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FROM: Alabama Conservancy Huntsville, Alabama Rowland E. Burns			DATE OF DOC UNDATED	DATE REC'D 3-25-74	LTR X	MEMO	RPT	OTHER
TO: Gerald L. Dittman			ORIG 1 signed	CC	OTHER	SENT AEC PDR <u>XXX</u> SENT LOCAL PDR <u>XXX</u>		
CLASS	UNCLASS	PROP INFO	INPUT	NO CYS REC'D		DOCKET NO:		
	XXX			1		50-438/439		
DESCRIPTION: Ltr trans the followin g...				ENCLOSURES: Comments re Bellefonte DES				
PLANT NAME: BELLEFONTE UNITS 1 & 2				DO NOT REMOVE ACKNOWLEDGED (1 cy encl rec'd)				

FOR ACTION/INFORMATION 3-26-74 GMC

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LB

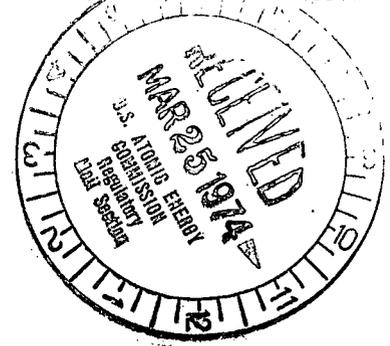


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The Alabama Conservancy

Regulatory File Cy.
50-438
50-439

ROWLAND E. BURNS, PRESIDENT
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HUNTSVILLE, ALABAMA 35811



Mr. Gerald L. Dittman
Directorate of Licensing
U.S. Atomic Energy Commission
Washington, D.C., 20545

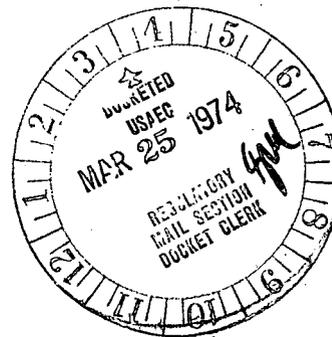
Dear Mr. Dittman:

I am enclosing comments on the draft environmental statement related to the proposed Bellefonte Nuclear Plant. I wish to request that my comments be made a permanent part of the material on this project and that all of my questions be answered and my comments discussed.

Sincerely,

Rowland E. Burns

(Dr.) Rowland E. Burns



2512

Page 1-1, Para. 3: It should be stated whether or not this refers to present customers or customers that will be attracted as a result of plant construction.

Same, para. 4: The current DES refers to only two units of the proposed nuclear plant construction along the Tennessee River. It is apparent that all plants are, to some extent, additive. Thus, individual EIS do not reflect the overall impact of each plant. What is required under full disclosure aspects of NEPA is a single impact statement assessing the impact of all planned nuclear plants.

Same, para. 5: The proposed facility will certainly aid the industrialization referred to. The conversion of crop lands to industrial lands must be evaluated and shown to be desirable.

Same, para. 6. The word 'will' in the first sentence assumes a favorable outcome of the plant from the point of view of TVA. The AEC, as juror, should not make such a flagrant assumption.

Page 1-2, para. 4: The question of whether or not TVA is exempt from state regulation is currently under litigation. The statement made is invalid under such circumstances.

Same, last para. Since the meeting referred to discussed, at least indirectly, the expenditure of public funds it should have been announced so that interested citizens might attend. The reason that it was not announced should be stated at this point.

Page 2-8, para. 2.6.1. The discussion of ground water is totally inadequate. The subsurface flows to the depth of the worst credible accident involving the reactor should be detailed.

Page 2-9, para. 1. The radioisotopes which have been detected should be specifically named.

Same, para. 3: Do the communities which are referenced have alternative water supplies in case of a massive accident at the nuclear plant? This point should be discussed.

Same, para. 6; The total value of the commercial fishing and recreational fishing should be evaluated. This loss of income must be considered as a possibility in case isotope leakage/ accident at the reactor site becomes a reality.

Page 2-10, para. 2.7.4 As stated, attracted traffic will be drawn into the vicinity of the reactor complex. This traffic will produce air pollution. As you are well aware, recent court decisions (NRDC vs. EPA) had held that existing air cannot be degraded. How will this be taken into account with respect to attracted traffic?

Same, para. 2.7.5. Loss of income to recreation must be accounted for in cases similar to those discussed above for fishing.

Page 3-4, para. 3.2.3 The entire concept of dumping radioactive wastes into Guntersville must be justified. It is stated that only small amounts of such wastes will be dumped, but why should any be dumped? The plant obviously will have large quantities of wastes hauled from the site. Why should these small amount of wastes not also be carried away rather than dumped into the drinking water of the citizens of the area?

Page 4-1, last para. The actions that TVA will be required to take to alleviate well-water problems should be detailed.



Comments, page 2, Rowland E. Burns

- Page 4-2, para. 1. The possibility of total elimination of transmission lines via the conversion of the electricity to gaseous hydrogen for later usage has not been considered. This would have the advantage of totally eliminating transmission lines and much of the subsequent environmental difficulties.
- Same, para. 3. A specific section on the environmental effects of the listed herbicides should be given. Furthermore, open burning is illegal under Alabama air pollution laws. I recommend that you deal with this point.
- Page 4-4, para. 1. The concept of equating 'acceptable' with 'lowest practicable' is not only an affront to the concept of a DES but, worse, an affront to logic as well.
- Page 4-6, paras. 4.3.2.2 and 4.3.2.3, comparison. The final sentence of the prior paragraph states that significant adverse economic impacts are not expected to result when construction is complete. Yet the following paragraph states numerous new housing units will have to be constructed in the vicinity. It is apparent that these contradict each other. If local business men must invest in housing that will become empty this certainly is an adverse economic impact. A similar comment can be made about the required expansion of the school system which is hinted at on page 4-8.
- Page 4-10, para. 4.3.3.3. The air degradation in the vicinity of the plant is not discussed. This must be accounted for.
- Page 4-11, para. 1. It is an incredible coincidence that the sewage treatment capacity exactly matches the load. So coincidental that a misprint is suspected.
- Same, para. 4&5. The problem is outlined but no solution is suggested. What do you intend to do about the waste situation? Simply pollute Guntersville? If so, state that you specifically intend to allow raw sewage to be dumped into the lake in order to facilitate plant construction.
- Page 4-11, last line. 'Unacceptable' implies a value judgement and should be quantified.
- Page 5-1, para. 1. It should be made clear whether or not the TARCOG plan was worked out before TVA proposed the Bellefonte site. It is well known that TARCOG and TVA work hand-in-glove, so citing one of the pair to support the other is not a justification for either.
- Page 5-2, para. 2. The surviving relatives of the people buried in the cemeteries may not be locatable. Please comment on how many relatives have been found, and how you expect to establish whether or not you have located the nearest living relative.
- Same, para. 4. No assurances of historic preservation are given. This is critical.
- Page 5-3, paragraph at top of page. This contains a typographical error (typo).
- Same. It should be stated whether or not the esthetic impact is considered to be positive or negative.
- Page 5-4, paragraph which is labeled by the number '2'. Is it claimed that this will be true (i.e., no violation) during construction?
- Page 5-5, second para. from the bottom. How do you know that the intent of the standard is met? Is this a value judgement?
- Page 5-7, para. 5.3.1.1. The phrase 'generally agreed' is too vague to be acceptable. A spectrum of opinions should be presented.

- Page 5-9, para. 1. Only mobile forms of life are considered. Immobile ones should be discussed. Furthermore, the comment on radioactive decay is out of context since the half-lives are very long in general.
- Page 5-17, last sentence on the page. What does 'as low as practicable' mean?
- Page 5-22, para. 5.4.1.1.3. If the Paradise, ky., plant is to be used for purposes of comparison, then it should be established that the atmospheric conditions at that site are very similar to those at the Scottsboro site.
- Page 5-24, para. beginning at the top of the page. An ecosystem simplification is apparently being predicted. Is this what is truly expected?
- Page 5-26, para. 5.4.2.1. The dredging will result in siltation and spoil banks. The effects of this on the fish population should be discussed.
- Page 5-28, para. 1. A discussion of measures to be taken if severe fish depopulation occurs should be given at this point.
- Page 5-35, para. 3. The separation distance between the nozzles that is required to prevent interaction of the jets is not given. This distance could be wider than the river channel, so the distance should be given.
- Same, para. 6. The fate of the heated discharge can be predicted by numerical integration of the standard equations of fluid mechanics, though the job is admittedly extensive. Even so, due to the importance of the result, this should be done.
- Page 5-39, para. 5.4.2.3.2 and 5.4.2.3.5. Typos.
- Page 5-41, last para. Typo.
- Page 5-42, para. above #4. This point must be resolved before even a DES is issued.
- Page 5-43, para. 5.4.3. The Turner nomograms are far too crude to deal with this matter. A full diffusion simulation including stability class, inversion ceiling, etc., must be made.
- Page 5-44, top para. 'Acceptable' implies a value judgement.
- Page 7-5, para. 3. Will the developed information become a part of the EIS?
- Same, para. 4. '10 CFR Part 20' should be given in the DES for comparison purposes for readers which do not have it available.
- Page 7-6, section 7.2. Theft and sabotage are not discussed. They should be. (Jack Anderson has many interesting comments on this point.)
- Page 8-3, para. 3. Have the new cutbacks in the usage of electric current due to the energy crisis been figured into the growth rate estimates?
- Page 8-5, para. 8.1.2. The AEC has often been accused of being both the salesman and promoter of nuclear power. But in this case the AEC is also to be the customer for the final product. The conflict of interest is thus at three levels. The AEC can build their empire via approval of this plant. It is truly said that where interest prevails, honor fails. The feedback loops are apparent.
- Page 8-7, para. 3. The 'elasticities' referred to should be quantified.

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Page 8-16, para. 8.3.3.2. Typo.

Same, para. 8.3.3.3. Please explain why nuclear reactors wear out.

Page 8-17. Numerous typos.

Page 9-1, last para. TVA is stated to desire a reserve of 20%. Is this desire justifiable? Also, typo.

Page 9-2, last para. The statement that the environmental impacts and comparative economics were not investigated by the staff is totally inadequate.

Table 9.2 Typo.

Page 9-10. The statement that a coal fired plant would produce a large smoke plume is unfair. This would be illegal under Alabama law.

Page 9-19. A glaring error occurs here in comparison with para. 11.2.1. In the former case you argue that \$5 million is significant, yet in the latter case you argue that \$25 million are essentially insignificant. This inconsistency is absurd.

Page 9-21, para. 4. Typo

Page 9-25, para. 2. A value judgement is made.

Page 9-27, para. 2. The interaction of this material with the non-degradation rulings should be discussed.

Page 9-28, para. 2. The statement 'It has been stated' is a total breach of scientific tradition without a reference. It is unworthy of an organization such as the Atomic Energy Commission.

Same, para. 3. There is an implicit assumption of the growth ethic. If you wish to assume this, establish that it is worthwhile.

Same, para. 4. The sentence which begins 'Perhaps an acceleration....' should be removed. If it is a perhaps, it is also a 'so what?'

Page 9-29, para. 9.2.6. How can a DES possibly be issued with a question of this sort unresolved? TVA must choose their method before any evaluation can be made.

Page 10-1 para. 4. The concept of internal and external costs should be more detailed.

Same, para. 6. The concepts of near term commitment vs. non-development discussion is probably true, but is this intended to be a justification for the current work?

Same, last para. I must be noted that the two 'advantages' which are listed as benefits from the plant may well be contradictory. If the annual production of electricity results in growth, the the added reliability of the system due to reserve will be lost.

Page 10-6, paras. 10.2.4.2 and 10.2.4.3. In these paragraphs are listed 'values' of visits. Please explain how these values were derived, who receives the value, and who pays the value.

Page 10-8, para. 5. The discussion of shifting work forces is interesting. Two points should be made, however. First of all, it is not clear if only union workers will be employed on the project and this should be made clear. Secondly, some discussion is in order about what will happen to families who have been accustomed to an

Comments, page 5, Rowland E. Burns

enhanced standard of living when the plant is completed.

Page 11-8, para. 11.4.7. Typo

Same. The statement that a larger gross regional and national product will result, if true, begs the question. Most modern economists no longer grant that GNP is a valid measure of the health of the nation. For example, direct conversion of scarce raw material to garbage would increase the GNP. The more accepted figure of merit is the net economic worth of a project. The entire project should be based on the concept of an enhanced quality of life.

General comment on the cost to benefit ration calculations. This section of the DES is very qualitative and, ultimately resolves down to a simple opinion. A rigorous quantification of this section of the report must be made.

Page 11-8, para. 11.4.8. You list the plutonium from light water reactors as an asset since this is to be the fuel for the breeder reactor. If you wish to so list it, a discussion about the recovery of plutonium from the fission wastes should be made. The estimates that I have seen indicate that much of the plutonium remains in the wastes. Furthermore, a discussion of whether or not all of the produced plutonium isotopes can be so used is in order.

General comments about the overall DES.

1. One of the prime objections to fission plants is that the money that is being spent on such facilities is being withdrawn from research on fusion reactions. It should be justified that it is of more benefit to the country, in the long term, to spend money on fission plants than it would be to spend the money on fusion research.
2. The most severe environmental impact of the entire plant is not listed, namely the growth that the availability of this power will bring to the region. I have personally researched the results that can be expected in a city as the population grows. I request the right to present this data to the AEC and/or TVA in a presentation form and thus have these results included in the overall EIS. Since not all of the results of growth would be seen as desirable by a reasonable person, the negative aspects of growth must be addressed.
3. The Trojan nuclear plant near Portland, Oregon is protected by a high wall as a safeguard in case dams upstream from this this plant collapse. No discussion of such a high wall is included in the DES. Justification for this omission should be given.
4. The DES is overly qualitative. Many of the values in this report could be quantified to specific numbers instead of simply stated. The report should be rewritten from this point of view. In every case tolerance limits on the numerical values should be given.
5. No discussion of the ultimate fate of the wastes generated by the reactor is given. It is easily seen that the fission product wastes are the result of this reactor operating at this site, yet they are simply dismissed via trucking 'away'. This is obviously a part of the environmental impact of the plant...the environmental impact is not limited to the Bellefonte land, per se. A safe method of disposal of the wastes must be outlined.