SCIENTISTS AND ENGINEERS FOR SECURE ENERGY, INC.

570 Seventh Avenue ~ Suite 1007
New York, New York 10018
(212) 840-6595

Miro M. Todorovich, Executive Director

Oral Comments Presented by

Professor Miro M. Todorovich

Executive Director

Scientists and Engineers for Secure Energy (SE_2)

Before the U.S. Nuclear Regulatory Commission
on the Matter of an Exemption Reguest
Under 10 CFR 50.12 by the
U.S. Department of Energy

July 29, 1982

Washington, D.C.

R. Leslie Dugan, Western Representative • 215 Market Street, Suite 930 • San Francisco, CA 94105 • (415) 495-5669

~~Mark H. Mills~~, Scientific Representative • 1225 19 Street NW, Suite 415 • Washington, DC 20036 • (202) 223-5381

Mr. Chairman. Distinquished Members.

My name is Miro Todorovich, and I teach Physics at the City University of New York. However, I am here today on behalf of the Scientists and Engineers for Secure Energy (SE_2), a national organization consisting mostly of academic scientists and engineers, of which I am the Executive Director. I appreciate very much the opportunity to address the Nuclear Regulatory Commission on questions related to the Exemption Request filed by the U.S. Department of Energy (DOE) for itself and on behalf of its co-applicants, the Project Management Corporation and the Tennesee Valley Authority, to conduct site preparation activities for the Clinch River Breeder Reactor (CRBR) prior to the issuance of a construction permit or limited work authorization.

In readying this oral presentation, SE_2 very carefully, reviewed, inter alia, the Applicants' Memorandum in Support of the Request to Conduct Site Preparation Activities, the Brief of the the Natural Resources Defense Council, Inc. and the Sierra Club in Opposition to Applicants' Exemption Request Under 10 CFR 50.12, the Intervenors' Petition for Investigation, the NRC's Order to the Applicants of July 21, 1982, the Applicants' Answer to Questions by Commissioner Ahearne, the Response of Intervenors to Applicants' Request for Admissions and Interogatives of June 4, 1982, the Applicants' Response to Intervenors Tenth Request to Applicants for Admissions of June 4, 1982, the Responses to

Intervenors' Nineteenth Set of Interogatives, and the Intervenors' Reply to Applicants' and Staff's Response to Intervenors' Petition to the Commissioners to Deliniate the Scope of the LWA Proceeding.

On the one hand, these documents told SE_2 that the Clinch River builders would like to finally obtain a Permit for site preparation for a project whose history dates back twelve years, to 1970. While some would like even more thorough deliberations and deliberate slowness, SE_2 observes that twelve (12) years is about one third of an adult's productive life, and thus, the germination of the CRBR should be allowed to proceed even if exempted from the rules which effectively tolerate these interminable delays. In our own written presentation of July 22, 1982, we therefore commented:

> Experience abroad has amply demonstrated the feasibility of the fast breeder technology, and France, in particular, appears headed towards a speedy and orderly incorporation of the full-sized commercial breeder reactor into its electrical grid. One can, therefore, expect that the Nuclear Regulatory Commission will have an opportunity in the not so distant future to put its stamp of approval on a properly designed Liquid Metal Fast Breeder Reactor.
>
> In the recent past, however, American progress towards

> the implementation of such a technology has been unduely delayed for other than technological reasons. The U.S. was standing still while other countries were forging ahead.
>
> Now, the Commission has been asked to permit site preparation activities prior to the issuance of other relevant permits or authorizations. In the light of the demonstrated feasibility of breeder technologies, and the earlier, whimsical delays in the American breeder program, SE_2 can find only technical and economic merit in the instant exemption request before the Commission.

We believe that this is a fair summary of the state of affairs.

On the other hand, the voluminous documents we have perused also tell us of an almost incredible story about the gradual, yet quite thorough, metamorphosis of the original licensing process into a set of procedural rules in which the technological and scientific substance has been reduced to a shell filled with a content light-years removed from physical and technical reality.

Thus, we encounter "interogatives" and "denials"; questions about consultants and employees and answers supported by affidavits; accusations of cover-ups and assertions about the public interest from quarters whose credibility on this particular matter is difficult to ascertain. By reading the aforementioned materials, members of the scientific and technical

professions have encountered difficulty avoiding the impression that the regulatory system, as currently in operation, allows for the unending hoisting of questions, for the uncontrolable proliferation of issues, and for the procedural defocusing of subject matters on the Docket to the point where all physical work ceases, having been overwhelmed by rhetoric.

And thus, while we talk here today about why we should or should not drive the first shovel into the Clinch River Grounds, the French are already planning and building a series of fully operational breeder reactors; and while our press prints repeated obituaries on America's nuclear power industry, French governments -- conservative and socialist alike -- are putting on line one nuclear power plant every two or so months; while we argue ad infinitum about the seismic quality of some of the best designed earthquake-resistent structures in the world, the Japanese in that earthquake-prone country are rightfully more concerned about the consequences of flash floods and of an oil cut-off than they are of the very unlikely prospect of a nuclear mishap. Of course, this formal, American litigatory and regulatory paralysis is by no means limited to the nuclear field. Peoples of other countries are benefiting from medications and

treatments which in this country are still out of reach, the idea of their use offering only opportunities for intervenor questioning and litigatory fireworks; Europeans will receive natural gas from the distant Eurasian plains while the U.S. will still ponder how to get our pipeline across Prudhoe Bay; and many an American industry is becoming noncompetetive because of mounting regulatory damands and unreasonable environmental constraints. For SE_2, all this indicates that this nation is steering a course towards economic disaster, and since humanistic well-being depends largely on economic well-being, a decline of the latter may only presage a demise of the former.

The proverbial American system of checks and balances has clearly become unbalanced, and American technological vitality is being replaced by stagnation. SE_2 believes that the time has come to take a hard look at this syndrom of inactivity. We hope that the Commissioners will approach the instant and other current cases with a sense of urgency and make the nuclear regulatory decisionmaking process once again an effective and purposful enterprise.

Oral Comments of Professor Miro M. Todorovich
Presented to the U.S. Nuclear Regulatory Commission
July 29, 1982

* * * *

Recently, a new twist has been introduced into the long CRBR licensing saga by the Natural Resources Defense Council and the Sierra Club ("Intervenors"), who filed a Petition for Investigation of Applicants, Project Management Corporation, U.S. Department of Energy, and Tennessee Valley Authority (the "Applicants") "in order to determine whether these Applicants are fit to hold an NRC license for the Clinch River Breeder Reactor Plant." Since this Petition may confuse the issues involved in the Exemption Request now before the Commission, SE_2 considered the newly raised allegations which the Intervenors claim must be investigated by the Commission "before it permits any CRBR site work or construction to begin."

SE_2 can find at least two reasons for the statements in the Rhyme and Riley Memoranda singled out in the aforementioned Petition. Neither reason is as ominous as alleged in the Petition, and both are quite plausible within the context of the events which prompted these Memoranda.

Oral Comments of Professor Miro M. Todorovich
Presented to the U.S. Nuclear Regulatory Commission
July 29, 1982

1. When dealing with scientific and technological questions, scientists often present a consideration in a direct and stark manner. The intent is to present in a cryptic way all the salient points that meet the intellectual eye. One also hopes to elicit a cogent response from an equally-trained interlocutor. Such a piece of writing or conversation can, however, be grossly misunderstood by uninitiated outsiders.

An interesting case in point is the Reactor Safety Research Review Group Report developed and written in September of 1981 for the Presidential Nuclear Safety Oversight Committee by a group of distinguished scientists.[1] After reading it, SE_2 became alarmed that the contents of the report, <u>as written</u>, could be construed by circles outside the engineering profession as an expression of a lack of confidence in currently operating nuclear power plants. With this in mind, SE_2 asked the writers of the report whether one should assume that:

---

[1]The Reactor Safety Research Review Group members were:

Norman C. Rasmussen, Chairman
Herbert J.C. Kouts, Vice Chairman

Spencer H. Bush
Thomas J. Connolly
Herbert G. MacPherson
David Okrent
Lombard Squires
Edwin L. Zebroski

a. The framers of the RSRR Group Report believe, individually and/or collectively, nuclear power plants in this country to be, at this time, sufficiently safe to be utilized as a continuing source of electrical power -- the Report, then, attempting to identify ways in which to make such plants even safer; or

b. The members of the RSRR Group tend to conclude that, unless and until the "urgent" recommendations of the Report are implemented (a process which may take years, depending on the complexity of the required research), they would not feel comfortable living in the shadow of a nuclear power plant.

The "meaning behind the text," as understood by those responding, has been most succinctly summarized by Professor Thomas Connolly. He wrote:

> ...I believe that reactors are sufficiently safe to be utilized as a continuing source of electric power and would feel perfectly comfortable living in the shadow of a nuclear power plant. I feel somewhat the same about commercial aircraft in the sense that I do fly them but would not move from the fact to the conclusion that no futher air safety research is needed.
>
> A couple of points about the recommended research are relevant to your question. Some of the areas recommended are those in which I believe current designs are very likely to be too strict; the most likely outcome of a good research program would be to confirm this hypothesis. Research on the dispersion of radioisotopes, the so-called radioactive source term, is a case in point. If

the NRC is functioning properly, such research could lead to relaxed standards and more economic nuclear plants.

In some cases, the research is recommended in order to put a particular hypothetical question to rest. The burning of hydrogen is a case in point. I doubt that hydrogen is a serious safety problem but it is held to be so in certain quarters.

Similarly, then, the text of the Argonne, and other, report(s), while clearly understandable in context by specialists in the field, may be greatly misunderstood when read out of such context by uninitiated persons. This could be one of Messrs. Rhyme's and Riley's concerns when outlining their thoughts in their respective Memoranda. The use of the words "negative" and "positive" may not have been most fortunate, but the sense of their suggestions is not uncommon to editors.

2. Whatever comes before the Commission has a more than fair chance these days of becoming part of a record considered by a court. In addition, even in the Commission's own proceedings, contending parties were often able to make use of anything that comes their way to expand hearings, demand further studies and inquiries, and generally prolong -- at

high monetary and economic cost -- the regulatory travails. Finally, the earlier willingness of various parties and the NRC to explicitly elaborate on questions which ultimately are resolvable only by professionally-made judgment or to ennounce numerical benchmarks -- like the by-now-well-known S3 Table -- have only spilled over into legal problems.[2] Together, these three aspects of the NRC's current regulatory practice have, to a considerable extent, curtailed the decisionmaking latitude of the Commissioners and transfered administrative responsibilities to members of the judiciary.[3] If ever one may hope to restore a degree of efficiency to nuclear regulation and licensing, one must look for improved ways in which to separate the relevant from the irrelevant and methods for keeping the licensing process on course. This, then, means that officers in charge of various proceedings must conduct them in a reasonably efficacious manner and that applicants must present their cases professionally and with respect for

---

[2]See decision of the United States Court of Appeals for the District of Columbia in Natural Resources Defense Council v. U.S Nuclear Regulatory Commission.

[3]See Section D of SE_2 Statement of Position re the NRC's Proposed Policy Statement on Safety Goals for Nuclear Power Plants (47 FR 71023); comments submitted on May 18, 1982.

established procedural guidelines. From this vantage point, the Memoranda questioned by the intervenors are addressing an important question, and while some of their formulations may have been patially naive in their straightforwardness, they are, nevertheless, a serious attempt at improving what to many observers seems a runaway litigatory situation.

(Incidentally, it can be reasonably predicted that whoever gets acquainted with the Intervenors' Petition under instant scrutiny will henceforth become extremely sensitive -- even without any Rhyme or Riley Memoranda -- to what one should include and to how one should present anything that may enter the record of current, truly formidable administrative proceedings, so common at this Commission, and the subsequent litigations. Such editorial caution can in no way be summarily characterized as a "cover-up" or some other type of "sinister plot," vide the mountains of litigatory and regulatory papers evidencing much to do of legal running about in search of close to nothing in the way of economic progress. Rather, under these circumstances, not to volunteer more than one is asked, and to state matters in as truthfully a complex form as the nature of things require,

seems not only prudent, but even desirable to all those who have at heart the constructive resolution of safety and other questions.)

* * * *

In summary, SE_2 sees merit in the Applicants' instant request for exemption.

SE_2 considers the charges made in the Intervenors' Petition spurious and of little weight.

Consequently, SE_2 respectfully submits that the Commission should grant the exemption request.

Thank you.