Case

No. 2149

PHONE CH

BEFORE THE

OIL CONSERVATION COMMISSION Santa Fe, New Mexico January 4, 1961

IN THE MATTER OF:

Application of El Paso Natural Gas Products Company for an automatic custody transfer system. Applicant, in the above-styled cause, seeks an order authorizing the installation of an automatic custody transfer system to handle the Cha Cha-Gallup Pool production from all wells presently completed or hereafter drilled on the Ojo Amarillo Lease comprising all of Sections 27, 28, 33, and 34, Township 29 North, Range 14 West, San Juan County, New Mexico.

BEFORE:

Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. MORRIS: Application of El Paso Natural Gas Products
Company for an automatic custody transfer system.

MR. SPANN: Spann, 904 Simms Building, Albuquerque, for the applicant. We have one witness, Mr. John Strojek.

(Witness sworn.)

JOHN J. STROJEK

called as a witness, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. SPANN:

- Q Would you state your name, please?
- A John J. Strojek.
- Q By whom are you employed, and in what capacity?
- A Petroleum Engineer, El Paso Gas Products Company, Farm-

ington, New Mexico.

- Q How long have you been employed by that company?
- A Four years.
- Q Have you previously testified before this Commission and had your qualifications accepted as a petroleum engineer?
 - A Yes, sir.
- Q Mr. Strojek, are you familiar with El Paso's application for this automatic custody transfer system in this case?
 - A Yes, sir.
 - Q Generally, what are you seeking?
- A We are seeking authorization to install an automatic custody transfer system to handle production from the Cha-Cha-Gallup gas pool on the Ojo Amarillo lease.
- Q Do you have a map or plat showing the area involved and the wells?
 - A I do.
 - What does Exhibit 1 show, Mr. Strojek?
- A Exhibit 1 is a map; the red outline shows the El Paso Natural Gas Products leases with their respective wells, and the location of the tank battery and flow lines.
 - Q Now, how many wells; six wells involved?
 - A Presently six wells.
 - Q Do you contemplate additional wells?
- A Not at the present time. We are awaiting the outcome of the proposed unit under study now.



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Q Will you describe briefly the ownership of the various interests in these wells?

- A The Navajos have $12\frac{1}{2}\%$; El Paso Natural Gas, $6\frac{1}{4}\%$ production pooling, and retain the rest of the interests, 81.25%.
 - Q Have all those interests concurred?
 - A Yes.
 - Q What is the allowable?
 - A 164 barrels per day per well, presently.
- Q Do you have a description or diagram showing your proposed installation?
 - A Yes, sir.
 - Q What does Exhibit 2 show?
- A Exhibit 2 shows a schematic diagram of our tank battery and our proposed LACT unit.
 - Q Would you just describe briefly how that operates?
- A If you follow me from your left-hand side there, where your oil will come from each individual well, which could be turned either to production separator or test separator; from there it would go to our surge tank, to the LACT unit, and through our LACT unit to the various facilities incorporated in our LACT unit. It will then be metered and samples taken, and it has connections for pipeline calibration of our meters and is condensed for the pipeline. It also entails a circulating pump to circulate tank bottoms to prevent accumulation of paraffin and other deposits on the tank bottoms. We only have one bad oil tank and no treater at this time.



We don't contemplate excessive BSW, and plan to divert bad oil from the LACT unit to the bad oil tank, and circulate it with hot oil or treat with chemicals; should we incur any amount of bad oil we will set a treater between the separators and the surge tank.

Also on this LACT unit, it incorporates a sizeable list of various safety shut-down switches to prevent overflow of tankage to compensate for any broken flow lines or for the pipeline not taking any oil. I might add that on the left-hand side there you have your shut-in valves and I would like to explain how we propose to use lease shut-in valves. They are operated in conjunction with high level shut-down switches on the bad oil and surge tank, also on a pressure switch on the LACT unit. If your oil level in the surge tank reaches the high level shut-down switch it will turn down, build up pressure in the flow line and actuate wellhead shutin valves at wellhead and that will take care of shutting in at the wellhead should we desire to shut the whole system down; and the meters, they have incorporated counterfailure. If they fail to register they will shut the unit down until the meters can be repaired and the unit reactivated again. Should you have power failure the valves would automatically shut in. In case of power failure we are fully protected to have the wells shut in and the unit shut down.

- Q How often do you contemplate checking this installation for accuracy?
 - A The pipeline, Four Corners Pipeline will calibrate once



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a month, do the calibrating and repairing.

- Q Do you contemplate testing your wells at any regular intervals?
- A We would test each well once a week. We have a test separator with meter and flowline header. All it takes is one man to turn a handle to each numbered outlet on the wellhead header there, and that will test each well as often as we desire.
- Q If the Commission required, you could furnish those tests to them?
 - A Yes, sir.
 - Q As often as you made it?
 - A Yes.
- Q Would you generally describe the advantages of this particular system?
 - A Would you want the economics?
 - Q We will get that.
- A Just to go to the advantages of the lease automatic custody transfer, we have a reduction of lease storage. Then, we have a prevention of evaporation losses, and an increase of gravity, and also, one of our prime reasons, better utilization of personnel time. The pipeline is wholly in favor of such installation as they have increased accuracy on sale oil, improvement in pipeline load factor, better utilization of personnel in regard to gauges and clerical time. Another advantage, we are going to put in a power line to serve the LACT unit, and it will be there to use for future



pumping well. It is conducive to contralized operation for the unit and present operators.

- Q You mentioned the economics of this type of installation; you mean by that, I take it, there will be savings that will result to the operator if this installation is approved; is that correct?
 - A Yes, sir.
- Q Do you have some figures on what amounts will be involved by way of savings?

A To install the complete LACT unit, including unit, labor, power line, accessories, metering, separator, and miscellaneous labor for installing wellhead shut-in controls, would cost \$13,900. If we go ahead and enlarge the existing battery which we would want five additional 500-gallon tanks, it would cost \$11,500, but presently we have three tanks there, and intend to salvage one, which gives us a salvage value of \$1,000, but the main savings would be from better utilization of labor. We have figured a savings of \$2,784 a year by better utilization of personnel.

- Q Do you have those figures set down on an exhibit here; is that correct?
 - A Yes, sir.
- Q Exhibit 3 shows the economics of this installation as you have just testified?
 - A Yes, sir.
- Q And as I understand from your testimony, although the original cost would be a little more than to install batteries on



each well, you would have a savings in operating costs over the years; is that correct?

- A Yes, sir.
- Q From \$2,784 a year?
- A Yes, sir.
- Q Do you have any estimates as to the life of the field at this time?

A Presently they are conducting some unitization meetings, and from what little I know they estimate ten or fifteen years at least.

- Q We are talking about a saving of some \$20,000, \$30,000?
- A Yes, sir.
- Q You mentioned the Four Corners Pipeline Company had approved this installation; is that right?

A Yes, sir. They have been provided with copies of this installation.

- Q Have they notified you by letter to that effect?
- A Yes, sir.
- Q Exhibit 4, what is that; what does it show?
- A That is a letter from Four Corners Pipeline with regard to approval of our proposed lease automatic custody transfer for the Ojo Amarillo lease. I might add, they have a few notes, where they wish to revise, and we have not yet let the bid out, so it would be a very little problem to incorporate those features.
 - Q You would do so?



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- A We will.
- Q Are you familiar with any other similar installations, or does El Paso have any similar installations now in operation?
 - A El Paso Products does not have any similar installations.
 - Q Are you familiar with any in the area?
- A I am familiar with Humble's proposed unit. I have a copy of their drawing, and have discussed their unit for quite some time now.
 - Q Humble's installation where?
- A Humble's installation would be to the east of our unit there, in Sections 25 and 26, directly east of 0jo Amarillo.
- Q Was that the installation approved in Order R1835 in Case 1833?
 - A Yes, sir.
 - Q You are familiar with that order and the installation?
 - A Yes, sir.
- Q Generally, I take it the proposed installation of El Paso Products is basically the same as the one approved for them?
- A Yes, sir. I might add, Four Corners have set up various standards which they have wanted everyone to comply with in that area, and Humble has to comply as well as we do, and any other operators must comply with the same standards.
- Q Is there any urgency from El Paso Product*s standpoint in the granting of this application, or approval of the unit?
 - A Yes, sir. If possible we would like to have a collect



telegram notifying us of approval or non-approval so we could go ahead and order the unit. Four Corners is contemplating a pipeline to the battery by February 1st, and it would take approximately two to three weeks for delivery plus a week to ten days for installation so they are desirous of early approval.

Q Do you have anything else further, Mr. Strojek, which is material in connection with this application?

A No, sir.

MR. SPANN: At this time I would like to offer in evidence El Paso Products Exhibits 1 through 4.

MR. NUTTER: El Paso's 1 through 4 will be admitted.

MR. SPANN: That is all we have.

CROSS EXAMINATION

BY MR. PAYNE:

Q Did you say if you have a malfunction and these lease shut-in valves go into operation, that if the pressure built up in the flow line you have another valve that shuts in at the wellhead?

A Yes, sir. The flow lines have a screw-in thread pipe designed for 800-pound working pressure, the built-up pressure would be 12 to 1400 pounds, and we cannot put that much on the line between the well and the lease shut-in valves.

BY MR. NUTTER:

- Q Are all the wells flowing at this time?
- A Yes, sir.
- So these shut-in valves are pressure-operated by pressure



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in the flow line and operate at the wellhead?

- Operate at the wellhead, but are actuated by gas pressure from the casing annulus, not actuated by flow line hydrocarbons.
 - Not from the build-up from the flow lines? Q
 - The power supply for the valve is from the casing annulus.
- If one well went on pump you would devise a valve to shut the pumping unit down?
 - Yes, sir.
- Normal flow is from the header through the production separator, up to the top of the surge tank, which would be open, and the bad oil tank would be closed?
 - A Yes.
- The working level in the surge tank between the high level valve shown there, or the high level switch and low working level switch?
 - Yes, sir.
- Q So that production then comes out of the surge tank, through the valve at the bottom of the tank on the drawing; is that correct?
- A The angle of the valve to the well is the recirculating valve for tank bottoms.
 - Q At the present time you don't have any treating facilities?
 - No, sir. A

the tank?

Just a matter of recirculation, maybe adding chemicals



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- A Yes, sir.
- Q In the event that the transfer pump is shut down on account of the monitor detecting bad oil, then the oil either recirculates or overflows through the line, equalizing line between the two tanks, into the bad oil tank?

A In the event of bad oil the transfer pump remains in operation. There is a three-way valve which would divert oil back to the top of the bad oil tank and that will continue to go in there until the oil clears up or the oil in the bad oil tank reaches the shut-down switch.

- Q What is the purpose of the equalizing valve?
- A It is in existence now and we chose not to take it out for the time being.
 - Q But the flow of the oil is from the right?
 - A Yes, sir.
 - Q From the three-way valve?
 - A Right.
- Q As I understand it, this LACT unit will be modified slightly to conform with changes requested by Four Corners?

A Four Corners has come out with recent revisions which we didn't have in our hands at the time this proposal went through, and we have just been notified of the revisions.

Q What you propose is to install a unit, shown by Exhibit 2, with the modifications on Exhibit No. 4?

A Yes, sir.



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A MR. NUTTER: Any further questions of Mr. Strojek? He may be excused.

Do you have anything further, Mr. Spann?

MR. SPANN: No, sir.

MR. NUTTER: Does anybody have anything they wish to offer? Take the case under advisement.

STATE OF NEW MEXICO)

SS
COUNTY OF BERNALILLO)

I, JUNE PAIGE, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 5th day of January, 1961.

NOTARY JUBLIC - COURT REPORTER

My Commission expires:

May 11, 1964.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of tase No. 2199, heard by me on 1961.

Wexica Dil Conservation Commission



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EXHIBITS

Number	Marked for <u>Identification</u>	Received <u>In Evidence</u>
El Paso's l	2	9
El Paso's 2	3	9
El Paso's 3	6	9
El Paso's 4	7	9

