactive source protection and security. The terrorist attacks of September 11, 2001, heightened concerns about the use of risk-significant radioactive materials in a malevolent act. Such an attack is of particular concern because of the widespread use of radioactive materials in the United States by industrial, medical, and academic institutions. The theft or diversion of risk-significant quantities of radioactive materials could lead to their use in a radiological dispersal device (RDD) or a radiological exposure device (RED). Subsequently, the NRC issued various sets of orders to certain licensees, and, in turn, each Agreement State was required to issue legally binding requirements to impose enhanced security measures, identical to one of the NRC's sets of orders called the Increased Control Orders issued in 2005, for licensees under that State's regulatory jurisdiction. Agreement States also had to issue legally binding requirements consistent with a certain fingerprinting and FBI criminal history records checks order issued by the NRC in 2007.

The security requirements in the proposed rule are similar to the requirements imposed on licensees through the NRC's previously issued orders/Agreement State legally binding requirements. The NRC has determined that it is preferable to regulate through rulemaking rather than order because notice and comment rulemaking is an open and transparent process that facilitates public participation. In developing the final rule, the NRC considered, among other things, the various orders, lessons-learned during implementation, the recommendations from an Independent Review Panel and a Materials Working Group, and stakeholder comments. In NRC's final rule, some of the orders were deleted or revised, or new requirements were issued.

This rule would impose the minimum requirements that the NRC believes are necessary to adequately protect public health and safety. The rule provides some flexibility in the particular measures that a licensee can choose to employ in order to demonstrate compliance. Licensees have already implemented the bulk of the rule's requirements in response to previous NRC orders/Agreement State legally binding requirements. Some of the new proposed requirements may already be implemented if the licensee had chosen in the past to voluntarily enact the requirement, e.g., the developing of access authorization program or security program procedures.

The total cost to some licensees may be higher or lower than to others. The actual total cost depends on a multitude of factors including, but not limited to: the number of individuals granted unescorted access, the number of procedures that must be developed, the particular security measures that are used to meet the requirement, the extent of training to be given, and the number of Category 1 or Category 2 sources possessed and the location of the sources relative to other sources. Some of the actions required of the licensees may be conducted by lower paid employees, such as clerical staff. Also, over half of the Arkansas licensees affected by this portion of the proposed rule would be considered "out-of-state" licensees and therefore compliance with the NRC's amendment would have to be dually demonstrated. As such, certain costs/financial impact would be somewhat shared between States.

- 5) No alternatives to the proposed rule have been suggested as a result of public comment.
- 6) The State of Arkansas currently has no regulations specifically addressing the physical protection of Category 1 and Category 2 quantities of radioactive material.
- 7) Section 12 of the <u>Rules and Regulations for Control of Sources of Ionizing</u>
  <u>Radiation</u> regarding the physical protection of Category 1 and Category 2 quantities of radioactive material will be reviewed at least every ten years to determine, based upon the evidence, whether there remains a need for the rule.

**LEGAL AUTHORIZATION:** Ark. Code Ann. § 20-21-217 provides that the Department must require in its licensing and rules "applicable standards promulgated by the agency which are equivalent to or more stringent than standards adopted and enforced by the United States Nuclear Regulatory Commission".

Ark. Code Ann. § 20-21-207 requires the Department to develop programs and rules to regulate the control of ionizing radiation.

Ark. Code Ann. §§ 20-21-208 and 20-21-214 give the Department authority to "require registration or licensing of other sources of ionizing radiation".

Ark. Code Ann. § 20-21-213 requires the Department to promulgate rules "for general or specific licensing of accelerator-produced material, by-product material, source material, special nuclear material, or devices or equipment utilizing such material". Ark. Code Ann. § 20-21-213 provides in addition that this rule "shall provide for amendment, suspension, or revocation of licenses".

Ark. Code Ann. § 20-21-217 sets out a fee regime the Department may charge "associated with licensing and registration of sources of ionizing radiation. Ark. Code Ann. § 20-21-217 also requires the Department to charge a ten percent (10%) late fee. Ark. Code Ann. § 20-21-217 also provides a fee regime "associated with X-ray registrations.

Ark. Code Ann. § 20-21-204 provides that the Department may assess a civil penalty not to exceed five thousand dollars (\$5,000) to a person who violates any licensing or registration requirement issued by the Department or who violates the provisions of Ark. Code Ann. § 20-21-201 et seq. or the Department's rules.

10 CFR pts. 1-50 provide the federal regulatory structure of the Nuclear Regulatory Commission.

## <u>OUESTIONNAIRE FOR FILING PROPOSED RULES AND REGULATIONS</u> WITH THE ARKANSAS LEGISLATIVE COUNCIL AND JOINT INTERIM COMMITTEE

D	EPARTMENT/AGENC	Y Arkansas De	epartme	ent of Healtl	h				
DJ	IVISION	Center for H	ealth P	rotection					-
DI	VISION DIRECTOR	Donnie Smit	th	P0-4					
C	ONTACT PERSON	Bernard Bev	ill						
AJ	DDRESS	4815 W. Ma	rkham			AR 72	2205-3867		- <u></u>
N	HONE NO. (501) 66 AME OF PRESENTER EETING		NO. TEE	(501) 280 4407		AIL	bernard.be	evill@arkansas.	gov
ΡF	RESENTER E-MAIL	robert.brech@a	rkansas	s.gov			· · · · · · · · · · · · · · · · · · ·		
	<del>-</del>			TRUCTIO	<u>NS</u>			· · · · · · · · · · · · · · · · · · ·	
В.	Please make copies of Please answer each qualified necessary. If you have a method of this Rule" below. Submit two (2) copies two (2) copies of the p	estion <u>complet</u> of indexing you of this question roposed rule an	<u>ely</u> usi r rules maire :	ng layman i s, please giv and financi	e the prop	posed stater	citation afte	er "Short Title	
	Donna K. Davis Administrative Rules Review Section Arkansas Legislative Council Bureau of Legislative Research One Capitol Mall, 5 <sup>th</sup> Floor Little Rock, AR 72201								
	******		k****	******	******	*****	*******	******	
ı. rul	What is the short title o le?		s and F	Regulations	for Contro	ol of Sc	ources of Ior	nizing Radiation	<u>.                                    </u>
2. rul	What is the subject of the?	he proposed	the s Nucl regul	tate of Arka ear Regulat lations that a	insas. As a ory Comm are compa	an Agr nission tible w	reement Stat (NRC), Ark	active material is e with the U.S. cansas must have. The proposed ents.	e
3.	Is this rule required to co				_		Yes 🔀 Section 274 Act, 1954	No ☐ of Atomic Ene	rgy
4. ru	Was this rule filed under Procedure Act? If yes, what is the effectle?		-		Administr		Yes 🗌	No 🔀	···

ex	When does the emergency rule pire?
	Will this emergency rule be promulgated under the permanent provisions of the Administrative Procedure Act?  Yes No
5.	Is this a new rule? Yes No No If yes, please provide a brief summary explaining the regulation.
	Does this repeal an existing rule? Yes No No If yes, a copy of the repealed rule is to be included with your completed questionnaire. If it is being replaced with a new rule, please provide a summary of the rule giving an explanation of what the rule does.
rul	Is this an amendment to an existing e? Yes No  If yes, please attach a mark-up showing the changes in the existing rule and a summary of the substantive changes. Note: The summary should explain what the amendment does, and the mark-up copy should be clearly labeled "mark-up."
6.	Cite the state law that grants the authority for this proposed rule? If codified, please give the Arkansas Code citation. A.C.A. 20-21-203217
<u>ma</u> sta the	What is the purpose of this proposed rule? Why is it necessary? One purpose of the proposed rules is to ke the current Arkansas Rules compatible with the NRC. The changes to the rules also reflect the current te of radioactive material regulations within the NRC regulated states and other Agreement States. Lastly, regulations will improve general health and safety for the use of radioactive material.
8.	Please provide the address where this rule is publicly accessible in electronic form via the Internet as required by Arkansas Code § 25-19-108(b). <a href="https://www.healthy.arkansas.gov">www.healthy.arkansas.gov</a>
9.	Will a public hearing be held on this proposed rule? Yes No I  If yes, please complete the following:  Date: June 4, 2015  Time: 10:00 a.m.  5800 West 10 <sup>th</sup> Street, Room 906, Place: Little Rock, AR
	When does the public comment period expire for permanent promulgation? (Must provide a date.) ne 4, 2015
	What is the proposed effective date of this proposed rule? (Must provide a date.) blished by September 1, 2015 with an implementation/effective date of March 1, 2016
	Do you expect this rule to be controversial? Yes \( \subseteq \) No \( \subseteq \)

\*

If yes, please	
explain.	

13. Please give the names of persons, groups, or organizations that you expect to comment on these rules? Please provide their position (for or against) if known.

radioactive material licensees

## FINANCIAL IMPACT STATEMENT

## PLEASE ANSWER ALL QUESTIONS COMPLETELY

DEPARTMENT DIVISION		<b>IMENT</b>	Arkansas De	partment of Health			
		N	Center for Health Protection				
PE	RSON	I COMPLE	TING THIS	STATEMENT A	ngela Minden		
<b>TELEPHONE NO.</b> 2528		(501) FAX NO. 4407	EMAIL: ang	ela.minden@	inden@arkansas.gov		
To Sta	comp atemer	oly with Ark. at and file tw	Code Ann. § o copies with	25-15-204(e), pleas the questionnaire a	e complete the followir nd proposed rules.	ng Financial	Impact
SI	IORT	TITLE OF	THIS RULE	Rules and Regu Radiation	lations for Control of So	ources of Ion	izing
1.	Does	this propos	ed, amended, o	or repealed rule hav	e a financial impact?	Yes 🔀	No 🗌
2.	econ	omic, or oth	er evidence an	sonably obtainable d information availa alternatives to the r	scientific, technical, able concerning the ule?	Yes 🔀	No 🗌
3.	In co by th	nsideration of a generation of a generation of a generation of the second of the secon	of the alternati be the least co	ves to this rule, was stly rule considered	s this rule determined ?	Yes 🖂	No 🗌
	If an	agency is pr	oposing a mor	re costly rule, please	e state the following:		
	(a)	How the ad	ditional benefi	its of the more costl	y rule justify its additio	nal cost;	
	(b)	The reason	for adoption o	f the more costly ru	ile;		
	(c)	Whether the	e more costly i explain; and;	rule is based on the	interests of public healt	h, safety, or	welfare, and
	(d)	Whether the explain.	e reason is wit	hin the scope of the	agency's statutory auth	nority; and if	so, please
4.	If the	purpose of the	nis rule is to im	plement a federal ru	le or regulation, please st	ate the follow	ving:
	(a)	What is the	cost to impler	ment the federal rule	e or regulation?		
	<u>Cur</u>	rent Fiscal	<u>Year</u>		Next Fiscal Year		
	Fede Casl Spee	eral Revenu eral Funds h Funds cial Revenue er (Identify)			General Revenue Federal Funds Cash Funds Special Revenue Other (Identify)		

	Total	0	Total	0		
	(b) What is the ad	ditional cost of the	state rule?			
	Current Fiscal Y	<u>ear</u>	Next Fiscal Year	<u>:</u>		
	General Revenue		General Revenue			
Federal Funds Cash Funds						
			Cash Funds			
	Special Revenue		Special Revenue			
	Other (Identify)		Other (Identify)			
	Total	0	Total	_ 0		
Th	12068 ne proposed rule implicative material of	pacts any licensee that	\$\frac{10972}{\text{ransports these materials using gro}}	y 1 or Category 2 quantity of		
ra Es	stimated increased c	ost is dependent on	a multitude of factors. Please see W	ritten Findings.		
ra Es	What is the total e implement this rulaffected.	ost is dependent on stimated cost by fisc	a multitude of factors. Please see We cal year to state, county, and municing the program or grant? Please expl	ritten Findings.  pal government to ain how the government is		
rad Es	What is the total e implement this rulaffected.	ost is dependent on stimated cost by fisc	a multitude of factors. Please see W	ritten Findings.  pal government to ain how the government is		
ra Es	What is the total e implement this rulaffected.	ost is dependent on stimated cost by fisc	a multitude of factors. Please see We cal year to state, county, and municing the program or grant? Please expl	ritten Findings.  pal government to ain how the government is		
rad Es	What is the total e implement this rulaffected.	ost is dependent on stimated cost by fisc	a multitude of factors. Please see We cal year to state, county, and municing the program or grant? Please explements.  Next Fiscal Year or multiple states a multiple states	ritten Findings.  pal government to ain how the government is		
Es <u>C</u> 1	What is the total e implement this rul affected.  urrent Fiscal Year  0  With respect to the or obligation of at private entity, private	e agency's answers the least one hundred the	a multitude of factors. Please see We cal year to state, county, and municing the program or grant? Please explain to Questions #5 and #6 above, is the housand dollars (\$100,000) per year government, county government, mu	ritten Findings.  pal government to ain how the government is  Year  ere a new or increased cost to a private individual,		
Es <u>C</u> 1	What is the total e implement this rul affected.  urrent Fiscal Year  0  With respect to the or obligation of at private entity, private	e agency's answers least one hundred that business, state g	a multitude of factors. Please see We cal year to state, county, and municing the program or grant? Please explain to Questions #5 and #6 above, is the housand dollars (\$100,000) per year government, county government, mu	re a new or increased cost to a private individual, nicipal government, or to		
Es <u>C</u> :	What is the total e implement this rul affected.  urrent Fiscal Year  0  With respect to the or obligation of at private entity, private entity, private of filing the filling	e agency's answers the least one hundred the business, state go those entities combon is required by Ark inancial impact state.	a multitude of factors. Please see We cal year to state, county, and municing the program or grant? Please explorate to Questions #5 and #6 above, is the housand dollars (\$100,000) per year government, county government, multiplication.	re a new or increased cost to a private individual, nicipal government, or to		
ra. Es	What is the total e implement this rul affected.  urrent Fiscal Year  0  With respect to the or obligation of at private entity, private entity, private of filing the fixed with the financial	e agency's answers the least one hundred the business, state go those entities combon is required by Ark inancial impact state.	a multitude of factors. Please see We cal year to state, county, and municing the program or grant? Please explorate to Questions #5 and #6 above, is the housand dollars (\$100,000) per year government, county government, municipally and the program of the progr	re a new or increased cost to a private individual, nicipal government, or to		

- (3) a description of the factual evidence that:
  - (a) justifies the agency's need for the proposed rule; and
  - (b) describes how the benefits of the rule meet the relevant statutory objectives and justify the rule's costs;
- (4) a list of less costly alternatives to the proposed rule and the reasons why the alternatives do not adequately address the problem to be solved by the proposed rule;
- (5) a list of alternatives to the proposed rule that were suggested as a result of public comment and the reasons why the alternatives do not adequately address the problem to be solved by the proposed rule;
- (6) a statement of whether existing rules have created or contributed to the problem the agency seeks to address with the proposed rule and, if existing rules have created or contributed to the problem, an explanation of why amendment or repeal of the rule creating or contributing to the problem is not a sufficient response; and
- (7) an agency plan for review of the rule no less than every ten (10) years to determine whether, based upon the evidence, there remains a need for the rule including, without limitation, whether:
  - (a) the rule is achieving the statutory objectives;
  - (b) the benefits of the rule continue to justify its costs; and
  - (c) the rule can be amended or repealed to reduce costs while continuing to achieve the statutory objectives.

### WRITTEN FINDINGS

regarding April 2015 Proposed Revisions to

<u>Rules and Regulations for Control of Sources of Ionizing Radiation</u>

pursuant to A.C.A. §25-15-204(e)(4)

The Radiation Control Section offers the following written findings in conjunction with the Financial Impact Statement:

1) The potential financial impact regarding a portion of this rule package is due to a U.S. Nuclear Regulatory Commission amendment of its regulations to establish security requirements for the use and transport of Category 1 and Category 2 quantities of radioactive material. As an Agreement State, the State of Arkansas is required to have regulations that are compatible with NRC regulations. The NRC considers the aforementioned quantities of radioactive material to be risk significant and, therefore, to warrant additional protection. Category 1 and Category 2 thresholds are based on the quantities established by the International Atomic Energy Agency (IAEA) in its Code of Conduct on the Safety and Security of Radioactive Sources, which the NRC endorses.

The objective of this rule is to provide reasonable assurance of preventing theft or diversion of Category 1 and Category 2 quantities of radioactive material. The regulations also include security requirements for the transportation of irradiated reactor fuel that weighs 100 grams or less in net weight of irradiated fuel. The rule affects any licensee that possesses an aggregated Category 1 or Category 2 quantity of radioactive material, any licensee that transports these materials using ground transportation, and any licensee that transports small quantities of irradiated reactor fuel.

- 2) Pursuant to Section 274 of the Atomic Energy Act, 1954, the State of Arkansas, as a function of our Agreement State program, must have regulations that satisfy the compatibility and health and safety categories established in the NRC's Office of Nuclear Material Safety and Safeguards (NMSS) Procedure SA-200.
- The NRC has long participated in efforts to ensure radioactive source protection and security. The terrorist attacks of September 11, 2001, heightened concerns about the use of risk-significant radioactive materials in a malevolent act. Such an attack is of particular concern because of the widespread use of radioactive materials in the United States by industrial, medical, and academic institutions. The theft or diversion of risk-significant quantities of radioactive materials could lead to their use in a radiological dispersal device (RDD) or a radiological exposure device (RED). Subsequently, the NRC issued various sets of orders to certain licensees, and, in turn, each Agreement State was required to issue legally binding requirements to impose enhanced security measures, identical to one of the NRC's sets of orders called the Increased Control Orders issued in 2005, for licensees under that State's regulatory jurisdiction. Agreement States also had to issue legally binding requirements consistent with a certain fingerprinting and FBI criminal history records checks order issued by the NRC in 2007.

The security requirements in the proposed rule are similar to the requirements imposed on licensees through the NRC's previously issued orders/Agreement State legally binding requirements. The NRC has determined that it is preferable to regulate through rulemaking rather than order because notice and comment rulemaking is an open and transparent process that facilitates public participation. In developing the final rule, the NRC considered, among other things, the various orders, lessons-learned during implementation, the recommendations from an Independent Review Panel and a Materials Working Group, and stakeholder comments. In NRC's final rule, some of the orders were deleted or revised, or new requirements were issued.

4) This rule would impose the minimum requirements that the NRC believes are necessary to adequately protect public health and safety. The rule provides some flexibility in the particular measures that a licensee can choose to employ in order to demonstrate compliance. Licensees have already implemented the bulk of the rule's requirements in response to previous NRC orders/Agreement State legally binding requirements. Some of the new proposed requirements may already be implemented if the licensee had chosen in the past to voluntarily enact the requirement, e.g., the developing of access authorization program or security program procedures.

The total cost to some licensees may be higher or lower than to others. The actual total cost depends on a multitude of factors including, but not limited to: the number of individuals granted unescorted access, the number of procedures that must be developed, the particular security measures that are used to meet the requirement, the extent of training to be given, and the number of Category 1 or Category 2 sources possessed and the location of the sources relative to other sources. Some of the actions required of the licensees may be conducted by lower paid employees, such as clerical staff. Also, over half of the Arkansas licensees affected by this portion of the proposed rule would be considered "out-of-state" licensees and therefore compliance with the NRC's amendment would have to be dually demonstrated. As such, certain costs/financial impact would be somewhat shared between States.

- 5) No alternatives to the proposed rule have been suggested as a result of public comment.
- 6) The State of Arkansas currently has no regulations specifically addressing the physical protection of Category 1 and Category 2 quantities of radioactive material.
- 7) Section 12 of the <u>Rules and Regulations for Control of Sources of Ionizing Radiation</u> regarding the physical protection of Category 1 and Category 2 quantities of radioactive material will be reviewed at least every ten years to determine, based upon the evidence, whether there remains a need for the rule.

# PROPOSED REVISIONS TO THE ASBH RULES AND REGULATIONS FOR CONTROL OF SOURCES OF IONIZING RADIATION

#### **APRIL 2015 REGULATION PACKAGE**

The Radiation Control Section is initiating the process for the revision of the Arkansas State Board of Health Rules and Regulations for Control of Sources of Ionizing Radiation. The Section regulates the possession and use of x-ray machines, accelerators, and radioactive material in the State of Arkansas. Revisions to radioactive material regulations are driven by our agreement with the U.S. Nuclear Regulatory Commission (NRC). The State of Arkansas, as an Agreement State, is expected to have regulations that are compatible with NRC regulations. In order to maintain this compatibility, the following NRC regulation amendments are being addressed, as listed below:

- Physical Protection of Byproduct Material The objective of this rule is to provide reasonable assurance of preventing theft or diversion of Category 1 and Category 2 quantities of radioactive material. Category 1 and Category 2 thresholds are based on the quantities established by the International Atomic Energy Agency (IAEA) in its Code of Conduct on the Safety and Security of Radioactive Sources, which the NRC endorses. The regulations also include security requirements for the transportation of irradiated reactor fuel that weighs 100 grams or less in net weight of irradiated fuel. The rule affects any licensee that possesses an aggregated Category 1 or Category 2 quantity of radioactive material, any licensee that transports these materials using ground transportation, and any licensee that transports small quantities of irradiated reactor fuel. (Sections 2, 3, 4, 9, and a new Section 12)
- Distribution of Source Material to Exempt Persons and to General Licensees and Revision of General License and Exemptions The purpose of this amendment is to require that the initial distribution of source material to exempt persons or to general licensees be explicitly authorized by a specific license, which includes new reporting requirements. The rule is intended to provide timely information on the types and quantities of source material distributed for use either under exemption or by general licensees. In addition, the rule modifies the existing possession and use requirements of the general license for small quantities of source material to better align the requirements with current health and safety standards. Finally, the rule revises, clarifies, or deletes certain source material exemptions from licensing to make the exemptions more risk informed. This rule affects manufacturers and distributors of certain products and materials containing source material and certain persons using source material under general license and exemptions from licensing. (Section 2)
- Safeguards Information Modified Handling Categorization, Change for Materials Facilities The objective of this rule is to remove the Safeguards Information Modified Handling (SGI-M) designation of the security-related information for large irradiators, manufacturers and distributors, and for transport of Category 1 quantities of radioactive material. The SGI-M designation will also be removed from security-related information for the transportation of irradiated reactor fuel that weighs 100 grams or less in net weight of irradiated fuel. These types of security-related information will no longer be designated as SGI-M and will be protected under the physical protection of byproduct material regulations. (new Section 12)

Also, the following sections not in conjunction with a particular NRC regulation amendment have been added, revised, or deleted in keeping with NRC compatibility as well:

RH-102.	License Requirement (Purpose and Scope)
RH-200.	Definition of "principal activities"
RH-200. and 1100.	Definition of "special nuclear material"
RH-406.	Special Requirements for Specific Licenses of Broad Scope
RH-501.	Condition of Transfer (transfer of radioactive material)
RH-600.	Records (receipt, transfer, and disposal of radioactive material)
RH-1303.b.3.	Posting of Very High Radiation Areas
RH-1500.h.1.	Records of waste disposal
RH-1800.a. and b.	General Provisions (Purpose and scope; Application for a specific
(RH-405.f. moved to	license; Specific licenses for industrial radiography)
RH-1800.b.2. and revised)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
RH-7013.a.	Specific Licenses for Irradiators (specific license approval)
RH-8420.	Release of Individuals Containing Radioactive Drugs or Implants (authorizing release of individuals administered unsealed radioactive material or implants containing radioactive material)
RH-8552.b.	Safety Precautions (regarding individuals hospitalized for radiopharmaceutical therapy)
RH-8603.	Safety Instruction
	(regarding individuals hospitalized for implant therapy)
RH-8710.	Records of the Release of Individuals Containing Radioactive Drugs or Implants Containing Radioactive Material
RH-8803.	Reports of Patient Departure Prior to Authorized Release
	(without authorization under RH-8420.)
RH-8804.	Notification of Deceased Patients or Human Research Subjects Containing Radioactive Material
RH-104., 1003., 3003., 4003., 5004., 7003., 8006., 10003.,	Communications (Department/Radiation Control address)
RH-105., 1104., 3006., 4004., 5005., 7005., 8007., 10004.	Interpretations (by Department Director or designee)
RH-304., 1991., 2000., 3200., 5600.e., 7017.a., 8026., 10005.	Specific Exemptions (granting of exemptions by the Department)
RH-751., 2001.	Additional Requirements (imposed as necessary to minimize danger to public health and safety or property)
RH-601.a., 5602.	Inspections
RH-700.a., 2110.a., 3700., 5700.a., 7091.a., 8900.a., 10500.a.	Violations
RH-3700.b., 8900.b., 10500.b.	Impounding