

## MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee		COPY
1. Illinois Power Company Soyland Power Cooperative, Inc. Western Illinois Power Cooperative, Inc.	3. License number SNM-1886, revised in its entirety	
2. 500 South 27th Street Decatur, Illinois 62525	4. Expiration date July 31, 1990, or *	
5. Docket or Reference No. 70-2947		
6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
A. Uranium enriched in the U-235 isotope	A. In unirradiated reactor fuel assemblies	A. 2,100 kg U-235 in uranium enriched to no more than 3.0% in U-235
B. Antimony-124	B. In Sb-Be neutron sources	B. 30,000 Ci of Sb-124 total
C. Uranium enriched in the U-235 isotope	C. Contained in in-core neutron detectors	C. One (1) gram of U-235 at any enrichment
D. Pu-239	D. Alpha calibration standards and check sources	D. Fifteen (15) micro curies of Pu-239
E. Pu-238	E. Neutron Calibration Standards	E. 20 Ci of Pu-238

## 9. Authorized Use

The materials are for use in accordance with statements, representations, and conditions specified in the licensee's application dated October 9, 1984, and its supplements dated February 8, May 6, and June 5, 1985.

## 10. Authorized Place of Use

The licensee's Clinton Power Station, Unit 1, located in DeWitt County, Illinois, as described in the aforesaid application.

\*Upon conversion of construction permit #CPPR-137 to an operating license, whichever is earlier.

8508130499 850807  
PDR ADOCK 07002947  
C PDR

COPY

MATERIALS LICENSE  
SUPPLEMENTARY SHEET

License number

SNM-1886

Docket or Reference number

70-2947

COPY

11. The minimum technical qualifications for the Clinton Power Station (CPS) Power Plant Manager shall be in accordance with Section 4.2.1, "Plant Manager," of ANSI/ANS-3.1-1978.
12. The minimum technical qualifications for the Radiation Protection Supervisor shall be in accordance with that for the "Radiation Protection Manager" specified in Regulatory Guide 1.8, September 1975.
13. The minimum technical qualifications for the Senior Reactor Operators shall be in accordance with Section 4.3.1, "Supervisors Requiring NRC Licenses," of ANSI/ANS-3.1-1978.
14. The minimum technical qualifications for the Nuclear Engineer shall be a bachelor of Science Degree in engineering or a physical science, 1 year nuclear power plant experience, and shall have completed the General Electric Station Nuclear Engineer Training Course.
15. No more than three fuel assemblies shall be outside their shipping containers and storage racks at any one time.
16. The minimum edge-to-edge distance between the group of three fuel assemblies and all other fuel assemblies shall be 12 inches.
17. Fuel assemblies, when stored in the New Fuel Storage Vault, shall be stored under the following conditions:
  - a. No more than 12 rows of fuel assemblies shall remain uncovered during the loading or unloading of fuel assemblies.
  - b. Metal covers shall cover all other rows containing fuel assemblies during loading and unloading of fuel assemblies.
  - c. When loading or unloading of fuel assemblies is not in progress, metal covers shall cover all rows of fuel assemblies.
18. All firehoses servicing the New Fuel Storage Vault area shall be equipped with solid stream nozzles.
19. Fuel assemblies shall be stored in such a manner that water would drain freely from the assemblies in the event of flooding and subsequent draining of the fuel storage area.
20. Fresh fuel assemblies shall be stored in the Containment Fuel Storage Pool only under water.
21. No fuel assemblies shall be stored in the control rod racks.
22. The antimony-124 startup sources shall be leak tested within 31 days prior to installation in the reactor core vessel and following repair or maintenance.

COPY

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License number

SNM-1886

Docket or Reference number

70-2947

**COPY**

23. The approved "Clinton Power Station, Unit 1, Physical Protection Plan for Special Nuclear Material (SNM)," submitted by letter dated May 18, 1982, and as revised by letters dated November 17, 1982, and May 14, 1985, for the fixed site and in-transit protection of special nuclear material of low strategic significance shall be fully implemented by the date of fuel receipt and shall be in effect whenever fresh fuel is stored onsite.



FOR THE U. S. NUCLEAR REGULATORY COMMISSION

Original Signed by

Date:

AUG 07 1985

By:

*Glen A. Terry*  
Division of Fuel Cycle and  
Material Safety, NMSS  
Washington, D.C. 20555

*NK 7/29/85*

*VLT 7/29/85  
as 7.29.85  
Oct 8-7-85*

**COPY**