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

August 13, 1979

Docket No. 50-302

Ms. Kathy Griffin
2885 Naples Drive
Winter Park, Florida 32789

Dear Ms. Griffin:

Your letter of June 12, 1979, addressed to the Department of Energy, was forwarded to the Commission for response to the concerns you expressed regarding the safety of the Crystal River Nuclear Power Plant, Unit 3 (CR-3). As you may be aware, since the date of your submittal, the Commission on July 6, 1979, authorized Florida Power Corporation to resume operation of CR-3.

The Commission shares your concern regarding the public health and safety effects of operating nuclear power plants. Prior to our authorization to restart CR-3, after we ordered its shutdown on May 16, 1979, we convinced ourselves through rigorous reviews and investigations that Florida Power Corporation understood the Three Mile Island accident and implemented the plant modifications and changes in operating procedures required by our May 16th Order. The enclosed document (Enclosure 1) pertaining to the restart, describes design and procedural changes that were required prior to the authorization to resume operation. Long term modifications continue to be required and implemented to improve the reliability of the facility.

In response to your concerns regarding radiation, numerous regulations currently exist which are designed to protect the health and safety of members of the general public as well as persons who receive occupational exposure to radiation. Within the Commission's regulations in Title 10 of the Code of Federal Regulations, Part 20 establishes standards for protection against radiation hazards arising out of activities under licenses issued by the Commission, and Part 71 contains regulations necessary to protect against radiation and criticality hazards in the transportation of certain radioactive materials.

The Commission supports, promotes, and enforces the concept of keeping levels of radioactive material in effluents to unrestricted areas as low as is reasonably achievable taking into account the state of technology and the economics of improvements in relation to benefits to the public

health and safety. Under current guidelines, the additional annual radiation dose received by members of the public living near an operating facility on the East Coast is less than 5% of their dose from exposure to the natural background radiation. This additional annual exposure roughly coincides to the radiation dose received during a round trip cross-country airflight. The variance in natural background levels due to geographical location exceed the 5% increase attributable to nuclear power plant operation.

In your submittal, reference was made to public participation in the siting process for a nuclear power facility. The Atomic Energy Act of 1954 requires that a public hearing be conducted prior to the issuance of a construction permit. A public hearing was held with the Atomic Safety and Licensing Board in Crystal River, Florida on July 16-17, 1968 which addressed safety and environmental issues. Additional information on the public's role in the licensing process is described in Enclosure 2. Official records of the licensing proceedings and the public's input should be available for your reference at the Crystal River Public Library.

I trust that the information presented is responsive to your concern regarding the operation of CR-3.

Sincerely,

D. G. Eisenhut, Acting Director
Division of Operating Reactors
Office of Nuclear Reactor Regulation

Enclosures:
1. Auth. to Resume Oper. dtd. 7/6/79
2. Add. Info. - Reactor Licensing Process

Enclosure 2

JAN 25 1979

THE REACTOR LICENSING PROCESS

The Nuclear Regulatory Commission (NRC) is responsible for, among other things, the licensing and regulation of nuclear power plants. Before a nuclear power plant can be built at a particular site, the applicant must obtain a construction permit from the NRC. As a major part of the application for a construction permit, an applicant must file a Preliminary Safety Analysis Report (PSAR). This document presents the design criteria and preliminary design information for the proposed reactor and comprehensive data on the proposed site. The report also discusses various hypothetical accident situations and the safety features which will be provided to prevent accidents or, if they should occur, to mitigate their effects on both the public and the facility's employees. In addition, the applicant must submit a comprehensive Environmental Report providing a basis for the evaluation of the environmental impact of the proposed plant. Further, information must be submitted by the applicant for use by the Attorney General and the NRC staff in their reviews of the antitrust aspects of the proposed plant.

An applicant for a construction permit for a nuclear power plant may tender the required information in three parts. One part is accompanied by the Environmental Report (ER) and site suitability information and another part by the PSAR. Tendering of the first part may precede the tendering of the other by no longer than six (6) months. Whichever of the above parts is tendered first must also include the fee and other general and financial information. The third part, consisting of antitrust information, is tendered 9-36 months prior to the other information in order for the Attorney General and the NRC staff to begin the antitrust review.

Some time during the period that the applicant is preparing its application for a construction permit, usually about 6-12 months prior to tendering, the NRC staff holds a general introductory meeting in the area of the proposed site in order to familiarize the public with the safety and environmental aspects of the proposed application, including the planned location and type of plant, the regulatory process, and the provisions for public participation in the licensing process. Additional public meetings of this kind, that is, those which are conducted specifically for the convenience of public observation and participation, are held during the course of the reactor licensing process.

When an application is submitted, it is first subjected to an acceptance review by the NRC staff to determine whether it contains sufficient information to satisfy the Commission requirements for a detailed review. If the application is not sufficiently complete, the staff makes specific

requests for additional information. The application is formally accepted by NRC only if it meets certain minimum acceptance criteria. In addition, when the PSAR is submitted, a substantive review and inspection of the applicant's quality assurance program, covering design and procurement, is conducted. Guides for the preparation of the documents have been developed by the NRC Staff to aid applicants in preparing acceptable applications.

As soon as an application for a construction permit is received by NRC, copies are placed in the NRC Public Document Room. As soon as the ER or PSAR or early site information is received, copies are also placed in Public Document Rooms local to the proposed site. Copies of all future correspondence and documents relating to the application are placed in these locations and are available to every member of the public. Also, a press release announcing receipt of the application is issued by the NRC. Upon docketing (acceptance) of the applicant's application for a construction permit, copies are sent to Federal, State, and local officials and a notice of its receipt is published in the Federal Register.

The application is reviewed to determine that the plant design is consistent with NRC requirements. Design methods and procedures of calculations are examined to establish their validity. Checks of actual calculations and other procedures of design and analysis are made by the staff to establish the validity of the applicant's design and to determine that the applicant has conducted his analysis and evaluation in sufficient depth and breadth to support required findings with respect to safety.

During the staff's review, the applicant is required to provide such additional information as is needed to complete the evaluation. The principal features of the staff's review can be summarized as follows:

1. A review is made of the population density and use characteristics of the site environs, and the physical characteristics of the site, including seismology, meteorology, geology and hydrology, to determine that these characteristics have been evaluated adequately and have been given appropriate consideration in the plant design, and that the site characteristics are in accordance with the siting criteria (10 CFR Part 100), taking into consideration the design of the facility including the engineered safety features provided.

2. A review is performed of the preliminary facility design, and of proposed programs for fabrication, construction and testing of the plant structures, systems, and components important to safety to determine that they are in accord with NRC requirements and that any departures from these requirements have been identified and justified.

3. Evaluations are made of the anticipated response of the reactor to various postualted operating transients and to a broad spectrum of hypothetical accidents. The potential consequences of these hypothetical accidents are then evaluated conservatively to determine that the calculated potential offsite doses that might result, in the very unlikely event of their occurrence, would not exceed the NRC guidelines for site acceptability.

4. A review is made of the applicant's proposed plans for the conduct of plant operations including the organizational structure, the technical qualifications of operating and technical support personnel, the measures taken for industrial security, and the planning for emergency actions to be taken in the unlikely event of an accident that might affect the general public. An important aspect of this review includes an assessment of the applicant's proposed programs for quality assurance and quality control to assure compliance with the Commission's requirements. These reviews form the basis for determining whether the applicant is technically qualified to operate the plant and whether it has established effective organizations and plans for safe operation of the plant.

5. Evaluations are made of the design of the proposed systems provided for control of the radiological effluents from the plant to determine that these systems can control the release of radioactive wastes from the plant within the limits specified by NRC requirements and that the applicant will operate the plant in such a manner as to reduce radioactive releases to levels that are as low as is reasonably achievable.

This review is conducted by members of the NRC staff and its consultants over a period of about one to two years. The staff and applicant interact frequently during the course of the review in working type meetings. At these meetings information is exchanged, problems are discussed and resolved and staff positions are clarified. Intervenors and other interested members of the public are generally invited to staff-applicant meetings as observers.

The review process includes the consideration of programs proposed by an applicant for a construction permit to verify plant design features and to confirm design margins. The review process includes consideration of basic research and development programs necessary to assure the resolution of safety questions associated with safety features or components. The applicant must identify any research and development work that will be conducted to confirm the adequacy or to resolve any safety questions associated with the design of a particular facility, along with a schedule for completion of that research and development work. All such safety questions must be resolved prior to operation of the facility. After completion of consturction, nuclear power plants are subject to operating license procedures and requirements. Data obtained from research and development programs on particular facilities and from the Commission's safety research program are factored into these licensing reviews.

When the review and evaluation of the application progresses to the point that the staff concludes that acceptable criteria, preliminary design information and financial information are documented adequately in the application, a Safety Evaluation Report is prepared. This report represents a summary of the review and evaluation of the application by the staff relative to the anticipated effect of the proposed facility on the public health and safety.

The Advisory Committee on Reactor Safeguards (ACRS), an independent statutory committee established to provide advice to the NRC on reactor safety, reviews each application for a construction permit for a nuclear power plant. The ACRS is composed of a maximum of fifteen members who, though not NRC employees, are appointed by the NRC for terms of four years each. The members are experienced, technically trained individuals selected from various technical disciplines, having applicable experience in industry, research activities, and .. the academic area. The ACRS also makes use of consultants in specialized technical disciplines.

As soon as an application for a construction permit is docketed, copies of the PSAR are provided to the ACRS. Each application is assigned to an ACRS subcommittee, usually made up of four to five ACRS members. During the course of the review by the staff, the ACRS is kept informed of the staff's requests for additional information from the applicant and of meetings held, so that the subcommittee is aware of any developments that may warrant a change in the plant. In those cases where the plant is a "standard design" and the site appears generally acceptable, the subcommittee review does not begin until the staff has nearly completed its detailed review of all the safety-related features of the plant. Where new or modified concepts or special site considerations are involved, the ACRS subcommittee begins its formal review earlier in the process, selecting appropriate stages in the staff review to begin a series of meetings with the applicant and staff.

Normally, before the full Committee considers a project, the staff provides its Safety Evaluation Report (SER) for the Committee's information. This staff report and the report of the ACRS subcommittee form the basis for Committee consideration of a project. Special attention is given to those items which are of particular safety significance for the reactor involved and any new or advanced features proposed by the applicant. The full Committee meets at least once with the staff and with the applicant to discuss the application These meetings are open to the public. When the Committee has completed its review, its report is submitted to the NRC in the form of a letter to the Chairman, which is made public.

The staff prepares one or more supplements to the Safety Evaluation Report to address the safety issues raised by the ACRS in its report and to include any other information made available since issuance of the original Safety Evaluation Report.

Either concurrently with or separately from the radiological safety review, an environmental review is performed by the staff and its consultants to evaluate the potential environmental impact of the proposed plant, as well as to provide comparisons between the benefits to be derived and the possible risk to the environment. After completion of this review, a Draft Environmental Statement (DES), containing conclusions on environmental matters, is issued. The DES is circulated for review and comments by the appropriate Federal, State and local agencies as well as by private individuals and organizations. After receipt of all comments and resolution of any outstanding issues, a Final Environmental Statement (FES) is issued and also is made public. The SER and its supplements and the FES constitute the staff's primary evidence at the subsequent public hearings.

The law requires that a public hearing be held before a construction permit may be issued for a nuclear power plant. Soon after an application is docketed the NRC issues a notice of the hearing which will be held after completion of the NRC staff safety and environmental reviews. In addition, the hearing is noticed in several newspapers in the vicinity of the proposed plant and a public announcement is issued by the NRC. Opportunity is afforded for members of the public to participate in the hearing. Members of the public may submit written statements to the licensing board to be entered into the hearing record, they may appear to give direct statements at the hearing, or they may petition for leave to intervene as full parties in the hearing. At an early stage in the review process, potential intervenors are invited to meet informally and discuss with the staff their concerns with respect to the proposed facility.

The public hearing is conducted by a three-member Atomic Safety and Licensing Board appointed from the NRC's Atomic Safety and Licensing Board Panel. The board is composed of one lawyer, who acts as chairperson, and two technically qualified persons. The hearing may be a combined safety and environmental hearing or, in the case of a split application, separate hearings. The board considers all the evidence which has been presented, together with findings of fact and conclusions of law filed by the parties and issues an initial decision. If the initial decision regarding NEPA and safety matters is favorable, a construction permit is issued to the applicant by the Director of Nuclear Reactor Regulation. The board's initial decision is subject to review by an Atomic Safety and Licensing Appeal Board and the Commission.

NRC regulations provide that the Director of Nuclear Reactor Regulation may authorize limited construction work to be carried out prior to the issuance of the construction permit. This authorization is known as a Limited Work Authorization (LWA). The regulations provide for the authorization of two types of work. One type may authorize site preparation work, installation of temporary construction support facilities, excavation, construction of service facilities and certain other construction not subject to the quality assurance requirements. The second type of LWA may authorize the installation of structural foundations.

An LWA may be granted only after the licensing board has made all of the

National Environmental Policy Act (NEPA) findings required by the Commission's regulations for the issuance of a construction permit and has determined that there is reasonable assurance that the proposed site is a suitable location for a nuclear power reactor of the general size and type proposed from a radiological health and safety standpoint. The second type may be granted if, in addition to the findings described above, the hearing board determines that there are no unresolved safety issues relating to the work to be authorized.

The law requires that antitrust aspects of a nuclear power plant license application must be considered in the licensing process. The antitrust information submitted by the applicant is sent to the Attorney General for advice on whether activities under the proposed license would create or maintain a situation inconsistent with the antitrust laws. Upon receipt, the Attorney General's advice is promptly published and opportunity is provided for members of the public to raise antitrust issues. An antitrust hearing may be held based on the recommendation of the Attorney General or on the petition of an interested party. In any event, the NRC must make a finding on antitrust matters. Antitrust hearings are held separately from hearings on environmental and safety matters.

When the construction of the nuclear plant has progressed to the point where final design information and plans for operation are ready, the applicant submits the Final Safety Analysis Report in support of an application for an operating license. The FSAR sets forth the pertinent details on the final design of the facility, including final containment design, design of the nuclear core, and waste handling system. The FSAR also provides plans for operation and procedures for coping with emergencies. Again the staff makes a detailed review of the information. Amendments to the application and reports may be submitted from time to time. The staff again prepares a Safety Evaluation Report (re the operating license) and, as during the construction permit stage, the ACRS makes an independent evaluation and presents its advice to the Commission.

A public hearing is not mandatory with respect to an operating license application. However, soon after acceptance for review of the operating license application, the Commission publishes notice that it is considering issuance of the license. The notice provides that any person whose interest might be affected by the proceeding may petition the NRC for a hearing. If a public hearing is held, the same decision process described for the construction permit hearing is applicable.

Each license for operation of a nuclear reactor contains Technical Specifications, which set forth the particular safety and environmental protection measures to be imposed upon the plant, and the conditions of its operation that are to be met in order to assure protection of the health and safety of the public and of the surrounding environment.

Through its inspection and enforcement program, the NRC maintains surveillance over construction and operation of a plant throughout its lifetime to assure compliance with Commission regulations for the protection of public health and safety and the environment.

JUL 26 1979

Department of Energy
Washington, D.C. 20545

Ms. Kathy Griffin
2885 Naples Drive
Winter Park, FL 32789

Dear Ms. Griffin:

Your letter of June 12, 1979 to the Secretary of Energy expressing concerns about the safety of the Crystal River nuclear power plant has been referred to this office for reply.

Inasmuch as matters pertaining to the Crystal River plant are under the cognizance of the Nuclear Regulatory Commission, we are referring your letter to them for appropriate action by copy of this letter.

Sincerely,

Original Signed By
J. P. Thereault

John P. Thereault, Deputy Director
Plans and Analysis Division
Office of Nuclear Energy Programs

cc:
L. Gossick, NRC

12 June 1979

Secretary James Schlesinger,

The Crystal River Nuclear Power Plant is due to re-open within a week's time. As I see it, the problems regarding safety have not been solved. The essential design of the plant has not been changed. (Babcock + Wilcox). Physicists do not know the effects the bombardment of atoms will have on those metals after years of use. And there is no adequate means of storing or transporting the wastes now, nor will there ever be. They are radioactive, corrosive and deadly. They are presently seeping into our water systems or blowing up on our railroads and readily getting into the food chain. Lower life forms are already affected. It's just a matter of time before it shows up in humans. The threat of my children or grandchildren developing leukemia or genetic mutations has changed my life. My fear is too great to verbalize but it is well founded. Were we the people consulted when these monstrosities were built? No! I live here and love it and I don't want nuclear anymore. There are cleaner, safer alternatives now. We must act now to save our future for the sake of the children! Remember, you are responsible to the people.

not the corporations. Just because radiation cannot be seen or felt, it must not be ignored. This is the biggest and most widespread health issue of our time.

Sincerely,

Kathy Griffin
2985 Naples Dr.
Winter Park, Fla 32789

FACT SHEET FOR CRYSTAL RIVER #3 NUCLEAR REACTOR

1) Today CR#3 is closed. It was closed April 23, 1979, when FPC announced a 6-week shutdown for refueling. Refueling should only take 15 days. The fact is the shutdown is largely due to extended repairs from a Mar. 3, '76 accident which closed it then for 5 months.

2) CR#3 was ordered by the Nuclear Regulatory Commission (NRC) to make improvements because of its similarity to the recently failed Three-Mile Island reactor.

3) The "minor" adjustments CR#3 was required to make were not supposed to extend the outage. However, if the plant is activated on June 17, as is now planned, it will have been out of operation for 8 weeks.

4) To date, the plant has operated at a Capacity Factor of 55%; it was projected to operate at 87%. It must operate at 50% to "break even". THIS COST ACCOUNTING DOES NOT TAKE INTO CONSIDERATION:
   a) Decommissioning Costs (at least $200 million)
   b) Storage and/or Disposal of Wastes for 25,000 years
   c) Costs to us as Taxpayers in the Event of an Accident

5) CR#3 construction was begun in 1966. It was to take four years and cost $118 million dollars. It was completed in 1977, 11 years later, at a cost of $409 million.

6) FPC successfully sued Gilbert & Associates (the builders) for $2.3 million for costs and delays caused by a lamination void in the top of the containment dome. (The void was accidentally discovered!)

7) FPC also sued Babcock & Wilcox (the designers and builders of the reactor) for supplying equipment "unfit for nuclear electric generation". FPC settled out of court for $1.1 million.

8) In 1977, CR#3 led the nation's nuclear plants in reportable "occurances": 156! Forty-five of them were "environmental events" the next highest in the nation was 19.

9) The plant averages ONE UNPLANNED AND UNMEASURED RADIOACTIVE RELEASE PER MONTH! Planned "low-level" radioactive releases are frequent, including the discharge of 635 gallons of radioactive liquid waste every day!

10) CR#3 continues to have problems controlling feedwater flow and control rod positioning.

11) The present accident liability is $560 million. A meltdown accident could do $30 billion worth of immediate damage and cause inestimable social and genetic problems.

12) FPC has the capacity to generate sufficient electricity without this nuclear plant.

A NON-NUCLEAR FUTURE FOR THE SAKE OF THE CHILDREN