

FOIA/PA REQUEST

Case No: 2002-0171
Date Rec'd: 3-6-2002
Action Off: Brown
Related Case: _____

David DeKok

Jan. 21, 2002

Division of Freedom of Information
and Publication Services
Office of Administration and
Resources Management
Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Freedom of Information request

Dear Sir or Madam,

Pursuant to the Freedom of Information Act, 5
U.S.C. 552, I hereby request copies of the
following documents:

--All comments submitted in response to a Notice
of Proposed Rule Making published by the Atomic
Energy Commission in the Federal Register on May
23, 1959, to establish "site criteria for the
evaluation of proposed sites for nuclear power
and test reactors." A typed copy of the Notice of
Proposed Rule Making is attached. The comment
period extended until Aug. 24, 1959.

--All other documents in your files from 1957-62
pertaining to the question of criteria for
evaluating nuclear plant and test reactor sites.

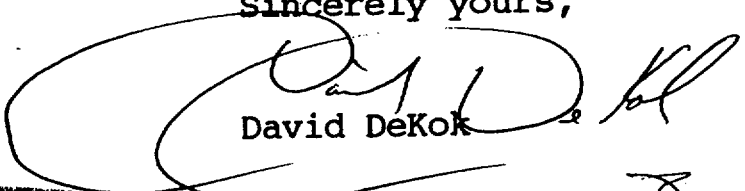
These records will be used in research for a book
I am writing on the history of General Public
Utilities Corp., original owner of the Three Mile
Island nuclear plant. GPU took an interest in the

siting regulations in 1959 because of their immediate impact on the Saxton Experimental Reactor it was planning to build, and did build, in Saxton, Pennsylvania.


Pursuant to the Freedom of Information Act, I also request "Representative of the News Media" status, which entitles me to a waiver of search fees and 100 pages of free copying. I am an established freelance writer. My first book, *Unseen Danger: A Tragedy of People, Government, and the Centralia Mine Fire*, was published in 1986 by University of Pennsylvania Press. It was republished in 2000 by iUniverse com. A copy of the Sunday New York Times Book Review review of my book is attached. I have also been a newspaper reporter for 25 years, currently with The Patriot-News in Harrisburg, Pa.

Thank you for your attention to this request.

Sincerely yours,


David DeKok

e-mail: 

(after Feb. 28) 

daytime phone: 

May 23, 1959

TITLE 10 - ATOMIC ENERGY

CHAPTER I - ATOMIC ENERGY COMMISSION

NOTICE OF PROPOSED RULE MAKING

(Published in the Federal Register on May 23, 1959)

The Commission is considering the formulation of an amendment to its regulations to state site criteria for evaluation of proposed sites for nuclear power and test reactors and is publishing for comment safety factors which might be a basis for the development of site criteria.

In view of the complex nature of the environment, the wide variation in environmental conditions from one location to another and the variations in reactor characteristics and associated protection which can be engineered into a reactor facility, definitive criteria for general application to the siting problems have not been set forth.

All interested persons are invited to submit comments and suggestions on the following site factors and on development of definitive criteria for evaluation of sites for power and test reactors which might be incorporated in the Commission's regulations. All interested persons who desire to submit written comments and suggestions should send them to the U. S. Atomic Energy Commission, Washington 25, D. C., Attention: Division of Licensing and Regulation within 30 days after publication of this notice in the Federal Register.

Factors Considered in Site Evaluation for Power and Test Reactors

a. General. The construction of a proposed power or test reactor facility at a proposed site will be approved if analysis of the site in relation to the hazards associated with the facility gives reasonable assurance that the potential radioactive effluents therefrom, as a result of normal operation or the occurrence of any credible accident, will not create undue hazard to the health and safety of the public.

There are wide possible variations in reactor characteristics and protective aspects of such facilities which affect the characteristics that otherwise might be required of the site. However, the following

factors are used by the Commission as guides in the evaluation of sites for power and test reactors. The fact that a particular site may be deemed acceptable for a proposed reactor facility when evaluated in the early phases of the project, does not determine that the reactor will eventually be given operating approval, or indicate what limitations on operation may be imposed. Operating approvals depend on detailed review of design, construction and operating procedures at the final construction stages.

b. Exclusion Distance Around Power and Test Reactors. Each power and test reactor should be surrounded by an exclusion area under the complete control of the licensee. The size of this exclusion area will depend upon many factors including among other things reactor power level, design features and containment, and site characteristics. The power level of the reactor alone does not determine the size of the exclusion area. For any power or test reactor, a minimum radius on the order of one-quarter mile will usually be found necessary. For large power reactors a minimum exclusion radius on the order of one-half to three-quarter miles may be required. Test reactors may require a larger exclusion area than power reactors of the same power.

c. Population Density in Surrounding Areas. Power and test reactors should be so located that the population density in surrounding areas, outside the exclusion zone, is small. It is usually desirable that the reactor should be several miles distant from the nearest town or city and for large reactors a distance of 10 to 20 miles from large cities. Where there is a prevailing wind direction it is usually desirable to avoid locating a power or test reactor within several miles upwind from centers of population. Nearness of the reactor to air fields, arterial highways and factories is discouraged.

d. Meteorological Considerations. The site meteorology is important in evaluating the degree of vulnerability of surrounding areas to the release of air-borne radioactivity to the environment. Capabilities of the atmosphere for diffusion and dispersion of air-borne release are considered in assessing the vulnerability to risk of the area surrounding the site. Thus a high probability of good diffusion conditions and a wind direction pattern away from vulnerable areas during periods of slow diffusion would enhance the suitability of the site. If the site is in a region noted for hurricanes or tornadoes, the design of the facility must include safeguards which would prevent significant radioactivity releases should these events occur.

e. Seismological Considerations. The earthquake history of the area in which the reactor is to be located is important. The magnitude and frequency of seismic disturbances to be expected determine the specifications which must be met in design and construction of the facility and its protective components. A site should not be located on a fault.

f. Hydrology and Geology. The hydrology and geology of a site should be favorable for the management of the liquid and solid effluents (including possible leaks from the process equipment). Deposits of relatively impermeable soils over ground water courses are desirable because they offer varying degrees of protection to the ground waters depending on the depth of the soils, their permeability, and their capacities for removing and retaining the noxious components of the effluents. The hydrology of the ground waters is important in assessing the effect that travel time may have on the contaminants which might accidentally reach them to the point of their nearest usage. Site drainage and surface water hydrology is important in determining the vulnerability of surface water courses to radioactive contamination. The characteristics and usage of the water courses indicate the degree of risk involved and determine safety precautions that must be observed at the facility in effluent control and management. The hydrology of the surface water course and its physical, chemical and biological characteristics are important factors in evaluating the degree of risk involved.

g. Interrelation of Factors. All of the factors described in paragraphs b. through f. of this section are interrelated and dictate in varying degrees the engineered protective devices for the particular nuclear facility under consideration, and the dependence which can be placed on such devices. It is necessary to analyze each of the environmental factors to ascertain the character of protection it might afford for operation of the proposed facility or the kind of restrictions it might impose on the proposed design and operation.

Book Review

January 4, 1987

Section 7 © The New York Times

William Carlos Williams's poems, reviewed by Robert Pinsky, Page 3.

Hell's Upper Story

UNSEEN DANGER

A Tragedy of People, Government, and the Centralia Mine Fire.
By David DeKok.

Illustrated. 299 pp. Philadelphia: University of Pennsylvania Press. Cloth, \$29.95. Paper, \$17.95.

SLOW BURN

A Photodocument of Centralia, Pennsylvania.
Text and photographs by Renée Jacobs.

152 pp. Philadelphia: University of Pennsylvania Press. Paper, \$24.95.

By Ben A. Franklin

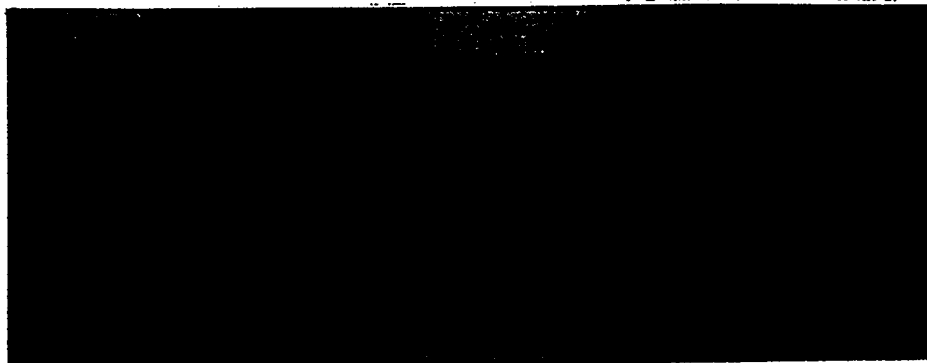
YOU are surrounded by all the tremendous forces of nature, straining against your effort to extract this coal. So you are in a continual struggle. Nature is out to protect its resources and you are there, wrestling the bowels out of the thing. So you are in constant danger in a coal mine."

Many urban Americans may view the coal fields of Appalachia as lethal and remote. The risks of mining coal underground are well enough known. But what went unsaid in the eloquent testimony above, given by a miner to a Congressional committee a generation ago — and what these angry books demonstrate anew that Government still finds ways to overlook — is that the perils of the subterranean battle for coal between man and nature extend upward to the surface.

The United States Bureau of Mines reported in 1979 (and has said little on the subject since) that more than 2 million people in 19 states — 80 percent of them in Pennsylvania — were suffering damage to health and property from some 250 uncontrolled fires in abandoned underground coal mines and surface culm (coal waste) banks, a number of which have been burning for years. "Particularly during the first half of this century," the bureau said then, coal mining was "accomplished without today's technological, social and environmental insight." But as "Unseen Danger" and "Slow Burn" show, the bureau's self-satisfied inference that things were getting better in the second half of the century was premature public relations.

In these books, David DeKok, a reporter with The News-Item in Shamokin, Pa., and Renée Jacobs, a freelance photographer, provide postmortems on the slow death of the little Pennsylvania town of Centralia, 125 miles northwest of Philadelphia. This village of 1,000 souls in the depressed, largely mined-out hard-coal region known to miners as "the anthracite" was smoked and choked for 24 years by a runaway inferno in the abandoned mine tunnels beneath it. The fire's origin is still officially a mystery, although Mr. DeKok points out that it may have been ignited when the town set fire to a landfill.

Ben A. Franklin, a correspondent in the Washington bureau of The New York Times who has covered the coal industry in Appalachia, is writing a history of coal and coal mining.



In Chrissie Kogut's home in 1983 a machine monitors carbon monoxide emissions from the underground mine fire in Centralia, Pa. Photographs from "Slow Burn."

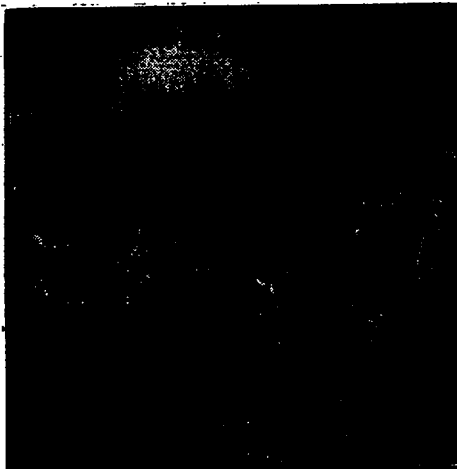
By now, all but about 40 of Centralia's 500-odd houses have been razed. More than 900 people have been relocated at Government expense in a program that cost far more than the efforts, now aborted, to fight the fire in the 1970's. Relocation money was wrung from Washington only through the prolonged agony of grassroots political activism. And other Pennsylvania towns may be next. Throughout the region, Mr. DeKok writes in "Unseen Danger," "the potential for new mine fires is as great as ever."

In the 1960's, when Centralia's houses began filling with lethal fumes, the Interior Department supplied monitors that detected them. The underground mine fire spread. Some residents were knocked unconscious by the noxious gases that rose to the surface. Windows had to be kept open during the winter, and snow melted on the steaming ground. In kitchens and bathrooms,

water ran hot from the cold faucets. Roads were made impassable by smog. A filling station's gasoline tanks were pumped dry to keep them from exploding. And in 1981 the ground gave way beneath a 12-year-old boy, who was swallowed into the mine pit. As he dangled from a handhold on a tree root, his red cap was spotted through the fumes and steam. He was yanked back from hell. Centralia was not.

Using unpublished documents obtained under the Freedom of Information Act, Mr. DeKok accuses officials of passing the buck and of cynical indifference to the people of Centralia. Former Secretary of the Interior James G. Watt is quoted as saying in 1981, the 19th year of the Centralia mine fire, "There is not a threat to health and safety. [The fire] goes down deep; the deeper it burns, the less risk there is to safety. Eventually it will burn out."

But there are enough bureaucratic villains here to fill a Dickens novel. Mr. DeKok describes Richard L. Thornburgh, the former Republican Governor of Pennsylvania, as being evasive about the Centralia fire. The Governor's predecessors, William Scranton and Milton Shapp, share the blame, the author says, along with a large cast of lesser state and Federal officials — particularly Mr. Scranton's Secretary of Mines and Mineral Industries, a professor of mining engineering named H. Beecher Charnbury.



On Memorial Day, 1984, Brownie Troop No. 175 passes a bore hole that vents steam and smoke from the underground fire.

In "Slow Burn," the gallery of stark Works Progress Administration-style photographs by Renée Jacobs portrays with poignancy a Welsh, Irish and Slavic Roman Catholic community as it once was, poised in stubborn bewilderment. Describing the hundreds of deep bore holes, drilled during the years of futile efforts to track the course of the fire, Margaret O. Kirk, a freelance writer, in a brief introduction to the book, writes that the test holes — dug in schoolyards and churchyards, in sidewalks and intersections, and topped at ground level with man-high smokestacks for the steam exhaust — seemed stuck in the ground "like freshly lit cigarettes."

What "Unseen Danger" and "Slow Burn" have to tell us is that smoking coal mines are dangerous to your health.