Adolph J. Ackerman Consulting Engineer 1250 Sherman Avenue Madison, Wisconsin 50.205

Dear Mr. Ackerman:

This is in reply to your letter of November 9, 1964, regarding the Bodega Head nuclear power plant. I am happy to enclose the complete press release and a copy of the report prepared by Dr. Newmark.

We appreciate your favorable comments on conclusions reached in the hazards study of the Pacitic Gas and Electric Company application.

Sincerely yours, Ongled Signal Sy

R. L. C. on

Richard L. Doan Director Division of Reactor Licensing

Enclosures as stated above

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Red'd Off. Dis of P. 11-18-64 10:45 Arnold R. Fritsch For the Chairman

Post Mortem on Bodega Bay

The Bodega Bay controversy has ended in a vacuum without the benefit of a clear cut decision on the important issues. The end came when Pacific Gas & Electric Co quite understandably withdrew its application to build the plant after a wrangle broke out within the Atomic Energy Commission over safety of the design.

The affair has terminated in a manner that reflects scant credit on the licensing processes of the Commission and that reveals weakness where strength should prevail. In an unprecedented move the staff of the Division of Reactor Licensing took exception to the report of Commission's tough, blue-ribbon Advisory Committee on Reactor Safeguards. They concluded that the 325-Mw atomic plant couldn't be built safely at Bodega Head because of danger of ground movement from earth-quakes.

Thus the industry and the public are treated to the spectacle of a staff division of the AEC impugning the Commission's own committee of experts. Such a situation immensely prejudiced the process of resolving the touchy technical question of whether, in point of fact, the Bodega Bay reactor design could withstand earthquake shock and ground movement and led to PG&E withdrawal.

The areas of difference were these:

- The Division of Reactor Licensing has said that the plant is safe in all respects except its novel method of situating the reactor on a bed or cushion of sand as a guard against shear ground movement from a severe quake. This method, it said, hasn't been and cannot be tested adequately.
- On the other hand the Commission's independent Advisory Committee on Reactor Safeguards drawn from among the nation's leading experts on nuclear safety, claim in their report that "there is reasonable assurance that the proposed reactor can be constructed and operated at the Bodega Head site without undue hazard to the health and safety of the public." The report also said "The Committee believes that the engineering principles and general design are sound. These considerations afford that degree of assurance required for protection of the reactor in the unlikely event of the predicted maximum earthquake."

Under the rules, licensing of Pacific Gas & Electric Co to proceed with construction couldn't be decided until a public hearing had been held by an Atomic Safety & Licensing Board appointed by AEC. The initial finding of this board can be protested to the full Commission by the company, the public, or other interested parties before final action.

As we see it, the issue of whether the Bodega Bay design was safe is a technical one and couldn't be resolved by making it a public issue and the subject of a public hearing. This is a highly technical question calling for the judgment of the industry's best experts. The public and the industry is entitled to a clear-cut unequivocal decision on the technical adequacy of any proposed design from the agency established to render that kind of decision. Moreover, the public is entitled to assurance that its safety and welfare have been protected adequately.

In airing an internal difference of opinion on an issue as technical as this. the AEC has certainly damaged public confidence in its competence. Beyond that, it has permitted its staff to publicly impugn the judgment of its own Advisory Committee and so cast doubt on the Committee's competence to judge future cases.

And last but not least, the airing of this technical wrangle has immeasurably delayed and jeopardized prompt and definitive revision of siting criteria for nuclear plants.

The AEC will be a long time erasing the effects of his arry affair.

To files

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10. V 8 1 1964

Tear Sir:

The Commission has read your editorial in electrical sould, Nevember 9, 1964, oncer the title of "Post Mortes on Fodels Pay." we feel that you may have some misunderstanding of the regulatory function of the Atomic Energy Commission as laid sown by the Congress.

Under the law and Commission regulations, every application for a power reactor construction permit is subjected to three separate and independent safety reviews before a decision can be sade by the Commission on whether or not to grant the permit. The application must be reviewed by the Commission's Regulatory Staff, by the statutory advisory Committee on Heaster Dafeguards, and by the statutory atomic afety and Licensing Beard at a public hearing.

In each of these groups there are qualified experts in the field of reactor technology with many years of experience. Under this system of deparate, independent review by three different groups, and finally by the Commission itself, the commission does not attempt to dictate the opinions of the responsible review bodies, nor to decide the merits of a case prior to the time that it resches the Commission for final decision. To do so would prejudge the zerits of the case without waiting for the resort of the public hearing on which the Commission decision must be bessed.

Although the Commission staff and the ACRS, working closely together as they do, will not often be in disagreement, it is inherent in the system of separate and independent review that this may, on occasion, happen as in the hodess Bay case. Some technical safety problems involve complex matters of juigment that cannot be reduced to "a clear-out unequivocal

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decision. Technical experts can rememberly disagree in their judyment on such matters.

The Advisory Committee on Resolver sales also the capability of esteem within the Commission, as is also the capability of our Regulatory Staff. We do not feel that the difference our Regulatory Staff. We do not feel that the difference in the judgment arrived at by the ACSS and the Engulatory in the judgment of either ross. Nor does it Staff impages the judgment of either ross. Nor does it cast doubt on the Committee's competence to judge future cases.

the take the view that public confidence in the AEC regulatory function is enhanced by public dischange of the recommendations of the responsible review bodies, even though they may tions of the responsible review bodies, even though they may be in disagreement. This is a strongth rather than a weakness in the system of muclear safety review.

Sincerely yours

Chairman

The Editor SLECTRICAL WORLD McCrew-Mill Buflding 330 Host Almd Street Now York, New York 10036

bcc: Chairman
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Cmr. Ramey
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Attached are two Bodega ciips from the San Francisco 50-205 For informatto For action. "After Bodega--A Celebration"
 "The Lesson of Bodega" For concurrence, Chronicle, 11/22/64; See me about this. Note and return REMARKS REMARKS R. W. Smith, Compl. V., SAN Robert Screecein, REC, HQ REMARKS Form AEC-93 (Rev. May 14, 1917) DATE DATE DATE for Public Information MEMO ROUTE SLIP Herold Price, REG, 20 DATE 11/23/64 Rodney L. Southwick Richard Boan, REG, Asst. to the Mgr. Joe Equebase FROM (Name and unit) TO (Name and unit) DE 7 30 PHONE NO. SAN

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After Bodega---A Celebration

Some of the thousands, That decision followed an of persons who fought for adverse report by the Atomic navor plant at Bodega which said the headland was to relebrate their clear plant "at the presents vears against the proposed Energy Commission's Diviconstruction of a nuclear sion on Nuclear Licensing, lead gathered here last not a suitable site for a nutate of our knowledge." triumph

included David Pesonen, a said it would not construct substantial doubt existing as key figure in the struggle he nuclear plant "with any to public safety " recisons attending—was held from the San Andreas Fault.

In announcing its abandan. A victory dinner with 150 Suilding, and the speakers against the plant.

liead and Harbor, which led Society to Preserve Bodega Pesonen was head of the the fight against the Pacific Gas and Electric Company and its plans for the scenic headland And the fight he told them There's still a job to be done We're still in business. happily-is not quite over. in Bodega Bay.

would be the creation of a Whatever has to be done And that, said Pesonen. State park at the bay.

now." he added, "will be a compared to what

clach

Pesonen congratulated those attending for the "great deal of courage" they showed the courage to fight for what seemed to be a lost we've been through " Cause

He read, 2lso, telegratas of congratulation from San Francisco Congressman Phil-



DAVID PESONEN

The Society to Preserve. ment of the project, PG&E In announcing its abandon-

The Lesson of Bodega

Francisco Francis /22/14

liy Harold Gilliam

THE LONG battle of Bodega Bay is a symbol that contains within it the whole future of California.

In the face of doubts of the Atomic Energy Commission staff about the safety of a nuclear power plant next to the San Andreas Fault. 50 miles northwest of San Francisco. the Pacific Gas and Electric Company has decided that it will not build the Bodeya reactor.

But the deeper issues raised by the three-year controversy remain unresolved and should be pondered by every Californian concerned about maintaining an inhabitable environment here for coming generations.

When PG&E first decided to build on Bodega Head, the high granite point enclosing the bay, it overlooked the fact that both the National Park Service and the State Park Commission had separately recommended that the area be set aside for park purposes as a scenic and historic feature of California's vanishing shoreline. More ver the Legislature had authorized the purphase of the head as part of the state park system.

There was a delay by the State in acquiring the land largely because the cost of the property was greater than articipated in addition. Budega Head had hever been designated as a late in the Schoma County alaster Plan-a requirement of the state of the late o

Meanth PG&E heran being the property and of a ultimately by condemnation

Parks or Power

The 2561 and early 1900 his writer spent many nears with PGNE officials to an attempt to understand how the company could justify its take-over at Eugegn.

I found that if I accepted their assimptions about the company's responsibilities a previous straight at Bouer vas instiffed. The north Bay Area will need take the acceptance of an amproposition of the straight of the training explanation explana

need open space for recreation, particularly along the coastline, the PG&E men replied that they were in the business of providing power — not parks. To decide whether any particular area should be a park was beyond their responsibility and jurisdiction.

Parks were a governmental matter. And they pointed out that PG&E's application to build at Bodega would have to be approved by the State Public Utilities Commission.

Nobody's Business

We took the same arguments to the PUC but got the same answer: This is not our affair. The PUC's business is to regulate utilities, not decide how land could best be used. If PG&E could show that Bodega was a good place to produce power, the commission—by its own reasoning—had no choice but to approve the application.

Thereafter the arguments centered around nuclear safety considerations



and it was on this basis that the plan was abandoned—a story that is worth a major novel and cannot be told here. The point to make now is that PG&E is free to build a non-nuclear power plant on the site—or to soll the land for subdivisions.

This leason of Bodega should be should be should from the houselaps. There is no agency in the State of California to protect the people's interest in maintaining open space.

PG&F. can condemn open space for power plants. The Division of Highways can condemn open space for freeways. Developers can take over open space for subdivisions, shopping centers or factory sites.

It does not matter whether that land is a historic site or irreplaceable seenery need d by future conversions for recreation or resplaceable form soil needed for the production of fuen.

Calleging Chairs

There is no box in

Park Commission can condemn land for park purposes, but even with the new funds made available by the passage of Proposition One at the recent election, the amount of land affected is minuscule compared with the fotal amount of open land in the State. And there is no one at any level to protect invaluable farmland from destruction.

COMPANIE A COMPANIENCE AND A COMPANIENCE

The result is that thousands of acres of land that will be urgently needed for recreation or breathing space or the production of food for the future millions of Californians is being destroyed every day—paved over, subdivided, inclustrialized, commercialized.

The consequences can only be described as galloping chaos.

Individually, each single violation of good land use seems unimportant. One Bodega Head industrialized, one Santa Clara Valley orchard plowed under for a freeway or shopping center, one Mendocino redwood grove logged over, a few acres of San Francisco Bay filled in for a subdivision—these seem insignificant in the total picture, but multiplied by a hundred and a thousand they will inevitably spell destruction of California.

P.F.O.S.

Every day more such violations come to light. Recently the city of Alameda gave permission for draining and subdividing a total bay shore area on the northwest point of Bay farm Island a matrial wiffife refuge ansu passed in any urban area of the second

In Kale county the Division of Highways is planning to puve over many acres of prime pear orchards between Kelseyville and Lakeport rather than use an alternate route on poorer soils. Lake county farmers, soil scientists and most local civic organizations oppose the highway and are being backed by a new organization colled People for Open Space P.O. Box 488, Orinda.

At King City in the upner spinias valley, farmers are similarly fighting a free-up route, adopted by the flumway Commission, funding east of the Salinas fiver and cutting through rich make for man

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The Lesson Of Bodega

Create and terms Page 28

ley incustriolization is beginning and factories are uccust 2 some of the best lands), the nation's lettuce bowl

In San Maleo county just south of San Francisco, the Highway Commission has adopted a freeway route through the valley of scenic Crystal Springs Lakes, although James K. Carr of San Francisco's Public Utilities Commission, which owns the property around the reservoirs, is asking for an alternate route above the valley to the east

At College Park in the Moraga valley a superb foothill area that had been scheduled to become a regional park is lost forever, the subdividers' buildozers got there first.

In all these cases the question is not whether



houses or factories or power plants or freeways should be built: they are necessary and inevitable. The question is where.

As matters now stand the subdividers, utility officials, industrialists and highway authorities can preempt land without regard to the people's need for the preservation of open space, parks or farm land.

The solution is obvious: Apply to the rural areas of the State the same principles of zoning that now regulate the development of cities

Nightmure

You can't build a boiler works or a slaughter house in an urban area zoned for residences. Similarly, it should be unlawful to build a freeway or a tire factory or a shopping center on prime farm soil or recreation land.

Without a persistent public clamor for zoning of all undeveloped land—and for agencies with the authority to enforce it—there will be thousands of Budegas all over the State.

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