

El Paso Natural Gas Company

El Paso, Texas 79999

April 3, 1972

TR/KC
rec'd -
April 5

The Honorable Teno Roncalio
House of Representatives
1314 Longworth Building
Washington, D. C. 20515

Sir:

El Paso is pleased to provide, for your information, the Company's views regarding timing of public hearings on Project Wagon Wheel. Public hearings on Wagon Wheel would be premature at the present time in that such hearings should be preceded by (1) the publication of a jointly developed Project Definition Plan which sets forth detailed plans for conduct of the experiment and (2) the establishment of a target date for the detonation which both El Paso and the AEC believe can be accomplished.

Formal interaction between El Paso and the AEC regarding sequential detonations in the Wagon Wheel experiment began during the Fiscal Year 1971 Authorization Hearings before the JCAE in March 1971. At that time, Mr. Sam Smith, Assistant Vice President, presented testimony reflecting El Paso's judgment that a gas stimulation experiment using sequential nuclear detonations was warranted. In that testimony, El Paso expressed the desire that the detonations be conducted in the Fall of 1972. Funds to begin this development were added to the Fiscal Year 1972 Authorization Bill by JCAE and became available to the AEC in January 1972.

X [Dr. Roger Batzel, Director of Lawrence Livermore Laboratory, at the Fiscal Year 1973 Authorization Hearings before the JCAE on February 3, 1972, indicated that development of sequential firing requires experiments and funds over and above those available and those reflected in the President's Fiscal Year 1973 budget. El Paso has not been advised as to when progress on sequential firing will be adequate to justify publishing the Project Definition Plan or to justify definitive scheduling of the Wagon Wheel experiment.

[In the attached letter of December 16, 1971 El Paso offered to perform unclassified tasks in the development of sequential firing in an effort to preclude further delays of the Wagon Wheel experiment and to expedite development of badly needed gas supplies. Although formal response to this proposal has not yet been received, serious question as to whether sequential firing development will have progressed sufficiently to permit conduct of the Wagon Wheel

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experiment in the Fall of 1973 has arisen in meetings pursuant to the letter. These meetings and Dr. Roger Batzel's testimony have revealed that development of sequential firing may require two nuclear experiments at the AEC's Nevada Test Site. Funds for the second of these are not provided in the President's Fiscal Year 1973 budget. It therefore appears questionable whether the Wagon Wheel detonations will be possible during the calendar year 1973.

The Pinedale Unit Agreement, as amended, requires that on or before January 1, 1973, the AEC shall enter into a written contract with EPNG for the conduct of a nuclear stimulation project within the Pinedale Unit area. Hopefully, progress in the development of sequential firing will warrant publication of the Project Definition Plan as a basis for negotiating and executing the contract by that date. If this schedule is met and if Congress appropriates the additional funds required to develop sequential firing, public hearings may be appropriate as soon as the Fall of 1972.

Enclosed is a copy of a letter addressed to Dr. James R. Schlesinger, Chairman of the U. S. AEC, expressing El Paso's views regarding timing of Wagon Wheel public hearings.

Very truly yours,



Philip L. Randolph, Manager
Nuclear Group
Energy Resource Development

PLR/les
Enclosures

El Paso Natural Gas Company

El Paso, Texas 79999

H. F. STEEN
PRESIDENT

December 16, 1971

Honorable James R. Schlesinger, Chairman
U. S. Atomic Energy Commission
Washington, D. C. 20545

Dear Dr. Schlesinger:

The fact that the country faces a critical energy shortage is widely known and attested to by the various studies being conducted at the request of the President, Congress, the Secretary of the Interior, and the Federal Power Commission. That gas, in particular, is in very short supply is widely acknowledged, as evidenced by the attention given to it in the President's Energy Message.

El Paso Natural Gas Company (El Paso), one of the largest interstate gas transmission companies, has a very real concern about the sufficiency of both the nation's and the Company's natural gas supplies. Accordingly, for a number of years, El Paso has been actively pursuing the feasibility of alternative gas sources such as nuclear stimulation, a pipeline from the Arctic, coal gasification and LNG imports to supplement rapidly dwindling supplies. Each of these options, however, tends to be limited in scope, and requires several years of development effort. El Paso is convinced that all these options must be pursued because the country will need all the clean energy it can get and no single alternative or combination of alternatives appears capable of supplying forecast demand.

El Paso currently is unable to obtain gas supply to accommodate increasing market demand. The Company has found it necessary to develop equitable curtailment procedures in terms of priority of end use. Other major gas transmission companies are faced with similar or even more serious situations. It is for this reason that El Paso has made a major commitment to the development of the nuclear stimulation of natural gas reservoirs. The Company believes this technology may be capable of significantly increasing natural gas supply at lower cost than many of the alternative approaches now being considered.

El Paso has already made a substantial investment in nuclear stimulation technology. As reported to the Joint Committee in April of this year, El Paso contributed approximately \$2.3 million to Project Gasbuggy, the first nuclear gas stimulation experiment. Over \$4 million has been expended to date on the proposed Wagon Wheel nuclear

explosion stimulation experiment to be conducted in the Pinedale Unit in Sublette County, Wyoming. A substantial continuing commitment has been made by investing in a qualified staff. Further, as El Paso advised the Joint Committee in April, should the results from the Wagon Wheel experiment so warrant and should government policy and procedures be consistent with marketing the gas, the Company expects to develop the Pinedale Unit, starting with 15-25 wells over the next few years.

El Paso has and will continue to assume responsibility for all aspects of nuclear stimulation which lie within the capabilities of the Company or qualified contractors available to the Company. El Paso's intent and demonstrated performance in the areas of drilling, field construction, environmental effects evaluation, unclassified nuclear effects predictions, instrumentation, data analysis and public relations are consistent with the principles set forth in your presentation at the ANS/AIF Banquet on October 20, 1971. Details regarding Wagon Wheel work in progress since early 1969 have been periodically reported to the local population, local, state and federal government officials, professional societies and industrial organizations. Public acceptance at present is favorable.

The substantial investment in nuclear stimulation already made by El Paso and others was based on the premise that this technology would be jointly developed with government on a time frame consistent with alleviating the critical supply problem facing the industry. It was with this expectation that El Paso expended the funds mentioned and testified in the March 23, 1971 Authorization Hearings before the Joint Committee, as to readying the Wagon Wheel experiment for execution in the Fall of 1972. Such a schedule would have provided time to evaluate Wagon Wheel results and to reach a decision whether to proceed with development of the field in 1974.

In reviewing the tables furnished by AEC in conjunction with the FY-72 Authorization Bill, it became apparent to El Paso that the Commission did not share industry's sense of urgency in regard to developing nuclear stimulation technology. Funds requested by the Commission would not permit the conduct of the Wagon Wheel experiment in the Fall of 1972. The pacing element for the Wagon Wheel experiment is the development, by the government, of an explosive which can be fired sequentially. The Commission's FY-72 request to Congress failed to provide sufficient funds to conduct the explosive development test desired by AEC to develop such a capability. Further, we note that even with the increased funds provided by the Congress it would still not be possible to conduct an explosive development test in FY-72. The effect of these decisions appears to be delay of development of this technology for at least two more years - similarly delaying the availability of this needed supply of gas.

Even though the Company firmly believes that the explosive development effort is the Government's responsibility, El Paso is willing to contribute toward an

explosive development experiment in order to achieve a better time schedule. The Company can only justify this as a one-time expenditure and with the clear understanding that the Commission will henceforth exert its best efforts to (i) keep the experimental and development program on a schedule consistent with conducting the Wagon Wheel sequential detonations in the Fall of 1973, and (ii) resolve policy issues so that a decision on the first increment of field development and associated gas sales can be made in 1975.

Such policy issues include:

- Passage of a bill to amend the Atomic Energy Act of 1954 such that the Atomic Energy Commission can supply nuclear explosives and a nuclear explosive service to industry on a commercial basis.
- Announcement of cost for the nuclear explosives and nuclear explosion service.
- AEC commitment to supply nuclear explosives on the schedule required for gas production consistent with sale of gas from field development.
- Conduct of a rule making procedure to establish regulations covering sale of natural gas containing small amounts of by-product radioactivity for license exempt distribution and consumption.

It is proposed that El Paso's contribution to the explosive development experiment follow the pattern established in joint gas stimulation projects; i. e. , El Paso would assume responsibility for some of the functions required to carry out the experiment. For example, El Paso could provide unclassified portions of the downhole assembly such as casing, canisters, electrical cable and phenomenological measurement instrumentation. Also, the Company would consider conducting field operations such as preshot drilling. Experiment design studies, acquisition of unclassified data on shock wave effects and analysis of such data are other areas wherein the Company could contribute. The Company would waive all patent rights and make full disclosure of new information as appropriate under AEC policy.

In return the Company would expect consideration in regard to the following:

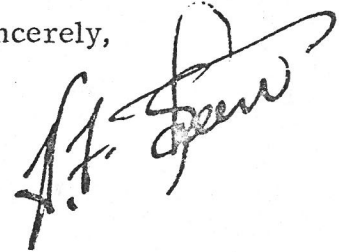
1. A negotiated ceiling on El Paso's effort should original cost

estimates not be met.

2. Consultation with El Paso on device performance specifications and explosive packaging criteria.
3. Making information critical to nuclear stimulation technology, such as physical dimensions, weight, external neutron flux, and residual tritium available to El Paso.

El Paso would be pleased to discuss this proposal with you or your designated representative. It is suggested that joint development of a plan for the explosive development experiment would be an appropriate prelude to negotiating a formal agreement.

Sincerely,

A handwritten signature in black ink, appearing to read "A. H. Green". The signature is written in a cursive style with a large, sweeping flourish at the end.

HFS:hsw