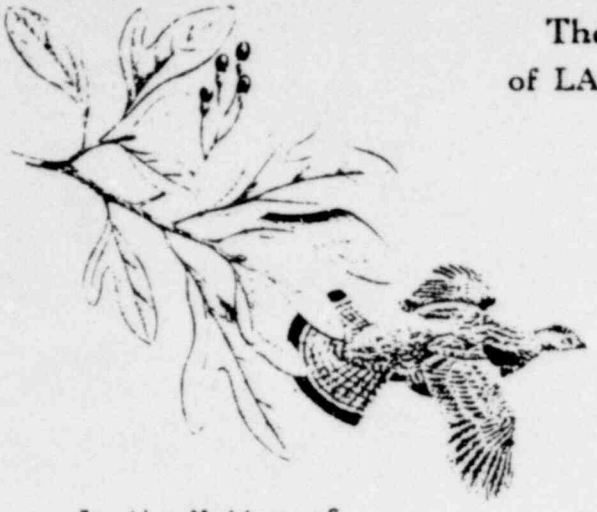

The SASSAFRAS AUDUBON SOCIETY
of LAWRENCE - GREENE - MONROE - BROWN -
MORGAN & OWEN COUNTIES

December 10, 1979

TO THE NUCLEAR REGULATORY COMMISSION
UNITED STATES OF AMERICA

In the Matter of

PUBLIC SERVICE COMPANY OF INDIANA, INC.
WABASH VALLEY POWER ASSOCIATION, INC.
(Marble Hill Nuclear Generating
Station, Units 1 and 2

Docket Nos. STN 50-546
STN 50-547

APPEAL TO COMMISSION TO REVIEW DIRECTOR'S DECISION UNDER 10 CFR 2.206

I

The Sassafras Audubon Society (SAS) is herewith appealing to the Nuclear Regulatory Commission (NRC) to review the Director's Decision Under 10 CFR 2.206 of November 27, 1979, on grounds that the Director abused his discretionary power in denying SAS requests to reopen safety hearings on Marble Hill at a meaningful point in the licensing process.

The SAS petitions considered in the Director's Decision were filed during a period of public disclosure of widespread and serious violations of NRC Rules and Regulations and of American Society of Mechanical Engineers (ASME) Codes developed to assure safe construction of nuclear power plants. The NRC's public admission of the failure of Public Service Company of Indiana (PSI), the responsible party in charge of construction at Marble Hill, to institute a quality control- quality assurance program, resulted in suspension of safety-related construction of Marble Hill on August 7, 1979.

The Order Confirming Suspension of Construction, issued by the Office of Inspection and Enforcement (IE), NRC, August 15, 1979, also established conditions which PSI must comply with in order for IE NRC to consider reauthorization of safety-related construction.

SAS filed A Request for a Hearing On Order Confirming Suspension of Construction on September 1, 1979. This Request included an indictment of NRC priorities and of the failure of the NRC regulatory process to assure safe construction of Marble Hill.

The Sassafras Audubon Society Motion Opposing NRC Staff Motion to Deny Hearing On Marble Hill of October 20, 1979, is an integral part of SAS efforts to secure a hearing on safety problems at Marble Hill at a meaningful point in the licensing process, and as such belongs in a review of the Director's

Decision of November 27, 1979.

II

SAS maintains that this is a meaningful point in the construction licensing stage of Marble Hill for a hearing:

.....safety-related construction is suspended as the result of massive and flagrant violations of nuclear construction standards and practices, with serious doubt of the extent to which such construction can be satisfactorily repaired; and

.....all of the safety issues cited by SAS in their petitions as further justification for a hearing were so identified because of significant new information on them since granting of the construction license and/or a significant change in attitude toward their significance as safety-hazards; and

.....the House Subcommittee on Environment, Energy, and Natural Resources held a 2-day hearing on construction problems on Marble Hill on November 27-28, 1979, and is expected to make recommendations on the findings of the hearing and of the Subcommittee's own investigation; and

.....the Senate Subcommittee on Nuclear Regulation has Marble Hill under investigation; and

.....the Interim Study Committee on State Energy Policies (Indiana) regarding nuclear power has held several hearings on Marble Hill and is in the process of developing recommendations; and

.....the Justice Department, at the request of the NRC, is investigating possible criminal violations which have occurred during the construction of Marble Hill, but has not submitted their findings as yet; and

.....the National Board of Boiler and Pressure Vessel Inspectors reported November 12, 1979, of "generic and repetitive" failure of PSI to abide by ASME Codes on use of "N" certified materials and suppliers and record keeping at Marble Hill. The Inspectors Report shows that PSI cannot document that all building material used at the plant meets ASME standards; and

.....the NRC has decided as the result of TMI-2 investigations not to grant operating or construction licenses for nuclear power plants until it adopts a new set of safety, siting, and emergency standards. Marble Hill should be subject to these new standards before any consideration is given to re-authorization of construction. Marble Hill scarcely qualifies for grandfathering; and

.....Marble Hill is at an early stage of construction (15-17% complete) when an assessment of the matters cited is still meaningful. Denial of a hearing until after the FSAR has been reviewed and the

gargantuan investment (possibly around $4 billion) needed to complete Marble Hill has been made, would render the points we would make now essentially academic.

A public hearing is highly appropriate (after investigations are complete) to bring the results and recommendations, and implementation of recommendations where accomplished, to focus on whether the construction license of Marble Hill should be revoked.

III

The Director's Decision states that SAS does not provide a convincing rationale for holding a hearing prior to the operating license review and finds no basis to upset the Commission's usual two-stage licensing process and institute a proceeding prior to the operating license stage.

The rationale offered by the Director supportive of his decision appeared to be a statement from a decision of the District of Columbia Circuit Court of Appeals (DCCCA):

"In the case of a construction permit for a nuclear power plant, however, permitting continued construction of the plant despite unresolved safety questions does not of itself pose any danger to the public health and safety. Before the license is granted to operate the plant there will be adjudication proceedings. Any interested party may request a hearing. In such an operating license proceeding unresolved safety questions will be considered. A positive finding of reasonable assurance of safety is a prerequisite to issuance of the operating license." Porter County Chapter of the Isaak Walton League v. NRC, No. 78-1556, Slip Op. at 12 (D.C. Cir., Sept. 6, 1979).

This statement, while originating outside the NRC, reflects the NRC "mindset" and general approach to unresolved safety problems which brought the Kemeny Committee to recommend total restructuring of the NRC and "new blood" that "could result in the change of attitudes that is vital for the solution of the problems of the nuclear industry." The philosophy and procedures both stated and implicit in the statement are unacceptable.

The NRC has routinely granted operator licenses to utilities for several decades without resolving significant safety problems (or without other Federal agencies on whom they depend for resolving some of the more serious problems, e.g. safe disposal of radioactive wastes, getting the job done).

CATCH-22 of the DCCCA statement is that waiting until the operating license proceeding to consider "unresolved safety questions" (at which time the Licensing Board renders its "positive finding of reasonable assurance of safety") does not of itself resolve the safety questions nor remove the danger to the public's health and safety.

Postponing considerations of safety problems until after the plant is built is, of course, a great advantage to the utility, for the Licensing Board can

rule that safety problems are insignificant compared with the size of the investment and economic benefits expected from the power produced. The public will be assured that benefits outweigh the risks (especially when compared with coal), even though no realistic estimate has been made of the potential health effects, property risks, or of the ultime cost of the power!

> Another CATCH-22 is that the NRC considers most unresolved safety problems "generic". The NRC, once it labels a safety problem "generic", absolves the individual (PSI and Marble Hill in this instance) from resolving the issue prior to licensing. This might seem proper, if there were a timely resolution of the safety problems, but it has been a convenient way of postponing decisions while licensing proceeds in a "business-as-usual" manner.

Still another CATCH-22 is qualifying for and participating in a proceeding. The DCCCA statement says that "Any interested party may request a hearing" but proving a party's interest in terms of "interest adversely affected", or marshalling arguments sufficient to satisfy the NRC staff, is quite another matter.

In the past two years, SAS has sought to participate in the Radon Proceeding as it related to Marble Hill, and sought hearings on safety problems as well as under the Order of Suspension (IE) of August 15, 1979 (see Staff Motion To Deny Requests for Hearing, October 4, 1979; and Director's Decision Under 10 CFR 2.206, November 27,1979, and have been denied routinely along with other groups.

SAS has applied to the NRC for "reinstatement" as a participant in the Marble Hill proceeding. While recognizing that rules are essential to govern hearings, etc., SAS protests the rigid and esoteric system under which the NRC operates, at least in practice, discouraging, if not excluding citizen participation. Costs of participation can also be high, acting as another deterrent to citizen participation.

IV

How many of the "unresolved safety issues" which SAS believes further justify a safety hearing on Marble Hill at this point are "generic"? All of them! The Director's Decision notes that "Such issues as SAS raises in its petition may be litigated as appropriate in any hearing that may be held on operating licenses." That simply isn't good enough when Marble Hill is at a critical stage in the construction licensing process and all of the "unresolved safety issues" relate to whether further construction is justified.

....REACTOR RISK

> On Class 9 accidents, the Director notes (page 5) that the Commission's current policy did not require the consideration of Class 9 accidents for power reactors, but mentions that the NRC staff is preparing recommendations for rule-making on consideration of Class 9 accidents in NEPA and Safety Reviews. However, until the Commission changes the current policy he found no basis "for

instituting a proceeding to consider Class 9 accidents at the Marble Hill facility."

SAS has asked that Marble Hill be assessed in terms of its probability for accidents, whatever the Class, that could result in significant release of radiation into the environment, and particularly with regard to Common Cause Failures which can bridge event-trees and cause simultaneous uncorrelated breakdown in different systems.

The Kemeny Committee noted that the combinations of minor equipment failures which occurred at TMI-2 are likely to occur much more often than the huge accidents and deserve extensive and thorough study. Combined with operator errors, or operator confusion, the result can be formidable as at TMI-2.

The study and analysis of accident-risk has proceeded at a slow pace. The Reactor Safety Study (SSS) (WASH-1400 or the Rasmussen Report), October 1975, was the subject of much debate from date of issuance. The Risk Asse-sment Review Group which issued its Report on the RSS September 1978 found the methodology of the RSS sound but its application wanting in terms of an adequate data base or sufficient technical expertise to insert credible subjective probabilities into the calculations. The Review Group thought that proper application of the methodology could "make the licensing and regulatory process more rational."

.....SPENT FUEL STORAGE AT MARBLE HILL

SAS expressed concern in their June 29 request for a safety hearing that "The potential exists . . . for Marble Hill to continue to serve as a high level-waste storage site indefinitely after final shutdown of the reactor."

The Director's reply was that "The NRC grants a licensee the right to store spent fuel in an offsite fuel storage pool throughout the duration of the operating license. However, a licensee must remove all radioactive material from the facility prior to termination of the operating license. Therefore, the Marble Hill site will not become a high level waste storage site after termination of the operating license."

> In which case, isn't it possible that the NRC will simply not terminate the operator's license or develop another rule expedient to the situation to the effect that spent fuel onsite storage poses no problems after expiration of the operating license and leave time limit on such storage open?

That appears to be the trend for, as the Director notes, the NRC has issued a notice of proposed rulemaking on storage and disposal of nuclear waste and one facet is "to determine whether radioactive wastes can be safely stored onsite past the expiration of existing

facility licenses until off-site disposal or storage is available."

Certainly the public has the opportunity to comment in the rulemaking proceeding for what it is worth, but that is not the same as having the opportunity to argue the matter prima facie in the context of whether a construction permit should be reauthorized for Marble Hill. The generic "rulemaking" power of the NRC precludes effective input and citizen concerns expressed in the context of the licensing process of individual plants.

The bargain originally at Marble Hill was for a nuclear power plant, and not the prospect is for double-jeopardy from the original action. We are being subjected to an evolving process of decision-making with regard to on-site radioactive waste storage directly affecting Marble Hill, but are being denied timely intervention in the matter by the Director's Decision. It is small comfort to be told that SAS will have an opportunity to request a hearing after the application for the operating license is docketed, when the matter should be discussed with reference to the construction permit.

When would a hearing, if granted, on PSI's proposed expansion of storage capacity in the spent fuel pool (to accomodate in all probability a life time production of high-level wastes) be likely to occur in the operating license proceeding on Marble Hill? Both after the proposed rulemaking and after the NRC staff has completed their review of the FSAR and Environmental Report, etc? And how long will the Review take? PSI assumed when they submitted their application for an operating license, on June 1, 1979, that it would take approximately 3 years. Will TMI-2 fall-out substantially increase the process? Management Analysis Corp., the company hired by PSI to help them develop an acceptable quality assurance program, has said that it might take as long as 1986 to bring Marble Hill Unit 1 on line, assuming construction begins again early in 1980. A guess is that a hearing on spent fuel or any other of the "unresolved safety issues" would not be "timely" under present NRC staff decisions and present NRC procedures.

..... NUCLEAR POWER AS AN EXPERIMENTAL AND DEVELOPING TECHNOLOGY

SAS is particularly concerned with steam generator degradation as it concerns Marble Hill. SAS noted in its Request for a Safety Hearing that the NRC had identified steam generator degradation, associated with steam generators of the re-circulation type manufactured by Combustion Engineering and Westinghouse, as an unresolved safety issue deserving the highest priority for resolution.

> PSI mentioned in its Annual Report in 1978 that four (4) massive steam generators (Westinghouse) for the first unit were on site.

Of the 22 reactors with steam generators of this type, attempts to

prevent degradation have been largely unsuccessful. Damage in 4 plants has been so extensive that the utilities have either begun or are planning total replacement of the steam generators, a costly and highly radioactive task.

Degraded steam generator tubes are "plugged" but they do not necessarily stop all leakage. The plugging operation involves high occupational radiation exposure as workers must go in and fire the tubes with explosive plugs.

The NRC and its various contractors have been examining a variety of alternatives, most of which involve changes in plant or steam generator design.

> Will the NRC require changes in plant design and steam generator design in plants in the construction license stage? If so, how will this affect Marble Hill and the 4 steam generators on-site? Costs involved?

SAS asks that the issue of steam generator degradation be part of a hearing on safety issues in the construction permit stage of Marble Hill.

.....MARBLE HILL & D&D

The Director's Decision notes that the NRC staff 1) would determine if the applicant is financially qualified to decommission the Marble Hill facility at the end of its useful life, and that 2) the applicant would present a specific proposal for decontamination and decommissioning of the facility when he requested termination of the operator's license, and, 3) if the licensee plans to dismantle the facility or if the proposal involves significant hazards considerations, then a public notice of the proposal will be issued and an opportunity to request a hearing will be provided (at the end of useful plant life.)

> These statements reflect the casual, if not scandalous way the NRC has handled the grave problems associated with D&D in the licensing process. The NRC knows without question that there will be significant hazards considerations at the end of the useful life of Marble Hill and the fact that there are various options for meeting those hazards does not justify postponement of decisions.

SAS will not accept Marble Hill being "grandfathered" under current procedures used by the NRC for D&D. PSI should be required to make a legally binding committment to a D&D fund based on the best possible estimate of what it would cost to dismantly (under water), mothball, or entomb, including costs of maintenance, surveillance, etc., and the costs placed in the B/C ratio and later applied to

the rate structure. A clause in the D&D agreement should provide for adjustment of the amount and rate of payment into the D&D fund as the "true costs" of D&D are revealed with time and experience.

What will be the life expectancy of Marble Hill? Nuclear power plants are showing an amazing capacity for aging. When Marble Hill was conceived it was thought that its active life might be 40 years. This was soon shortened to thirty years when calculating benefits and costs, and there is a question now whether it might be as short as twenty years.

The Dresden I nuclear power plant near Morris, Illinois, the oldest "operational" nuclear plant in the U.S. was shut down a year ago at the age of 19. An experimental cleaning (decontamination) of radioactive metal oxides accumulated in the pipes of the reactor is being planned at an expected cost of around $40 million to see if the life of the plant can be prolonged.

Dresden I is a BWR and Marble Hill would be a PWR, but as previously cited, PWR's are having aging problems too and the actual life expectancy of both types may be considerably less than projected when licensed.

Is it realistic then to talk about dismantling reactors, either first or second generation at the end of their lives? Where would the highly radioactive wastes go? The first Federal Repository for radioactive waste disposal is not likely to be ready for occupancy before the end of the 20th Century and there is expected to be enough radioactive wastes stockpiled by then for "standing room only" for a second repository. The WIPP Project is not likely to help the situation as President Carter has said NO to WIPP at the recommendation of the Interagency Review Group (with DOE as the lone dissenter).

The stockpiling of radioactive wastes, including the stockpiling of reactors, with no forseeable place for any of it to go must stop. This matter must be faced at the construction permit stage of Marble Hill.

..... EVACUATION OF THE MARBLE HILL AREA

The Director's Decision ignores SAS's major concern with regards emergency response: Can the Marble Hill area be evacuated in case of a Class 9 accident or any class accident involving a significant release of radiation? Can Madison, Indiana, and the towns that cluster near it within a 10-mile radius of the plant be evacuated where speed of evacuation was an essential emergency response?

No site evaucation study has been made of the Marble Hill area.

The response of the Director to SAS that the issue of emergency planning, which includes site evaucation, was evaluated in the Marble Hill Safety Evaluation Report, and also "litigated" during the Marble Hill construction permit hearings, is meaningless.

The requirements of Appendix E 10 CFR do not require a "feasibility of evacuation" study, nor as far as we can see do the Upgraded Emergency Plans issued on November 21, 1979 to applicants for operating licenses and licensees of plants under construction. The FSAR submitted by PSI on June 1, 1979 contains a travesty of a plan for site evacuation and emergency response.

Since both notification of residents as well as their evacuation is likely to be difficult, a "sheltering plan" should also be required, even though it is only a very temporary solution to a significant release of radiation.

Fundamental flaws of NRC emergency planning for accidents has been 1) its failure to require a feasibility of evacuation study of the area around a nuclear plant before the plant is sited, and 2) its requiring only the flimsiest type of emergency planning to secure an operator's license. Nor have Emergency Planning Zones been realistic in terms of a significant release of radiation.

With safety construction stopped at Marble Hill, we again ask that a feasibility of evacuation study be made of the Marble Hill area and be part of a hearing and decision-making process as to whether further construction of Marble Hill is justified.

DECLINING NEED, RISING COSTS, ATTRACTIVE OPTIONS

.....The Director infers on page 4 of the Director's Decision that if there were "special circumstances" associated with a Request for a Hearing at this stage of the Marble Hill procedding that he might "upset" the Commission's ordinary two-stage licensing process.

While it is difficult to understand why the severity of Marble Hill's construction problems, evidenced in the numerous investigations and hearings, do not qualify Marble Hill for special circumstances, the fact that Marble Hill's power will not be needed in the forseeable future in the PSI customer service area, and the fact that nuclear power plant construction costs have risen dramatically, negating any advantage nuclear power is supposed to have had over coal (with scrubbers), and the fact that the cost of Marble Hill must be realistically re-calculated in light of soaring costs, must qualify as "special circumstances" worthy of a hearing to determine if further construction is justified. Even if any re-analysis of the cost-benefit balance for Marble Hill would have to consider the costs already expended on the facility, as averred by the Director (page 13), it is likely that Marble Hill could be economically abandoned at this stage of construction.

PSI possesses a current peak total load over-capacity of 53%. Population growth in the region to which Indiana belongs grew only 25% as fast as the rest of the country during the 1970-1977 period and are forecast to grow only 45% as rapidly from now until year 2000 (Office of Business Economics and Economic Research Service, U.S. Commerce Dept.). Furthermore, "cheap" energy is no longer available and, as costs have risen, consumption has declined. From 1973-1978, the increased energy provided to the U.S. economy by energy conservation and improvements in energy productivity was almost three times as much as the total increase in U.S. energy consumption (Vince Taylor, The Easy Path Energy Plan, May 30, 1979, Cambridge, MA 02138 UCS).

PSI's own data on predicted decommissioning of present facilities and with Gibson 5 coming on line show that Marble Hill will not be needed within the next several decades to maintain a safe level of over-capacity at peak load when related to "realistic" assumptions of growth and demand.

Mr. Charles Komanoff's testimony before the Subcommittee on Energy and the Environment of the House Interior Commmittee on the Economics of Nuclear Power, July 12, 1979, and Mr. Fred Hauck's study of the economics of Marble Hill, will be provided, if deemed necessary in support of our arguments.

DOE itself has revised nuclear growth projections with their EIA (Energy Information Administration) forecasting a significantly reduced role for nuclear power for the remainder of the century as the result of an assessment of the uranium market, electrical demand growth, and the impact of TMI-2. EIA noted along with diminishing demand for additional electrical capacity, reduced availability of front-end capital with which to construct additional nuclear plants. DOE's Policy Office is predicting a similarly altered nuclear outlook with revisions in the regulatory process, primarily as the result of TMI-2, a major factor.

.....EVOLVING LICENSING STANDARDS

One of the main arguments SAS presented in its request for a safety hearing on June 29, 1979, was from a recent decision of the DCCCA on the case Ft. Pierce Utilities Authority of the City of Ft. Pierce v. United States of America and the Nuclear Regulatory Commission (Nos. 77-1925 and 77-2101, decided March 23, 1979) relating to the ability of the Commission to revoke, suspend, or amend an already issued license on the basis of conditions revealed subsequent to the issuance of the license. Significant portions of the Court's opinion relevant to Marble Hill follow:

> "It is significant, we think, that the "conditions revealed" clause applies to all licensing matters, including health, safety, and environmental considerations. Congress, when it enacted section 186 (a) in 1954, must have envisioned that licensing standards, especially in

the areas of health and safety regulation, would vary over time as more was learned about the hazards of generating nuclear energy. Insofar as those standards became more demanding, Congress surely would have wanted the new standards, if the Commission deemed it appropriate, to apply to those nuclear facilities already licensed. Cf. Atomic Energy Act 187, 42 U.S.C. 2237 (1976). It is our view, therefore, that the use of the present conditional tense ("would warrant"), rather than the past conditional tense ("would have warranted"), reflects a deliberate policy choice on the part of Congress when it enacted 186 (a) to render licenses for nuclear facilities subject to postlicensing review under evolving licensing standards, applicable at the time the license in question was issued. Accordingly, we reject the Commission's interpretation of the "conditions revealed" clause.

Another sentence from the opinion also seems applicable: "that Congress intended to render licenses for nuclear facilities subject to postlicensing review under licensing standards currently applicable to the type of license in question."

As the result of TMI-2, both the NRC and Congress are considering changes in licensing standards on health, safety, and environmental considerations, and the NRC is not granting any operating or construction licenses until the new standards are adopted.

SAS asks that Marble Hill, which has its construction permit suspended for due cause, be included in the moratorium on licensing until the newly evolved standards can be applied in a decision as to whether construction should be resumed.

Yours sincerely,

John A. Eyed, President
Sassafras Audubon Society
10 O'Clock Ridge Road
Nashville, Indiana 47448

cc: Marble Hill Service List
R. Peterson
T. Moffett
B. Bayh
R. Lugar
L. Hamilton
J. Deckard
W. Ford
M. Udall
G. Hart