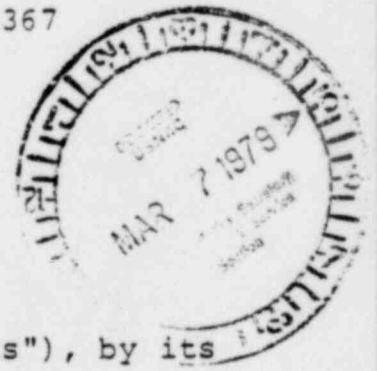
UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF:)
) Docket No. 50-367
NORTHERN INDIANA PUBLIC)
SERVICE COMPANY, (Bailly)
Generating Station; Nuclear-1))



REQUEST FOR HEARING

The People of the State of Illinois ("Illinois"), by its attorney, WILLIAM J. SCOTT, Attorney General of the State of Illinois, request that the Nuclear Regulatory Commission ("Commission")* grant a hearing, pursuant to 42 U.S.C. §2239, on the request dated February 7, 1979 of Northern Indiana Public Service Company ("NIPSCO"), holder of Construction Permit No. CPPR-104 (the "construction permit") for the proposed Bailly Generating Station Nuclear-1 ("Bailly"), for an amendment to the construction permit extending the latest construction completion date to September 1, 1985.

The interests of the State of Illinois which may be affected by the proceeding, are shown and established in documents in the Commission's docket in this matter.

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*This Request should be granted by the Commission itself, or by an Atomic Safety and Licensing Board designated for that purpose. The Commission's Staff which has served in conflicting and partisan roles in connection with the proposed Bailly Generating Station Nuclear-1 and on the subject matter of this Request should not participate in any way as a decision-maker.

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Under all of the facts and circumstances the Commission cannot properly determine that the requested amendment involves no significant hazards consideration.

NIPSCO has failed to show good cause for the requested amendment as required by 42 U.S.C. §2235, and under all of the facts and circumstances the Commission cannot properly determine that good cause has been shown.

Illinois reserves the right to supplement this Request for Hearing at a future date. It is being submitted now to ensure that it is before the Commission prior to action being taken on NIPSCO's request for an amendment.

Respectfully submitted,

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BY: _____

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DATED: March 5, 1979

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CERTIFICATE OF SERVICE

I, DEAN HANSELL, hereby certify that I have served copies of the foregoing Request for Hearing upon each of the following persons by deposit in the United States mail, first class postage prepaid, this 5th day of March, 1979:

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Therefore, on the scale of fuel lifetimes of several years, gaseous and volatile fission products fall into two distinct categories: (1) short-lived (radioactive) isotopes and (2) stable isotopes (non-radioactive except for ^{85}Kr and ^{129}I).

This dichotomy is significant since the release mechanism that has a potential for large releases involves a thermally activated migration process that proceeds slowly. Because of this relatively slow migration process, the short-lived isotopes decay appreciably before they are released from the pellet. Consequently, release calculations for short-lived isotopes must include their decay rate, whereas calculations for stable isotopes do not. Furthermore, most experimental measurements of released fission gas are preceeded by a cool-down period of approximately a year, during which time all of the radioactive species (except ^{85}Kr and ^{129}I) disappear.

As a result of this situation, little or no prototypical data exist for short-lived isotopes that would be useful in determining a release correlation. Gas-release correlations that are based on stable-isotope data, while useful for some fuel-performance calculations, are usually not capable of predicting the radioactive releases.

It is, of course, possible to derive an analytical model that is based on mechanistic or phenomenological principles such that it predicts releases as a function of half life, and such a model can be calibrated with stable gas data. This is the approach taken by ANS-5.4. The Working Group has chosen what is believed to be the simplest such