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Exeter

NH 05833.

DIRECTOR,

DIVISION OF LICENSING,

Office of Nuclear Regulatory Commission,
Washington D.C. 20555

June 29 1982

Dear Sir,

I am writing with regard to the
Draft Environmental Statement relating to the
operation of Seabrook station, Units 1 and 2
Docket Nos. 50-443 & 50-444

Public Service company of New Hampshire et al.

I am a bio engineer currently working on ~~the~~
human biology in industry. I have previously worked
in medical research and hold radiology qualifications.
I have restricted my comments to areas in which
I am considered to have outstanding or unique
knowledge.

Notably Sections 5.1

5.8.4

5.9.3 1 to 4.

In 5.1. Résumé, paragraph 3. ~~Express~~ EPP
requirements to applicants.

1. "notify NRC if tests or experiments affecting
the environment are performed, provided that
such changes, tests or experiments involve an
unreviewed environmental question". This gives
the plant operators freedom to carry out
tests without reporting to the NRC if they have
reviewed the question already. This means that

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Section 5.8.4. Makes ungrounded assumptions. To suggest that "all security guards and one-half of the administrative and support positions would be filled by non movers" or by spouses of movers." is ridiculous

Where can any one with any administrative qualifications be found locally and available for employment? I wish I could find some! I've interviewed extensively for technical posts or admin. posts working under me - Boston is the closest source of people & they all relocated. A typical example case for relocation patterns in the area is to be found at NIKE in Exeter a rapidly expanding technical enterprise. Even in the heart of shoe making country, the majority of new admin or support staff relocate. I can't think of any who haven't! Most (95%) live within 18 miles of the plant. Taking realistic figures of 80% of force relocating & 95% residency in an 18 mile radius, 669 new workers and their families would move into a part of eastern Rockingham County & southeastern Strafford County. This gives a head count of 2168 (70% married and average U.S. census figures for family size of 4.2 people) as the influx. Which This represents 134% of the expected local growth in population for 1983-

This would vastly overload the local expectations and the proposed increase in public utilities would be inadequate - police, hospitals, housing, schools fire service etc.

Section 5.9.3.1.

Line 3 "one of these pathways" - on this premise, the radiation exposures are treated as individual cases. Exposure from several sources isn't additive in its effects. It is linear for a very short range and then rises as a power function along a cusp characteristic of a catasphoric curve, the break point being irreversable, i.e. death.

This entire section is based on this grossly false assumption either through ignorance or an attempt to mislead the public about the safety of the reactor. If either is true, then I wouldn't trust these people to assess the environmental impact of a teddy bears picnic let alone a nuclear reactor; in which they have an interest.

This report should have been written by a panel of authoritative and unbiased scientists.

Line 8 implies that the annual dose in one year will be divided by 50. That is ridiculous; it assumes that chronic and acute exposures will have the same effect. ~~Max~~ There are 2 distinct time courses for human tissue & whole body damage - one is a matter of milliseconds to a few days acute exposure which will lead to observable, potentially fatal symptoms. This is not the same as long term exposure at a low level which leads to "Generalised life shortening"

P. 5-21 line 3. "The first few years" It isn't the few years that matter, it is the dose time ratio at first exposure which is important.

P. 5-21 Line 6 - "routine releases" what a blasé, off hand expression to imply safety. If Seabrook is to keep radioactive material exposure as "low as is reasonably achievable" how can they purposely pump poisons into my living space, my air, my food!

P. 5-22 line 5 - it is not true to consider the Atlantic large enough to be invulnerable to pollution damage. The ocean is, rather, the root of our drinking water chain.

The idea that we can safely dump is erroneous. Iodine will evaporate with water, fall as rain and be drunk. Seaweeds concentrate iodine 700 times their environmental levels. Thus the calculations of exposures are affected by effluent output into the sea.

Paragraph 2 on 5-22 limits measures to 80 km. This is supposed to be due to experience based on calculations. How can experience and calculations be the same thing. Later in the paragraph, the entire foundation of this draft statement is admitted to be wrong (there is) "substantial uncertainty because of the limitations of predictive mathematical models."

If many of the statements in the paper are based on these models - how can they be relied on?

5.9.3.11. To ensure that public exposure to radiation is as "low as is reasonably achievable", don't open the Sealbrook station.

The bottom paragraph uses statistics to lie about the risk to workers. It divides the risks by the total number of exposed workers rather than giving peak exposures in emergencies or maximum risk cases.

Table 5.4 Shows nuclear plant workers to have 3 times the premature death risk when compared with jobs of similar physical risk - all of which must be attributed to radiation hazards.

Table 5.5 note 4

"the environmental risk of radiological effects stemming from transportation accidents is currently incapable of being numerically quantified."

This is insane, even the people proposing to run this reactor publically admit that they don't know just how dangerous waste transportation is!

PS-26 paragraph 2 "a dose contribution... less than 1 of that due to..." So, low level radioactivity storage containers can be nearly as dangerous a source as the plant and no other mention is made of this. Why doesn't this report admit the true risks?

5-26 paragraph 3 - Do the NRC propose to allow this group to purposely poison the environment? "Controlled quantities of radioactive effluents will be released to the atmosphere and hydrosphere" This should not be permitted - it is vandalism on the most gross scale.

P 5-27 paragraph 2 radioiodines will pass into the sea where they will be concentrated by sea weeds and passed into the food chains in much larger amounts than this paper supposes.

Final paragraph on 5-27 The proposed model shows exposure by any of a number of pathways, It doesn't allow for temporal and total exposures at peak.

5-28 para 2 - gives a method for peak exposure by a single route, not the total by all routes at peak.

Para 4 on 5-28 doesn't make references to medical findings of "general life shortening" due to any level of radiation exposure. Any public exposure to any radioactive source is damaging.

5-29 para 1 - "observable ills" again fails to understand the mechanism of human damage by low level radiation.

P5-29 paras 2 & 3.

The most misleading use of risk statistics I have ever seen!

It also fails to recognise the disperse or non specific radiation damage to humans.

These 2 paragraphs should be rewritten sensibly by some one with a stats. background and no personal interest in the opening of the reactor.

I trust the N.R.C. will not be fooled by this pathetically unscientific and laughably biased document.

It must be rewritten by a panel of unbiased experts if it is to have any meaning.

Yours sincerely,

Ian Whatley

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A.S.T.M., S.S.H.B., A.R.R.A.

RE:-
Draft environmental
statement on
Seabrook stations
1 & 2 units,
Docket Nos.
50-443
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