

**DEPARTMENT OF NUCLEAR SAFETY**

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George H. Ryan  
Governor



Thomas W. Ortziger  
Director

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STATE OF ILLINOIS  
Pollution Control Board

April 4, 2002

Ms. Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board  
State of Illinois Center, Suite 11-500  
100 W. Randolph St.  
Chicago, IL 60601-3218

*P. e. #7*

Re: Docket R02-1/R02-12/R02-17

Dear Ms. Gunn:

The Illinois Department of Nuclear Safety ("Department") has reviewed the proposed rules in the above-referenced docket and submits these comments.

The Department is responsible for licensing radioactive material under the Radiation Protection Act of 1990. 420 ILCS 40/1. That responsibility extends to both radioactive materials licensed under the federal Atomic Energy Act of 1954 (i.e., source, byproduct and special nuclear material) and to radioactive materials not licensed under the Atomic Energy Act (i.e., naturally occurring or accelerator-produced radioactive material, commonly known as NARM). Under an agreement between the Governor and the Chairman of the United States Nuclear Regulatory Commission (NRC), the State, acting through the Department, licenses Illinois entities utilizing source, byproduct and special nuclear material, except entities licensed by the NRC. Notably, the NRC licenses nuclear power plants, federal facilities, a spent fuel storage facility and a uranium hexafluoride conversion facility. Facilities of the United States Department of Energy are self-regulated.

The Department supports elimination of unnecessary duplicative regulation of entities with materials regulated under both the Resource Conservation and Recovery Act (RCRA) and the Atomic Energy Act of 1954. The Department understands that the proposed regulations are "identical in substance" to regulations adopted by the United States Environmental Protection Agency (EPA). Since, however, the NRC does not regulate NARM, language employed by the EPA regarding low-level radioactive waste (LLRW) that would be regulated under RCRA reflects a more complicated approach than

is taken by the Department. The differences, which will be discussed in more detail in the comments below, begin with the EPA's definition of LLRW as including only "radioactive waste that contains source, special nuclear or byproduct material" and that does not meet the classification of one of three other types of radioactive waste while the Department's statutory and regulatory definitions of LLRW include "radioactive waste" that does not meet classification of one of the three other types of radioactive waste. Under the EPA's rules "mixed waste" means "waste that contains both RCRA hazardous waste and source, special nuclear, or byproduct material subject to the Atomic Energy Act of 1954" and, therefore, excludes NARM. Under Illinois statutes and regulations, however, "mixed waste" means waste that is both hazardous waste under RCRA and LLRW under Illinois law and, therefore, includes NARM.

The Department does not have a basis to assert that the semantical differences in the regulation of mixed NARM waste in any way endanger the public health and safety. NARM is regulated somewhat differently by states throughout the country, and we do not believe that the differences have posed any undue risks to the public health and safety.

The Department's regulations and the NRC's regulations contain provisions for exempt concentrations, exempt quantities and exempt items. 32 Ill. Adm. Code 330.30 and 330.40. The regulations also contain certain exemptions from disposal requirements. 32 Ill. Adm. Code Part 340, Subpart K. In addition, the Department is developing comprehensive regulations for one type of NARM known as technologically enhanced naturally occurring radioactive materials, or TENORM. The Department does not envision that protection of the public health and safety will require disposal of TENORM only at facilities licensed under NRC's Part 61 rules or Agreement State equivalent rules. It is unclear how the Board's proposed rules would affect materials that fall within the definition of "low-level radioactive waste" but are also exempt from licensing requirements under the Department's and NRC's rules. The Department presumes that since such materials are not subject to regulatory controls under radiation safety regulations, the exemptions in the Board's proposed rules would not apply and that applicable RCRA permitting requirements must be complied with. The Board may wish to clarify this matter.

### Specific Comments

#### Section 726.310 Definitions

##### "DNS"

The definition recognizes that the Department regulates byproduct, source and special nuclear material under agreement between the State and the NRC but does not recognize that the Department is also responsible under 420 ILCS 20/12

for regulating radioactive materials not regulated by the NRC. The Department suggests that the definition be modified to read as follows:

“DNS” means the Department of Nuclear Safety, the State of Illinois agency responsible for regulating byproduct, source, and special nuclear material in Illinois in accordance with an agreement between the State and the federal Nuclear Regulatory Commission (NRC) under section 274(b) of the federal Atomic Energy Act of 1954, as amended (42 USC 2021(b)) and for regulating radioactive materials not licensed by the NRC in accordance with the Radiation Protection Act of 1990.

"Eligible naturally occurring or accelerator-produced radioactive material"

This definition is necessary only because the EPA, unlike the Department, does not recognize that mixed waste may include NARM. The definition is generally acceptable to the Department, but should be modified to allow for the possibility that the waste might lawfully be disposed of at a licensed facility in another state. The only facility that accepts mixed NARM from throughout the country for disposal at the current time is the facility in Clive, Utah, which is operated by Envirocare of Utah, Inc. Additionally, the Board Note after the definition does not recognize that some of the relevant Department regulations are in Subchapter d of 32 Ill. Adm. Code: Chapter II. The Department suggests that the definition be modified to read as follows:

"Eligible naturally occurring or accelerator-produced radioactive material" means naturally occurring or accelerator-produced radioactive material (NARM) that is eligible for a transportation and disposal conditional exemption. It is a NARM waste that contains RCRA hazardous waste, meets the waste acceptance criteria of, and is allowed by State NARM regulations to be disposed of at a disposal facility licensed in accordance with 10 CFR 61, DNS regulations or the regulations of a licensing agency in another state.

BOARD NOTE: The relevant Illinois DNS regulations are codified at 32 Ill. Adm. Code: Chapter II, Subchapters b and d.

"Low-level radioactive waste"

The term is defined in the proposed rules as follows:

"Low-level radioactive waste" or "LLW" is a radioactive waste that contains source, special nuclear, or byproduct material and which is not classified as high-level radioactive waste, transuranic waste, spent nuclear fuel, or byproduct material, as defined in section 11(e)(2) of the Atomic

Energy Act of 1954 (42 USC 2014(e)(2)). (See also the NRC definition of waste at 10 CFR 61.2.)

The Department recognizes that "low-level radioactive waste" is defined as it is defined in the EPA's rules. The Department points out that this definition of the term is not the same as the definition in the Low-Level Radioactive Waste Management Act (420 ILCS 20/3 (k)), the Department's rules (20 Ill. Adm. Code 606.20 g)) and the Central Midwest Interstate Low-Level Radioactive Waste Compact (45 ILCS 140/1, Article II k.). For its regulatory purposes, the Department considers "low-level radioactive waste" to have the following meaning from 20 Ill. Adm. Code 606.20 g):

radioactive waste not classified as high-level radioactive waste as defined in Section 2 of the Nuclear Waste Policy Act of 1982, 42 U.S.C. 10101, transuranic waste, spent nuclear fuel or byproduct material as defined in Section 11e(2) of the Atomic Energy Act of 1954, 42 U.S.C. 2014. Except when otherwise indicated in the rules, low-level radioactive waste includes "mixed waste."

Additionally, the Department prefers "LLRW" to "LLW."

"Low-level radioactive waste disposal facility" or "LLRWDF"

The Department's suggested revision of the definition of "Eligible naturally occurring or accelerator-produced radioactive material" deletes the language defining "Low-level radioactive waste disposal facility" or "LLRWDF." The Department suggests that a definition be added for that term, providing as follows:

"Low-level radioactive waste disposal facility" or "LLRWDF" means a disposal facility licensed by the NRC under 10 CFR 61, by the Illinois DNS under 32 Ill. Adm. Code: Chapter II, Subchapters b and d, or by a licensing agency in another state.

"Mixed waste"

The term is defined in the proposed rules as follows:

"Mixed waste" means a waste that contains both RCRA hazardous waste and source, special nuclear, or byproduct material subject to the Atomic Energy Act of 1954, as amended (42 USC 2014 et seq.).

The Department recognizes that the term "mixed waste" is defined as

it is defined in the EPA's rules. The Department points out that this definition of the term is not the same as the definition in the Low-Level Radioactive Waste Management Act (420 ILCS 20/3 (1)) and the Department's rules (20 Ill. Adm. Code 606.20 h)). For its regulatory purposes, the Department considers "mixed waste" to have the following meaning from 20 Ill. Adm. Code 606.20 h):

"Mixed Waste" means waste that is both "hazardous waste" and "low-level radioactive waste" as defined in [the Low-Level Radioactive Waste Management Act].

The Department considers that mixed waste may include either NARM or radioactive materials regulated under the Atomic Energy Act of 1954.

"Naturally occurring or accelerator-produced radioactive material" or "NARM"

While the proposed rule recognizes that NARM is regulated by the Department and the U.S. Department of Energy (DOE), it does not recognize that some of the relevant Department regulations are in Subchapter d of 32 Ill. Adm. Code: Chapter II or that DOE regulates NARM under both regulations and orders. The Department suggests that the Board Note for the definition be modified to read as follows:

BOARD NOTE: NARM is regulated by the State, under the Radiation Protection Act of 1990 [420 ILCS 40] and 32 Ill. Adm. Code: Chapter II, Subchapters b and d, or by the federal Department of Energy (DOE), as authorized by the federal Atomic Energy Act (42 USC 2014 et seq.), under DOE regulations and orders.

Section 726.325 Wastes Eligible for a Storage and Treatment Conditional Exemption for Low-Level Mixed Waste

Under the proposed rule, "low-level mixed waste" is eligible for a storage and treatment conditional exemption, while "NARM waste" is not. The Department has no objection to this provision but points out that the Department considers "mixed waste" to include NARM waste regulated under RCRA. The Department suggests that the Pollution Control Board may wish at some time in the future to reconsider allowing "NARM waste" to be eligible for a storage and treatment conditional exemption.

Section 726.330 Conditional exemption

The proposed rules in 726.330 a), 726.340 a) 1), 726.445 a), 726.455 a) 1) and 726.460 a) 2) are inconsistent on when notifications are to be provided to the Department. The Department suggests that notifications should be provided when the exemptions are claimed, when they are lost and when they are reclaimed. The Department suggests that the first sentence in 726.330 a) should be modified to read as follows:

For LLMW to qualify for the exemption the generator must notify the Agency and the Illinois DNS in writing by certified delivery that it is claiming a storage and treatment conditional exemption for the LLMW stored on the generator's facility.

Section 726.340 Loss of a Storage and Treatment Conditional Exemption and Required Action

The proposed rule provides that a generator must notify the Agency within 24 hours if it fails to meet any of the conditions for the storage and treatment conditional exemption and the failure may endanger human health or the environment. In such a situation, the Department should also be notified. The Department suggests modifying the first sentence in 725.340 a) 2) to read as follows:

If the failure to meet any of the conditions may endanger human health or the environment, the generator must also immediately notify the Agency and the Illinois DNS orally within 24 hours and follow up with a written notification within five days.

Section 726.410 Wastes Eligible for a Transportation and Disposal Conditional Exemption

The proposed rule provides as follows:

Eligible waste must be one or both of the following:

- a) A low-level mixed waste (LLMW), as defined in Section 726.310, that meets the waste acceptance criteria of a LLRWDF; or
- b) An eligible NARM waste, defined in Section 726.310.

The Department considers mixed waste to include NARM waste regulated under RCRA and does not, therefore, use the concept of "eligible NARM waste."

### Section 726.430 Effectiveness of a Transportation and Disposal Exemption

One of the conditions precedent for the exemption to become effective is that "the generator has placed its waste on a transportation vehicle destined for a LLRWDF licensed by the federal NRC or the Illinois DNS." There is no reason that the exemption should not be effective if the vehicle is destined for a facility duly licensed by a state agency in another state. The Department suggests that paragraph d) be modified to read as follows:

- d) The generator has placed its waste on a transportation vehicle destined for a LLRWDF licensed by the federal NRC, the Illinois DNS, or a licensing agency in another state.

### Section 726.435 Disposal of Exempted Waste

The proposed rule provides that the exempted waste must be disposed of in a LLRWDF licensed by NRC under 10 CFR Part 61 or a disposal facility licensed by the Department under 32 Ill. Adm. Code 606. There is no reason not to allow the waste to be disposed of at a facility duly licensed by a state agency in another state. In addition, Part 606 is only one of the parts of the Department's rules pertaining to low-level radioactive waste disposal. A better citation would reference the Department's rules in 32 Ill. Adm. Code: Chapter II, Subchapters b and d. Accordingly, the Department suggests modifying the proposed rule to read as follows:

A generator's exempted waste must be disposed of in a LLRWDF that is regulated and licensed by the federal NRC under 10 CFR 61, by the Illinois DNS under 32 Ill. Adm. Code: Chapter II, Subchapters b and d, or by a licensing agency in another state.

### 726.445 Notifications

The proposed rules in 726.330 a), 726.340 a) 1), 726.445 a), 726.455 a) 1) and 726.460 a) 2) are inconsistent on when notifications are to be provided to the Department. The Department suggests that notifications should be provided when the exemptions are claimed, when they are lost and when they are reclaimed. The Department suggests that the first sentence in 726.445 a) should be modified to read as follows:

A generator must provide a one time notice to the Agency and the Illinois DNS stating that it is claiming the transportation and disposal conditional exemption prior to the initial shipment of an exempted waste from the generator's facility to a LLWDF.

726.455 Loss of a Transportation and Disposal Conditional Exemption and Required Action

The proposed rules in 726.330 a), 726.340 a) 1), 726.445 a), 726.455 a) 1) and 726.460 a) 2) are inconsistent on when notifications are to be provided to the Department. The Department suggests that notifications should be provided when the exemptions are claimed, when they are lost and when they are reclaimed. The Department suggests that the first sentence in 726.455 a) 1) should be modified to read as follows:

When the generator fails to meet any of the conditions specified in Section 726.415 for any of its wastes, the generator must report to the Agency and the Illinois DNS, in writing by certified delivery, within 20 days of learning of the failure.

726.460 Reclaiming a Lost Transportation and Disposal Conditional Exemption

The proposed rules in 726.330 a), 726.340 a) 1), 726.445 a), 726.455 a) 1) and 726.460 a) 2) are inconsistent on when notifications are to be provided to the Department. The Department suggests that notifications should be provided when the exemptions are claimed, when they are lost and when they are reclaimed. The Department suggests that the first sentence in 726.460 a) 2) should be modified to read as follows:

The generator sends a notice, by certified delivery, to the Agency and the Illinois DNS that the generator is reclaiming the exemption for the waste.

Miscellaneous comments

The proposed regulations refer in various places to the classes of radioactive materials regulated by NRC under the Atomic Energy Act of 1954 and by the Department pursuant to the agreement between the NRC and the State. The proposed regulations use the phrases "byproduct, source or special nuclear material" and "source, special nuclear, or byproduct material." The Department suggests that consistent phraseology be used throughout. The Department's preferred phrase, based on language in Section 2 of the Atomic Energy Act of 1954, is "source, byproduct or special nuclear material." 42 U.S.C. 2012. As used in the definition of "DNS" in 726.310, the phrase would read "source, byproduct and special nuclear material."

The citation to the Code of Federal Regulations in Section 726.425 should be "10 CFR 71.5" instead of "10 CFR 1.5."

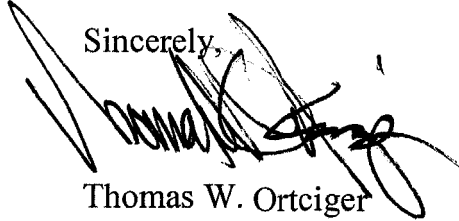
Although the proposed rules provide for numerous notices to the Agency, and the Department has suggested that additional notices be provided to the Department, the rules provide for notice to the NRC in only one instance--726.340 a) 1). The Board may wish



to confirm with the USEPA and the NRC when notices should be provided to NRC. Additionally, the Board may wish to include the NRC address to which the notices are to be provided.

Thank you for the opportunity to review and comment on the Board's proposed rules. If you have any questions regarding the Department's comments please contact the Department's Chief Legal Counsel, Stephen J. England, at 217/524-5652.

Sincerely,

A handwritten signature in black ink, appearing to read 'Thomas W. Ortziger', written over a faint, illegible typed name.

Thomas W. Ortziger  
Director

TWO:kw



**CERTIFICATE OF SERVICE**

I, Stephen J. England, Chief Legal Counsel for the Illinois Department of Nuclear Safety, hereby certifies that an original and nine copies of the attached comments on Dockets R02-1, R02-12 and R02-17 were mailed by First Class Mail to the Clerk of the Illinois Pollution Control Board at the following address:

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Illinois Pollution Control Board  
James R. Thompson Center  
100 West Randolph Street  
Suite 11-500  
Chicago, IL 60601

along with a copy to each of the following:

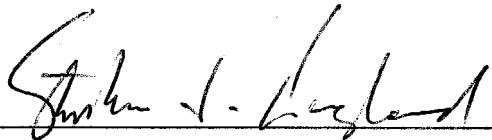
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Date: April 4, 2002

  
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