



Sinnissippi Alliance for the Environment

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Mr. Alan Bielawski
Isham, Lincoln & Beale
Suite 5200
Three First National Plaza
Chicago, IL. 60602

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

May 1, 1984

Re: Byron Station Stipulated Emergency Planning
Commitments

Dear Alan:

In accordance with Section 4(d) of the Stipulation, dated March 30, 1983, signed by the parties to the Byron Operating License Proceedings, Intervenor DAARE/SAFE and the Rockford League of Women Voters hereby respond to Commonwealth Edison's notification to Intervenor, dated April 16, 1984, of Commonwealth Edison's belief that it has satisfied Commitment Q, R, S, T, and X. Please find set forth in the attached pages Intervenor responses to each Commitment notification.

Pursuant to the Stipulation Intervenor will petition the Board for a hearing within fifteen days hereof, if Commitments Q, R, S, and T are not satisfied.

The Intervenor respectfully request a response to the Intervenor positions as soon as possible.

Very truly yours,

8405040114 840501
PDR ADOCK 05000454
G PDR

Patricia A. Morrison
On Behalf of Rockford
League of Women Voters

Diana Chavez
legal representative
DAARE/SAFE

cc: (with Attachment)
Richard Rawson; Judges Smith, Cole, and Calliham; Jane Whicher

DS03

COMMITMENT Q

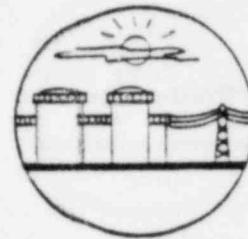
Demonstrate that the public has received and will continue to receive on a periodic basis educational information on radiation.

Response:

The information provided by Commonwealth Edison to the Intervenor in a letter response dated April 16, 1984, fails to provide sufficient information to allow the Intervenor to determine whether Commitment Q has been satisfied, or is deficient on its face in the following respects:

1. Commonwealth Edison's response to Commitment Q identifies the public "Emergency Information" brochure to be the Byron Station Public Information Brochure. Sections seven and eight of this brochure contain argumentative and inappropriate promotional statements which fail in any way to educate the public as to the operations of nuclear power plants or the effects of radiation.
2. The distribution and proposed method of redistribution of the "Emergency Information" brochure, as set forth in paragraphs five and six of Commonwealth Edison's response, is limited to business and residential customers of Commonwealth Edison and does not reach significant numbers of the public.

Attached to this letter is a two-page document labeled "Attachment A" which sets forth an alternative to sections seven and eight of the "Emergency Information" brochure. This discussion of the operations of nuclear power plants and the effects of radiation is presented in a more objective fashion for the purposes of educating the public.



NUCLEAR POWER PLANTS

Commonwealth Edison generates electricity for people in northern Illinois using power plants at thirteen locations. Four of these use uranium as fuel; they are **nuclear** power plants. These four plants produce as much electricity as all of Edison's coal power plants, or almost half of all the electricity Edison generates. For northern Illinois to have a bright economic future, plans must be made to assure that we continue to have adequate supplies of electricity. Edison's plans (construction) include two new power plants, both nuclear, which will become operational over the next few years. (material deleted)

All large power plants work by boiling water to make high pressure steam, which spins turbines connected to large electric generators. The big difference between nuclear and coal power plants is that a nuclear plant splits uranium atoms, instead of burning coal, to make heat to boil the water.

Uranium is a very concentrated fuel. One uranium pellet (the size of a person's fingertip) can release as much energy as half a ton of coal. Uranium pellets are stacked inside long, thin

fuel rods that are arranged into fuel assemblies. These assemblies stand vertically in a round cluster called the **core**. The core is encased in a very thick steel capsule, or **vessel**. The whole assembly is called a **reactor**. Since a very dilute form of fuel is used, a reactor could **never** explode like an atomic **bomb**, no matter what went wrong with it.

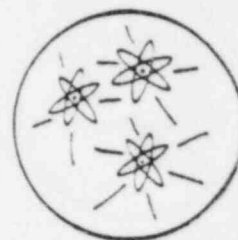
When any fuel is used to make energy, some waste products result. Coal power plants have smoke, slag and ashes as waste. Nuclear power plants collect wastes in the fuel pellets. (material deleted)

These waste products (are) hazardous and must be kept sealed away from our environment.

This is why the uranium fuel pellets are sealed inside the fuel rods and the fuel rods are sealed inside the reactor. Even the whole reactor, with all of its piping, pumps, and other systems, is sealed again inside an airtight steel and concrete building called a **containment**.

It is (un)likely that this triple safety seal could be penetrated. But if it **were**, some of the waste products could escape to the environment. These wastes are **radioactive**, which means that each waste particle **emits radiation**.

RADIATION



Radiation is energy that can travel through the air, such as light, heat, and radio waves. One type, **nuclear** radiation, comes from **radioactive material**, which is part of everything in us and around us. Nuclear radiation, like radio waves, is invisible, silent, tasteless, and odorless. Just as a photographer measures light levels with a light meter, radiation workers measure nuclear radiation with special instruments.

Like many things in our lives, radioactive material has the potential to harm people if handled carelessly. But decades of experience have shown that the safe application of radioactive material, in medicine and industry as well as in electricity production, can benefit our society.

The amount of radiation dose a person absorbs is measured in **millirem**. The average Illinois citizen gets from 60 to 120 millirem of radiation each year from the natural environment. This is called **natural background** radiation. In addition, each year the average person receives about 70 millirem from medical and dental X-rays and other procedures, and about 25 millirem from the naturally occurring radioactive atoms in his or her own body.

There are no identifiable health effects from these low levels of radiation, but scientists believe that **any** amount of radiation, no matter how small, carries some risk. (Material deleted)

(material deleted)

It takes radiation doses of over 20,000 millirem, received within a day, to produce identifiable effects in the body. Very large radiation doses (over 100,000 millirem) may be directly harmful or even deadly if received over a day's time, but the same doses stretched over many years may not. Federal regulations allow workers at U.S. nuclear facilities to receive up to 5000 millirem of radiation in the course of a year's work.

Radiation levels are constantly monitored both inside and outside each nuclear facility. These measurements show that a person living for an entire year right at the fence of (a routinely nuclear power plant would receive less than 1 operating) millirem of radiation. (Material deleted)

If a nuclear plant accident were ever to occur, teams of specially-trained personnel would be sent to get even more detailed radiation readings all around the plant. In most cases, there would be no excessive radiation. But if the accident were serious, and could expose members of the public to 1000 millirem or more of radiation, state plans call for protection of the public by taking shelter indoors or by evacuation.

COMMITMENT R

Demonstrate that the public has received and will continue to receive on a periodic basis accurate information regarding the protective measures to be taken during an emergency.

Response:

The information provided by Commonwealth Edison to the Intervenor in a letter response dated April 16, 1984, fails to provide sufficient information to allow the Intervenor to determine whether Commitment R has been satisfied, or is deficient on its face in the following respects:

1. Section one, paragraph three; section two, paragraph four; and section four, paragraph three of the public "Emergency Information" brochure appended to Commonwealth Edison's response to Commitment Q identifies AM-1440 WROK as the sole source of media information and instructions to the public. No mention is made or listing given of TV or other radio (AM/FM) stations in the EPZ as alternate sources of information and instruction, including FM-WZOK.
2. Section three, paragraph two of the public "Emergency Information" brochure identifies AM-1440 WROK as the sole source of media instruction. No further reference is made of alternate sources of media information and instructions.
3. Section three, paragraph two of the public "Emergency Information" brochure fails to provide adequate information with respect to school evacuation procedures to enable the public to accurately follow the paragraph's instruction.
4. Section three, paragraph two of the public "Emergency Information" brochure fails to provide adequate information with respect to boaters and those fishing on the Rock River to enable the public to accurately follow the paragraph's instruction.
5. Section three, paragraph five of the public "Emergency Information" brochure fails to provide adequate information with respect to actions to be used to avoid unnecessary exposure during emergency transit, to enable the public to safely evacuate as directed in paragraph one of section three

6. Section five of the public "Emergency Information" brochure fails to provide adequate accurate instruction to effectuate preparedness for entire households.
7. The distribution and proposed method of redistribution of the "Emergency Information" brochure, as set forth in paragraphs five and six of Commonwealth Edison's response, is limited to business and residential customers of Commonwealth Edison and does not reach significant numbers of the public.

COMMITMENT S

Demonstrate that the public has received and will continue to receive on a periodic basis accurate information regarding special measures with respect to handicapped individuals to be taken during an emergency.

Response:

The information provided by Commonwealth Edison to the Intervenor in a letter response dated April 16, 1984, fails to provide sufficient information to allow the Intervenor to determine whether Commitment Q has been satisfied, or is deficient on its face in the following respects:

1. Commonwealth Edison's response to Commitment S of Contention 7 "fails" to "demonstrate that the public has received and will continue to receive on a periodic basis accurate information regarding special measures with respect to handicapped individuals to be taken during an emergency." The response merely discloses Commonwealth Edison's mechanism for identifying handicapped individuals. The "Emergency Information" brochure identified in paragraph two of Commonwealth Edison's response to Commitment S provides no information regarding the above-said special measures.
2. The distribution and proposed method of redistribution of the "Emergency Information" brochure, as set forth in paragraphs four and five of Commonwealth Edison's response, is limited to business and residential customers of Commonwealth Edison and does not reach significant numbers of the public.

COMMITMENT T

Demonstrate that adequate information has been made available and will be available on a periodic basis to transient populations.

Response:

The information provided by Commonwealth Edison to the Intervenor in a letter response dated April 16, 1984, fails to provide sufficient information to allow the Intervenor to determine whether Commitment T has been satisfied.

Intervenor has undertaken a spot check procedure to determine more precisely Commonwealth Edison's method of brochure distribution to the locations listed in its response, including instructions given by Commonwealth Edison representatives to operators of recipient locations at time of distribution. The spot check process is also directed to the sufficiency of the quantity of brochures provided to each recipient location. Intervenor is not satisfied at this time that the selective listing of locations provided by Commonwealth Edison in its response is systematic or complete.

COMMITMENT X

Demonstrate that there exist appropriate agreements and arrangements between Edison and those individuals and organizations who will provide emergency services to the Byron facility.

Response:

Intervenors acknowledge receipt of Commonwealth Edison's response letter dated April 16, 1984, and agree with Commonwealth Edison that Commitment X is satisfied.