JAN 2 1987

The Honorable Edward J. Markey, Chairman
Subcommittee on Energy Conservation and Power
Committee on Energy and Commerce
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

This is to inform the Subcommittee that by letter dated October 2, 1986 Governor James R. Thompson on behalf of the State of Illinois submitted a proposed State regulatory program for consideration by the Commission for an Agreement under Section 274 of the Atomic Energy Act of 1954, as amended.

An announcement of the proposed Agreement and the staff's assessment will be published in the Federal Register. A pre-publication copy of the Federal Register Notice is enclosed.

We will inform you when the Commission has completed its consideration of the proposed program.

Sincerely,

G. Wayne Kerr, Director
Office of State Programs

Enclosure:
Federal Register Notice

cc: Rep. Carlos Moorhead

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NRC FORM 318 (10-80) NRCM 0240

OFFICIAL RECORD COPY

Identical Letters sent to:

The Honorable Alan Simpson, Chairman
Subcommittee on Nuclear Regulation
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

cc: Senator Gary Hart

The Honorable Morris K. Udall, Chairman
Subcommittee on Energy and the Environment
Committee on Interior and Insular Affairs
United States House of Representatives
Washington, D.C. 20515

cc: Rep. Manuel Lujan

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

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Committee on Environment and Public Works
United States Senate
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NUCLEAR REGULATORY COMMISSION
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FEDERAL REGISTER NOTICE
HIGHLIGHTS
NUCLEAR REGULATORY COMMISSION
NOTICES
PROPOSED AGREEMENT WITH STATE OF ILLINOIS

Enclosure 1

8703090295

56pp.

Nuclear Regulatory Commission

Notice of Proposed Agreement with State of Illinois

State of Illinois: Staff Assessment of Proposed Agreement Between the NRC and the State of Illinois

AGENCY: U.S. Nuclear Regulatory Commission

ACTION: Notice of Proposed Agreement with State of Illinois.

SUMMARY: Notice is hereby given that the U.S. Nuclear Regulatory Commission is publishing for public comment the NRC staff assessment of a proposed agreement received from the Governor of the State of Illinois for the assumption of certain of the Commission's regulatory authority pursuant to Section 274 of the Atomic Energy Act of 1954, as amended. Comments are requested on the public health and safety aspects of the proposal.

A staff assessment of the State's proposed program for control over sources of radiation is set forth below as supplementary information to this notice. A copy of the proposed agreement, program narrative, including the referenced appendices, applicable State legislation and Illinois regulations, is available for public inspection in the Commission's public document room at 1717 H Street, N.W. Washington, D.C., the Commission's Region III Office, 799 Roosevelt Road, Building No. 4, Glen Ellyn, Illinois, and the Illinois Department of Nuclear Safety, 1035 Outer Park Drive, Springfield, Illinois. Exemptions from the Commission's regulatory authority, which would implement this proposed agreement, have been published in the Federal Register and codified as Part 150 of the Commission's regulations in Title 10 of the Code of Federal Regulations.

DATES: Comments must be received on or before (30 days after initial publication).

ADDRESSES: Written comments may be submitted to the Rules and Procedures Branch, Division of Rules and Records, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Comments may also be delivered to Room 4000, Maryland National Bank Building, Bethesda, Maryland from 8:15 a.m. to 5:00 p.m. Monday through Friday. Copies of comments received may be examined at the NRC Public Document Room, 1717 H Street, NW., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Joel O. Lubenau, Office of State Programs, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, telephone: 301-492-9887.

SUPPLEMENTARY INFORMATION: Assessment of Proposed Illinois Program to Regulate Certain Radioactive Materials Pursuant to Section 274 of the Atomic Energy Act of 1954, as amended.

The Commission has received a proposal from the Governor of Illinois for the State to enter into an agreement with the NRC whereby the NRC would relinquish and the State would assume certain regulatory authority pursuant to Section 274 of the Atomic Energy Act of 1954, as amended.

Section 274e of the Atomic Energy Act of 1954, as amended, requires that the terms of the proposed agreement be published for public comment once

each week for four consecutive weeks. Accordingly, this notice will be published four times in the Federal Register.

I. Background

A. Section 274 of the Atomic Energy Act of 1954, as amended, provides a mechanism whereby the NRC may transfer to the States certain regulatory authority over agreement materials[1] when a State desires to assume this authority and the Governor certifies that the State has an adequate regulatory program, and when the Commission finds that the State's program is compatible with that of the NRC and is adequate to protect the public health and safety. Section 274g directs the Commission to cooperate with the States in the formulation of standards for protection against radiation hazards to assure that State and Commission programs for radiation protection will be coordinated and compatible. Further, Section 274j provides that the Commission shall periodically review such agreements and actions taken by the States under the agreements to ensure compliance with the provisions of this section.

B. In a letter dated October 2, 1986, Governor James R. Thompson of the State of Illinois requested that the Commission enter into an agreement with the State pursuant to Section 274 of the Atomic Energy Act of 1954, as amended. The Governor certified that the State of Illinois has a program for control of radiation hazards which is 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 of Illinois desires to assume regulatory responsibility for such materials. The text of the proposed agreement is shown in Appendix A.

The specific authority requested is for (1) byproduct material as defined in Section 11e.(1) of the Act, (2) source material, (3) special nuclear material in quantities not sufficient to form a critical mass and (4) permanent disposal of low-level waste containing one or more of the foregoing materials but not containing uranium and thorium mill tailings (byproduct material as defined in Section 11e.(2) of the Act. The State does not wish to assume authority over uranium recovery 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. The nine articles of the proposed agreement cover the following areas:

I.	Lists the materials covered by the agreement.
II.	Lists the Commission's continued authority and responsibility for certain activities.
III.	Allows for future amendment of the agreement.
IV.	Allows for certain regulatory changes by the Commission.

1/ A. Byproduct materials as defined in 11e(1)
B. Byproduct materials as defined in 11e(2)
C. Source materials; and
D. Special nuclear materials in quantities not sufficient to form a critical mass

V. References the continued authority of the Commission for common defense and security for safeguards purposes.

VI. Pledges the best efforts of the Commission and the State to achieve coordinated and compatible programs.

VII. Recognizes reciprocity of licenses issued by the respective agencies.

VIII. Sets forth criteria for termination or suspension of the agreement.

IX. Specifies the effective date of the agreement.

C. Ill. Rev. Stat. 1985, ch. 127, par. 63b17, the enabling statute for the Illinois Department of Nuclear Safety authorizes the Department to issue licenses to, and perform inspections of, users of radioactive materials under the proposed agreement and otherwise carry out a total radiation control program. Illinois regulations for radiation protection were adopted on September 25, 1986 under authority of the enabling statute and provide standards, licensing, inspection, enforcement and administrative procedures for agreement and non-agreement materials. Pursuant to Section 330.360 the regulations will apply to agreement materials on the effective date of the agreement. The regulations provide for the State to license and inspect users of naturally-occurring and accelerator-produced radioactive materials.

D. Illinois is one of two States with a cabinet-level agency devoted exclusively to radiation safety and control. Illinois' role in radiation safety is traceable to 1955 when the Illinois General Assembly created the Atomic Power Investigating Commission. The Illinois Department of Nuclear Safety Program provides a comprehensive program encompassing radiation protection regulation for radioactive materials and machine produced radiation, lasers, low-level radioactive waste management, surveillance of transportation of radioactive materials and environmental radiation, coordination of State government functions concerning nuclear power and emergency preparedness.

E. The proposed Illinois Agreement will cover several unique facets. It will include (1) regulation of a low-level waste disposal site which is no longer accepting low-level radioactive waste for disposal (Sheffield), (2) regulation of a new regional low-level waste disposal facility, (3) regulation of one of only two licensed uranium conversion plants in the United States (Allied-Chemical) and (4) assumption of regulatory responsibility for off-site source material resulting from operation of the Kerr-McGee West Chicago Rare Earths Facility (including such material which is, or may be, stored on the Kerr-McGee site). Jurisdiction over the tailings materials at this site (by-product material as defined by Section 11e(2) of the Act) will remain with NRC. The State's proposed programs for low-level radioactive waste

disposal and the Allied Chemical plant are assessed under Criteria nos. 9, "Radioactive Waste Disposal" and 20 "Personnel." The disposition of the regulatory responsibility for the Kerr-McGee radioactive materials resulting from the operation of the Rare Earths Facility is covered in the assessment under Criterion 25, "Existing NRC Licenses and Pending Applications."

Under the proposed agreement jurisdiction for health and safety for Allied Chemical's plant would be transferred to Illinois. The Allied Chemical plant is one of 2 plants in the United States licensed to convert uranium "yellowcake" to UF_6. NRC staff is reviewing the common defense and security significance of the Allied Chemical plant in consultation with appropriate Federal agencies. Section 274 agreements are approved by the Commission when, among other things, the proposed State program is adequate to protect the public health and safety. The NRC staff assessment finds the proposed Illinois program will provide adequately for public health and safety. The Atomic Energy Act, as amended, however, states that such agreements shall not affect the Commission's authority to protect the common defense and security. The decision on whether to exclude the Allied Chemical plant from the Agreement will be made by the Commission concurrent with its decision on the Illinois request for an Agreement.

II. NRC STAFF ASSESSMENT OF PROPOSED ILLINOIS PROGRAM FOR CONTROL OF AGREEMENT MATERIALS

Reference: Criteria for Guidance of States and NRC in Discontinuance of NRC Regulatory Authority and Assumption Thereof by States Through Agreement.[2]

OBJECTIVES

1. Protection. A State regulatory program shall be designed to protect the health and safety of the people against radiation hazards.

Based upon the analysis of the State's proposed regulatory program the staff believes the Illinois proposed regulatory program for agreement materials is adequately designed to protect the health and safety of the public against radiation hazards.

Reference: Illinois Program Statement, Application for Agreement State Status.

2/ NRC Statement of Policy published in the Federal Register January 23, 1981 (46 FR 7540-7546), a correction was published July 16, 1981 (46 FR 36969) and a revision of Criterion 9 published in the Federal Register July 21, 1983 (48 FR 33376).

RADIATION PROTECTION STANDARDS

2. Standards. The State regulatory program shall adopt a set of standards for protection against radiation which shall apply to byproduct, source and special nuclear materials in quantities not sufficient to form a critical mass.

Statutory authority to formulate and promulgate rules for controlling exposure to sources of radiation is contained in the enabling statute. In accordance with that authority, the State adopted radiation control regulations on September 25, 1986 which include radiation protection standards which would apply to byproduct, source and special nuclear materials in quantities not sufficient to form a critical mass upon the effective date of an agreement between the State and the Commission pursuant to Section 274b of the Atomic Energy Act of 1954, as amended.

Reference: 32 ILL. ADM. CODE Parts 310, 320, 330, 340, 341, 350, 351, 370, 400 and 601.

3. Uniformity in Radiation Standards. It is important to strive for uniformity in technical definitions and terminology, particularly as related to such things as units of measurement and radiation dose. There shall be uniformity on maximum permissible doses and levels of radiation and concentrations of radioactivity, as fixed by 10 CFR Part 20 of the NRC regulations based on officially approved radiation protection guides.

Technical definitions and terminology contained in the Illinois Radiation Control Regulations including those related to units of measurement and radiation doses are uniform with those contained in 10 CFR Part 20.

Reference: 32 ILL. ADM. CODE 310.20, 3410.20, 350.30, 351.30, 370.20, and 601.20.

4. Total Occupational Radiation Exposure. The regulatory authority shall consider the total occupational radiation exposure of individuals, including that from sources which are not regulated by it.

The Illinois regulations cover all sources of radiation within the State's jurisdiction and provide for consideration of the total radiation exposure of individuals from all sources of radiation in the possession of a licensee or registrant.

Reference: 32 ILL. ADM. CODE 340.1010 to 340.1060.

5. Surveys, Monitoring. Appropriate surveys and personnel monitoring under the close supervision of technically

competent people are essential in achieving radiological protection and shall be made in determining compliance with safety regulations.

The Illinois requirements for surveys to evaluate potential exposures from sources of radiation and the personnel monitoring requirements are uniform with those contained in 10 CFR Part 20. Additionally, for personnel dosimeters (except extremity dosimeters and pocket ionization chambers) that require processing, the accreditation criteria in the January 1, 1985 revision of 15 CFR 7b and in American National Standards Institute N13.11-1983, 1983 edition, must be met.

References: 32 ILL. ADM. CODE 340.2010, 340.2020 and 340.2070.

6. Labels, Signs, Symbols. It is desirable to achieve uniformity in labels, signs, and symbols, and the posting thereof. However, it is essential that there be uniformity in labels, signs, and symbols affixed to radioactive products which are transferred from person to person.

The prescribed radiation labels, signs and symbols are uniform with those contained in 10 CFR Parts 20, 30 thru 32 and 34. The Illinois posting requirements are also uniform with those of Part 20.

References: 32 ILL. ADM. CODE 330.220g), 330.220i), 330.280d), 330.280g), 340.2030 and .2040, 350.1050.

7. Instruction. Persons working in or frequenting restricted areas shall be instructed with respect to the health risks associated with exposure to radioactive materials and in precautions to minimize exposure. Workers shall have the right to request regulatory authority inspections as per 10 CFR 19, Section 19.16 and to be represented during inspections as specified in Section 19.14 of 10 CFR 19.

The Illinois regulations contain requirements for instructions and notices to workers that are uniform with those of 10 CFR Part 19.

Reference: 32 ILL. ADM. CODE Part 400.

8. Storage. Licensed radioactive material in storage shall be secured against unauthorized removal.

The Illinois regulations contain a requirement for security of stored radioactive material.

Reference: 32 ILL ADM. CODE 340.2060.

9. Radioactive Waste Disposal. (a) Waste disposal by material users. The standards for the disposal of radioactive

materials into the air, water and sewer, and burial in the soil shall be in accordance with 10 CFR Part 20. Holders of radioactive material desiring to release or dispose of quantities or concentrations of radioactive materials in excess of prescribed limits shall be required to obtain special permission from the appropriate regulatory authority.

Requirements for transfer of waste for the purpose of ultimate disposal at a land disposal facility (waste transfer and manifest system) shall be in accordance with 10 CFR 20.

The waste disposal standards shall include a waste classification scheme and provisions for waste form, applicable to waste generators, that is equivalent to that contained in 10 CFR Part 61.

(b) Land Disposal of waste received from other persons. The State shall promulgate regulations containing licensing requirements for land disposal of radioactive waste received from other persons which are compatible with the applicable technical definitions, performance objectives, technical requirements and applicable supporting sections set forth in 10 CFR Part 61. Adequate financial arrangements (under terms established by regulation) shall be required of each waste disposal site licensee to ensure sufficient funds for decontamination, closure and stabilization of a disposal site. In addition, Agreement State financial arrangements for long-term monitoring and maintenance of a specific site must be reviewed and approved by the Commission prior to relieving the site operator of licensed responsibility (Section 151(a)(2), Pub. L. 97-425).

The Illinois regulations contain provisions relating to the disposal of radioactive materials into the air, water and sewer and burial in soil which are essentially uniform with those of 10 CFR Part 20. Waste transfer and manifest system requirements for transfer of waste for ultimate disposal at a land disposal facility are included in the Illinois regulations. The waste disposal requirements include a waste classification scheme and provisions for waste form equivalent to that in 10 CFR Part 61.

The Illinois regulations provide for land disposal of low-level radioactive waste received from other persons which are compatible with the applicable technical definitions, performance objectives, technical requirements and supporting sections set out in 10 CFR Part 61. The Illinois regulations include provisions for financial arrangements for decontamination, closure and stabilization. Under the Nuclear Waste Policy Act of 1982 (Pub. L. 97-425) the financial arrangements for long term monitoring and maintenance at specific sites in Illinois will be subject to Commission review and approval prior to Illinois relieving the site operator of licensed responsibility.

References: 32 ILL. ADM. CODE 340.1060, 340.3010 to 340. 3110, Part 601; Section 151(a)(2), Pub. L. 97-425.

10. Regulations Governing Shipment of Radioactive Materials. The State shall to the extent of its jurisdiction promulgate regulations applicable to the shipment of radioactive materials, such regulations to be compatible with those established by the U.S. Department of Transportation and other agencies of the United States whose jurisdiction over interstate shipment of such materials necessarily continues. State regulations regarding transportation of radioactive materials must be compatible with 10 CFR Part 71.

    The Illinois regulations are uniform with those contained in NRC regulations 10 CFR Part 71.

    References: 32 ILL. ADM. CODE Part 341.

11. Records and Reports. The State regulatory program shall require that holders and users of radioactive materials (a) maintain records covering personnel radiation exposures, radiation surveys, and disposals of materials; (b) keep records of the receipt and transfer of the materials; (c) report significant incidents involving the materials, as prescribed by the regulatory authority; (d) make available upon request of a former employee a report of the employee's exposure to radiation; (e) at request of an employee advise the employee of his or her annual radiation exposure; and (f) inform each employee in writing when the employee has received radiation exposure in excess of the prescribed limits.

    The Illinois regulations require the following records and reports licensees and registrants:

    (a) Records covering personnel radiation exposures, radiation surveys, and disposals of materials.
    (b) Records of receipt and transfer of materials.
    (c) Reports concerning incidents involving radioactive materials.
    (d) Reports to former employees of their radiation exposure.
    (e) Reports to employees of their annual radiation exposure.
    (f) Reports to employees of radiation exposure in excess of prescribed limits.

    Reference: 32 ILL. ADM. CODE 310.40, 340.4010, 340.4030, 340.4050 and 400.130.

12. Additional Requirements and Exemptions. Consistent with the overall criteria here enumerated and to accommodate special cases and circumstances, the State regulatory authority shall be authorized in individual cases to impose additional requirements to protect health and safety, or to grant necessary exemptions which will not jeopardize health and safety.

The Illinois Department of Nuclear Safety is authorized to impose upon any licensee or registrant by rule, regulation, or order such requirements in addition to those established in the regulations as it deems appropriate or necessary to minimize danger to public health and safety or property.

Reference: 32 ILL. ADM. CODE 310.70.

The Department may also grant such exemptions from the requirements of the regulations as it determines are authorized by law and will not result in undue hazard to public health and safety or property.

Reference: 32 ILL. ADM. CODE 310.30.

PRIOR EVALUATION OF USES OF RADIOACTIVE MATERIALS

13. Prior Evaluation of Hazards and Uses, Exceptions. In the present state of knowledge, it is necessary in regulating the possession and use of byproduct, source and special nuclear materials that the State regulatory authority require the submission of information on, and evaluation of, the potential hazards and the capability of the user or possessor prior to his receipt of the materials. This criterion is subject to certain exceptions and to continuing reappraisal as knowledge and experience in the atomic energy field increase. Frequently there are, and increasingly in the future there may be, categories of materials and uses as to which there is sufficient knowledge to permit possession and use without prior evaluation of the hazards and the capability of the possessor and user. These categories fall into two groups -- those materials and uses which may be completely exempt from regulatory controls, and those materials and uses in which sanctions for misuse are maintained without pre-evaluation of the individual possession or use. In authorizing research and development or other activities involving multiple uses of radioactive materials, where an institution has people with extensive training and experience, the State regulatory authority may wish to provide a means for authorizing broad use of materials without evaluating each specific use.

Prior to the issuance of a specific license for the use of radioactive materials, the Illinois Department of Nuclear Safety will require the submission of information on, and will make an evaluation of, the potential hazards of such uses, and the capability of the applicant.

References: 32 ILL. ADM. CODE 330.240 to 330.340 and Part 601; Illinois Program Statement, Sections II.B.1.a)(1) "Licensing," II.C.1.a)(3) "Regulating Low-Level Waste Disposal" and III.B. "Licensing."

Provision is made for the issuance of general licenses for byproduct, source and special nuclear materials in situations

where prior evaluation of the licensee's qualifications, facilities, equipment and procedures is not required. The regulations grant general licenses under the same circumstances as those under which general licenses are granted in the Commission's regulations.

References: 32 ILL ADM. CODE 330.210 and 330.220.

Provision is made for exemption of certain source and other radioactive materials and devices containing radioactive materials. The exemptions for materials covered by the Agreement are the same as those granted by NRC regulations.

References: 32 ILL ADM. CODE 330.30 and 330.40.

14. Evaluation Criteria. In evaluating a proposal to use radioactive materials, the regulatory authority shall determine the adequacy of the applicant's facilities and safety equipment, his training and experience in the use of the materials for the purpose requested, and his proposed administrative controls. States should develop guidance documents for use by license applicants. This guidance should be consistent with NRC licensing and regulatory guides for various categories of licensed activities.

    In evaluating a proposal to use agreement materials, the Illinois Department of Nuclear Safety will determine that:

    (1) The applicant is qualified by reason of training and experience to use the material in question for the purpose requested in accordance with the regulations in such a manner as to minimize danger to public health and safety or property;
    (2) The applicant's proposed equipment, facilities, and procedures are adequate to minimize danger to public health and safety or property; and
    (3) The issuance of the license will not be inimical to the health and safety of the public.

    Other special requirements for the issuance of specific licenses are contained in the regulations.

    References: 32 ILL. ADM. CODE 330.250 to 330.280 and Part 601; Illinois Program Statement, Sections II.B.1.a(1) "Licensing" II.C.1.a) "Low-Level Radioactive Waste Management" and III.B "Licensing."

15. Human Use. The use of radioactive materials and radiation on or in humans shall not be permitted except by properly qualified persons (normally licensed physicians) possessing prescribed minimum experience in the use of radioisotopes or radiation.

The Illinois regulations require that the use of radioactive materials (including sealed sources) on or in humans shall be by a physician having substantial experience in the handling and administration of radioactive material and, where applicable, the clinical management of radioactive patients.

Reference: 32 ILL ADM. CODE 330.260a), b), and c).

INSPECTION

16. Purpose, Frequency. The possession and use of radioactive materials shall be subject to inspection by the regulatory authority and shall be subject to the performance of tests, as required by the regulatory authority. Inspection and testing is conducted to determine and to assist in obtaining compliance with regulatory requirements. Frequency of inspection shall be related directly to the amount and kind of material and type of operation licensed, and it shall be adequate to insure compliance.

Illinois materials licensees will be subject to inspection by the Department of Nuclear Safety. Upon instruction from the Department, licensees shall perform or permit the Department to perform such reasonable tests and surveys as the Department deems appropriate or necessary. The frequency of inspections is dependent upon the type and scope of the licensed activities and will be at least as frequent as inspections of similar licensees by NRC. Generally, inspections will be unannounced.

References: 32 ILL. ADM. CODE 310.50, 310.60, 310.70 and 400.140a); Illinois Program Statement, Section II.B.1.a)(2) "Inspection and Compliance," Section III.C, "Inspection and Enforcement" and Section IV.C., "Division of Responsibilities."

17. Inspections Compulsory. Licensees shall be under obligation by law to provide access to inspectors.

Illinois regulations state that licensees shall afford the Department at all reasonable times opportunity to inspect sources of radiation and the premises and facilities wherein such sources of radiation are used or stored.

Reference: 32 ILL. ADM. CODE 310.50.

18. Notification of Results of Inspection. Licensees are entitled to be advised of the results of inspections and to notice as to whether or not they are in compliance.

Following Department inspections, each licensee will be notified in writing of the results of the inspection. The letters and written notices indicate if the licensee is in compliance and if not, list the areas of noncompliance.

Reference: Illinois Program Statement, Section II.B.1.a)(2), "Inspection and Compliance," Section III.C, "Inspection and Enforcement" and Section IV.C., "Division of Responsibilities."

ENFORCEMENT

19. Enforcement. Possession and use of radioactive materials should be amenable to enforcement through legal sanctions, and the regulatory authority shall be equipped or assisted by law with the necessary powers for prompt enforcement. This may include, as appropriate, administrative remedies looking toward issuance of orders requiring affirmative action or suspension or revocation of the right to possess and use materials, and the impounding of materials; the obtaining of injunctive relief; and the imposing of civil or criminal penalties.

The Illinois Department of Nuclear Safety is equipped with the necessary powers for prompt enforcement of the regulations. Where conditions exist that create a clear presence of a hazard to the public health that requires immediate action to protect human health and safety, the Department may issue orders to reduce, discontinue or eliminate such conditions. The Department actions may also include impounding of radioactive material, imposition of a civil penalty, revocation of a license, and requesting the State Attorney General to seek injunctions and convictions for criminal violations.

References: 32 ILL. ADM. CODE 310.70, 310.80, 310.90, 330.500; Ill. Rev. Stat. 1985, ch. 111½, pars. 219, 222, 223 and 224; Illinois Program Statement, Section II.B.1.a)(2), "Inspection and Compliance," Section III.C, "Inspection and Enforcement" and Section IV.C., "Division of Responsibilities."

PERSONNEL

20. Qualifications of Regulatory and Inspection Personnel. The regulatory agency shall be staffed with sufficient trained personnel. Prior evaluation of applications for licenses or authorizations and inspection of licensees must be conducted by persons possessing the training and experience relevant to the type and level of radioactivity in the proposed use to be evaluated and inspected.

To perform the functions involved in evaluation and inspection, it is desirable that there be personnel educated and trained in the physical and/or life sciences, including biology, chemistry, physics and engineering, and that the personnel have had training and experience in radiation protection. The person who will be responsible for the actual performance of evaluation and inspection of all of the various

uses of byproduct, source and special nuclear material which might come to the regulatory body should have substantial training and extensive experience in the field of radiation protection.

It is recognized that there will also be persons in the program performing a more limited function in evaluation and inspection. These persons will perform the day-to-day work of the regulatory program and deal with both routine situations as well as some which will be out of the ordinary. These people should have a bachelor's degree or equivalent in the physical or life sciences, training in health physics, and approximately two years of actual work experience in the field of radiation protection.

The foregoing are considered desirable qualifications for the staff who will be responsible for the actual performance of evaluation and inspection. In addition, there will probably be trainees associated with the regulatory program who will have an academic background in the physical or life sciences as well as varying amounts of specific training in radiation protection but little or no actual work experience in this field. The background and specific training of these persons will indicate to some extent their potential role in the regulatory program. These trainees, of course, could be used initially to evaluate and inspect those applications of radioactive materials which are considered routine or more standardized from the radiation safety standpoint, for example, inspection of industrial gauges, small research programs, and diagnostic medical programs. As they gain experience and competence in the field, the trainees could be used progressively to deal with the more complex or difficult types of radioactive material applications. It is desirable that such trainees have a bachelor's degree or equivalent in the physical or life sciences and specific training in radiation protection. In determining the requirement for academic training of individuals in all of the foregoing categories, proper consideration should be given to equivalent competency which has been gained by appropriate technical and radiation protection experience.

It is recognized that radioactive materials and their uses are so varied that the evaluation and inspection functions will require skills and experience in the different disciplines which will not always reside in one person. The regulatory authority should have the composite of such skills either in its employ or at its command, not only for routine functions, but also for emergency cases.

a. Radioactive Materials Program

i. Personnel

There are approximately 890 NRC specific licenses in the State of Illinois. Under the proposed agreement, the State would assume responsibility for about 800 of these licenses. The Department's Division of Nuclear Materials is currently staffed with 13 professional persons and has one vacancy. Including the Manager of the Office of Radiation Safety (in which the Division of Nuclear Materials is located), four individuals will be assigned management and supervisory duties in the materials program. Exclusive of the low-level radioactive waste regulatory program and the regulatory oversight for a uranium conversion plant (discussed below) we estimate the State will need to apply between 7.9 to 12 staff-years of professional effort to the radioactive materials program. Illinois will apply about 14.4 staff-years to this program. The personnel together with summaries of their assigned responsibilities, training and experience are as follows (except as noted percentage of time devoted to the radioactive materials program will be 90% or more):

Terry R. Lash: Director, Illinois Department of Nuclear Safety, Governor's Designated Liaison to NRC. (10% of time devoted to materials program).

Training:
Ph.D. - Yale University (1970)
- Molecular Biophysics and Biochemistry, Yale University
M.Ph.- Molecular Biophysics and Chemistry
- Yale University (1967)
B.A. - Reed College (1965)
- Physics Major

Experience

1984 - Present	Director, Illinois Department of Nuclear Safety
1983 - 1984	Deputy Director, Illinois Department of Nuclear Safety
1983 - 1983	Independent Consultant
1982 - 1983	Science Director, Scientists' Institute for Public Information, New York City
1981 - 1982	Independent Consultant
1980 - 1981	Director, Science and Public Policy, The Keystone Center, Dillon, Colorado
1972 - 1980	Staff Scientist, Natural

Resources Defense Council, San Francisco, California

1970 - 1972 Postdoctoral Research Fellow, Yale University Medical School, New Haven, Connecticut

Paul D. Eastvold: Manager, Office of Radiation Safety. Responsible for managing the programs, functions and activities of four technical divisions: Nuclear Materials, Electronic Products, Radiologic Technologist Accreditation and Medical Physics (33% of time devoted to materials program).

Training:
B.S. - University of Iowa (1970)
- General Science/Nuclear Medicine Technology

"Special Topics in Licensing: Contingency Plans," US NRC, San Francisco, CA (1986)

"Impact of Proposed Changes to 10 CFR 20," Technical Management Services, Inc., Gaithersburg, Maryland (1986)

"Large Irradiator Radiation Safety Workshop," US NRC, New Jersey (1985)

"Incineration of Radioactive Material Workshop," University of California (1984)

"Transportation of Radioactive Materials," US NRC, Illinois (1983)

"Recognition, Evaluation, and Control of Non-Ionizing Radiation," US Dept. of Labor, Illinois (1981)

"Inspection Procedures," US NRC, Illinois (1980)

"Safety Aspects of Industrial Radiography," US NRC, Louisiana (1980)

"Quality Assurance in Nuclear Medicine," US FDA, Maryland (1979)

"Health Physics in Radiation Accidents," Oak Ridge Associated Universities, Tennessee (1979)

"Laser Safety Seminar," US Food and Drug Admin., Wisconsin (1979)

"Radiological Response Operations Training Course," US NRC, Nevada (1978)

"Radiopharmacies - Problems and Solutions," Univ. of Southern California, California (1978)

"Radiological Emergency Response Planning Course," US NRC, Minnesota (1977)

"Health Physics and Radiation Protection," US NRC, Tennessee (1977)

"Fundamentals of Non-Ionizing Radiation Protection," U.S. Food and Drug Administration, Maryland (1973)

"Licensing Course - Byproduct, Source, and Special Nuclear Materials," US NRC, Maryland (1972)

Experience:

1980 - Present	Illinois Department of Nuclear Safety
1971 - 1980	Illinois Department of Public Health, Division of Radiological Health
1970 - 1971	University of Iowa Radiation Protection Office

Michael Ewan: Chief, Division of Nuclear Materials. Manages the Division including supervision of staff and establishment of program objectives.

Training:

M.A. Sangamon State University, IL (1980)
- Business Administration

B.S. University of Iowa (1971)
- General Science/Nuclear Medicine Technology

"Uranium and Thorium: A Perspective on the Hazard," Radiation Safety Associates, Inc., Springfield, Illinois (1986)

"Special Topics in Licensing: Contingency Plans," US NRC, San Francisco, CA (1986)

"Incineration Basics," Univ. of California, Irvine, Charlotte, N.C. (1986)

"Basic Supervision," Keye Productivity Center, Springfield, Illinois (1986)

"Impact of Proposed Changes to 10 CFR 20," Technical Management Services, Inc., Gaithersburg, Maryland (1986)

"Transportation of Radioactive Materials," US DOE, Illinois (1985)

"Technical Writing," Richmond Staff Development, Illinois (1985)

"Health Physics and Radiation Protection," Oak Ridge Associated Universities, Tennessee (1985)

"Gas and Oil Well Logging," US NRC, Texas (1984)

"Licensing Practices and Procedures," US NRC, Maryland (1984)

"Transportation of Radioactive Materials," US NRC, Illinois (1983)

"Current Applications of Nuclear Imaging," Siemens Gammasonics, Inc., Illinois (1981)

"Nuclear Cardiology," Univ. of Wisconsin, Wisconsin (1980)

Experience:

1982 - Present	Illinois Department of Nuclear Safety
1973 - 1982	St. John's Hospital Springfield, Illinois
1981	Lincoln Land Community College Springfield, Illinois (Instructor)
1973 - 1977	Nuclear Medicine Institute Ohio (Affiliate Instructor)
1971 - 1973	Wesley Medical Center Kansas

Jou-Guang (Joe) Hwang: Licensing Section Head, Division of Nuclear Materials. Responsible for supervising the review of radioactive material license applications.

Training:
Ph.D. - Purdue University (1985)
- Health Physics

MSPH - University of South Carolina (1981)

- Industrial Hygiene and Environmental Quality Assessment

B.S. - National Taiwan University (1978)
- Pharmacy

"Uranium and Thorium: A Perspective on the Hazard," Radiation Safety Associates, Inc., Springfield, Illinois (1986)

"External Dosimetry," Health Physics Society, State College, Pennsylvania (1986)

"Introduction to Licensing Practices and Procedures, US NRC, Bethesda, Maryland (1986)

"Medical Uses of Radionuclides for State Regulatory Personnel, " US NRC, Oak Ridge Tennessee (1986)

Experience:

1986 - Present	Illinois Department of Nuclear Safety
1983 - 1986	Purdue University Graduate Teaching Instructor School of Pharmacy, Nursing and Health Sciences
1980 - 1982	Purdue University Graduate Research Instructor School of Health Sciences
1980 - 1981	University of South Carolina Graduate Teaching Assistant Department of Environmental Health Sciences
1980 - 1980	University of South Carolina Graduate Research Assistant Department of Environmental Health Sciences
1978 - 1979	The Church of Taipei Minister Taipei, Taiwan
1978 - 1979	Yun-Fu Pharmaceutical Ltd. Pharmacist Taipei, Taiwan
1977 - 1977	National Taiwan University Hospital, Pharmacy Intern Taipei, Taiwan

1977 - 1977	Pfizer Pharmaceutical Company Assistant Pharmacist (Intern) Tan-Shui, Taiwan ROC

Y. David La Touche: Radioactive Materials License Reviewer, Division of Nuclear Materials. Performs reviews of radioactive material license applications and performs inspections of radioactive materials licensees.

Training:
Ph.D - Oregon State University (1981)
- Radiation Biology

M.S. - Oregon State University (1978)
- Biological Science

B.S. - Concordia University, Montreal, Canada (1976)
- Biology

"Special Topics in Licensing: Contingency Plans," US NRC, San Francisco, CA (1986)

"Health Physics and Radiation Protection," US NRC, Oak Ridge, Tennessee (1986)

"Uranium and Thorium: A Perspective on the Hazard," Radiation Safety Associates, Inc., Springfield, Illinois (1986)

"Introduction to Licensing Practices and Procedures," US NRC, Bethesda, Maryland (1986)

Experience:

1986 - Present	Illinois Department of Nuclear Safety
1982 - 1986	Oregon State University, Corvallis, Oregon Research Associate
1979 - 1981	Oregon State University, Corvallis, Oregon Graduate Research Associate
1977 - 1979	Oregon State University, Corvallis, Oregon Graduate Teaching Assistant

Yu-Ann Stephen Hsu: Radioactive Materials License Reviewer, Division of Nuclear Materials. Performs reviews of radioactive material license applications and performs inspections of radioactive materials licensees.

Training:
M.S. - Old Dominion University (1982)
- Norfolk, Virginia
- Physics

B.S. - Tam Kang College of Arts and Sciences
- Physics

"Introduction to Air Toxics," US EPA, Kansas City, Missouri (1985)

"Health Physics and Radiation Protection," US NRC, Oak Ridge, Tennessee (1984)

"Safety Aspects of Industrial Radiography for State Regulatory Personnel," US NRC, Baton Rouge, Louisiana (1984)

"Cobalt Teletherapy Calibration," US NRC, Houston, Texas (1984)

"Medical Use of Radionuclides for State Regulatory Personnel," US NRC, Tennessee (1984)

"Gas and Oil Well-Logging for State Regulatory Personnel," US NRC (1983)

"Hazardous Waste Management," Old Dominion University, Virginia Beach, Virginia (1982)

"Inspection Procedures," US NRC, Atlanta, Georgia (1986)

Experience:

1986 - Present	Illinois Department of Nuclear Safety
1985 - 1986	Iowa Electric Light & Power Company, Cedar Rapids, Iowa Radiological Engineer
1982 - 1985	Kansas Department of Health and Environment, Topeka, Kansas Radiation Control Inspector
1981 - 1982	Eastern Virginia Medical Authority, Norfolk, Virginia Assistant Radiation Safety Officer
1980 - 1981	Eastern Virginia Medical Authority, Norfolk, Virginia Radiation Safety Research Technician

1979 - 1980	Old Dominion University Norfolk, Virginia Research Assistant

Steve Meiners: Radioactive Materials License Reviewer, Division of Nuclear Materials. Performs reviews of radioactive material license applications and performs inspections of radioactive materials licensees.

Training:
M.S. - University of Arkansas for Medical Sciences (1985)
- Radiation Health Physics

B.A. - Harding University (1981)
- Biology

"Medical Uses of Radionuclides for State Regulatory Personnel," US NRC, Oak Ridge, Tennessee (1986)

Experience:

1985 - 1985	Texas Tech University Radiation Safety Officer
1984 - 1984	University of Arkansas Graduate Assistant
1981 - 1984	University of Arkansas Laboratory Technologist
1981 - 1983	University of Arkansas Aquatic Ecologist
1980 - 1981	Harding University Teaching Assistant

Sheryl O. Soderdahl: Support Services Section Head, Division of Nuclear Materials. Responsible for the Division's data processing system and registration program, assists in license reviews and inspections, assists in review and revision of regulations and standards and serves as the Department's Radiation Safety Officer.

Training:
B.S. - Purdue University, Indiana (1980)
- Health Physics

"Inspection Procedures," US NRC, Atlanta, Georgia (1985)

"Writing for Results," Sangamon State University, Springfield, Illinois (1985)

"Introduction to Licensing Practices and Procedures," US NRC, Washington, D.C. (1985)

"Environmental Health Practices," University of Massachusetts, Amherst, Massachusetts (1982)

Experience:

1985 - Present	Illinois Department of Nuclear Safety
1980 - 1985	University of Massachusetts Department of Environmental Health and Safety Amherst, Massachusetts Staff Health Physicist
1979 - 1979	Fermi National Accelerator Laboratory, Proton Department Batavia, Illinois

Bruce J. Sanza: Inspection and Enforcement Section Head, Division of Nuclear Materials. Manages the inspection and enforcement program.

Training:
M.S. - Texas A & M University (1985)
- Nuclear Engineering (Health Physics)

B.S. - University of Virginia (1979)
- Nuclear Engineering

"Uranium and Thorium: A Perspective on the Hazard," Radiation Safety Associated, Springfield, Illinois (1986)

"Inspection Procedure," US NRC, Atlanta, Georgia (1986)

"Gas & Oil Well Logging for Regulatory Personnel," (Accepted for attendance at November, 1986 course, Houston, Texas)

Experience:

1986 - Present	Illinois Department of Nuclear Safety
1983 - 1986	Texas A & M University Health Physicist College Station, Texas
1980 - 1983	Carolina Power & Light Company

Radiation Control Specialist
Hartsville, South Carolina

George E. Merrihew: Radioactive Materials License Inspector. Performs reviews of radioactive materials license applications and performs inspections of radioactive materials licensees.

Training:
M.A. - Sangamon State University (1972)
- Biology/Psychology

B.A. - Sangamon State University (1971)
- Biology/Psychology

A.A. - Springfield, College in Illinois (1969)
- General Science

"Radiological Emergency Response Operation," FEMA, Las Vegas, Nevada (1986)

"Medical Uses of Radionuclides," US NRC, Oak Ridge, Tennessee (1986)

"Gas and Well Logging for Regulatory Personnel," US NRC, Houston, Texas (1985)

"Radioactive Material Training Course: Hazardous Material Regulations of the United States Department of Transportation," Chicago, Illinois (1985)

"Safety Aspects of Industrial Radiography," US NRC, Baton Rouge, Louisiana (1985)

"Introduction to Licensing Practices and Procedures," US NRC, Bethesda, Maryland (1984)

"Inspection Procedures," US NRC, Atlanta, Georgia (1984)

"Health Physics and Radiation Protection," US NRC, Oak Ridge, Tennessee (1984)

"Radiation Protection Technology," Rockwell International, Energy Systems Group (1983)

"Transportation of Nuclear Materials," US NRC, Illinois (1983)

"Executive Development Academy," Illinois Department of Personnel, Illinois (1981)

"ANS Cobol Course" (1980); "Basic Systems Analysis: (1980); "General Introduction to Statistical Package

for the Social Sciences" (1979); "DP Concepts" (1979); "IMS Environment Course" (1979); "Easytrieve/IMS Class" (1979); "Basics in Easytrieve," State of Illinois Data Processing Training Center (1977)

"Air Pollution Control Orientation," US EPA (1978)

"Community Hygiene," US HEW, Georgia (1978)

University of Illinois, School of Clinical Medicine, (1974)

University of Illinois, School of Basic Medical Sciences (1973)

Experience:

1983 - Present	Illinois Department of Nuclear Safety
1974 - 1983	Illinois Department of Public Health, Division of Engineering
1971 - 1972	Sangamon State University Department of Biology Graduate Assistant
1965 - 1967	Memorial Medical Center Clinical Laboratory

Lori Kim Podolak: Radioactive Materials License Inspector. Performs reviews of radioactive materials license applications and performs inspections of radioactive materials licensees.

Training:

M.S. - University of Lowell (1986)
- Radiological Sciences

B.S. - Kentucky Wesleyan College (1984)
- Physics

Experience:

1986 - Present	Illinois Department of Nuclear Safety
1984 - 1986	University of Lowell
1985	Brookhaven National Laboratory
1983	Oak Ridge National Laboratory

Andrew S. Gulczynski: Chicago Inspection and Enforcement Section Head, Division of Nuclear Materials. Supervises Chicago office materials license inspectors.

Training:
B.S. - Northeastern Illinois University (1981)
- Biology

"Five Week Health Physics and Radiation Protection Course," US NRC, Oak Ridge, Tennessee (1986)

"Internal Dose Assessment," Technical Management Services, Inc., Illinois (1985)

"Transportation of Radioactive Materials," US DOE, Chicago, Illinois (1985)

"Medical Uses of Radionuclides for State Regulatory Personnel," US NRC, Oak Ridge, Tennessee (1984)

"Safety Aspects of Industrial Radiography for State Regulatory Personnel," US NRC, Baton Rouge, Louisiana (1983)

"Inspection Procedures for State Regulatory Personnel," US NRC, Atlanta, Georgia (1983)

"Radiological Emergency Response Operations," FEMA, Las Vegas, Nevada (1983)

Experience:

1985 - Present	Illinois Department of Nuclear Safety
1982 - 1985	Kansas Department of Health and Environment, Bureau of Radiation Control Topeka, Kansas
1981 - 1982	Argonne National Laboratory Argonne, Illinois
1977 - 1981	Northeastern Illinois University, Chicago, Illinois

John D. Papendorf: Radioactive Materials License Inspector. Performs reviews of radioactive materials license applications and performs inspections of radioactive materials licensees.

Training:

N.M.T. - Oak Park Hospital (1975)
- Nuclear Medicine Technologist Certification

R.T. - Hines V.A. Hospital (1972)
- X-Ray Technologist Certification

A.S. - Central YMCA College (1972)

"Inspection of Transportation of Radioactive Materials," US NRC, Glen Ellyn, Illinois (1985)

"Nuclear Transportation for State Regulatory Personnel," US NRC, Columbia, South Carolina (1984)

"Hazardous Materials Training Course," US DOE, Chicago, Illinois (1983)

"Radiation Safety," Northwestern University, Evanston, Illinois (1982)

"Radiation Therapy Workshop, Medical Linear Accelerators," US Public Health Service, Chicago, Illinois (1981)

"Acceptance Testing of Radiological Imaging Equipment," American Association of Physicists in Medicine, American College of Radiology and Society for Radiological Engineering, Chicago, Illinois (1981)

"Safety Aspects of Industrial Radiography for State Programs," US NRC, Baton Rouge, Louisiana (1981)

"Inspection Procedures," US NRC, Glen Ellyn, Illinois (1980)

"Quality Assurance in Nuclear Medicine Departments," US Food and Drug Administration, Rockville, Maryland (1979)

"Radiological Emergency Response Operations Training Course for State and Local Government Emergency Preparedness Personnel," FEMA, Las Vegas, Nevada (1979)

"Special Procedures on CT Scanners" US Public Health Service, Chicago, Illinois (1976)

"Radiological Workshop," US Public Health Service, Chicago, Illinois (1976)

Experience:
1980 - Present Illinois Department of Nuclear Safety

1976 - 1980	Illinois Department of Public Health, Division of Radiological Health
1973 - 1976	Oak Park Hospital Nuclear Medicine Technologist Oak Park, Illinois
1972 - 1973	Oak Park Hospital X-Ray Technologist Oak Park, Illinois

Robin Gehrhardt Bauer: Radioactive Materials License Inspector. Performs reviews of radioactive materials license applications and performs inspections of radioactive materials licensees.

Training:
M.S. - Emory University (1985)
- Radiological Physics

B.S. - University of Miami (1983)
- Biology

"Health Physics and Radiation Protection," US NRC, Oak Ridge, Tennessee (1986)

Experience:

1986 - Present	Illinois Department of Nuclear Safety
1985 - 1985	Georgia Baptist Hospital Internship, Medical Physics Atlanta, Georgia
1985 - 1985	Emory University X-ray, Nuclear Medicine, Calibration Atlanta, Georgia
1983 - 1984	Loyola University Research Technician Maywood, Illinois

Joanne B. Kark: Radioactive Materials License Inspector. Performs reviews of radioactive materials license applications and performs inspections of radioactive materials licensees.

Training:
Graduate work toward M.S. - Colorado State University (1985)

- University of Tennessee (1982)
- Health Physics

B.S. - Villanova University (1975)
- Biology

Certificate - St. Joseph's Hospital and Medical Center School of Nuclear Medicine Technology, Paterson, New Jersey (1977)

"Inspection Procedures," US NRC, Atlanta, Georgia (1986)

Experience:

1986 - Present	Illinois Department of Nuclear Safety
1981 - 1984	Oak Ridge National Laboratory, Health and Safety Research Division, Senior Laboratory Technician
1979 - 1981	Oak Ridge National Laboratory, Biology Division, Biological Technician
1977 - 1979	Radiology Associates, Albert Einstein Medical Center, No. Division, Nuclear Medicine Technologist
1976 - 1977	SpectroChem Laboratories, Inc., Analytical Chemistry Technician

John W. Cooper: Manager, Office of Environmental Safety. Provides technical support to the Division of Nuclear Materials on an as needed basis.

Training:
Ph.D.- University of Iowa (1971)
- Radiation Biology

M.S. - University of Iowa (1966)
- Pharmacy

B.S. - Drake University (1960)
- Pharmacy

"Industrial Ventilation Systems," OSHA Training Institute, Illinois (1983)

"Respirator Safety for CSHO's," OSHA Training Institute, Illinois (1982)

Experience:

1981 - Present	Illinois Department of Nuclear Safety
1975 - 1981	U.S. Nuclear Regulatory Commission, Region III Inspector and license reviewer
1971 - 1975	Allegheny General Medical Center Radiation Biology Laboratory
1964 - 1971	University of Iowa Radiation research and teaching

Apparao Devata: Chief, Division of Medical Physics. Provides technical support to the Division of Nuclear Materials on an as needed basis.

Training:

Ph.D.- University of New Orleans (1975)
- Physics

M.S. - University of New Orleans (1972)
- Physics

MSc. - Andhra University (1968)
- Applied Physics

BSc. - Andhra Loyola College (1965)
- Mathematics

Experience:

1985 - Present	Illinois Department of Nuclear Safety
1985	Medical Physics Consultant
1983 - 1985	St. James Hospital Medical Center, Chicago Heights, Illinois Medical physicist
1975 - 1983	St. Joseph's Hospital, Elgin, Illinois Medical physicist
1975	Mt. Sinai Hospital, Chicago, Illinois Medical physicist
	VA Hines Hospital, Hines, Illinois Medical physicist

1969 - 1975 University of New Orleans
Research and teaching

Reference: Illinois Program Statement, Section III, "Implementation of the Agreement State Program for Materials Licenses," Section IV.A.3, "Staff Requirements" and Appendix 5, "Current Agreement State Staff Positions: Byproduct Material, Source Material and Special Nuclear Materials in Quantities Not Sufficient to Form a Critical Mass."

b. Regulatory Oversight of Uranium Conversion Plant

i. Personnel

There are two plants in the United States which convert natural uranium oxide (yellowcake) to uranium hexafluoride. These activities are conducted pursuant to source materials licenses issued by the NRC. Under the proposed Agreement, the source material license for the Allied Chemical uranium conversion facility located in Metropolis will be transferred to Illinois.* The Office of Radiation Safety, Division of Nuclear Materials will be responsible for regulatory oversight with technical support from the Offices of Environmental Safety and Nuclear Facility Safety. Overall IDNS will commit 0.6 full-time equivalent professionals effort to this program. Key staff assigned to this program together with summaries of their duties and training and experience are:

(a) Staff previously identified in the materials program (Section 20.a)

Jou-Guang (Joe) Hwang
Y. David La Touche
Bruce J. Sanza
John W. Cooper

(b) Other IDNS staff:

Lih-Ching Chu: Chief, Division of Radiochemistry Laboratories, Office of Environmental Safety. Supervises analytical support for all Department programs. Provides technical support in radiochemistry and radioanalysis

Training:
Ph.D.- Washington University (1981)
- Chemistry

*The Commission is considering whether continued NRC regulation of the Allied Chemical Plant is necessary in the interest of the common defense and security of the United States.

M.A. - Washington University (1978)
- Chemistry

M.S. - East Texas State University (1976)
- Chemistry

B.S. - Tamkang College of Arts and Sciences (1971)
- Chemistry

"Vax Applications Manager," Canberra Industries, Inc., CT, 1984

"Introduction to S-90-VMS Apogee System Operations," Canberra Industries, Inc., CT, 1984

Experience:

1984 - Present	Illinois Department of Nuclear Safety
1981 - 1984	Illinois Department of Energy and Natural Resources
1976 - 1981	Washington University, St. Louis, Missouri
1974 - 1976	East Texas State University, Commerce, Texas
1973 - 1974	Young-Ho Middle School, Young-Ho, Taiwan, ROC
1971 - 1973	Military Service, Taiwan, ROC

David A. Filler: Assistant Chief, Division of Radiochemistry Laboratories, Office of Environmental Safety. Provides radiochemistry support.

Training:

Ph.D.- University of Michigan, (1976)
- Biochemistry

M.S. - University of Michigan (1973)
- Biochemistry

B.S. - Purdue University (1969)
- Chemistry

"Vax Applications Manager," Canberra Industries, Inc., Connecticut (1984)

"Introduction to S-90-VMS Apogee System Operations," Canberra Industries, Inc., Connecticut (1984)

"Auditor Training," Gilbert/Commonwealth (1984)

"Radiological Monitor," Indiana Department of Civil Defense and Emergency Management (1983)

"Radiochemistry for State Regulatory Personnel," NRC (1983)

"Radiological Monitoring, Sampling and Analysis of Nuclear Facilities," US DOE (1983)

"Radiological Emergency Response Training for State Government Emergency Preparedness Personnel," FEMA/US DOE (1982)

Experience:

1984 - Present	Illinois Department of Nuclear Safety
1981 - 1984	Indiana State Board of Health Radiochemistry Lab Indianapolis, Indiana
1977 - 1981	Indiana University Medical Center, Indianapolis, Indiana
1976 - 1977	St. Jude Children's Research Hospital Memphis, Tennessee

James F. Schweitzer: Health Physicist, Office of Environmental Safety. Serves as a specialist in environmental monitoring and will provide technical support and guidance in this area.

Training:

Ph.D.- Purdue University (1985)
- Environmental Toxicology

M.S. - Purdue University (1981)
- Health Physics

B.S. - Randolph-Macon College (1976)
- Biology

Environmental Laws and Compliance Course

Short Course: Uranium and Thorium: A Perspective on the Hazard (1986)

Experience:

1986 - Present	Illinois Department of Nuclear Safety
1985 - 1986	Purdue University Office of Radiological and Chemical Control

1980 - 1980	Purdue University Office of Radiological and Chemical Control

Michael H. Momeni: Chief, Low-Level Waste Siting Section, Office of Environmental Safety. Provides radiological and environmental support for the Office of Environmental Safety and will provide technical support for Allied Chemical regulatory actions.

Training:
Ph.D.- University of Iowa
- Biophysics/Radiation Biology

M.S. - University of Iowa
- Nuclear Physics

B.A. - Luther College
- Physics-Mathematics

Experience:

1986 - Present	Illinois Department of Nuclear Safety
1985 - 1986	Scientist, Oak Ridge Associated Universities, Oak Ridge, Tennessee
1983 - 1985	Professor-Director of Health Physics Program, San Diego State University, San Diego, California
1975 - 1983	Senior Scientist, Argonne National Laboratory, Argonne, Illinois
1970 - 1975	Biophysicist-Lecturer, The University of California, Davis, California
1962 - 1963	Science Teacher, Urbana Consolidated Schools, Iowa

Gary Wright: Manager, Office of Nuclear Facility Safety. Provides technical assistance concerning engineering principles and emergency planning and response.

Training:
- Sangamon State University (1974)
- Degree approx. half complete in Public Administration

M.S. - University of Illinois (1965)
- Nuclear Engineering

B.S. - Millikin University (1964)
- Physics/Mathematics

"Management Education Workshop," Ill. Dept. of Personnel, Champaign (1978)

"International Symposium on Migration of Tritium in the Environment," International Atomic Energy Agency, California (1978)

"Radiological Emergency Response Operations," US NRC, Nevada (1977)

"Workshop on Collective Bargaining for Public Employees," Ill. Dept. of Personnel (1976)

"Administrative and Organizational Behavior," Ill. Dept. of Public Health (1975)

"Professional Engineering Review," Univ. of Ill. (1974)

"Response of Structures to External Forces, i.e., Earthquakes, Tornados, etc.," Penn. State Univ. (1968)

Experience:

1980 - Present	Illinois Department of Nuclear Safety
1973 - 1980	Illinois Department of Public Health
1967 - 1973	Sangamo-Weston Electronics Company Springfield, Illinois
1965 - 1967	Westinghouse Electric Company Forrest Hills, Pennsylvania

Reference: Illinois Program Statement, Section III.D." Allied Chemical Uranium Conversion Facility," Appendix 5, and Appendix 9, "Current Agreement State Staff Positions: Low-Level Radioactive Waste Management Program, Office of Environmental Safety."

c. Licensing and Regulation of Permanent Disposal of Low-Level Radioactive Waste

1. Personnel

The Office of Environmental Safety has responsibility for the low-level waste (LLW) management regulatory program which includes the Sheffield site and the regional waste disposal facility. The assessment of the regulatory framework is included under Criterion 9, "Radioactive Waste Disposal." The LLW and transportation management program is staffed by 13 technical staff members. The Manager of the Office of Environmental Safety will provide overall supervision and management and the Chief of the Office's Division of Nuclear Chemistry will provide laboratory support. Technical support will also be available from the Division of Nuclear Materials. These personnel and summaries of their duties are:

(a) Staff previously identified in the materials or uranium conversion plant regulatory oversight programs (Section 20.a and b):

Michael H. Momeni
Lih-Ching Chu
John W. Cooper
James F. Schweitzer

(b) Other IDNS Staff:

Robert A. Lommler: Chief, Division of Waste and Transportation. Has responsibilities for implementing the Illinois LLW management act, supervises staff in the LLW program and manages the spent nuclear fuel and LLW shipment inspection program.

Training:
B.S. - Kent State University (1971)
- Chemistry

"10 CFR 61," US NRC, Springfield, Illinois (1986)

"Incinerator Basics," Univ. of California, Charlotte, N.C. (1986)

"Radioactive Material Transportation Workshop," US DOE, Chicago, Illinois (1985)

"10 CFR 61 Compliance," TMS, Inc., Washington, D.C. (1984)

"Radiological Protection Officer Course," U.S. Army (1978)

"Chemical Officer Advanced Course," U.S. Army (1978-1979)

"Transportation of Hazardous Materials by Air," US DOT (1972)

"Chemical Officer Basic Course," U.S. Army (1971)

Experience:

1984 - Present	Illinois Department of Nuclear Safety
1979 - 1983	U.S. Army Radiation Safety Officer Ft. Riley, Kansas
1975 - 1978	U.S. Army Mannehim, West Germany
1971 - 1975	U.S. Army Edgewood, Maryland

Michael Klebe: Nuclear Safety Engineer. Serves as technical resource on LLW management environ- mental problems, decommissioning and disposal facility siting.

Training:

M.S. - Montana College of Mineral Science and Technology (1982)
- Mining Engineering

B.S. - Montana College of Mineral Science and Technology (1980)
- Mining Engineering

Experience:

1986 - Present	Illinois Department of Nuclear Safety
1982 - 1986	Shell Mining Company Houston, Texas and Elkhart, Illinois Mining Engineer

David Flynn: Geologist. Evaluates geological and hydrologic factors relating to LLW management.

Training:

B.S. - Southern Illinois University (1979)
- Geology

"Uranium and Thorium: A Perspective on the Hazard," Radiation Safety Associates, Springfield, Illinois (1986)

"Corrective Actions for Containing and Controlling Ground Water Contamination," National Water Well Association, Columbus, Ohio (1986)

"A Standardized System for Evaluation of Groundwater Pollution Potential Using Hydrogeologic Setting," National Water Well Association, Denver, Colorado (1986)

"Groundwater Pollution and Hydrology," Princeton & Associates, Miami, Florida (1986)

"Engineering and Design of Waste Disposal Systems," Civil Engineering Department, Colorado State University, Fort Collins, Colorado (1985)

"Groundwater Monitoring Workshop," Illinois Department of Energy and Natural Resources, Champaign, Illinois (1984)

"Radiological Emergency Response Training for State and Local Government Emergency Preparedness Personnel," FEMA, Nevada Test Site (1983)

Experience:

1983 - Present	Illinois Department of Nuclear Safety
1981 - 1983	Mine Geologist, Atlas Minerals Corporation Moab, Utah
1980 - 1981	Associate Mine Geologist Rancher's Exploration & Development Corporation Albuquerque, New Mexico
1979-1980	Junior Geologist Rancher's Exploration & Development Corporation Albuquerque, New Mexico

Shannon M. Flannigan: Geologist. Reviews, interprets and evaluates geologic hydrologic, physical and environmental data related to environmental impact, design, location, construction and decommissioning of facilities.

Training:
B.S. - Drake University (1978)

- Geology

A.A. - Springfield College in Illinois (1976)
- Business

"Radiological Emergency Response," FEMA, Nevada (1986)

"Groundwater Contaminant Transport Modeling," Princeton University, Princeton, New Jersey (1986)

"A Standardized System for Evaluating Groundwater Pollution Using Hydrogeologic Settings," Denver, Colorado (1986)

"Groundwater Pollution & Hydrology," Princeton Associates, Princeton, New Jersey (1986)

"Borehole Geophysics Techniques for Solving Groundwater Problems," National Water Well Association, Denver, Colorado (1986)

"Soil Mechanics and Foundations," Lincoln Land Community College, Springfield, Illinois (1981)

"Environmental Risk Assessment," Sangamon State University, Springfield, Illinois (1985)

"Recognition, Evaluation, and Control of Ionizing Radiation," OSHA Training Institute, Illinois (1985)

Experience:

1985 - Present	Illinois Department of Nuclear Safety
1984 - 1985	Hanson Engineers, Inc. Springfield, Illinois
1981 - 1984	Veesay Geoservice, Inc. Denver, Colorado
1978 - 1981	Hanson Engineers, Inc. Springfield, Illinois

George T. FitzGerald: Nuclear Safety Engineer I. Principally responsible for geology.

Training:
B.A. - Humboldt State University, California (1968)
- Geology

Post-Graduate Work: Education, Humboldt State University, Economic Evaluation, Colorado School of Mines, Golden, Colorado

Experience:

1986 - Present	Illinois Department of Nuclear Safety
1984 - 1986	Boliden Minerals, Inc. Silver City, New Mexico
1980 - 1984	Minatome Corporation Denver, Colorado
1975 - 1980	SOHIO, Seboyeta, New Mexico
1968 - 1975	Kerr McGee Corporation Grants, New Mexico

Dana M. Willaford: Nuclear Safety Supervisor. Responsible for overall operation of waste generator registration and inspection program.

Training:
M.P.A. - Sangamon State University (1983)

B.A. - University of Illinois (1981)
- Political Science, Math/Physics Minor

"Radioactive Materials Transportation Course," US DOE, Kansas City, Missouri (1986)

"Uranium and Thorium: A Perspective on the Hazard," Radiation Safety Associates, Inc., Springfield, Illinois (1986)

"Recognition, Evaluation, and Control of Ionizing Radiation," OSHA, Des Plaines, Illinois (1985)

"Environmental Laws and Regulations Compliance Course," Government Institutes, Washington, D.C. (1985)

"Radiological Emergency Response Operations Course," FEMA, Nevada (1983)

Experience:

1983 - Present	Illinois Department of Nuclear Safety
1981 - 1983	Illinois Department of Nuclear Safety/Sangamon State University (Graduate Public Service Intern)
1977 - 1981	University of Illinois (Student Worker)

Tim Runyon: Nuclear Safety Inspector. Assists the Chief, Waste & Transportation Management.

Training:
A.S - Illinois Central College
- Radiologic Technology

"Hazardous Materials Transportation Course," ISP, Illinois State Policy Academy, Springfield, Illinois (1985)

"Review of USDOT Regulations," US NRC, Hanford, Washington (1985)

"Evaluation and Control of Ionizing Radiation," OSHA, Argonne National Laboratory (1981)

"Emergency Response for Radiological Accidents," REECO, Las Vegas, Nevada (1981)

Experience:

1985 - Present	Illinois Department of Nuclear Safety Office of Environmental Safety
1979 - 1985	Illinois Department of Nuclear Safety Office of Radiation Safety

Stephen B. Shafer: Nuclear Safety Inspector II. Performs inspections and health physics surveys.

Training:
Graduate Classes (non-degree) University of Illinois (1984)

B.S. - Western Illinois University (1983)
- Geophysics

Hazardous Materials Transportation Enforcement Course, Illinois State Police, Springfield, Illinois (1986)

Radiological Emergency Response Operations Course, FEMA, Nevada (1986)

Short Course: Uranium and Thorium: A Perspective on the Hazard (1986)

Experience:

1986 - Present	Illinois Department of Nuclear Safety
1984 - 1984	Illinois Department of Nuclear

Safety, Summer Intern

Eric Schwing: Attorney. Provides legal counsel to the Director and technical staff in low-level radioactive waste management.

Training:
Ph.D. Candidate (presently enrolled)
Michigan State University
Resource Development/Environmental Toxicology

Doctor of Laws (1982)
Thomas M. Cooley Law School

B.A. - Michigan State University (1976)
- Chemistry

Experience:

1986 - Present	Illinois Department of Nuclear Safety
1978 - 1986	Michigan Department of Public Health
1973 - 1978	Michigan State University
1971 - 1972	William Beaumont General Hospital (U.S. Army)

Gregory P. Crouch: Chief, Division of Radioecology. Directs the Office's environmental surveillance program.

Training:
M.P.H. - University of Minnesota (1986)
- Environmental Health

M.S. - Purdue University (1977)
- Bionucleonics/Health Physics

B.S. - Purdue University (1975)
- Biology

"Seminar on the Transportation of Nuclear Materials," US NRC, Springfield, Illinois (1983)

"Radiological Emergency Response Course," US DOE/FEMA, Nevada Test Site (1983)

"Inspection Procedures Course," US NRC, Atlanta, Georgia (1982)

Experience:
1986 - Present Illinois Department of Nuclear

Safety

1981 - 1984 — Illinois Department of Nuclear Safety

1977 - 1978 — Indiana University Medical Center
Assistant Radiation Safety Officer

1976 - 1977 — Purdue University
Radiological Services
Graduate Assistant

Gregory J. Shott: Nuclear Safety Supervisor. Supervises the Department's - Mobile Radiochemistry Laboratory.

Training:
M.S. - University of Michigan (1985)
Fisheries

B.S. - University of New Hampshire (1981)
Biology

Experience:
1986 - Present — Illinois Department of Nuclear Safety

1985 - 1986 — Environmental & Chemical Sciences, Inc.
Environmental Scientist

1984 — Lawrence Livermore National Laboratory
Research Associate,
Environmental Intern Program

1981 - 1984 — University of Washington
Laboratory of Radiation Ecology
Research Assistant

David D. Ed: Assistant Manager, Office of Environmental Safety.

Training:
B.S. - University of Illinois, Urbana (1971)
- Chemistry

"Radon Training for State Personnel," US EPA (1986)

"Comprehensive Health Physics," Rockwell International (1985)

"Biological Effects of Ionizing Radiation," Harvard

University, School of Public Health (1982)

"Dose Projection, Accident Assessment and Protective Action Decision Making for Radiological Emergency Response," US NRC, FEMA (1980)

"Environmental Radiation Surveillance," Georgia Institute of Technology (1977)

"Radiological Emergency Response Operations Training," US NRC, ERDA (1977)

"Environmental Source Term Modeling," University of Chicago, Argonne National Laboratory (1971)

Experience:

1980 - Present	Illinois Department of Nuclear Safety
1973 - 1980	Illinois Department of Public Health
1972 - 1973	Illinois Environmental Protection Agency

Abdul Khalique: Nuclear Safety Scientist I. Plans, implements and participates in radioanalytical programs.

Training:

Ph.D. - University of Birmingham, England (1976)
Analytical Chemistry

M.S. - University of Karachi, Pakistan (1967)
Chemistry

B.S. - University of Karachi, Pakistan (1964)

Quality Control Course, University of Business Administration, University of Karachi, Pakistan (1964)

Experience:

1986 - Present	Illinois Department of Nuclear Safety
1981 - 1986	Department of Pharmacology, Southern Illinois University School of Medicine
1975 - 1980	Glaxo Laboratories (Pakistan) Ltd.
1968 - 1970	Opal Laboratories, Ltd.

(Pakistan)

Melanie A. Hamel: Health Physicist. Functions as a health physics specialist in the environmental monitoring division.

Training:
B.S. - University of Lowell, MA (1977)
Health Physics

University of Lowell, MA (1977)
Environmental Monitoring and Surveillance
Health Physics Certification Review
Medical Health Physics

"Environmental Law and the Citizen," Sangamon State University, Springfield, Illinois

"Post-Accident Radiation Assessment," Northwestern University, Illinois

"Radiation Protection Instrumentation," Harvard University, Boston, MA

"Radon Training Session for State Personnel," US EPA

Experience:

1982 - Present	Illinois Department of Nuclear Safety
1977 - 1981	Yankee Atomic Electric Company
1975	University of Lowell Research Reactor Facility Health Physics Technician

Michael V. Madonia: Nuclear Safety Associate. Performs technical duties concerning nuclear facility monitoring and environmental radiation control.

Training:
B.S. - University of Illinois
- Nuclear Engineering, Radiation Protection and Shielding

"Air Sampling for Radioactive Materials," Oak Ridge Associated Universities, Oak Ridge, Tennessee (1986)

"Personal Computer Applications in Health Physics," TMS, Inc., Boston, MA (1986)

Nuclear-General Employee Training (NGET), Commonwealth Edison, Chicago, Illinois (1985)

"Radiation Detection and Measurement - Advanced Course," Eberline Analytical, Albuquerque, New Mexico (1985)

"Fundamentals of Ground Water Contamination," Geraghty & Miller, Chicago, Illinois (1985)

Experience:

1985 - Present	Illinois Department of Nuclear Safety
1983 - 1984 (Summers)	Illinois Department of Nuclear Safety

Richard Walker: Nuclear Policy Analyst. Performs review and analysis of Federal and State regulations.

Training:

Ph.D. - Purdue University (1976)
- Sociology (Research Methods and Statistics)

M.S. - Purdue University (1974)
- Sociology

B.S. - Marietta College (1972)
- Sociology

Environmental Radiation Surveillance, Harvard University, Massachusetts (1985)

"Fundamentals of Radiation Safety," Radiation Safety Associates (1985)

Experience:

1985 - Present	Illinois Department of Nuclear Safety
1978 - 1984	Chairman, Department of Sociology Blackburn College Carlinville, Illinois
1976 - 1978	Department of Sociology Muhlenberg College Allentown, Pennsylvania

Teresa A. Adams: Nuclear Policy Analyst. Performs staff functions coordinating and assisting with the direction of office programs.

Training:
B.A. - Wellesley College (1981)
- German

Massachusetts Institute of Technology, Department of Urban Studies and Planning (1982-1984)

University of Hanover, West Germany, Department of Planning and Architecture (1981-1982)

Additional coursework in decision analysis, fundamentals of radiation protection, hazardous waste minimization

Experience:

1985 - Present	Illinois Department of Nuclear Safety
1984	Parliamentary Research Service, Bonn, West Germany
1982 - 1984	Worked on a variety of projects dealing with policy development and dispute resolution in environmental issues

Paul E. Seidler: Nuclear Policy Analyst. Responsible for implementing the Illinois public participation plan, also performs as liaison with local government groups.

Experience:
M.A. - University of Chicago (1986)
- Public Policy

B.A - University of Illinois (1983)
- Political Science, Communication Studies

Urban & Regional Information Systems Association 1986 Annual Conference (1986)

Experience:

1986 - Present	Illinois Department of Nuclear Safety
1985 - 1986	University of Chicago Office of the Comptroller
1985 - 1985	Illinois Bureau of the Budget
1984 - 1985	Compass Health Plans
1984 - 1984	U.S. Senator Paul Simon

1982 - 1982 Creative Research Associates

Reference: Illinois Program Statement, Section II.C.1.a), "Low-Level Waste Management," Section II.C.1.b) "Sheffield Low-Level Waste Disposal Facility," Section IV.B, "Low-Level Radioactive Waste Management Program," and Appendices 5 and 9.

21. Conditions Applicable to Special Nuclear Material, Source Material and Tritium. Nothing in the State's regulatory program shall interfere with the duties imposed on the holder of the materials by the NRC, for example, the duty to report to the NRC, on NRC prescribed forms (1) transfers of special nuclear material, source material and tritium and (2) periodic inventory data.

The State's regulations do not prohibit or interfere with the duties imposed by the NRC on holders of special nuclear material owned by the U.S. Department of Energy or licensed by NRC, such as the responsibility of licensees to supply to the NRC reports of transfer and inventory.

Reference: 32 ILL. ADM. CODE 310.10.

22. Special Nuclear Material Defined.

The definition of special nuclear material in quantities not sufficient to form a critical mass, as contained in the Illinois regulations, is uniform with the definition in 10 CFR Part 150.

Reference: 32 ILL. ADM. CODE 310.20, Definition of Special Nuclear Material in Quantities Not Sufficient to Form a Critical Mass.

ADMINISTRATION

23. Fair and Impartial Administration.

The Illinois statute and regulations provide for administrative and judicial review of actions taken by the Department of Nuclear Safety.

Reference: 32 ILL. ADM. CODE Part 200, 310.90, 310.110, 330.500, Part 400.

24. State Agency Designation. The Illinois Department of Nuclear Safety has been designated as the State's radiation control agency.

References: Enabling statute for Illinois Department of Nuclear Safety, Ill. Rev. Stat. 1985, ch. 127, par. 63b17.

25. Existing NRC Licenses and Pending Applications.

The Department has made provision to continue NRC licenses in effect temporarily after the transfer of jurisdiction. Such licenses will expire on the date of expiration specified in the NRC license.

With respect to the radioactive materials covered by the NRC license issued to Kerr-McGee Chemical Corporation for the West Chicago Rare Earth's Facility (Docket No. 40-2061-SC) the NRC staff has determined that the radioactive materials at the facility are most appropriately treated as thorium mill tailings, i.e., byproduct materials as defined in Section 11e.(2) of the Atomic Energy Act of 1954, as amended, whereas the thorium - bearing materials recovered from off-site residential properties and sewer treatment plant in West Chicago and stored at the Kerr-McGee facility are source material. The former material [11e(2) by product material] will not be subject to the Agreement and NRC will retain regulatory jurisdiction. The latter material will be regulated by IDNS when the Agreement becomes effective.

Radiologically contaminated materials in Kress Creek and in Reed-Keppler Park, West Chicago have also been determined by NRC staff to be source material. The former is the subject of an Atomic Safety and Licensing Board (ASLB) Proceeding ([Docket 40-2061-SC (ASLBP No. 84-502-01-SC)]. In the Kress Creek proceeding, in which Kerr-McGee and the People of the State of Illinois are parties, the ASLB found that the presence of this material in Kress Creek and the West Branch of the DuPage River probably resulted from the conduct of an NRC (and AEC) licensed activity at the West Chicago Rare Earths Facility. The ASLB, however, declined to require clean-up of the Creek and River based upon its analysis of the hazard posed by the radiologically contaminated material. The NRC staff has appealed that decision to the Atomic Safety and Licensing Appeal Board, but a decision on appeal has not yet been issued. Jurisdiction over source material in Kress Creek and the West Branch of the DuPage River will be relinquished to Illinois when the Agreement becomes effective. At that time, the NRC staff will request termination of the ASLB proceeding. Jurisdiction over the source material in Reed-Keppler Park will also be relinquished to Illinois when the Agreement becomes effective.

With respect to the Sheffield low-level radioactive waste disposal site, jurisdiction will be relinquished by the NRC to Illinois when the Agreement becomes effective. At that time, NRC staff will request termination of the ASLB proceeding [Docket 27-39-SC (ASLB No. 78-374-01-OT)].

Reference: 32 ILL. ADM. CODE 330.360.

26. Relations With Federal Government and Other States. There should be an interchange of Federal and State information and

assistance in connection with the issuance of regulations and licenses or authorizations, inspection of licensees, reporting of incidents and violations, and training and education problems.

The proposed agreement declares that the State will use its best efforts to cooperate with the NRC and the other Agreement States in the formulation of standards and regulatory programs for the protection against hazards of radiation and to assure that the State's program will continue to be compatible with the Commission's program for the regulation of like materials.

Reference: Proposed Agreement between the State of Illinois and the Nuclear Regulatory Commission, Article VI.

27. Coverage, Amendments, Reciprocity.

The proposed Illinois agreement provides for the assumption of regulatory authority over the following categories of materials within the State:

(a) Byproduct material, as defined by Section 11e(1) of the Atomic Energy Act, as amended.

(b) Source materials.

(c) Special nuclear materials in quantities not sufficient to form a critical mass.

(d) The land disposal of source, byproduct and special nuclear material received from other persons.

Reference: Proposed Agreement, Article I.

Provision has been made by Illinois for the reciprocal recognition of licenses to permit activities within Illinois of persons licensed by other jurisdictions. This reciprocity is like that granted under 10 CFR Part 150.

Reference: 32 ILL. ADM. CODE 330.900.

28. NRC and Department of Energy Contractors.

The State's regulations provide that certain NRC and DOE contractors or subcontractors are exempt from the State's requirements for licensing and registration of sources of radiation which such persons receive, possess, use, transfer, or acquire.

Reference: 32 ILL. ADM. CODE 310.30.

III. STAFF CONCLUSION

Section 274d of the Atomic Energy Act of 1954, as amended, states: "The Commission shall enter into an agreement under subsection b of this section with any State if:

(1) The Governor of that State certifies that 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 the proposed agreement, and that the State desires to assume regulatory responsibility for such materials; and

(2) The Commission finds that the State program is in accordance with the requirements of subsection o. and in all other respects compatible with the Commission's program for the regulation of such materials, and that the State program is adequate to protect the public health and safety with respect to the materials covered by the proposed amendment."

The staff has concluded that the State of Illinois meets the requirements of Section 274 of the Act. The State's statutes, regulations, personnel, licensing, inspection and administrative procedures are compatible with those of the Commission and adequate to protect the public health and safety with respect to the materials covered by the proposed agreement. Since the State is not seeking authority over uranium milling activities, subsection o. is not applicable to the proposed Illinois agreement.

DATED AT BETHESDA, MARYLAND, THIS 24th DAY OF December 1985.

FOR THE U.S. NUCLEAR
REGULATORY COMMISSION

G. Wayne Kerr

G. Wayne Kerr, Director
Office of State Programs

Appendix A

PROPOSED
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, 1985, ch. 111 1/2, par. 216b and ch. 111 1/2, par. 241-19 to enter into this Agreement with the Commission; and,

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,

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 material 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 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

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