



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

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MEMORANDUM FOR: G. Wayne Kerr, Director  
Office of State Programs

FROM: William J. Olmstead  
Director and Chief Counsel  
Regulations Division  
Office of the Executive Legal Director

SUBJECT: DRAFT PROPOSAL FROM ILLINOIS FOR AGREEMENT STATE STATUS

We have reviewed the draft proposal from Illinois for a § 274b agreement with NRC. Our detailed comments (Enclosure A) on the Draft Agreement, Draft Letter from the Governor, Illinois Statutes and Illinois Regulations are attached. In view of our prior review of the Illinois Statutes, 1/ our comments on the volume of statutes submitted by Illinois as part of its draft application for Agreement State status are relatively brief. While we believe there are no significant discrepancies between the statutes previously reviewed and those submitted with the Illinois draft application, we have not performed a word-for-word comparison of the respective texts. Also attached (Enclosure C) is a separate analysis which identifies the extent to which the Illinois statutes and regulations meet the criteria in the NRC Statement of Policy for guidance of States and NRC in discontinuance of NRC regulatory authority and assumption of regulatory authority by States through a § 274b agreement.

We have reviewed the State's Program Statement and found the account of the activities of the Office of Nuclear Facility Safety (see pp. 31-37) which relate principally to nuclear power reactors, of particular interest. 2/ It is

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- 1/ See Memorandum of August 9, 1984 from William J. Olmstead to Donald A. Nussbaumer re: Review of Illinois Enabling Legislation Regarding Agreement State Status (Enclosure B).
- 2/ With respect to this matter, the powers vested in the Department of Nuclear Safety by its Enabling Act, including powers stemming from the Illinois Boiler and Pressure Vessel Safety Act, are also of interest. In addition, see paragraph 218a of the Illinois Radiation Protection Act authorizing the Department of Nuclear Safety "to enter into . . . agreements with the Federal Government . . . whereby this State will perform on a co-operative basis with the Federal Government . . . inspections or other functions relating to control of sources of ionizing radiation."

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our understanding that Illinois is performing these activities in accordance with the provisions of a broad Memorandum of Understanding entered into by NRC and Illinois under the authority of § 274i of the Atomic Energy Act of 1954, as amended (49 FR 20586, May 15, 1984). Section 274i authorizes the NRC to enter into agreements under which States may undertake to perform certain NRC functions for the Commission.

Article II of the proposed § 274b Agreement with Illinois states, in part, that:

"This Agreement does not provide for discontinuance of any authority and the Commission shall retain authority and responsibility with respect to regulation of:

"A. The construction and operation of any production or utilization facility; . . ."

We assume Illinois is fully aware of the fact that its activities with respect to nuclear power reactors (see Program Statement at pp. 31-37) are not among the activities transferred to the State under the provisions of the proposed § 274b Agreement. (Also see comment on this topic in Memorandum of August 9, 1984 on "Review of Illinois Enabling Legislation Regarding Agreement State Status," (Enclosure B at pp. 1-2.) To avoid any misunderstanding on this point, we recommend that in providing comments to Illinois, NRC explicitly state that with respect to regulation of nuclear power reactors, the NRC retains full regulatory authority and that any State activities in connection with the nuclear safety of design or operation of nuclear reactor facilities would be limited to activities carried out under agreements pursuant to § 274i of the Atomic Energy Act.

With respect to the transfer of regulatory control over the Sheffield low-level radioactive waste disposal site, the following procedures are recommended:

1. The Commission paper should state specifically that jurisdiction over the Sheffield site will be relinquished to the State under the Agreement. For this purpose, following legal precedent, 3/ special nuclear

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3/ See Memorandum of July 7, 1964 from Joseph F. Hennessey, General Counsel to Harold L. Price, Director of Regulation re: "Land Burial of Special Nuclear Material in Agreement States" which states in part:

"The key issue here is whether or not buried special nuclear material must be deemed, under the Commission's present regulations, to be still 'possessed or used' by the burial ground

material buried in the trenches is not counted in determining if there is more than a critical mass. The Federal Register Notice should also expressly note that jurisdiction over the site will be relinquished to the State, and that upon execution of the Agreement the NRC will request the Atomic Safety and Licensing Board to terminate the present proceeding (Docket No. 27-29 SC).

2. After execution of the Agreement, NRC Staff Counsel will move the Board to terminate the proceeding on the ground that the NRC no longer has jurisdiction over the subject matter of the proceeding, having relinquished jurisdiction to the State of Illinois.

3. Upon issuance of a Board order terminating the proceeding, the NRC staff will transfer the license and associated records, including the docket file, to the State of Illinois in the normal course of business.

It is unclear from a review of the proposed agreement whether Illinois proposes to assume jurisdiction over the radioactive wastes found in Kress Creek and the West Branch of the DuPage River located in and around West Chicago, DuPage County. The Licensing Board in the enforcement proceeding related to Kress Creek has ruled that the proponents of the show cause order (the NRC staff and the State of Illinois, an Intervenor) must demonstrate that the thorium-contaminated wastes are source material under the Atomic Energy Act. Assuming this can be demonstrated, the wastes would then appear to fall within Illinois' proposed jurisdiction since it would assume

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(FOOTNOTE CONTINUED FROM PREVIOUS PAGE)

operator. In my opinion, special nuclear material which has been disposed of by land burial is no longer 'possessed or used' by the burial ground operator within the meaning of those terms as set forth in § 150.11(b). This interpretation is clearly consistent with the Commission's policies . . . [and] I am aware of no reason why § 150.11(b) should not be considered a valid exercise of Commission discretion under section 274 of the Act. Consequently, only those amounts of special nuclear material which are unburied need be taken into account in determining whether or not a burial ground operator is in possession of an amount sufficient to form a critical mass.

"This interpretation is also consistent with the Commission's past and present practice in connection with the regulation of the burial ground operated by Nuclear Engineering Company, Incorporated, in Nevada (a non-agreement State). It is my understanding that the quantity limitation imposed upon the licensee as a license condition with respect to his possession of special nuclear material has been construed and administered as applying only to the unburied material."

jurisdiction over source material in that State. The Licensing Board has, however, also ruled that the proponents may seek to demonstrate that the EPA standards for thorium mill tailings promulgated under the Uranium Mill Tailings Radiation Control Act are appropriate for application in the Kress Creek proceeding. In the proposed agreement, Illinois would not assume jurisdiction over mill tailings. Under the circumstances, you may wish to include in the NRC's comments on the proposed agreement a question as to whether Illinois proposes to assume jurisdiction over the thorium-contaminated wastes in Kress Creek and the West Branch of the DuPage River.

It is our understanding of the Illinois submittal that Illinois would not be accepting jurisdiction under the agreement over the Kerr-McGee West Chicago Rare Earths Facility. All the parties in that proceeding (Docket No. 40-2061-ML) agree that the wastes result from the extraction of source material from source material ore, and are therefore byproduct material within the meaning of § 11e(2) of the Atomic Energy Act of 1954, as amended. Illinois has specifically excluded § 11e(2) byproduct material from the provisions of the proposed § 274b Agreement. However, as a party in the West Chicago proceeding, Illinois has evidenced deep interest in the disposal of the West Chicago wastes. We suggest that the Commission be informed of Illinois' interest in the West Chicago matter. In view of this interest, the Commission may wish to consider, as a matter of policy, whether the position of Illinois with respect to the exclusion of § 11e(2) byproduct material from the proposed agreement is acceptable. So far as we are aware, there is no evidence that other uranium or source material milling activities are likely to be conducted in Illinois in the future. Thus the question of policy relates solely to jurisdiction over the West Chicago Rare Earths Facility.

*As a matter of  
policy the  
Commission  
has already  
stated to be  
no defined  
11e(2) byproduct  
excluded*

*William J. Olmstead*

William J. Olmstead  
Director and Chief Counsel  
Regulations Division  
Office of the Executive Legal Director

Enclosures:

- A. Detailed OELD Comments on Draft  
Proposal from Illinois for  
Agreement State Status
- B. Memorandum of August 9, 1984 from  
William J. Olmstead to Donald A.  
Nussbaumer re: Review of Illinois  
Enabling Legislation Regarding  
Agreement State Status
- C. OELD Analysis of Illinois Statutes  
and Regulations from Standpoint  
of NRC Criteria

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Enclosure A

DETAILED OELD COMMENTS ON DRAFT PROPOSAL  
FROM ILLINOIS FOR AGREEMENT STATE STATUS

Draft Agreement

The preamble of the draft agreement does not contain a statement acknowledging the required certification by the Governor. The following text should be inserted immediately following the second "Whereas" paragraph:

"WHEREAS, the Governor of the State of Illinois certified on \_\_\_\_\_ that the State of Illinois (hereinafter referred to as the State) has a program for the control of radiation hazards adequate to protect the public health and safety with respect to the materials within the State covered by this Agreement, and that the State desires to assume regulatory responsibility for such materials; and"

Some minor typographical corrections are marked directly on the draft agreement.

Draft Letter from the Governor

Since the Governor's certification is an essential statutory requirement, the language used (see first sentence on page 2 of the Governor's letter) should track the exact language used in § 274d(1) of the Atomic Energy Act of 1954, as amended. Accordingly, the sentence referred to should be revised to read as follows:

"I certify that the State of Illinois has a program for the control of radiation hazards adequate to protect the public health and safety with respect to the materials within the State covered by the proposed agreement, and that the State desires to assume regulatory responsibility for such materials."

We would recommend that the description of the materials covered by the proposed agreement, as set out on the first page of the Governor's draft letter, be identical to that used in Article I of the agreement. The statutory reference on page 1, line 3 of the draft letter should be changed from "Section 274" to "Section 274b."

Illinois Statutes

In support of its application for a § 274b agreement with NRC, Illinois has submitted the texts of twelve statutes, including the Central Midwest Interstate Low-Level Radioactive Waste Compact, for review. These statutes



were previously reviewed by this office and our views were furnished to Donald A. Nussbaumer, Office of State Programs, by memorandum dated August 9, 1984 (Enclosure B). To the views expressed in that memorandum, we would add the following comments.

Both the Illinois Environmental Protection Act (see par. 1042) and the Low-Level Radioactive Waste Management Act authorize the imposition of civil penalties.

The Illinois Act to require the registration of radiation installations should be added to the list of laws identified on p. 2 of the August 9, 1984 memorandum as addressing matters affecting nuclear power reactors. Although originally enacted in 1957, prior to the construction and operation of any commercial nuclear power plants in the State of Illinois, the language of this Act, which requires the registration of radiation installations and authorizes Illinois to investigate and inspect (see § 4) those installations, is broad enough to include nuclear power plants.

As defined in § 1(d) of the Act, the term "radiation installation" means "any location or facility . . . where radioactive material is produced, transported, stored, disposed or used for any purpose." The identical definition is also used in par. 213.7 of the Illinois Radiation Protection Act. The term "radioactive material" as defined in § 1(c) means "any material, solid, liquid or gas which emits radiation spontaneously." Section 5 of the Act provides that "[t]he conducting of any business or the carrying on of activities within a radiation installation without registering such installation or without complying with the provisions of this Act in regard to such installation is declared to be inimical to the public welfare and public safety and to constitute a public nuisance." Section 5 of the Act authorizes the Attorney General to bring an injunction action against any operator of a radiation installation who fails to comply with the provisions of the Act. Operators of radiation installations are also subject to criminal penalties for noncompliance (see § 6.)

On the basis of this analysis, it is our opinion that attempts by Illinois to implement and enforce the requirements of the Radiation Installations Act against nuclear power plant operators could be struck down on the theory that these requirements concern matters subject to the exclusive jurisdiction of the NRC. 1/

Some of the broad powers accorded the Illinois Department of Nuclear Safety by its Enabling Act, including those relating to the formulation of a general nuclear policy for Illinois and the formulation of a comprehensive State plan

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1/ In this connection, see § 216a of the Illinois Radiation Protection Act which states, in part: "(4) Rules and Regulations promulgated to [sic] this Act may provide for recognition of other State or Federal licenses as the Department may deem desirable, subject to such registration requirements as the Department may prescribe." (Emphasis supplied.)

for the transportation of nuclear and radioactive materials, may also trench on areas reserved exclusively to NRC.

### Illinois Regulations

We have compared the following Parts of the Illinois Regulations with the 1982 Edition of the Suggested State Regulations (hereafter SSR) and with the parallel provisions of the NRC regulations. Specific comments on the Parts identified by an asterisk are set out below.

- \*Part 200 - Administrative Hearings
- \*Part 310 - General Provisions
- \*Part 320 - Registration
- \*Part 330 - Licensing of Radioactive Material
- \*Part 331 - Fees for Radioactive Material Licenses
- \*Part 340 - Standards for Protection Against Radiation
- \*Part 341 - Transportation of Radioactive Material
- Part 350 - Radiation Safety Requirements for Industrial Radiographic Operations
- \*Part 351 - Radiation Safety Requirements for Wireline Service Operations and Subsurface Tracer Studies
- \*Part 370 - Use of Sealed Radioactive Sources in the Healing Arts
- Part 400 - Notices, Instructions and Reports to Workers; Inspections
- \*Part 601 - Licensing Requirements for Land Disposal of Radioactive Waste

Since the NRC does not have jurisdiction over X-rays, NARM or accelerator-produced radioisotopes, Parts 360, 380 and 390 which relate to these matters were not reviewed.

### Part 200 - Administrative Hearings

The following typos should be corrected:

Page 7, 4th line from the bottom - Delete the word "men" so that the corrected text reads "reasonably prudent persons in the conduct"

Page 10, 3rd line from the bottom - Insert the word "provision" between the third and fourth words, so that the corrected text reads "Compliance with any provision of this Part or with any or all . . ."

### Part 310 - General Provisions

#### Section 310.1 - Scope

Section 310.1, Scope, should be revised to track the text of Sec. A.1 of the SSR exactly. The words "where the Department maintains jurisdiction for

regulating such sources of radiation" should be deleted and replaced by the following: "provided, however, that nothing in these regulations shall apply to any person to the extent such person is subject to regulation by the U.S. Nuclear Regulatory Commission." As so revised, § 310.1 should then read:

"Section 310.1 Scope

Except as otherwise specifically provided, these regulations apply to all persons who receive, possess, use, transfer, own, or acquire any source of radiation within the State of Illinois; provided, however, that nothing in these regulations shall apply to any person to the extent such person is subject to regulation by the U.S. Nuclear Regulatory Commission."

Section 310.2 - Definitions

The definitions of "Operator" and "Radiation Installation" are broad enough to include production and utilization facilities and operators of those facilities. Also the definition of "Operator" is inconsistent with the statutory definition in sec. 11r of the Atomic Energy Act of 1954, as amended. Since the NRC does not relinquish to the States but retains exclusive regulatory authority over production and utilization facilities and their operators, these definitions should either be revised or, preferably, deleted from the Illinois regulations. We note that these terms are not included among the definitions in Sec. A.2 of the SSR.

Agreement states do not have authority to license and regulate Federal agencies. To make this clear, it would be helpful if the definition of "Person" were revised and a definition of "Government agency" which tracks the text in 10 CFR § 150.3(e) were added. These definitions would then read as follows:

" 'Person' means any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, agency, political subdivision of this State, any other State or political subdivision or agency thereof, and any legal successor, representative, agent, or agency of the foregoing, other than a Government agency."

" 'Government agency' means any executive department, commission, independent establishment, corporation, wholly or partly owned by the United States of America which is an instrumentality of the United States, or any board, bureau, division, service, office, officer, authority, administration, or other establishment in the executive branch of the Government."



We note that the definition of "person" in § 310.2 tracks the statutory definition in par. 213.5 of the Illinois Radiation Protection Act. However, par. 216c of that Act provides, in part, that "Federal agencies are exempt from the licensure and fee requirements of this Section."

The definition of "Sealed source" should be revised to track the definition in Sec. A.2 of the SSR which reads as follows:

" '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."

N.B. The definition of "Sealed source" used in Part 331 which relates to fees (see § 331.3(f)) tracks the definition used in 10 CFR § 30.4(r) which reads:

" 'Sealed source' means any byproduct material that is encased in a capsule designed to prevent leakage or escape of the byproduct material."

It is our understanding that Illinois does not wish to regulate mill tailings, i.e. byproduct material as defined in § 11e(2) of the Atomic Energy Act of 1954; as amended, at this time. We see no need, therefore, to include a definition of "Source material milling" in these regulations and recommend that it be deleted. The definition given, which tracks that in Sec. A.2 of the SSR, is inaccurate because it makes a reference back to paragraph (b) in the definition of byproduct material which does not appear in the Illinois regulations because it describes mill tailings, i.e. § 11e(2) byproduct material.

In the definition of "Agreement State," the statutory reference to subsection 274b of the Atomic Energy Act of 1954, as amended, should be corrected to read "(42 U.S.C. 2021(b))."

#### Part 320 - Registration

Under the provisions of §§ 320.1, 320.2 and 320.3 of this Part, operators of nuclear power plants would be required to register the facility with the Illinois Department of Nuclear Safety at the time the nuclear power plant commences operation. Operators of nuclear power plants would also be required to notify the Department when operation is discontinued. Section 320.5 states that "[i]t shall be unlawful for any operator to engage in business or activities within a radiation installation without registering such installation with the Department. The Department shall report any such operator to the Attorney General for appropriate action." These provisions are incompatible with the Commission's regulations and contrary to the express terms of the draft § 274b agreement (see Article II.) Under the

provisions of the Atomic Energy Act of 1954, as amended, States are preempted by the Federal government from assuming regulatory responsibility for production and utilization facilities, including nuclear power plants. From the standpoint of radiological health and safety, regulatory jurisdiction over these facilities resides in and remains the exclusive province of the NRC.

### Part 330 - Licensing of Radioactive Material

Part 330 does not include any regulatory provisions applicable to well-logging operations using sealed sources. It is suggested that a provision comparable to 10 CFR §§ 30.56 and 70.60 be added. A definition of the term "Irretrievable well-logging source" will also have to be added to the appropriate section on definitions. See 10 CFR §§ 30.4(x) and 70.4(w).

### Section 330.3 - Source Material

In paragraph (c)(2) of § 330.3, subparagraph (B) should be deleted, subparagraph (C) should be redesignated (B), and two new subparagraphs (C) and (D) which track the text of 10 CFR § 40.13(c)(2)(iii) and (iv) should be added. This change to the Commission's regulations became effective September 11, 1984 (49 FR 35611, September 11, 1984) and has not yet been reflected in the SSR.

Since Part 601 of the Illinois regulations, which relates to licensing requirements for land disposal of radioactive waste, is comparable to 10 CFR Part 61, an appropriate exemption should be added to § 330.3 which tracks the language in 10 CFR § 40.14(d). Suggested text might read as follows:

"Except as specifically provided in Part 601 of these regulations, any licensee is exempt from the requirements of this part to the extent that its activities are subject to the requirements of Part 601 of these regulations."

A parallel provision which tracks the text of 10 CFR § 30.11(d) should also be added to § 330.4.

### Section 330.4 - Radioactive Material Other Than Source Material

The text of the second Agency Note on p. 330-9 is not entirely clear. It should follow the format in 10 CFR § 30.15(a)(9)(iii) and be revised to read as follows:

"\*AGENCY NOTE: For purposes of Section 330.4(c)(1)(H), 0.05 microcurie (1.85 kBq) of americium-241 is considered an exempt quantity."

Section 330.22 - General Licenses - Radioactive Material Other Than Source Material

It is suggested that in the third line of paragraph (I) on page 330-20, the word "radiation" be inserted between the words "reporting" and "incidents,". Compare SSR § C.22(d)(3)(ix).

Section 330.26 - Special Requirements for Issuance of Certain Specific Licenses for Radioactive Material

Although paragraph (a) of § 330.26 appears to be patterned after 10 CFR § 35.11, it does not contain a provision equivalent to § 35.11(a).

Section 330.28 - Special Requirements for a Specific License to Manufacture Assemble, Repair, or Distribute Commodities, Products, or Devices which Contain Radioactive Material

Although subsection (a) of this section tracks § C.28(a) of the SSR, portions of the Commission's regulations on which this section is based, specifically 10 CFR § 32.11, the introductory paragraph and § 32.12, have been revised since the 1982 edition of the SSR was prepared. Paragraph (a)(1) of § 330.28 should be revised to follow the style of the lead-in paragraph of § 32.11. Paragraph (a)(2) of § 330.28 should be revised to conform to the text of § 32.12. (See pp. 330-52 - 330-53.)

For similar reasons, the text of subparagraph (b)(3) of § 330.28 (See page 330-55) should be revised to conform to 10 CFR § 32.20.

Section 330.50 - Modification, Revocation, and Termination of Licenses

Section 330.32 (see p. 330-78) and this section are based on 10 CFR §§ 40.42 and 40.71, respectively. In view of this fact, the title of § 330.50 should be revised to read "Modification and Revocation of Licenses." In addition, paragraph (d) of this section (see p. 330-84) should be deleted.

Sections 330.100 - 330.104 (See pp. 330-89 - 330-93.)

The text of these sections is repeated, practically verbatim, in Part 341, which relates to the transportation of radioactive material. See, for example, §§ 341.3, 341.4, 341.6 and 341.19. The reason for this duplication is unclear.

## Part 331 - Fees for Radioactive Material Licenses

### Section 331.3 - Definitions

We have two comments on this section although we realize that the definitions are only intended to be used in connection with Part 331. We do not understand the need for the § 11e(2) definition of byproduct material which appears in paragraph (b)(2) of this section in view of the fact that Illinois does not intend to regulate mill tailings under its § 274b agreement. In paragraph (h)(1), special nuclear material is defined to include "any other material which the Department determines to be special nuclear material." This description is inaccurate as a matter of law. Only the Nuclear Regulatory Commission may determine what "other material" is special nuclear material. The language used in par. 213.12 of the Illinois Radiation Protection Act is acceptable. This statutory language reads as follows: "any other material which the Department declares by order to be special nuclear material after the United States Nuclear Regulatory Commission, or any successor thereto, has determined the material to be such."

Two typos require correction. In § 331.11(a)(3) at p. 331-3, the word "excluding" should be replaced by the word "including." In the seventh line of § 331.12(d) (see p. 331-5) the word "application" should be replaced by the word "applicant."

## Part 340 - Standards for Protection Against Radiation

### Section 340.103 - Exposure to Individuals to Concentrations of Radioactive Material in Air in Restricted Areas

Section 340.103 is based on § 20.103 which has been amended since the 1982 edition of the SSR was issued in order to include requirements for an acceptable respiratory program in the text of the Commission's regulations. In its present form, § 340.103 is incompatible with the Commission's regulations. In order to remedy this, § 340.103(c) should be revised by deleting the present text and substituting the text in 10 CFR § 20.103(c) therefor. Similarly, the existing text in § 340.103(d) should be replaced by the text found in 10 CFR § 20.103(d). In addition, provisions comparable to 10 CFR §§ 20.103(e) and (f) should be added.

Part 340 is also deficient in that it does not contain an appendix comparable to 10 CFR Part 20, Appendix A - Protection Factors for Respirators.

### Section 340.104 - Exposure of Minors

Typo: In paragraph (a)(1) of this section on line 1 of p. 340-10, the word "is" should be inserted between the words "who" and "under."



Section 340.105 - Permissible Levels of Radiation from External Sources in Unrestricted Areas

The word "and" at the end of paragraph (a)(1) of this section should be changed to "or" in order to be consistent with 10 CFR § 20.105(b)(1), the parallel provision in 10 CFR Part 20.

Section 340.107 - Orders Requiring Furnishing of Bioassay Services

Query: In the last line of this section, should not the word "records" be changed to "reports"? Compare 10 CFR § 20.108.

Section 340.202 - Personnel Monitoring

In paragraph (a)(2) of this section, "50 percent" should be corrected to read "5 percent." The parallel provision in 10 CFR Part 20 is § 20.202(a)(2).

Section 340.207 - Procedures for Picking Up, Receiving, and Opening Packages

The reference to "Appendix A of 32 Ill. Adm. Code 341" which appears in paragraph (a)(1) of this section is unclear. See, also, paragraphs (b)(1)(D) and (c)(1) which contain the identical reference.

Typo: On the third line of paragraph (b)(1) of this section, the word "surface" should be corrected to read "surfaces."

Section 340.303 - Disposal by Release into Sanitary Sewage Systems

In order to be compatible with 10 CFR § 20.303 on which it is based, § 340.303 should be revised by adding the word "and" immediately following the semicolon in paragraphs (a)(1) and (a)(2)(B). Compare 10 CFR § 20.303(a) and (b)(2).

Section 340.307 - Classification of Radioactive Waste for Land Disposal

In the second line of paragraph (a) of this section, we would suggest that the word "radioactive" be inserted immediately before the word "waste." Compare 10 CFR § 61.55(a)(1).

Paragraph (b) of this section is incomplete. A new paragraph (4) should be added to incorporate the text in 10 CFR § 61.55(a)(2)(iv).

In the second line of paragraph (c) of this section, the word "radioactive" should be inserted immediately before the word "waste."

Paragraph (c)(2) at p. 340-28 is incomplete and should be revised to read as follows: Compare 10 CFR § 61.55(a)(3)(ii).

"2) If the concentration exceeds 0.1 times the value in Table 1 but does not exceed the value in Table 1, the waste is Class C."

In order to be compatible with 10 CFR § 61.55(a)(4), the second sentence in paragraph (d) of § 340.307 (see p. 340-29) should be revised to read as follows:

"However, as specified in paragraph (f) of this section, if radioactive waste does not contain any nuclides listed in either Table 1 or 2, it is Class A."

In the second line of paragraph (e) of this section, insert the word "radioactive" immediately before the word "waste." Compare, 10 CFR § 61.55(a)(5).

Paragraph (e)(2) at p. 340-31 is incomplete and should be revised to read as follows: Compare 10 CFR § 61.55(a)(5)(ii).

"If the concentration of a radionuclide listed in Table 1 exceeds 0.1 times the value listed in Table 1 but does not exceed the value in Table 1, the waste shall be Class C, provided the concentration of radionuclides listed in Table 2 does not exceed the value shown in Column 3 of Table 2."

#### Section 340.308 - Radioactive Waste Characteristics.

In order to be compatible with 10 CFR § 61.56(a)(6), the following sentence should be added at the beginning of paragraph (a)(7) of this section. (See p. 340-32.)

"Waste must not be pyrophoric."

Typo: In the third line of paragraph (a)(9) of this section, insert the word "to" between the words "reduce" and "the."

#### Section 340.311 - Transfer for Disposal and Manifests

In order to be compatible with 10 CFR 20.311(b) on which it is based, the first sentence of paragraph (a) of this section should be revised to read as follows:

"Each shipment of radioactive waste to a licensed land disposal facility shall be accompanied by a shipment manifest that contains the name, address, and telephone number of the person generating the waste."

In order to be compatible with 10 CFR 20.311(d) on which it is based, paragraph (d) of this section should be revised to read as follows:

"Any generating licensee or registrant who transfers radioactive waste to a land disposal facility or a licensed waste collector shall comply with the following requirements. Any generating licensee who transfers waste to a licensed waste processor who treats or repackages waste shall comply with the requirements of Section 340.311(d)(4) through (8). A licensee shall:"

#### Part 341 - Transportation of Radioactive Material

As noted in the comments on §§ 330.100 - 330.104, (see p. 7 supra), the texts of §§ 341.3, 341.4, 341.6 and 341.19 are repeated, practically verbatim, in §§ 330.100 - 330.104 in Part 330. The reason for this duplication is unclear.

#### Section 341.2 - Definitions

The third word in paragraph (b) of the definition of "Special form radioactive material" on p. 341-3 should be "or" instead of "of." See paragraph 2) of definition of "Special form radioactive material" in 10 CFR § 71.4.

#### Section 341.4 - Exemptions

In the 4th line of paragraph (a) of this section, the word "Parts" should be inserted in the CFR reference to the DOT regulations. As revised, this reference should read "49 CFR Parts 170 through 189."

The reference to "39 CFR 111.11" which appears in the 7th line of paragraph (a) of this section should be corrected to read "39 CFR 111.1."

#### Section 341.5 - Transportation of Licensed Material

In the last line of paragraph (b) of this section, the word "was" should be corrected to read "were."

Section 341.6 - General Licenses for Carriers

In the 4th line in paragraph (a) of this section, the word "their" should be replaced by the word "its."

Section 341.12 - General License: Restricted, Fissile Class II Package

There are two typographical errors in Table II (see p. 341-12):

The heading for the left-hand column should be revised to read:

"Uranium enrichment  
in weight percent of  
uranium-235 not  
exceeding"

The second number in the left-hand column should be corrected to read "3.5"

Compare 10 CFR § 71.20, Table II.

Section 341.14 - Preliminary Determinations

Although this section tracks 10 CFR § 71.85, paragraph (a), unlike its counterpart in § 71.85(a), does not characterize the types of defects. Section 71.85(a) reads in part: "The licensee shall ascertain that there are no cracks, pinholes, uncontrolled voids, or other defects . . ."

Section 341.15 - Routine Determinations

This section does not include a paragraph comparable to that in 10 CFR § 71.87(g) which reads as follows:

"(g) For fissile material, any moderator or neutron absorber, if required, is present and in proper condition;"

In the second line in paragraph (k), the temperature reference in parentheses should be corrected to read "(38°C)."

The last sentence in paragraph (k) which reads:

"Accessible package surface temperatures shall not exceed these limits at any time during transportation."

is not included in 10 CFR § 71.43(g), the parallel provision in the Commission's regulations.



Section 341.16 - Air Transport of Plutonium

In the first line of this section, the word "provision" should be corrected to read "provisions."

It is suggested that the reference to the citation to DOT regulations be made more explicit by revising the 4th line of this section to read as follows:

"Transportation regulations (49 CFR Chapter 1), as may be applicable, the"

Section 341.19 - Advance Notification of Transport of Nuclear Waste

The following phrase should be inserted at the beginning of paragraph (a):

"Except as specified in paragraph (b) of this section,"

Compare 10 CFR § 71.97(a).

Part 351 - Radiation Safety Requirements For Wireline Service Operations and Subsurface Tracer Studies

Section 351.3 - Definitions

Although this section contains several definitions relating to well-logging procedures, it does not contain a definition of "Irretrievable well-logging source" comparable to that in 10 CFR §§ 30.4(x) and 70.4(w).

Section 351.4 - Prohibition

This section should follow the text of 10 CFR § 30.56(a) more closely. In particular, § 351.4 does not reflect the requirement to take remedial action "within 30 days after a well-logging source has been classified as irretrievable."

Section 351.501 - Notification of Incidents, Abandonment, and Lost Sources

We would suggest that paragraph (c)(1)(B) of § 351.501 track the text of 10 CFR § 30.56(a)(2) more closely. We would also suggest that the word "set" which appears in paragraph (c)(3)(D) be replaced by the word "seal." Compare 10 CFR § 30.56(c)(4).

Editorial changes: In paragraph (d)(1) of this section, the word "model" should be corrected to read "monel." Paragraph (d)(2)(F) should be revised to read as follows:

" F) identification of the sealed source(s) by radionuclide and quantity of activity;"

#### Part 370 - Use of Sealed Radioactive Sources in the Healing Arts

Part 370 does not contain a schedule of groups of medical uses of byproduct material comparable to that set out in 10 CFR § 35.100.

#### Part 601 - Licensing Requirements for Land Disposal of Radioactive Waste

##### Section 601.1 - Purpose and Scope

Although paragraph (b)(1) of this section refers to "byproduct material as defined in definition (2) of byproduct material in 32 Ill. Adm. Code 310.2," there is no definition (2) in § 310.2 of 32 Ill. Adm. Code.

##### Following Section 601.3 - License Required

We note that Part 601 does not authorize the Department to grant exemptions from the requirements of the regulations in this Part; compare 10 CFR § 61.6. However, the Department of Nuclear Safety does have broad authority to grant exemptions under § 310.3(a) of Part 310.

##### Following Section 601.10 - Financial Information

Part 601 does not contain any provision comparable to 10 CFR § 61.22 requiring an applicant to update and supplement an application.

##### Section 601.11 - Standards for Issuance of a License

In order to conform to 10 CFR § 61.23(c) and (g), the word "care" which appears in line 4 of paragraph (f) of this section and in line 2 of paragraph (h) of this section should be replaced by the word "control."

##### Section 601.12 - Conditions of Licenses

Section 601.12 does not contain a provision comparable to 10 CFR § 61.24(b) which requires the licensee to submit written statements under oath upon the request of the Commission.

Although the last sentence in paragraph (h) of this section tracks the second sentence in 10 CFR § 61.27(a), it does not contain the words "and transfer of the license to the site owner."

Section 601.17 - Termination of License

Paragraph (b) of this section should be revised to read as follows: (Compare 10 CFR § 61.31(b).)

" b) This application will be reviewed in accordance with the provisions of 32 Ill. Adm. Code 330.24 and of this section."

Section 601.33 - Maintenance of Records, Reports, and Transfers

Typo: In paragraph (h)(2)(C) of this section, the word "licensed" should be corrected to read "licensee." Compare 10 CFR § 61.80(i)(2)(iii).

AGREEMENT BETWEEN THE UNITED STATES NUCLEAR REGULATORY COMMISSION  
AND THE STATE OF ILLINOIS FOR DISCONTINUANCE OF CERTAIN  
COMMISSION REGULATORY AUTHORITY AND RESPONSIBILITY  
WITHIN THE STATE PURSUANT TO SECTION 274 OF  
THE ATOMIC ENERGY ACT OF 1954, AS AMENDED

WHEREAS, the United States Nuclear Regulatory Commission (hereinafter referred to as the Commission) is authorized under Section 274 of the Atomic Energy Act of 1954, as amended (hereinafter referred to as the Act), to enter into agreements with the Governor of any State providing for discontinuance of the regulatory authority of the Commission within the State under Chapters 6, 7 and 8, and Section 161 of the Act with respect to byproduct materials as defined in Sections 11e.(1) and (2) of the Act, source materials and special nuclear materials in quantities not sufficient to form a critical mass; and,

WHEREAS, the Governor of the State of Illinois is authorized under Illinois Revised Statutes, 1983, ch. 111 1/2, par. 216b and 1984 Supp. to Illinois Revised Statutes, 1983, ch. 111 1/2, par. 241-19 to enter into this Agreement with the Commission; and,

*Insert  
here* → WHEREAS, the Commission found on \_\_\_\_\_ that the program of the State for the regulation of the materials covered by this Agreement is compatible with the Commission's program for the regulation of such materials and is adequate to protect the public health and safety; and,

WHEREAS, the State and the Commission recognize the desirability and importance of cooperation between the Commission and the State in the formulation of standards for protection against hazards of radiation and in assuring that State and Commission programs for protection against hazards of radiation will be coordinated and compatible; and,

WHEREAS, the Commission and the State recognize the desirability of reciprocal recognition of licenses and exemptions from licensing of those materials subject to this Agreement; and,

WHEREAS, this Agreement is entered into pursuant to the provisions of the Atomic Energy Act of 1954, as amended;

NOW, THEREFORE, IT IS HEREBY AGREED between the Commission and the Governor of the State, acting in behalf of the State as follows:

ARTICLE I

Subject to the exceptions provided in Articles II, IV and V, the Commission shall discontinue, as of the effective date of this Agreement, the regulatory authority of the Commission in the State under Chapters 6, 7 and 8, and Section 161 of the Act with respect to the following:

- A. Byproduct materials as defined in section 11e.(1) of the Act;
- B. Source materials;



- C. Special nuclear materials in quantities not sufficient to form a critical mass; and,
- D. The land disposal of source, byproduct and special nuclear material received from other persons.

## ARTICLE II

This Agreement does not provide for discontinuance of any authority and the Commission shall retain authority and responsibility with respect to regulation of:

- A. The construction and operation of any production or utilization facility;
- B. The export from or import into the United States of byproduct, source or special nuclear material, or of any production or utilization facility;
- C. The disposal into the ocean or sea of byproduct, source or special nuclear waste materials as defined in regulations or orders of the Commission;
- D. The disposal of such other byproduct, source, or special nuclear material as the Commission from time to time determines by regulation or order should, because of the hazards or potential hazards thereof, not be so disposed of without a license from the Commission; and,
- E. The extraction or concentration of source material from source material ore and the management and disposal of the resulting byproduct material.

## ARTICLE III

This Agreement may be amended, upon application, *delete comma* by the State and approval by the Commission, to include the additional area specified in Article II, paragraph E, whereby the State can exert regulatory control over the materials stated therein.

## ARTICLE IV

Notwithstanding this Agreement, the Commission may from time to time by rule, regulation or order, require that the manufacturer, processor, or producer of any equipment, device, commodity, or other product containing source, byproduct or special nuclear material shall not transfer possession or control of such product except pursuant to a license or an exemption from licensing issued by the Commission.

## ARTICLE V

This Agreement shall not affect the authority of the Commission under subsection 161 b. or i. of the Act to issue rules, regulations or orders to protect the common defense and security, to protect restricted data or to guard against the loss or diversion of special nuclear material.

## ARTICLE VI

✓ The Commission will use its best efforts to cooperate with the State and other Agreement States in the formulation of standards and regulatory programs of the State and the Commission for protection against hazards of radiation and to assure that State and Commission programs for protection against hazards of radiation will be coordinated and compatible. The State will use its best efforts to cooperate with the Commission and other Agreement States in the formulation of standards and regulatory programs of the State and the Commission for protection against hazards of radiation and to assure that the State's program will continue to be compatible with the program of the Commission for the regulation of like materials. The State and the Commission will use their best efforts to keep each other informed of proposed changes in their respective rules and regulations and licensing, inspection and enforcement policies and criteria and to obtain the comments and assistance of the other party thereon.

## ARTICLE VII

The Commission and the State agree that it is desirable to provide reciprocal recognition of licenses for the materials listed in Article I licensed by the other party or by any Agreement State. Accordingly, the Commission and the State agree to use their best efforts to develop appropriate rules, regulations and procedures by which such reciprocity will be accorded.

## ARTICLE VIII

delete parentheses close up 274j  
The Commission, upon its own initiative after reasonable notice and opportunity for hearing to the State, or upon request of the Governor of the State, may terminate or suspend all or part of this Agreement and reassert the licensing and regulatory authority vested in it under the Act if the Commission finds that (1) such termination or suspension is required to protect the public health and safety, or (2) the State has not complied with one or more of the requirements of Section 274 of the Act. The Commission may also, pursuant to Section 274 of the Act, temporarily suspend all or part of this Agreement if, in the judgment of the Commission, an emergency situation exists requiring immediate action to protect public health and safety and the State has failed to take necessary steps. The Commission shall periodically review this Agreement and actions taken by the State under this Agreement to ensure compliance with Section 274 of the Act.

ARTICLE IX

This Agreement shall become effective on \_\_\_\_\_, and shall remain in effect unless and until such time as it is terminated pursuant to Article VIII.

Done at \_\_\_\_\_, in triplicate, this \_\_\_\_\_ day of \_\_\_\_\_.

For the United States Nuclear Regulatory Commission

\_\_\_\_\_  
Chairman

For the State of Illinois

\_\_\_\_\_  
Governor

unnecessary

For the United States Nuclear Regulatory Commission

\_\_\_\_\_  
Director, Office of State Programs

**DRAFT**

Chairman  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Chairman:

✓ By this letter I request establishment of an Agreement between the U.S. Nuclear Regulatory Commission (NRC) and the State of Illinois, as authorized under Section 274b of the Atomic Energy Act of 1954, as amended, under which the NRC will discontinue and the State of Illinois will assume certain regulatory authority for radioactive materials now under Federal jurisdiction. I am authorized by the Illinois Radiation Protection Act (Ill. Rev. Stat. 1983, ch. 111 1/2, par. 216b) and the Illinois Low-Level Radioactive Waste Management Act (1984 Supp. to Ill. Rev. Stat. 1983, ch. 111 1/2, par. 241-19) to enter into such an Agreement with NRC. The specific regulatory authority requested at this time is for:

- a. Byproduct materials as defined in Section 11e(1) of the Atomic Energy Act of 1954, as amended; ~~(radioisotopes);~~
- b. Source materials; ~~(uranium and thorium);~~
- c. Special nuclear materials ~~(uranium-233, uranium-235 and plutonium)~~ in quantities not sufficient to form a critical mass; and,
- d. Land disposal of source, byproduct and special nuclear material received from other persons.



*Amend* [The State of Illinois desires to assume this regulatory responsibility, and I certify that the State has an adequate program within the Department of Nuclear Safety to control radiation hazards and to protect the public health and safety.] In support of this proposal, I am submitting detailed information describing the State's radiation control program and regulatory capabilities and a copy of the State's radiation control regulations.

At this time, the State does not wish to assume authority over uranium milling activities. The State, however, reserves the right to apply at a future date to NRC for an amended Agreement to assume authority in this area.

We are very much interested in having a formal signing ceremony for the Agreement. If possible, we would like to have the ceremony take place in Chicago, Illinois, with the Agreement to become effective on July 1, 1986.

Sincerely,

Governor