FROM:	ACTION CONTROL	DATES	CONTROL NO.
Geraldine Rasmussen Ft. Lauderdale, Fla	COMPL DEADLINE	2/10/77	01364
	ACKNOWLEDGMENT		DATE OF DOCUMENT
	INTERIM REPLY		1/13/77
TO:			PREPARE FOR SIGNATURE OF:
Chairman Ahearne	FINAL REPLY		☐ CHAIRMAN ☐ EXECUTIVE DIRECTOR
	FILE LOCATION		OTHER: Shapar

DESCRIPTION ☒ LETTER ☐ MEMO ☐ REPORT ☐ OTHER

Req decision of NRC on alternative site for Hutchinson Island I

SPECIAL INSTRUCTIONS OR REMARKS

SECY 77-0074

CLASSIFIED DATA			
DOCUMENT/COPY NO.		CLASSIFICATION	
NUMBER OF PAGES		CATEGORY	
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LEGAL REVIEW		☐ FINAL ☐ COPY
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		NOTIFY: ☐ EDO ADMIN & CORRES BR EXT.
		COMMENTS, NOTIFY: EXT.
JCAE NOTIFICATION RECOMMENDED:		☐ YES ☐ NO

NRC FORM 232
(11-75)

EXECUTIVE DIRECTOR FOR OPERATIONS

PRINCIPAL CORRESPONDENCE CONTROL

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FROM:	ACTION CONTROL	DATES	CONTROL NO. 01364
Geraldine Robinson Ft. Lauderdale, Fla	COMPL DEADLINE	2/8/77	
	ACKNOWLEDGMENT		DATE OF DOCUMENT 1/13/77
TO: Chairman Ahearne	INTERIM REPLY		PREPARE FOR SIGNATURE OF: ☐ CHAIRMAN ☐ EXECUTIVE DIRECTOR OTHER: Chairman
	FINAL REPLY		
	FILE LOCATION		

DESCRIPTION ☒ LETTER ☐ MEMO ☐ REPORT ☐ OTHER

Req decision of NRC on alternative site for Hutchinson Island 2

SPECIAL INSTRUCTIONS OR REMARKS

SECY 77-0074

CLASSIFIED DATA

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NUMBER OF PAGES		CATEGORY	
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JCAE NOTIFICATION RECOMMENDED: ☐ YES ☐ NO

NRC FORM 232
(11-75)

EXECUTIVE DIRECTOR FOR OPERATIONS

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PRINCIPAL CORRESPONDENCE CONTROL

FROM:
Geraldine Rasmussen
Ft. Lauderdale, Fla

TO:
Chairman Anders

ACTION CONTROL	DATES
COMPL. DEADLINE	2/8/77
ACKNOWLEDGMENT	
INTERIM REPLY	
FINAL REPLY	
FILE LOCATION	

CONTROL NO. 01364

DATE OF DOCUMENT 1/13/77

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☐ CHAIRMAN
☐ EXECUTIVE DIRECTOR
OTHER: Shaper

DESCRIPTION ☒ LETTER ☐ MEMO ☐ REPORT ☐ OTHER

Req decision of NRC on alternative site for Rancheisson Island 3

SPECIAL INSTRUCTIONS OR REMARKS

SECY 77-0074

CLASSIFIED DATA			
DOCUMENT/COPY NO.		CLASSIFICATION	
NUMBER OF PAGES		CATEGORY	
POSTAL REGISTRY NO.		☐ NSI ☐ RD ☐ FRD	

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☐ EDO ADMIN & CORRES BR
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COMMENTS, NOTIFY:
_____ EXT. _____

JCAE NOTIFICATION RECOMMENDED: ☐ YES ☐ NO

NRC FORM 232
(11-75)

EXECUTIVE DIRECTOR FOR OPERATIONS

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PRINCIPAL CORRESPONDENCE CONTROL

FROM:
Geraldine Rasmussen
Ft. Lauderdale, Fla

TO:
Chairman Anders

ACTION CONTROL	DATE	CONTROL NO.
COMPL DEADLINE	2/8/77	01364
ACKNOWLEDGMENT		DATE OF DOCUMENT
INTERIM REPLY		1/13/77
FINAL REPLY	B/ Engelhardt	PREPARE FOR SIGNATURE OF: ☐ CHAIRMAN ☐ EXECUTIVE DIRECTOR OTHER: Shapar
FILE LOCATION	2/1/77	

DESCRIPTION ☒ LETTER ☐ MEMO ☐ REPORT ☐ OTHER

Req decision of NRC on alternative site for Hutchinson Island 2

SPECIAL INSTRUCTIONS OR REMARKS

SECY 77-0074

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COMMENTS, NOTIFY:
_____ EXT. _____

JCAE NOTIFICATION RECOMMENDED: ☐ YES ☐ NO

NRC FORM 232
(11-75)

EXECUTIVE DIRECTOR FOR OPERATIONS

PRINCIPAL CORRESPONDENCE CONTROL

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No. 77-0074 Logging Date 1/19

NRC SECRETARIAT

TO:
- [ ] Commissioner _____ Date _____
- [x] Exec. Dir./Oper.
- [ ] Gen. Counsel
- [ ] Cong. Liaison
- [ ] Solicitor
- [ ] Public Affairs
- [ ] Secretary
- [ ] _____

Incoming: Geraldine Rasmussen, 1609 Ft.
From: Lauderdale, Fla. 33301

To: Chairman Anders Date 1/13

Subject: Req. decision on hearing at Martin site, urging that solar site be erected in Fla.

- [ ] Prepare reply for signature of:
  - [ ] Chairman
  - [ ] Commissioner _____
  - [ ] EDO, GC, CL, SOL, PA, SECY
  - [ ] Signature block omitted
  - [ ] _____
  - [ ] Return original of incoming with response

- [x] For direct reply* SUSPENSE: Feb. 8
- [ ] For appropriate action
- [ ] For information
- [ ] For recommendation

1/19/77
2:20

Remarks: Original to Docket. Cys to: GC.
Logged Ex Parte

For the Commission: _____

*Send three (3) copies of reply to Secy Mail Facility

NRC-62 ACTION SLIP

January 13, 1977
1609 S.E. Fourth Street
Fort Lauderdale, Florida
33301

William C. Anders, Chairman
Nuclear Regulatory Commission
Washington, D.C. 20555

Clarence Zener's Solar Sea Power Plant (Carnegie-Mellon) could be used.

Dear Mr. Anders:

Please send me the decision of the Nuclear Regulatory Commission's Hearing on the alternative Martin site suggested by Dr. Karl Z. Morgan on January 11, 1977 at Fort Lauderdale, Florida, under Chairman Luton.

I was unable to attend the final half of the hearing, leaving at the noon recess because of my strict cancer-cure diet, for lunch at home.

Dr. Karl Z. Morgan stated that the vivid yellow precipitate of the radioactively contaminated fish (photograph shown him and sent your and other agencies of the United States) was due to the presence of uranium oxide. Marie Curie's research indicated that radium ionized other elements resulting in either a white, pink, but "most often a vivid yellow precipitate" in her researches.

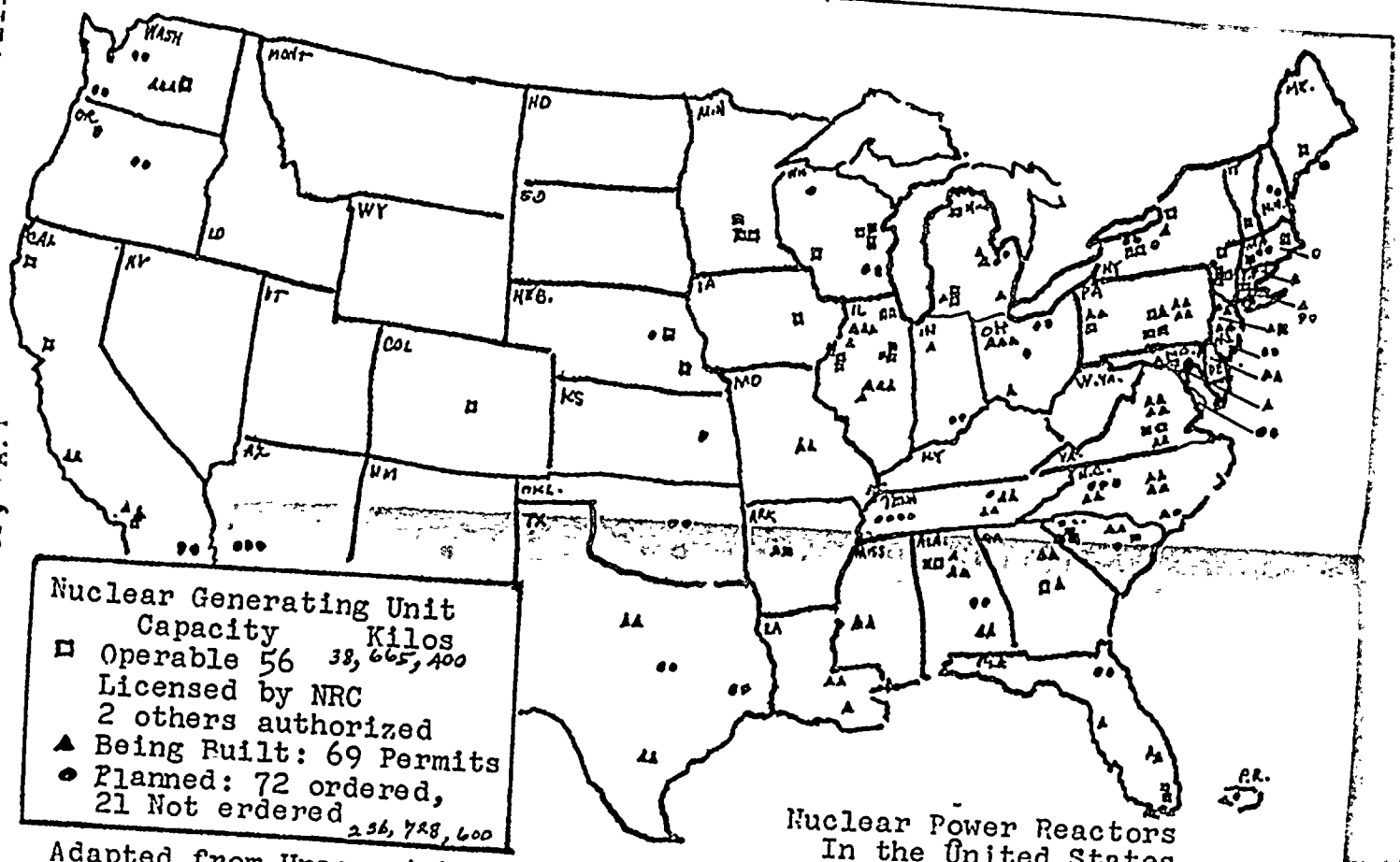
Dr. Morgan recommended that Martin be chosen for the Number 2 Hutchinson Island nuclear reactor rather than another at Hutchinson Island, due to the action of CUARE led by Valerie Prime, also a CARP member of which I am Director. Unfortunately Silver Springs, noted and beautiful nationally known limestone spring, the largest in Florida and the United States, is near Martin, and only five and one-half miles from Ocala. With the lowering prices in solar panels becoming available, and the new research, we of Citizens Against Radioactive Pollution urge that a Solar installation or Farm be constructed there to protect the springs and water supply of Florida, whose state aquifer is near Orlando.

Water from the hot cores of nuclear reactors, used in cooling them, becomes radioactive, and any marine or plant life becomes contaminated, and when consumed by humans, causes diseases such as cancer, leukemia, chromosome damage leading to hereditary defects and even mongolism.

Many purchase spring water from Florida springs for purity, and any nuclear facility in the region would contaminate the water supply. I recognize the extreme dangers which even today some Florida Power and Light people contend that a nuclear reactor is " the safest place to be" during a hurricane. They are wrong, for most did not endure the 1926 hurricane whose waters were up to the second floor up to a mile inland in Fort Lauderdale. In 1843, Port Leon, Wakulla County's first county seat, was inundated and destroyed by a storm which arose in the Gulf of Mexico.

In Tennessee along the Mississippi fault, land was lowered 15-20 feet, the earthquake of 1811-1812 destroying Caruthersville by inundation, and creating Reelfoot Lake. (enclosed portion) G. Rasmussen

* Some report that the 1811-1812 earthquake along the Missippi Fault rumbled until 1876. It lowered the land for 100 miles by 15-20 feet, destroying the town of Caruthersville.
GPP, Director, CAPP



Nuclear Power Reactors
In the United States

Adapted from Unacceptable Risk

CITIZENS AGAINST RADIOACTIVE POLLUTION
1609 S. E. FOURTH STREET
FORT LAUDERDALE, FLORIDA 33301

GERALDINE RASMUSSEN, Director
Subscription Membership $3 Yearly

Winter, 1976-1977

SOLAR ENERGY ISSUE

As the great dangers of nuclear power and weapons testing become more obvious, apparent, and expensive, it is necessary to be informed on Solar Energy and alternative forms of power. With the vast powerhouse of the sun's rays falling upon the earth yearly, we should utilize God's gift to mankind, and develop this safe form of energy which will ultimately be almost free. The expense today is in the cost of solar cells, panels, and solar homes.

SOLAR ENERGY is of various types; our present use of it in Florida lags behind Colorado and other states, for we still are using only that of water heating in most instances. The type solar energy which most citizens want, is photovoltaic, which converts light into electricity without moving parts. This is the principal of the Solar Fan Cube shown CARP members. Light falls upon Solar cells made of silicone or some synthetic treated substance which creates an electrical field; by electrodes in the silicon, the energy created is wired and put to use, either in turning the fan or a large turbine. This is PHOTOVOLTAIC Solar energy.

Another type is THERMAL solar energy; the sun's rays are focused on mirrors, the heat of which heats great amounts of water producing steam for turning turbogenerators.

One problem existing for all Solar Energy is storage, and in the case of individual home-owners' Solar Panels (Photovoltaic), the right of access to the sun without tall buildings or neighbors' shade blocking this access. THERMAL ENERGY can be stored in large volumes of liquid metal or molten salts and later extracted; or by the use of solar energy to obtain hydrogen, it would then be stored as a gas or solid and later used as fuel. Also, solar energy could be used to power pumps which fill dams for hydro-electric power plants. Most practical solution at the present time, however, is the STORAGE BATTERY, though costs are at present very great. The ALKALI METAL battery (sulphur) and the LEAD ACID battery (conventional), have also both been used.

Other modes of storage include compressed air storage and huge superconducting magnets which would store energy in powerful ELECTROMAGNETIC CURRENTS and used later. The FLYWHEEL which could be turned very rapidly in excessive sunshine, could store energy, then used later when there is no sunshine. Individuals may at the present time install solar panels, build solar homes (Rooftops with panels, sloping walls, sliding covers to cover water storage tanks when coolness is wanted, exposed to sun's rays when heat is wanted), and use conventional solar water heating. Dr. Daniel Wells of the University of Miami's Physics Department, states that a panel about one-third the area of ones's home will provide all the electricity for home needs. This type panel is the PHOTOVOLTAIC.

On July 30, our House of Representatives passed the Bingham Amendment to the NUCLEAR FUEL ASSURANCE ACT 170-166; five days later it reversed itself, preventing the uranium enrichment bail-out of federal funds. With the outrageous expense in mind, and the DANGERS KNOWN, many around the nation are turning to SOLAR ENERGY; there are over 200 homes in the U.S. now using solar energy, numbers of commercial buildings, and the Air Force will install solar heating and cooling systems on two Air Force Base shopping centers next year. SOLAR ENERGY is also the best type energy source in isolated areas, and is the only in space. Most solar panels were developed for SPACE, and as TERRESTRIAL needs become greater, costs will go down with development and demand. MEXICO began operation of a THERMAL CONVERSION SYSTEM of SOLAR energy in January, 1976, and an entire city in TEXAS voted for solar energy, and employed a firm in Reno, Nevada to design its SOLAR ENRGY PLANT.

- OREGON and COLORADO already have laws which protect the individual property and homeowners' rights of access to the sun, and the AMERICAN BAR ASSOCIATION at Chicago proposed laws which would require STATE LEGISLATURES to require municipalities to consider SOLAR ENERGY SYSTEMS in Building and Zoning Codes. (Environment, June, 1976).XANTHOSIS . . !

XANTHOSIS is the yellow discoloration in cancerous tumors.

MARIE CURIE, in fractionating radioactive substances, wrote that the precipitates are sometimes white or pink, but that most often they were a VIVID YELLOW. Two out of six fish (King Mackeral) which we purchased at the POMPANO BEACH YACHT BASIN were found to be radioactively contaminated; their precipitates (2 ounces of water for one, and ½ Cup of water for the second), were a VIVID YELLOW. My statement, proof and photographs have been sent to officials, scientists, and concerned persons. The fish were purchased from January, 1976 through to August, 1976. It is well to avoid eating any food which has a vivid yellow precipitation, foreign to the shade which it should be. An uncontaminated fish will have an almost clear to light beige precipitate or simmering water (stock).

Besides RADIOACTIVE WASTE DISPOSAL in the OCEAN, hundreds pf nulcear powered submarines armed with nuclear weapons now circle the earth. (OCEANS, May-June, 1976 Pages 60-65.) The FORT LAUDERDALE (BROWARD COUNTY) Library's bound editions of SCIENCE, omits the June 28, 1957 edition with E.C. Anderson's article, "Radioactivity of People and Foods", just as CONSUMERS UNION fail to complete a needed report on the radioactivity of foods after receiving an AEC grant. See CONSUMER REPORTS, October, 1961 FALLOUT IN FOOD

McKINLEY C. OLSON'S book, "UNACCEPTABLE RISK" The Nuclear Power Industry is a must for reading; OLSON quotes Edward A. Martell who states that cancer is a result of complex metabolism which causes chromosomal structural alterations; continuously the altered cells with the most active mitotic rate take over; they grow more rapidly (One can see, because of radiation and radioactive substances or food ingested) than the healthy cells, and these more highly radiated cells destroy the others. (Page 118, OLSON, op. cit,).

Even as far back as 1952, the PALEY COMMISSION reported, "It is time for aggressive research in the field of solar energy". (Paley Commission Report to President Truman, 1952). CRITICAL MASS quoted that sun-energy falling upon the U.S. annually , was 1500 times the Nation's energy consumption in 1950. This report went unheeded. Isaac Asimov stated in a Union of Concerned Scientists report,

> "Solar cells, working at only 10% efficiency, would require only 1/250 of the world's desert area to supply the present energy needs of the world".

At the present time, since AEC is now ERDA, ERDA's Sandia Laboratory is working on solar cell efficiency. (Albuquerque, N.M.)

As early as 1903, Rev. C.H. Pope stated that captains of Industry should study and develop the SOLAR ENGINE. (Solar Heat, It's Practical Applications, 1903).

ERDA has now granted $75,000 to the RAND CORPORATION of Santa Monica, California "to study the possible environmental impacts of heat released into the air at future 'power parks' which would most likely include those run by SOLAR ENERGY, primarily from cooling towers and ponds. (Solar Energy Digest).

How ironic that AEC (now ERDA) did not accurately measure and prevent the burial of radioactive waste in deep pits covered only by screens (At Oak Ridge; RADIATION HYGIENE HANDBOOK' Hanson Blatz, McGraw-Hill, 1959, page 21-44, also see page 21-39 (Section 21), Ocean Disposal as Liquid or Solid).

Undoubtedly alerted that Strontium decomposes water, ERDA is hoped to project the development of SOLAR ENERGY. PHOTOVOLTAIC Electric Power Systems together with the generating systems of the U.S. electric utility industry under a $339,000 contract with the ELECTRIC POWER RESEARCH INSTITUTE, is GE's newest project. Wilbur D. Marsh is manager of their Photovoltaic system.

Big indistry could have developed SOLAR POWER in the 1950's- but the AEC was pushing atomic power, and gave the utility industry "bonuses" to build nuclear reactors. How tragic that radioactive contamination reached the extent before SOLAR power gained a following. Even today largest funds in government have been for nuclear energy; WRITE YOUR REPRESENTATIVES and OFFICIALS! You will help alert them (and counteract the Lobbies) to the dangers of radioactive substances in foods, the contamination of our water, the destructive force of some elements, and the chemical mixtures in the atmosphere which become lethal to all life.

It is URGENT that we strive to bring immediate SOLAR energy, and ban both nuclear testing, weapons, and nuclear power. I write this knowing that many nations want BOTH, and expect the U.S. to sell it to them- then they find the dangers, and then they could sue.

VINCENT SHEEAN, in Lead Kindly, Light, remarked on one of the physicist's equations, $\sqrt{\frac{mc^2}{1-\frac{v^2}{c^2}}}$ that this means that if a mass ever equals the velocity of light, its magnitude becomes infinite; even the tiny electron is a mass (the negative part of an atom) and it has almost reached the velocity of light, and does this in every atomic explosion. (Of which there are millions in every sustained fission of nuclear reactors). He states therefor, that its capacity for total destruction is "well" on its way towards infinity.

Dr. NORMAN RASMUSSEN whose many-volumed report minimizes the dangers of nuclear reactors and emissions or accidents, received NO CRITICAL questions from the Join Committee on Nuclear (Atomic) Energy. Sen. Tunney is on this committee, and you read (CARP, Fall, 1976) how he thinks that nuclear power should continue for the next several decades. May he learn otherwise, and urge SOLAR energy also.

In 1975, SENATOR GAYLORD NELSON urged the government to financially aid small solar business groups who deal directly with the public. This was to urge individuals to install their own SOLAR panels, rather than utilities. Today the ELECTRIC POWER RESEARCH INSTITUTE is assisting GE with its contract, though President Ford's views on the dangerous BREEDER program cause one to shudder, for he, though I sent him my report "Radiation Hazards and Clean Energy" last winter, goes along with the nuclear industry. However JIMMY CARTER's Neil Sader in ATLANTA states that perhaps CARTER will use some of my material in his campaign.

We of CARP are hoping either to bring the University of Colorado's SOLAR EXHIBIT to Fort Lauderdale, or to interest local colleges in an adaptation. Funds will be needed, and donations will be wildly and appreciatively accepted. The UNIVERSITY OF WEST FLORIDA at PENSACOLA has a course in SOLAR ENERGY taught by Dr. PATRICK N. ESPY, aerospace engineer and researcher for the University Of Arkansas. Local universities have not a course, though the UNIVERSITY OF MIAMI received a federal grant last year for work in SOLAR and other forms of energy; according to President HENRY KING STANFORD, two grants will enable the University to develop a plan for a school to be both heated and cooled by SOLAR ENERGY. Another university offering a course in SOLAR energy, is the COMMUNITY COLLEGE OF DENVER.

SPECIAL THANKS TO KAY DEEHL for her contribution this year, and to MRS. HAZEL RASMUSSEN. Stamps and publishing are a vital necessity. VALERIE PRIMB'S group, CUARE, sought to prevent another nuclear reactor on Hutchinson Island; she is our member in STUART. 1976-1977 DUES still $3, but this does not cover costs . .

Geraldine Rasmussen, Director

REELFOOT- AN EARTHQUAKE LAKE
- - IN TENNEESSEE
And The Account of An Eyewitness
Wilbur Nelson: January, 1924 National Geographic Magazine, Pages 103-5.

"Here is the account of an eyewitness, one of the pioneers, Eliza Bryan, living at New Madrid, near the cliffs where Hickman now stands. She wrote to her pastor, the Reverend Lorenzo Dow, the following letter:

"Dear Sir:

"On the 16th of December, 1811, about 2 o'clock a.m., a violent shock of earthquake, accompanied by a very awful noise, resembling loud but distant thunder, but hoarse and vibrating, followed by complete saturation of the atmosphere with sulphurous vapor, causing total darkness. The screams of the inhabitants, the cries of the fowls and beasts of every species, the falling trees, and the roaring of the Mississippi, the current of which was retrograde for a few minutes, owing, as it was supposed, to an eruption in its bed, formed a scene truly horrible.

"From that time until about sunrise a number of lighter shocks occurred, at which time one more violent than the first took place with the same accompaniments.

"There were several shocks in a day, but lighter than those mentioned, until the 23rd of January, 1812, when one occurred as violent as the severest of the former ones, accompanied by the same phenomena.

"From this time on until the 4th of February the earth was in continual agitation, visibly waving as a gentle sea. On that day there was another shock, nearly as hard as the preceding ones; next day four such, and on the 7th, at about 4 o'clock a.m., a concussion took place so much more violent than those preceding it that it is denominated the 'hard shock'.

"The Mississippi first seemed to recede from its banks, and its waters gathered up like a mountain, leaving for a moment many boats, which were on their way to New Orleans, on the bare sand, in which time, the poor sailors made their escape from them.

"Then rising 15 or 20 feet perpendicularly and expanding, as it were, at the same time, the banks overflowed with a retrograde current rapid as a torrent. The boats, which before had been left on the sand, were now torn from their moorings and suddenly driven up a little creek, at the mouth of which they had laid, to a distance in some instances of nearly a quarter of a mile.

"The river, falling immediately as rapidly as it had risen, receded within its banks with such violence that it took with it whole groves of young cottonwood trees which had hedged its borders. They were broken off with such regularity in some instances that persons who had not witnessed the fact could be with difficulty persuaded that it had not been the work of man. The river was literally covered with wrecks of boats.

"The surface of the earth was from time to time by these hard shocks covered to various depths by sandwhich issued from fissures that were made in great numbers all over this country. Some of these closed up immediately, after they had vomited

forth their sand and water. In some places, however, a substance resembling coal or impure stone coal was thrown up with the sand.

"It is impossible to say what the depth of the fissures was; we have reason to believe that some of them were very deep.

"The site of this town was settled down at least 15 feet, but not more than a half mile below there does not appear to be any alteration of the bank of the river.

"Back from the river large ponds, or lakes, which covered a large part of the country, were nearly dried up. The beds of some of them are elevated several feet above the former banks, producing an alteration from their original state of 10 or 20 feet, and lately it has been discovered that a lake was formed on the opposite side of the Mississippi, in the Indian country, upwards of 100 miles long and from one to six miles wide, of a depth of from 10 to 50 feet.

"We continually to feel light shocks occasionally. It is seldom that we are more than a week without feeling one, and sometimes there are three or four in a day. There were two this winter past, much harder than for two years past; but since then they appear to be lighter than they have ever been.

"Your humble servant,
'Eliza Bryan'."

Today the lake is nearer 14 miles in length and 4½ miles in width. Wilbur Nelson, who wrote the article which quotes the above account terms that fact exaggerated, however much can happen in one hundred years, including lake settling and drainage. Noted men such as Andrew Jackson and Davy Crockett also left accounts, and General Rogers of Revolutionary fame, who lived at the foot of the Cumberland Mountain, 200 miles to the east, "saw great blocks of sandstone, loosened from the escarpment, 1,000 feet above the river, crash down the mountain sides."

Indians in Canada reported the earth tremors, settlers and Indians in Missouri and Arkansas, New Orleans, 500 miles away, Detroit, 600 miles away, Washington, 700 miles away, Boston, at 1,100 miles, and the southern states all felt the earthquake. At the Mississippi where there was much sand and few huge rocks, loose sand and clay from a depth of 2,000 feet formed "veritable sand geysers":

"The great forest trees moved, with branches interlocked, like fields of grain before the wind. Their trunks, not having the suppleness of youth, fell prostrate or reclined at grotesque angles to the earth."

All this, according to the Indians, because Chief Reelfoot, a Chickasaw chief with a deformed foot, fell in love with a Choctaw Indian Princess; the old Choctaw Chief told Reelfoot that Laughing Eyes was to be given only to a Choctaw chieften, but Reelfoot desired Laughing Eyes, and could not be pursuaded to abandon his desire aven after the Great Spirit told Reelfoot that an Indian must not steal his wife from another tribe, or he would cause the earth to rock, and the waters to swallow all.

black population has actually decreased. A further claim that the high rate of sickness and death are due to nonradioactive air pollution was not taken seriously, since that type of pollution is the same in Aliquippa as everywhere else in western Pennsylvania.

Duquesne Light, in self-defense, contracted for another study by National Utilities Service Corp. The study was assigned for analysis to Professor Morris DeGroot, head of the Department of Statistics at Carnegie-Mellon University.

DeGroot's studies confirmed Sternglass's.

It was shown that in 1970, the year of highest infant mortality in Aliquippa, the level of strontium 90 in milk at the six local dairies also reached an all-time high. It was actually 75 percent higher than the average concentration for the region. Unwilling to believe their results, the National Utilities Service technicians repeated their measurements three times. After that there was no longer any room for doubt.

Thus, even from what is considered one of the safest of atomic power plants, there is a discharge of radioactive gases. Kept within the limits that the Atomic Energy Commission considers permissible, as the discharges are at Shippingport, the gases do contain radioactive strontium which falls to the ground. Because of its chemical affinity for calcium, the radioactive strontium gets into the grass and other high-calcium cattle feed. Through the feed it gets into the milk, and from the milk into the children.

It should also be remembered that while small children are the first to show the effects of fallout, and probably accumulate more because they are heavy milk drinkers, the effects are by no means limited to them. Radioactive minerals will be found in all food and adults accumulate them, too. Deposited into bone, they can cause bone cancer. They can damage chromosomes and result in defective or dead babies. And there is some reason to believe they can also simply shorten life, by affecting the nuclei acids, without causing any specific disease at all.

Yet not everybody will succumb to what the [illegible]mic Energy

By Harold Lamb, Morgan & Rose 1974

lacked one thing—Laughing Eyes, forbidden to him by the Great Spirit. Through the long summer days the Indians fished and hunted, and Reelfoot as chief was doing his part in storing up food for the coming winter.

But his activities did not keep Reelfoot from thinking of his love and wondering if the Great Spirit would really do as he said.

AND THE EARTH TREMBLED

For the first time Reelfoot did not want to believe the Great Spirit; so, as the days grew short and the maize was gathered, he planned with his warriors to go south and capture the forbidden maiden. When the first snows came they started, and, swooping down on the Choctaws, he captured the princess and fled back to the north.

Laughing Eyes was greatly frightened, for she had heard what the Great Spirit had said to Reelfoot. She feared for herself and implored that he send her back to her father; but Reelfoot was in love and, now that he possessed his longed-for bride, was willing to defy everything.

One starry night he brought his princess bride home, and there was great rejoicing among his people, for now their tribal family was complete. The festival fires burned; the pots boiled and the venison browned on the spit.

In the midst of the festi[illegible] the marriage rites the earth beg[illegible] il in rhythm with kettledrums an[illegible]ons.

The Indians tried to flee [illegible] hills, but the rocking earth made t[illegible] and stagger. Chief Reelfoot an[illegible] bride reeled also and the Great Spi[illegible]mped his foot in anger. The Father [illegible] Waters heard and, backing on his course, rushed over Reelfoot's country.

Where the Great Spirit stamped the earth the Mississippi formed a beautiful lake, in the bottom of which lay Reelfoot, his bride and his people.

Such is the Indian legend of Reelfoot Lake.

THE ACCOUNT OF AN EYEWITNESS

Here is the account of the earthquake as given by one of the pioneers, Eliza Bryan, living at New Madrid, near the cliffs where Hickman now stands (page 99). She wrote to her pastor, the Reverend Lorenzo Dow, the following letter:

"Dear Sir:

"On the 16th of December, 1811, about 2 o'clock a. m., a violent shock of earthquake, accompanied by a very awful noise, resembling loud but distant thunder, but hoarse and vibrating, followed by complete saturation of the atmosphere with sulphurous vapor, causing total darkness. The screams of the inhabitants, the cries of the fowls and beasts of every species, the falling trees, and the roaring of the Mississippi, the current of which was retrograde for a few minutes, owing, as it is supposed, to an eruption in its bed, formed a scene truly horrible.

"From that time until about sunrise a number of lighter shocks occurred, at which time one more violent than the first took place with the same accompaniments.

"There were several shocks in a day, but lighter than those mentioned, until the 23rd of January, 1812, when one occurred as violent as the severest of the former ones, accompanied by the same phenomena.

"From this time on until the 4th of February the earth was in continual agitation, visibly waving as a gentle sea. On that day there was another shock, nearly as hard as the preceding ones; next day four such, and on the 7th, at about 4 o'clock a. m., a concussion took place so much more violent than those preceding it that it is denominated the 'hard shock.'

"The Mississippi first seemed to recede from its banks, and its waters gathered up like a mountain, leaving for a moment many boats, which were on their way to New Orleans, on the bare sand, in which time the poor sailors made their escape from them.

"Then, rising 15 or 20 feet perpendicularly and expanding, as it were, at the same time, the banks overflowed with a retrograde current rapid as a torrent. The boats, which before had been left on the sand, were now torn from their moorings and suddenly driven up a little creek, at the mouth of which they had laid, to a distance in some instances of nearly a quarter of a mile.

"The river, falling immediately as rapidly as it had risen, receded within its banks with such violence that it took with it whole groves of young cottonwood trees which had hedged its borders. They were broken off with such regularity in some instances that persons who had not witnessed the fact could be with difficulty persuaded that it had not been the work of man. The river was literally covered with wrecks of boats.

"The surface of the earth was from time to time by these hard shocks covered to various depths by sand which issued from fissures that were made in great numbers all over this country. Some of these closed up immediately, after they had vomited forth their sand and water. In some places, however, a substance resembling coal or impure stone coal was thrown up with the sand.

"It is impossible to say what the depth of the

CITIZENS AGAINST RADIOACTIVE POLLUTION
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Jan.ary 13, 1977

The earthquake was felt from New Orleans to Canada, from the Mississippi to Boston, Washington, D.C. and all southern states.

Truly,

Geraldine Rasmussen, Director

By Philip A. Nelson
National Wildlife Federation
January, 1974