NEW MEXICO OIL CONSERVATION COMMISSION

STATE LAND OFFICE BUILDING

STATE OF NEW MEXICO

CASE NO. 10398

IN THE MATTER OF:

The hearing called by the Oil Conservation Division on its own motion to amend Rules 403 and 1110 of the General Rules and Regulations of the New Mexico Oil Conservation Division by adopting alternate methods for measuring and reporting gas production from low capacity wells.

BEFORE:

WILLIAM J. LeMAY, CHAIRMAN
WILLIAM WEISS, COMMISSIONER
JAMI BAILEY, COMMISSIONER

State Land Office Building
Morgan Hall
Thursday, November 14, 1991

REPORTED BY:

DEBBIE VESTAL
Certified Shorthand Reporter
for the State of New Mexico

ORIGINAL

A P P E A R A N C E S

FOR THE NEW MEXICO OIL CONSERVATION DIVISION:

ROBERT G. STOVALL, ESQ.
General Counsel
State Land Office Building
Santa Fe, New Mexico 87504

CHAIRMAN LeMAY: Good morning. This is the Oil Conservation Commission. My name is Bill LeMay; I'm chairman. On my right is Commissioner Jami Bailey, on my left, Commissioner Bill Weiss. We hope you're in the right spot. We're not taking Workman's Compensation claims today.

We'll start by announcing some dates here. These are tentative dates for Commission hearings in 1992. Currently we don't plan to have a December meeting. But in January, we've got January 16, that's a Thursday. In February, February 27 -- again, these are all Thursdays. That January -- or February 27 will be the gas proration hearing for the next six months, which will begin April 1. March 12, April 9, May 21, and June 18.

Now, those dates are subject to change, but I wanted to put those out to you in case there's any known conflicts that you have, especially for my fellow commissioners here, if they have a problem with them, we'll change them around.

We'll begin by calling Case No. 10398.

MR. STOVALL: In the matter of the hearing called by the Oil Conservation Division

on its own motion to amend Rules 403 and 1110 of the General Rules and Regulations of the Division by adopting alternate methods for measuring and reporting gas production from low capacity wells.

Mr. Chairman, this case was heard at the last Commission hearing. It is on the docket simply because there was advertising that did not get in all the papers as required under the rules. There is nothing additional to present in this case, unless anybody else here has anything.

CHAIRMAN LeMAY: Is there anyone that has anything additional to present in this Case 10398? If not, we shall continue to take that case under advisement.

(And the proceedings were concluded.)

CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I, Debbie Vestal, Certified Shorthand Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Commission was reported by me; that I caused my notes to be transcribed under my personal supervision; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL November 17, 1991.

Debbie Vestal

DEBBIE VESTAL, RPR
Certified Shorthand Reporter No. 400

NEW MEXICO OIL CONSERVATION COMMISSION

COMMISSION HEARING

SANTA FE, NEW MEXICO

Hearing Date OCTOBER 10, 1991 Time: 9:00

NAME	REPRESENTING	LOCATION
Kevin McCord	KM Production Co - Robert L. Byless	Farmington
H.L. Bob Kendrick	El Paso Natural Gas Co	El Paso TX
W. Perry Pearce	Montgomery & Andrews	Santa Fe
Tom R. SEIFERT	PERSONAL INFORMATION	RIO ARRIBA CO. N.M.
Charles Vargas	Conkins.	Farmington
Bill Hawkins	Amoco	Denver
William F. Carr	Campbell, Carr, Berge + Sheridan	Santa Fe
Dennis J. Dwyer	El Paso Natural Gas Co.	El Paso, Texas
Maurice Trimble	Byram	SF
[illegible] Kellahin	Kellahin Kellahin + Aubrey	Santa Fe
Victor T. Lyon	Consultant	Santa Fe
Carroll E. Crawford	El Paso Natural Gas Co	El Paso, TX
DAVE CAMARILLO	EL PASO NATURAL GAS	EL PASO, TX
CHUCK McBRYDE	El PASO NATURAL GAS	EL PASO, TX
LONNIE LAFFERTY	EL PASO NAT. GAS	EL PASO, TX
Joe CHESSER	BLM	SANTA FE NM
Steve Salzman	BLM	Santa Fe NM
Rodney F. Wilson	Warren Petroleum Co.	Tulsa, Ok.
Robert H. Butler		" OKC

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October 10, 1991

REPORTED BY:

DEBBIE VESTAL
Certified Shorthand Reporter
for the State of New Mexico

ORIGINAL

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FOR THE NEW MEXICO OIL CONSERVATION DIVISION:

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FOR AMOCO PRODUCTION COMPANY:

Campbell, Carr, Berge & Sheridan, P.A.
Post Office Box 2208
Santa Fe, New Mexico 87504-2208
BY: **WILLIAM F. CARR, ESQ.**

FOR KM PRODUCTION COMPANY & ROBERT L. BAYLESS:

KEVIN McCORD

FOR EL PASO NATURAL GAS COMPANY:

Montgomery & Andrews, P.A.
Post Office Box 2307
Santa Fe, New Mexico 87504-2307
BY: **W. PERRY PEARCE, ESQ.**

FOR NEW MEXICO OIL & GAS ASSOCIATION:

Kellahin, Kellahin & Aubrey
Post Office Box 2265
Santa Fe, New Mexico 87504-2265
BY: **THOMAS W. KELLAHIN, ESQ.**

I N D E X

E X H I B I T S

CHAIRMAN LeMAY: If we'll take our seats, we'll get underway. This is the Oil Conservation Commission. My name is Bill LeMay. On my left is Commissioner Bill Weiss, on my right, Commissioner Jamie Bailey.

And good morning. We shall call the first case, Case No. 9068.

MR. STOVALL: Application of Sage Energy Company for saltwater disposal, Lea County, New Mexico. Mr. Chairman, I believe this case is going to be dismissed, but I don't know if anybody is going to enter an appearance or otherwise in the case.

CHAIRMAN LeMAY: We were informed it was going to be dismissed.

Mr. Kellahin, did you at one time represent Mr. Etcheberry, who I think was the --

MR. KELLAHIN: No, sir, not in this case.

CHAIRMAN LeMAY: Not in this case.

MR. STOVALL: This is an old case that apparently was on the docket or continued indefinitely and has been brought up, and I believe we have correspondence in the file that would authorize and request a dismissal of this

case.

CHAIRMAN LeMAY: Is there anyone objecting to the dismissal of Case No. 9068? If not, that case shall be dismissed.

And we shall call Case 10398, In the matter of the hearing called by the Oil Conservation Division on its own motion to amend Rules 403 and 1110 of the General Rules and Regulations of the New Mexico Oil Conservation Division by adopting alternative methods for measuring and reporting gas production from low capacity wells.

Appearances in the Case 10398.

MR. STOVALL: Robert G. Stovall of Santa Fe on behalf of the Division.

CHAIRMAN LeMAY: And how many witnesses do you have, Mr. Stovall?

MR. STOVALL: I have one actual witness for the Division. I will also be sponsoring and introducing a representative from the BLM who will provide some comment on their position.

CHAIRMAN LeMAY: Thank you. Mr. Carr.

MR. CARR: May it please the Commission, my name is William F. Carr with the law firm, Campbell, Carr, Berge & Sheridan of

Santa Fe. I represent Amoco Production Company, and I have one witness.

CHAIRMAN LeMAY: Thank you. Additional appearances?

MR. McCORD: Mr. Chairman, I'm Kevin McCord from Farmington, New Mexico. I'm appearing on behalf of my company, KM Production Company, and also Robert L. Bayless, producer from Farmington. I have a letter I'd like to present after the testimony is given.

CHAIRMAN LeMAY: Thank you, Mr. McCord. Do you have any witnesses?

MR. McCORD: I do not.

CHAIRMAN LeMAY: Any additional?

MR. PEARCE: May it please the Commission, I'm W. Perry Pearce from the law firm, Montgomery & Andrews, appearing in this matter on behalf of El Paso Natural Gas Company.

CHAIRMAN LeMAY: Do you have any witnesses?

MR. PEARCE: I have one witness to be sworn.

CHAIRMAN LeMAY: Additional appearances in the case?

MR. KELLAHIN: Mr. Chairman, I'm Tom

Kellahin of the Santa Fe law firm of Kellahin, Kellahin & Aubrey, appearing today on behalf of the New Mexico Oil and Gas Association.

CHAIRMAN LeMAY: Do you have any witnesses?

MR. KELLAHIN: No, sir.

CHAIRMAN LeMAY: Additional appearances in the case? We'll have an opportunity at the end for statements.

Will those witnesses that will be giving testimony please rise and raise your right hand.

(The witnesses were duly sworn.)

CHAIRMAN LeMAY: Mr. Stovall.

MR. STOVALL: Just to lay a background for the record, before I actually call my first witness, Mr. Chairman, let me explain the purpose of this case. I think everybody really understands what it's about.

One of the problems that's been identified over the past two or three years is the economic burden of individually metering or measuring gas produced by what has been called small volume wells.

Over a period of time, there's been

some question as to what actually constitutes a small volume well. Is it a well that produces under 100 Mcf a day, under 50 Mcf a day, under 25?

The economics, of course, are particular to an individual company, but the common theme running through all the discussions has been that when a gas well reaches a certain level of production, it is no longer in today's gas market at today's gas prices, and with the competitive nature of the market, it is no longer economically feasible to individually meter with proven meters the gas flowing from those wells.

This discussion was originally initiated, I believe, by El Paso Natural Gas about three years ago, and they started proposing alternative methods for measuring gas from low volume wells, of which there are many. And there will be testimony about that in the course of this hearing.

Costs of those measurements with the testing requirements of the OCD and the various royalty regulating agencies are significant. The benefits derived are relatively low. And the net result is that a large number of wells -- and

we'll use the term 100 Mcf a day as the starting point for a low volume measurement -- a large number of those wells are subject to the potential of being turned in and perhaps permanently lost as a result of the expenses of measuring the volume. Yet many of those wells are wells which are in the so-called tail end of their decline curve, but that decline curve is, in fact, flattened out to a large extent. These wells produce these low volumes steadily for still many years to come if they are allowed to produce at economic levels.

As a result of the efforts, Mr. Jerry Sexton will discuss the committee efforts that were performed to study the problem and to come up with a recommended solution. Involved in those discussions -- in addition to the OCD, which really has a relatively simple rule, it says gas will be measured under the current rule -- involved in the discussions also were the State Land Office, which obviously has a significant interest as a royalty owner in production. They have their own set of rules as to what's required in terms of measurement for gas produced on state leases.

Also involved in the discussion was the Bureau of Land Management, which, as we all know, has a significant amount of acreage in New Mexico from which gas is produced. They also have their set of rules and requirements for measurement of gas to which they are entitled to royalty.

They have all participated in the discussions. And the BLM will be here today to input their comments. I don't know if the State Land Office has anybody. There were no appearances by the State Land Office.

The net result is that from the standpoint of the Oil Conservation Division what is proposed is an amendment to Rule 403, which rule is entitled, "Natural Gas from Gas Wells to be Measured." The rule, as it stands now, very simply says that gas will be measured before it's transported to a transportation -- delivered to a transportation facility.

What is proposed is a change which will provide for alternative methods of measurements as approved by the District Supervisor. And I'll have Mr. Sexton go into the specifics of that when I put him on.

The changes are relatively simple. The

changes have all been reviewed by industry. And to the best of my knowledge, we have one recommended change. Amoco Production, I believe, will make a recommendation. I just saw it this morning, and I can't comment on that at this time.

Also proposed for addition is a, what was advertised as an amendment to Rule 1110, providing for a new Form C-110, which would be the form which would be filed to request approval from the district, OCD District Office, for this alternative measurement method.

One change that Mr. Sexton will testify to, when we chose this rule number, was because it was an unused form and rule number in the current OCD rules -- we subsequently learned that the C-110 used to be a major form in the OCD system -- and because of some concerns that there could be confusion between an old C-110 and a new C-110, we are proposing today that this new rule be modified to be Rule 1136 in the Form BC-136. But other than that, there are no changes to the proposal.

The form will be attached and submitted as an exhibit, but the form, of course, is not

adopted by rule; it's just there for informational purposes and for comment. The final form will be adopted by the Division.

Very quickly, the order of presentation, I'll present Mr. Sexton, District Supervisor from Hobbs, who will talk about the history and the specific proposal. Then I'll ask Mr. Joe Chesser from the BLM, we'll introduce him, and he will make a comment with respect to the BLM's position and concerns with respect to this rule and with respect to the federal rules with respect to measurement of gas.

After that Mr. Pearce, I believe, will present -- I'm not necessarily specifying the order -- Mr. Carroll Crawford, who has been the major initiator of this action and who has done a lot of the study and engineering analysis, who will basically present the background, justification, and evaluation of alternative measurement methods to show that in fact there are methods other than current metering which are -- will provide acceptable levels of accuracy in measurement at a much lower cost to all parties concerned to enable these gas wells to stay in production.

I believe Amoco Production, as I stated before, will present a witness who has a proposed additional modification to the rule to address changing pipeline conditions, line pressure conditions. And any other industry parties who have comments or other input will then, of course, have an opportunity.

Without further ado, I call Mr. Jerry Sexton at this time.

CHAIRMAN LeMAY: Just one moment, Mr. Stovall, if I can. Is there anyone that would like to make an opening statement, especially if they're in opposition to the adoption of the rules for low volume gas?

Okay. That's fine. Thank you. You may continue.

JERRY SEXTON

the witness herein, after having been previously duly sworn, was examined and testified as follows:

EXAMINATION

BY MR. STOVALL:

Q. Would you, please, state your name and place of residence.

A. Jerry Sexton from Hobbs, New Mexico.

Q. And how are you employed, Mr. Sexton?

A. Employed by the Oil Conservation Division as District Supervisor of District I.

Q. And how long have you been with the Oil Conservation Division?

A. Sixteen years.

Q. And have you previously testified before the Division or the Commission and had your credentials accepted?

A. Yes.

Q. Have you been involved in studies in volume involving the measurement of low volume gas wells, gas production, and how to reduce costs of measuring that gas?

A. Yes, I was the chairman of the committee that was formed to look into the problems of the low volume gas wells.

MR. STOVALL: Mr. Chairman, I am not actually offering Mr. Sexton as a particular expert in any field, but I think his background and experience speaks for itself. And his testimony is going to be offered to show how the committee has worked and what the recommendations are. And if you wish to have him qualified as an expert --

CHAIRMAN LeMAY: I think Mr. Sexton is qualified to speak now on the subject.

Q. Mr. Sexton, would you just for the Commission briefly go through the history of how this project evolved and what has caused us to come to this hearing today.

A. Well, for several years now we've been looking at the problem with the low volume gas wells, and it especially accelerated as the price of natural gas fell. And two years ago we were thinking we had it taken care of by some minor changes in frequency of metering and some other small changes in the rules that would reduce the cost for the pipelines to measure this gas.

But with the drop of gas prices, and I think the northwest especially, the line pressures have gone up and we've got a lot more wells producing very, very marginal wells. We got down to the point where there was -- we either made some real exceptions to our past knowledge -- and I'm the same way -- when you think of metering gas, you think of just having meters on them.

But when the gas volumes got down to below 15 Mcf a day at the current prices, there

was no way you could consider going ahead with metering. It was either an alternative method had to be approved, or the wells were going to be shut in or disconnected. And so this is one reason that really accelerated these new proposals.

Q. Mr. Sexton, I might interrupt you here. Do you have a rough idea of what number of wells might be involved and might benefit from alternative proposals that we're making?

A. Last year over 2,000 wells in the northwest that were producing less than 15 Mcf day, and now I believe it's considerable from that. My understanding is that there's over 2,000 wells today that will be considered for use of this alternative method of metering that is being presented today.

Q. Now, is it your understanding that those 2,000 wells have a sufficient economic life, if this proposal is adopted, to justify continuing production for a number of years and substantial volume?

A. Yes, I think there will be long-life wells in the northwest at low volumes. And line pressures are a problem, so this may be a

short-term solution where five years from now, as additional capacity up there, where they can get at a lower pressure, I look for these methods to come in and out.

And, also, we set this up to where, although we're proposing one method today to be approved, it also sets up an outline for other innovative thinkers to come to the districts with other methods of non-metering gas since the only alternative of non-metering of gas is disconnecting.

And we also understand that we only have so much to do with it; that the royalty owners, the BLM, and the State Land Department would also have to be consulted. But what we did not want our rules to do is not hold back and to encourage disconnecting of the gas wells.

Q. Mr. Sexton, I'd ask you to turn to Division Exhibit No. 1. If anybody needs a copy of it, that's the proposed rule, I still have some copies. Would you explain to the Commission and those who are present what changes are proposed to Rule 403, which is entitled, "Natural Gas from Gas Wells to be Measured."

A. Rule 403(A) is the same as was in the

previous rule. We started changes for Rule 403(B). And this just sets out two ways that -- number one, a way of producing settlement of gas for 5 Mcf a day.

If the producer and the pipeline can agree on some volume, either from last year's production or a well test, then they can make a settlement based on this agreement. And this will also require agreement from the royalty.

And we have a form that you can submit this data to us, and we'll accept it or deny it, depending what is there. And then from wells making from 5 to 15 Mcf, it sets up a procedure where you can get a rate per hour, put in an hour rate, or hour meter on there, and come up with a volume of gas that will be acceptable to both the producer and the pipeline.

And this is one of the things that we set that this does not say the pipelines have the right to do this without the producers' approval, nor do the producers say to the pipeline, "We want to use this." It takes both approvals, so we feel like there is some hands-on agreements that have to be made that somewhat protects the rest of us.

Q. In other words, if I could just restate to make sure we understand it clearly, if a well is determined to be capable of producing less than 15 Mcf a day, then the proposal under this rule would be the operator and the pipeline, with OCD approval, would establish the periodic producing rate of that well is the first step of that process; is that correct?

A. Right.

Q. And then that rate would be multiplied times the number of periods in a reporting period, usually a month, to determine the volume of gas determined during that reporting period; is that correct?

A. Yes, uh-huh.

Q. Now, if I understand this correctly, also, if that well is capable of producing more than 5 Mcf, this rule provision will require that there be a device on the well that actually measures the amount of time that gas is actually flowing from that well?

A. Yes.

Q. What about wells that are of larger capacity but still considered small volume and uneconomic to meter individually?

A. Well, we said in the -- why we were holding it back was that we required a meter on each well, and so we set up to where we could have it easier for central point deliveries to become more effective.

In the northwest it's our understanding that there's a lot of leases that have the same working unit and the same royalty and the same operators; that we would be requiring wells, even low volume wells, to be metered, which is an expense, a monthly expense, that really isn't required.

It was always done in the past to protect correlative rights and to make sure everyone's proration units were coming from the same -- getting a fair shake. But with today's economic conditions, we felt like any well producing 100 Mcf a day or less would not affect the proration scheduling, nor correlative rights. And we would give the companies the right to put one central point delivery meter in there and allocate it back from well test or other approved ways which is approved by the districts.

So they'll have one measurement, and

they'll have the option to allocate them back to different wells on a different basis, depending on what they submit.

Q. That would be applicable to wells that are capable of producing less than 100 Mcf a day?

A. Yes.

Q. And the other element in a commingling approval, there must be entirely common ownership at that commingling point; is that correct?

A. Right. Like I say, it was our understanding that it was the OCD's rulings that didn't allow this; that the BLM and State Land Office did not care if it was all one lease, whether there was one meter or ten meters.

Q. Now, again, I believe you made the statement, but let's clarify it, with respect to the prorated gas pools, it's the opinion of the Division that this should not adversely impact the proration system because these smaller wells should be marginal?

A. We would consider them marginal enough that any allocation would not affect the total overall proration unit, proration for scheduling.

Q. Now, as far as actually reporting the volumes, what are the proposed requirements as

far as how volumes will be reported to the Division?

A. They'll be reported, as they have been, by the per-well basis, but it will be on an approved method that the districts have approved. This part has not changed except on gas wells it will be something other than meters.

Q. Now, again, I think you stated, but let's reaffirm and clarify that, these rules that are proposed, it is not the opinion or belief of the OCD that these would impose or change or modify the requirements of, say, the State Land Office or the Bureau of Land Management on leases made by those agencies where they have regulations regarding measurements; is that correct?

A. Well, we do not intend to supercede their authority. And these were some of the rules -- we felt we're giving the companies our rules that were giving the companies problems. And they've all -- all three agencies have been in on these meetings.

And part of the -- as the industry pointed out to us, that part of the problem with

metering was the rules that we had in place. In the original operations of the normal gas field that we've seen in the past, why, they probably weren't burdensome, but under today's economic pressures, why, I think all three agencies probably had some rules that needed to be updated. And it was left up to each one to do that and we're doing ours through this.

Q. And the BLM and the State Land Office all participated in the committee work, did they not?

A. Yes, uh-huh.

Q. Now, as far as obtaining the authorization, briefly, in my opening comment, I commented with respect to Rule 1110, and I'll ask you now to turn to Exhibit 2, the second page of the packet. And, first off, I believe you're the one that indicated that there previously was a Form C-110; is that not correct?

A. Yes, uh-huh.

Q. And is it your opinion that naming this new form of C-110 has the potential to create confusion?

A. Yes. It's been the Division policy that once a usage has been there, that we leave

it; we go on with the next number in sequence, which would be Rule C-136. And C-110 was, in earlier years, a completion form and had a lot of the data.

So you would end up with two C-110 forms in the well file. And people would call in and say, "Send us a C-110," and it would take some clarification by either us or the operator to get what is needed.

Q. Now, we'll propose that this new change be Rule 1136 and the form be numbered C-136. Would you just briefly, looking at Exhibit 3, comment on how that works with this process. Explain the form and the actual mechanics of implementing the new requirements under Rule 403.

A. Well, I think it will be fairly systematic and something that each operator should have available. It just says how they're basing their -- what they're asking for, what the well number is, and the address, and the pool, and then the history of the well, shows the yearly average daily volume by the month, and what -- how they read on the -- what volume they were going to use, propose, and whether the well

will be equipped with the equipment that we're proposing today be approved, and the gas bores connected to the well.

And so we tried to put both these exceptions on one form. And in Rule 403(B)(2), it just shows, lists the plats showing all wells going through a central point delivery and which wells produce less than 100 Mcf a day and which wells produce over 100 Mcf a day and a proposed method of allocation, whether it's on a yearly test, a monthly well test, or how they're going to allocate production from a central point deliverty back to a well.

Q. Now, would it be your understanding that in recommending adoption of this rule, that it does require Division approval before this alternate method can be implemented, and the Division would have the opportunity to look and make sure that the established or agreed upon rates were reasonable and that everybody, particularly the fee royalty owners' rights would be protected by ensuring that the gas was properly accounted for?

A. Yes. There will be enough data there for this. And then, also, we'll use this form to

set up, like I say, for someone else that comes up with new ideas that may not like this idea, but think they will come up with a better idea, where they can submit it through.

And one reason we want the district approval, that it was pointed out at these committee meetings, that to get a hearing like this for each alternate proposal would cost the operator about $1,000. And to do this on a 15-Mcf-a-day well would, obviously, make this uneconomical.

You're talking about a $4- or $500 temperature compensation making it uneconomical, so a hearing for each new proposed rule, wells making 15 Mcf a day, is not economical.

Q. Now, was it also your understanding that if this rule is adopted, it would not preclude the possibility of going to a hearing, say, for commingling where there were differing interests in the wells or other provisions where exceptions to the rules could be granted under the existing rules?

A. Yes, I think you'll see more of this. But right now, until we revise our commingling rules, you would have to come to a hearing for

anything except where royalty and working interests are the same.

Q. I guess my question was, you would not be precluded from doing that with this new system either; is that correct?

A. No.

Q. So what, in conclusion, then was it your belief that this system, in fact, adds flexibility, gives a little greater freedom to the operators of these low volumes wells and the pipelines transporting the gas to, in fact, keep the wells on production for an extended period?

A. Yes. We felt like this would clear up the regulatory problems caused by the OCD that was hindering low volume wells being kept on production. And it got to the point where it was obvious that without some flexability these wells would be disconnected.

Q. Which would result in waste; is that correct?

A. Yes.

Q. And do you believe that the correlative rights of the owners of interests are adequately protected with these rules?

A. At these rates I do.

Q. Do you have anything further you wish to add to your testimony?

A. No.

MR. STOVALL: I have nothing further of this witness.

CHAIRMAN LeMAY: Do you wish to --

MR. STOVALL: Yes, I do. I wish to move the admission of Exhibits 1, 2, and 3. I'm sorry.

CHAIRMAN LeMAY: Without objection, Exhibits 1, 2, and 3 will be admitted into the record.

Some questions of the witness? Yes, please. Did you want to ask a question?

MR. BUTLER: Yes.

MR. STOVALL: I will ask that you state your name for the record and identify yourself so we can know who you are when we read the transcript.

MR. BUTLER: My name is Bob Butler. I represent Warren Petroleum. We are a gas processor.

EXAMINATION

BY MR. BUTLER:

Q. I have some questions about the

specific wording of the proposed changes. Specifically, in 403(B)(1), there's a reference to a measurement method agreed upon by the operator and the pipeline. I assume that by a "pipeline," you also mean gas gatherers?

A. Yes.

Q. I just want to clarify that, where we would fit into this regulation. Also, I'd like to clarify that 403(B)(1) would not apply if there's no agreement between the operator and the gas gatherer. It's not a mandatory provision; it is based upon an agreement?

A. Right. It is an agreement.

MR. BUTLER: Okay. Thank you.

CHAIRMAN LeMAY: Thank you, Mr. Butler.

Additional questions? Commissioner Bailey.

EXAMINATION

BY COMMISSIONER BAILEY:

Q. What OCD employee would be responsible for reviewing and approving these forms? Would it be District Supervisor type approval, or would it be lower echelon or --

A. No. I will put it this way, in Hobbs

it would be the District Supervisor. And I feel like Frank is here, but the District Supervisor usually signs all forms that come in or the ones acting in his --

COMMISSIONER BAILEY: That's all.

CHAIRMAN LeMAY: Commissioner Weiss?

COMMISSIONER WEISS: Yes.

EXAMINATION

BY COMMISSIONER WEISS:

Q. On (B)(2) when you talk about a common -- well, a lease and common working interest, et cetera, does that mean it's the same reservoir, or could there be two different reservoirs involved?

A. If you have two different reservoirs, I think you would probably have to come to the Division to get approval. What this is primarily set up to do is for one reservoir so you can allocate it. Most of ours are done with pools. Everything is considered the same but --

COMMISSIONER WEISS: It just occurred to me if you had one well much deeper than the others.

MR. STOVALL: Commissioner Weiss, there is an approval process for downhole commingling

which would address the commingling of two reservoirs in the bore as opposed to a dual completion situation, if that clarifies that question. That process wouldn't change.

THE WITNESS: If they're using a central point delivery at this time, Bill, between two zones, they've already had to come to the Division to get approval for this.

COMMISSIONER WEISS: I don't know if that needs to be mentioned there or not.

THE WITNESS: It probably should be clarified. Should be considered anyhow.

COMMISSIONER WEISS: And then I don't know if you're the person to ask, but what is the range of error in these new devices you're talking about.

MR. STOVALL: Commissioner Weiss, if I may, Carroll Crawford from El Paso Natural Gas is going to discuss the actual methods that's used. And he may be a better witness to answer those specific questions, if that's agreeable with you.

COMMISSIONER WEISS: Fine.

CHAIRMAN LeMAY: I've got two on C on your Exhibit No. 1. I don't have anything that -- it says that "individual wells approved

by," and then I don't have anything after that. Is that a typo?

MR. STOVALL: That's probably an error on the dummy who made the photocopies. I will get a copy of that and submit it before the conclusion of the hearing. Thank you.

COMMISSIONER WEISS: There's some errors on here.

THE WITNESS: It said "by the District Supervisor."

CHAIRMAN LeMAY: It follows "by the District Supervisor"?

THE WITNESS: Right.

CHAIRMAN LeMAY: Okay. I think the Exhibit 1 needs to be corrected.

MR. STOVALL: It does. There are actually a couple of other corrections I need to recommend too.

COMMISSIONER WEISS: If you're talking about typos, there are several.

CHAIRMAN LeMAY: Just one other question.

EXAMINATION

BY CHAIRMAN LeMAY:

Q. Mr. Sexton, do you have any knowledge

or any estimate on the amount of reserves which would be represented by these 2,000 wells of less than 15 Mcf per day?

A. No. And I think this is a hard question to come up with because the line pressures in the northwest vary so much. They're up so much higher now that to go -- I'm sure the figures are available, but you'd have to go to the individual companies to get these.

Q. Okay. Thank you.

A. They're much higher in the northwest than the reserves are in the southeast, if you're talking about, you know, 5 or 15 Mcf.

Q. How many wells in the southeast; do you have any idea, if there's 2,000 in the northwest, any guess?

A. No, I really don't.

CHAIRMAN LeMAY: Any additional questions of the witness?

MR. STOVALL: Just a couple of comments. One of these may be typos. Addressing the questions on transport, it was just suggested to me, and I think it's probably a good recommendation, under (B)(1), that the word "pipeline" be changed to "transporter," and that

would be consistent with definitions in the rules and regulations. Any comment on that, Mr. Sexton?

THE WITNESS: No. I think that's appropriate.

MR. STOVALL: And under rule, as it's identified, 1110(A), if you read the second-to-last line, it says, "producing capacity of 100 Mcfd or has," and that should be "less." That's a typo there. And any other grammatical typos, of course, I recommend to the Commission that before we adopt the final rule, that they be clarified and corrected. But those are the only substantive type changes that I noted in that.

CHAIRMAN LeMAY: Mr. Butler, would that be acceptable to you, more in line with what you were thinking about for --

MR. BUTLER: As long as it's understood the transporter would include gas gatherers.

CHAIRMAN LeMAY: Okay. Anything else, Mr. Stovall?

MR. STOVALL: That's all I have of this witness.

CHAIRMAN LeMAY: Thank you. This witness may be excused.

MR. STOVALL: I will find out if Mr. Gil Lockwood or Mr. Joe Chesser is going to speak on behalf of the BLM.

Mr. Chesser has been sworn, and I will just briefly introduce him and then allow him to go forward with his comments.

JOE CHESSER

the witness herein, after having been first duly sworn, was examined and testified as follows:

EXAMINATION

BY MR. STOVALL:

Q. Would you, please, state your name and place of residence.

A. My name is Joe Chesser. I live in Santa Fe.

Q. And how are you employed, Mr. Chesser?

A. I work for the Bureau of Land Management. I'm the Branch Chief of Fluid Minerals.

Q. Would you briefly describe your responsibilities and experience as they relate to this hearing.

A. Well, I have a couple of people in my branch that have participated in the Commission -- this low volume gas well committee

meeting since it was started. And, of course, they have kept me abreast of what was going on. We participated in that way.

Q. You're familiar then with the issues and concerns of the operators and the pipelines?

A. Yes, sir.

Q. And you're familiar with the concerns of BLM as the managing agency of federal resources, including Indian resources; is that correct?

A. Correct.

Q. At this time then, Mr. Chesser, I'd ask you to make whatever statement or comments the BLM would wish to make with respect to these proposals.

A. Thank you for allowing us the opportunity to make this statement, Mr. Chairman and the Commissioners. We have participated for the last two years, I believe it's been the last two years, on the low volume gas well committee and believe it is to our mutual benefit to explore new and innovative methods that would increase maximum recovery of the natural resource.

Our concerns, however, are to ensure

that producer and the mineral owners have been fully involved in the issues and suggested resolutions. As mineral owners and agents for the Indians, we have special concerns that wells may have been prematurely plugged because they are low producers or the pipeline pressures are too great to allow some wells to produce into the higher pressure.

In the San Juan Basin the BLM has over 1800 low volume wells, that's BLM and Indian wells. They account for about 3.2 billion cubic feet of production per day. It would be a significant negative impact to the region and to the producers if these wells were plugged. Therefore, reducing the costs of measuring low volume wells is essential.

We cannot give approval to alternative measurement without active participation by the producers. In fact, they need to come to us with their proposals. This is already allowed for under our rules and regulations.

We are issuing an NTL, a Notice to Lessee, for the purpose of reducing meter calibration requirements of low volume wells and outlying or to provide for the operators to

remind them to come in to us for suggestions of alternative measurement of marginal wells, 15 Mcf a day or less.

The options that we'll consider include central point delivery meters, allocation of low volume wells based on annual well testing, single gas meter lease measurement, differential pressure switches, commingling, and other alternative methods of measurement.

Q. Mr. Chesser, you referred to NTL. Is this NTL 92-5 for New Mexico, which has been distributed to the Commissioners?

A. Actually, NTL -- yeah, it is, NTL 92-5. It's entitled, "Standard for Meter Measurement, Low Volume Gas Wells."

Q. This has not be marked as an exhibit, numbered, but is this a draft? It's marked as a draft. Has this been finally approved or is this still in the draft --

A. It's in the draft stage, which will take us about no more than a month to release this to the public for proposal.

Q. And in your opinion are the rules proposed by the Oil Conservation Division consistent with the proposals of this NTL such

that an operator can operate under both rules without bumping into the inherent --

A. They appear to be.

Q. Okay. And would you recommend adoption of these rules by the Oil Conservation Division?

A. Yes.

Q. Do you have anything further you wish to say?

A. No, sir.

MR. STOVALL: Oh, I hate to pass up the opportunity to put a fed on the spot, but I won't. I have nothing further.

THE WITNESS: Anybody else?

CHAIRMAN LeMAY: Do you want to take some questions?

THE WITNESS: Surely.

CHAIRMAN LeMAY: Questions of the witness?

MR. McCORD: Mr. Chairman, I'm Kevin McCord from KM Production Company in Farmington.

EXAMINATION

BY MR. McCORD:

Q. Did I hear you correctly that you said that your BLM offices currently have the ability to approve in special instances different methods

of measurement? Are they currently on the book without the passage of this new NTL?

A. That's correct, they are. Our order provides for those variances.

Q. Okay. So I'm correct in assuming that if the OCD promptly approves these new rule changes, we as producers will not have to wait for the BLM to act; we can proceed before the NTL goes through its lengthy process?

A. We want you to immediately go to those people.

MR. McCORD: Very good. Thank you.

CHAIRMAN LeMAY: Thank you, Mr. McCord.

Additional questions of the witness?

MR. CRAWFORD: Just one question, Mr. Chesser.

THE WITNESS: Yes.

MR. CRAWFORD: You mentioned 3.2 billion cubic feet of production per day. Could that possibly be per year?

THE WITNESS: It could be.

MR. CRAWFORD: That's about as much gas as we've got going out of our pipeline.

UNIDENTIFIED SPEAKER: We just wanted

to see if you're paying attention.

CHAIRMAN LeMAY: Additional questions? These sound like high volume wells, don't they?

Thank you, Mr. Chesser. You may be excused.

MR. STOVALL: I have nothing further at this time. I believe it would be appropriate at this time for the industry witnesses, and as I say, Mr. Crawford is the expert in this field, can explain the technical methods, but which order they go in is entirely up to --

CHAIRMAN LeMAY: Before I leave the BLM testimony, I have a draft here. Is this something you'd like to introduce into the record?

MR. STOVALL: That would be the NTL, which I referred to. We can mark it, if you'd like to, as an exhibit, but I think it's sufficiently identified as name and title, which he has identified.

CHAIRMAN LeMAY: So this will be part of the record --

MR. STOVALL: Yes.

CHAIRMAN LeMAY: -- for those who want to review the record.

Thank you, Mr. Stovall.

Mr. Carr.

MR. CARR: I think El Paso will go next, and then we'll follow up.

CHAIRMAN LeMAY: That's fine. Mr. Pearce.

MR. PEARCE: Thank you, Mr. Chairman. As Mr. Stovall mentioned, a committee was formed some time ago to study the problem of measuring production from low volume wells. My witness at this time, Mr. Carroll Crawford, was one of the prime players in that committee action. I want to present him this morning.

We have a substantial exhibit, which we have marked as El Paso Exhibit No. 1. I think we don't want to review all the information set forth in that exhibit.

CHAIRMAN LeMAY: Thank you.

MR. PEARCE: I was sure you would be pleased. But for the record, I would like Mr. Crawford to briefly review some materials. What we've done is transform some of the information from hard copy to slides. And we want to walk through those very quickly to make sure that the record reflects what the committee was about and

why we bothered to do it and why we believe that the suggested rule change is appropriate.

As I said, we hope to do that as quickly as possible, and we certainly don't think that the slide presentation or the information that Mr. Crawford will present is nearly as complete as the information set forth in the exhibit that I'll move the admission of later.

With that, if I may start with Mr. Crawford.

CARROLL CRAWFORD

the witness herein, after having been previously duly sworn, was examined and testified as follows:

EXAMINATION

BY MR. PEARCE:

Q. Mr. Crawford, have you previously appeared before the Oil Conservation Commission?

A. Yes, I have.

Q. At that time were you qualified as an expert in the field of petroleum engineering?

A. No, I was not.

Q. All right, sir. And are you a petroleum engineer?

A. No, I'm not.

Q. Are you a petroleum geologist?

A. No, I'm not.

Q. All right, sir. Let's go through your work for the committee. And I gave a summary, which indicated that you were the prime worker on the committee, and you've crunched a lot of numbers, which are reflected in your Exhibit No. 1.

A. I had a lot of help from the committee members and other people in the industry and OCD, but I did focus on this subject.

Q. Is it fair for us to say at this time that you are here as a representative of that committee and you are the person at the hearing today who is authorized to present the committee's position?

A. Yes, I am.

Q. All right, sir. It may be, Mr. Crawford, that the best way to proceed is for us to move into your slide presentation, and I will ask you to go through that slide presentation, highlighting the information on those slides that you think the Commission would be aided by focusing on.

And, frankly, I plan to stand back out

of your way as much as I can. So I'd ask you to just take off, and I'll interrupt you periodically if I need to, but if you'll go through your slide presentation for us.

A. Okay. Mr. Chairman and Commissioners, we're pleased to be able to present this information to you today. We do have a few extra handouts left if anyone came in late that would like to have them in the audience. We'd like for them to have a copy, if they'd want to refer to any tabs that we should need to discuss at a later point in time.

At this time we put this slide presentation together to better illustrate in a larger group what's in the handout, although there are some slides are not accompanying some of the important information in the way of agreements and things that are identified in the index to the exhibit.

May I have the projector on at this time?

MR. STOVALL: That's a lawyer you're asking. Be careful.

A. First, again, we're pleased to be here with you today. This is a little humor, but this

is called Lucky Larry. And this is a good example of how not to have to settle our settlement issues between the producers, royalty interest owners, and pipelines and gathering systems. But he's well known if you don't do it right, so we'd like to avoid that in the future. There's a well down in southeast New Mexico named Larry lucky. There's a story that goes with this.

During the committee meetings in the last two years, there have been several issues raised, and this is just a compilation of those issues raised, both from the government's standpoint, royalty standpoint, pipeline, and well operator issues, and they're in your handout. I'll just go over them briefly.

But it has to do with initiating pipeline, operator, producer, and royalty owner review of the economic operation and conservation of resource issues that are associated with low flow wells.

Pipelines must maintain cost effective operations to remain competitive. Pipelines must continue to provide reliable and flexible service to its customers. And they must substantially

reduce costly operation to increase efficiency to be competitive.

They must satisfy -- any method we use must satisfy the volume of accounting needs of the needs of producers, operators, shippers, pipelines, and government agencies. We need to define alternative means to measure account low producing well production.

We want to avoid plugging and abandoning low flow wells by keeping those wells on if we can find agreeable methods.

There is a need to maintain the potential for the producer and royalty owner revenue stream to continue. Need to avoid lease cancellations from nonproduction. The issues must support producer and royalty owner relationships.

Must develop and support alternative methods to divide revenues using well tests or other suitable methods that we can find. The small royalty owner representation must be accommodated through fair treatment of the producer by the pipelines.

And last, but certainly not least, avoid leaving economical producible gas in the

ground that will never be recovered. Of course, this depends on these low flow wells, plus finding agreeable methods to do that.

I guess I didn't move to the second slide, did I? I apologize. This is El Paso -- from an El Paso standpoint, is one pipeline and there's other pipelines that may or may not be represented here today that have somewhat the same problem. And this depicts our total company operation, which is larger than just the state of New Mexico.

But we have roughly 2200 wells out of over 11,000 wells tied to the system that we feel fall into the 1-to-15-a-day range. That happens to be 20 percent of our wells. And that same 20 percent of the wells produced less than 4/10 of 1 percent of the total volume of those wells with the production potential of 2400 Mcf a day.

That particular volume, just incidentally, is just about the amount of gas per day on an average that the City of Santa Fe uses in a year -- a day or year's time so that we're talking about, if you would, the City of Santa Fe, what gas it takes to run them on a year-round basis on these low flow wells that we're talking

about. Just a rough approximation of the size of the issue.

El Paso has used other methods previously, and some of the other companies have also used different methods to reduce their costs in this area. We've used extended chart rotation periods using reverse scale meters to reduce the number of chart changes required. We've extended meter station equipment test frequencies, and we're prepared to follow the new rules under 92-5 that would permit us to extend those frequencies greater.

We've temporarily disconnected meters and operations for nonproducing wells that are shut in for various reasons by the operator by no market. And in 1990, for example, 620 of those wells were temporarily disconnected, and it's what we called "blind plate" situation, where we no longer change the charts, test the meters, pull gas samples until they come back home.

Out of that 620 wells, they were confirmed nonproducing wells, and we effected permanent disconnects to reduce those operations to zero. And this is just the graphics of what happened in our company for 1990.

Out of the 620 recognized for temporary disconnect and blind plate, 307 of them were valid candidates for permanent disconnect, 313 were noncandidates for a variety of reasons, market being one of them.

When the committee started, these were some of the issues that the New Mexico OCD recommended for cost reduction. And you're well familiar with those, but they included exemption on quarter meter proven to a longer period of time to semiannually for those less than 100 Mcf a day, temperature compensation exemption for gas plant production, revised downhole and surface commingling procedures, central point deliveries.

And at that time New Mexico requested proposals for consideration on how to handle, and that's where we came into the picture as to develop some methods that we would propose to the Commission.

Some of the options that became apparent during the meetings of the committee and various producer meetings and pipeline meetings, and one possible one that requires approval by this Commission is the establishment of a grade

volume alternative procedure to wellhead measurement to reduce costly measurement -- and I'll break that into two parts later -- or install a central point delivery, and that also requires Commission approval.

Other things that were considered were a producer operating a gathering system lateral, measuring the gas and delivering it to our company at a central point delivery.

Another issue that was raised was that the pipeline may possibly continue the measurement service at a fee at producers' expense. And at that time a reasonable estimate was $75 a month as to what it's going to cost to do that. That didn't receive a lot of support, but it was one of the options mentioned.

Another option was that the government agencies might provide producer incentive by lowering severance taxes on low volume wells. Given the need for everybody's taxes, that hasn't gone very far either.

And lastly, and hopefully to be avoided, is in our tariff we have a transportation tariff provision to reject receipts of less than 15 dekatherm a day from

shippers.

And what we're here today is to try to find a way that everybody can be in a win-win situation instead of a lose-lose. And if we can find the alternative methods and get approval, we feel that everybody is going to win: the pipelines, the operators, the royalty owners, and the state agencies that have an interest in royalty.

Just briefly, to establish agreed volume procedures and the specific procedures are in the exhibit, and they're under tabs 4 and 5 that we'll discuss today. They are the detailed procedures, from start to finish, how these will be handled.

But, briefly, we will propose to utilize the existing 1990 annual produced volume or the latest test period to derive hourly flow rates to determine basis for the first year settlement. And we're doing that because this is the actual measured volume that has an actual flow period, flow hours attached to it, and you can get the same number each time you use that basis.

We tried to use other things, such as

DPA's, and those things varied somewhat. And this is one method we felt like you could always come back to the very same number that you started with.

And to go further with that, we would remove the orifice recorder and the temperature recorder from the existing meter station, and we would now say we've got unmetered gas to the point where from 1 to 5 Mcf a day, we could use an agreed volume where the pipeline and the operator would agree what that well would make per day, and that would be his settlement until successive tests were run.

And part two is install a differential switch with an hour meter, which we have an example here on the table for you to investigate and those in the audience to look at and see how it works. And we would calculate a time volume, and based on the hourly flow rate, times the hours of recorded time, would equal that volume that that well would be settled on for the period in question.

The primary measurement element would consist of the meter run, orifice fitting, and orifice plate -- will be left on location to

receive the production and for annual or periodic tests as necessary to -- basically, annual tests, but if there's a need for an emergency test where the operator wants to run a test of his own, it would be there for that use and still holds the pipeline together.

Annually, we would perform a production measurement test to update the hourly flow rate that's used in the calculations. We would use a 16-day chart period, using a portable dry flow test meter assembly, or other suitable piece of equipment.

That meter will be put in place. The meter would be installed and calibrated. The test would commence. The orifice plate would be inspected to make sure it was in suitable condition.

A gas quality sample would be procured to determine the current quality of the gas being received. And the differential switch, an hour meter if it had one on it, would verify the operation again at that time, as well as intermittently throughout the year.

This is just the basic hourly flow calculation methods. And the first step would be

to --

Q. Mr. Crawford --

A. Yes, sir. A question?

Q. I think most of us in this audience wouldn't understand that if you explained it.

A. Okay. If there's no need to go in depth with it, I'll just say what's in it.

Q. Please.

A. And we'll go on.

Q. Thank you, sir.

A. First, we'll calculate the average hourly flow rate. We determine the average daily flow rate by multiplying by 24. There's the formula for the time calculated volume to convert it to a final dekatherm for settlement.

And then the agreed volume formula is basically the same except you'd multiply the hourly by the daily, compensate it for any stipulated flow time, in other words, if the well was on a cycle flow and was on half the time and off half the time, that hourly average would be adjusted by that.

Or it could also be adjusted should a well be shut in for a whole well work-over to bring the production back to a greater level or,

hopefully, not shut in by market, but if it was shut in by market, there would be an adjustment to that agreed volume. And there's an example there of how that calculation would be done, and that's also in your handout.

After doing all that work, this is the New Mexico OCD Low Flow Measure Committee taking a rest after figuring out what we was going to present to you today. Our volume calculation division and distribution department at El Paso compiled the elements of our test data and prepared those for us, and we're looking at the June and July time period when we initially started the tests on this location.

And just to go briefly on it, there were ten wells on this test. The eighth well in that test turned out to a tank battery, or a CPD, if you would, and it was dropped from the test subsequently. This is just the basic data of it: the chart, the meter number, the meter name, the chart date, the orifice plate size, and what the hourly flow rate based on 1990 volumes was for that well.

You take that a little farther, the actual heart of the matter, and this is in your

book, but I'll just go through it briefly. For each of those previous wells I showed you, here we have the Welker meter, or the differential switch, if you would, and that happens to be a name -- we expect other switches to become available -- but we show the flow hours for each particular well and chart period and the Mcf that's calculated by either using the agreed method on a time-calc volume or the orifice meter flow hours and the Mcf calculated.

For example, on the first one you can see the flow hours were very close. It was a steady differential low-to-zero flowing well. The Mcf happened to be calculated higher on the differential switch meter at this particular time, and we think due to the increase in pressures in 1991 on the system caused part of that difference.

And the next category, you see the same thing, a comparison of the flow hours and the Mcf that's calculated under a regular chart integrated method, or the differential switch method. Some of these wells where the steady flow is about the same, we come up with pretty much the same results.

But where we get into a situation, take the last two on the page for instance, we had some steady flow but pulsation. And in this particular one, the Red Mac, if you'd draw your attention to that, time is almost the same both from the integrated method or the time-calc method. They're very close.

But in this particular one, the integration was almost twice as high as the time calculated. If there is a real weak point in orifice recorder measurements as we know it today, it's the integrator operators' interpretation of what happened.

And based on this particular one, we think possibly the integrator operator picked a higher than normal point. And it can go both ways; they can be high or they can be low, but I bring that to your attention.

If you look at the very next one, the integrator operator for that period of time had a much higher, over 300 flow hours integrated. The switch measured 228, but the calculations for the two of them was almost identical, 100 versus 117.

That particular chart had differential

spikes and were very wide-band. And we have copies of each one of the charts under the tabs 18 and 19, if you care to look at those further to see just what those chart patterns actually looked at. They're 18 and 19 under your tabs.

And this is the last of the set of ten locations that we tested with four different producers in the San Juan Basin. Again, we're now looking at the time, the flow hours on the first one. But look very close at the calculations on this particular one are much higher with the differential switch than were the integrator operator's.

So each one of these, and the Glenmorangie is a good one to look at, spiked wells. And one of the things that those that are familiar with orifice recorded measurement, if you've got a spike on a differential chart, you can have static and you can have differential extensions, but if no time occurs, in other words, the turntable doesn't turn, no time is applied to that well. And so anything times zero is still zero.

We feel that in this particular case -- the switch meter was recording all of that

time -- due to the spiked nature of that chart, we feel that the integrator operator, she ran it up there, but there wasn't very much time that she could pick up on the chart. So she picked up a lot less time, so, therefore, we had almost three times the volume calculation, 90 versus 31, on that particular well.

That's an example of what happens to you in comparing the integration differences. And these are all in your book under tabs 16 and 17, if you want to look at those further.

I'm going to get to a summary that brings it into focus for you. These are those same wells, taking all of that flow hours and all of the volume for the month of June and July. We take the first one, and we find that the flow hours are relatively close.

As you go down, there are some differences, but the total at the bottom of the page, the differential switch meter, which we're calling a Welker meter because that's the proper name for this particular switch, 4861 hours. The orifice integrated time, through our volume calculation division, was 5131 hours, for a difference of over slightly 5 percent, difference

in time. We feel that's an acceptable difference in time.

But as I go to the next comparison, which is the volume, and this is what puts money in people's pocket or takes it out of it, taking those same wells, the calculation for those two months and some of them together, we show the differences. And the difference at the bottom, the Welker switch at 2196 Mcf, the orifice calculation had 2122, or 74 difference, for a difference of about 3 percent.

Based on these two differences, we feel this method holds great promise for a very economical method. And the differences that we're going to observe are going to be slight, and it's not going to hurt anybody.

Mr. McBryde, who's here with us today, his department made the survey for us, and he made this observation based on the comparison of the two: that when we're looking at the flow hours versus flow hours, between the differential switch and the regular orifice recorder, for the most part they were close.

The difference appears to be due to low differential from the flow of the well or a wide

differential pattern due to pulsation effects from the line or the wellbore and the stopcock operations that are there, which makes it more difficult for an integrator operator to determine time.

Further, he concluded that the -- the calculated versus the chart calculated Mcf between the switch and the orifice recorder method, in general it appeared that the Welker differential switch calculated Mcf is very close, the difference due to higher current line pressures or the Welker switch setting is slightly higher than zero and the possible misinterpretation of differential integration due to low flow. These were his conclusions based on the two-month test that we ran.

Last but not least, this is the language in El Paso's tariff, FERC approval, that went into effect September 1 of this year. And it basically says El Paso shall not be obligated to accept, for the account of the shipper, from any receipt point, a quantity of gas that is less than 15 dekatherm per day, so as to avoid measurement problems relative to small volumes and disproportionate administrative burdens. A

copy of this is under tab 24 in your handout, if you want to refer to it more.

We hope that we can find alternative methods where this is not a necessary thing. If we work together, we feel we can find a win-win solution so we don't have to shut any wells. If we cannot find something to agree on, this will be the ultimate result for low flow wells.

And we hope that you agree that this was a good start, and we would request your support.

Q. Thank you, Mr. Crawford. Let's summarize. After conducting this study with the committee, is it your opinion that there are alternative methods of measuring low gas flow volumes which are adequate substitutes for standard metering techniques that you would suggest be authorized by the Division?

A. Yes, we do concur with that.

Q. And do you believe that it is possible that if these alternate metering methods are adopted, that the prevention of waste of New Mexico natural resources caused by the premature abandonment of natural gas wells may be realized?

A. Yes.

Q. And do you believe that if these alternate measurement steps are adopted on the agreement of the producer and the transporter/ gatherer, that those measures will adequately protect the correlative rights, the ownership interests of all parties in the well?

A. Yes, they will.

MR. PEARCE: At this time, Mr. Chairman, I would move the admission of El Paso Natural Gas Exhibit No. 1. In addition, I will request the recognition of Mr. Crawford as an expert in the field of practical petroleum engineering.

CHAIRMAN LeMAY: His qualifications are accepted. And without objection Exhibit 1 of El Paso's will be admitted into the record.

MR. PEARCE: I have nothing further from Mr. Crawford at this time. He's available for questions from the audience.

CHAIRMAN LeMAY: Thank you, Mr. Pearce. Questions for Mr. Crawford?

MR. STOVALL: One question, Mr. Crawford. Are the rules as proposed by the Division, do they accomplish the result which will permit the type of thing which El Paso

thinks is appropriate in this situation as you've testified to?

THE WITNESS: I believe that they are adequate to support what we feel needs to be done.

CHAIRMAN LeMAY: Commissioner Bailey.

EXAMINATION

BY COMMISSIONER BAILEY:

Q. I understand that most of the gas contracts with operators now are based on heating value of the gas and not on volume produced. I understand that holds true for most of the purchasers?

A. That's correct. All of the settlements are done in a dekatherm basis. Probably the difference when you see dekatherm and Mcf is that in the method and in normal dispatching they still use Mcf.

And in the formula you'll see that, if you want to turn to tab 8, you'll see where we do all this calculation on Mcf. We count the hours. It goes into the company's volume calculation department. They calculate the Mcf. Then you'll see where that is converted to dekatherm based on the gas sample analysis of how

many Btu's that gas holds.

And so it does not change contracts. The Mcf will still be converted to dekatherm for settlement.

Q. Are you seeing a seasonal variation in heating value per Mcf for any particular wells?

A. There is a possibility for seasonal variation based on temperature, and we certainly have it on low flow wells.

Q. Does that make the timing of the testing for annual settlement very important to the producer then?

A. The timing can affect the Btu. If you take a test in the middle of the warmer weather, the Btu's is going to be higher than in the cold weather, the gasoline content fallout, the Btu's are lower.

We expect most of our tests to occur from a March to October time frame, which would be to the advantage of the producer and the royalty owner.

COMMISSIONER BAILEY: Okay. I guess that takes care of it then.

CHAIRMAN LeMAY: Commissioner Weiss.

EXAMINATION

BY COMMISSIONER WEISS:

Q. It's been my experience to never, not ever, use two meters. And I think you confirmed that, but if you had to use one on any gas well, which one would you use? Which type, the orifice or the Welker?

A. For low flow or any well?

Q. For any well.

A. Well, for any well you would want to use the orifice recorder, but the orifice recorder expense of operation does not lend itself to the low flow. It's just too expensive a method to -- in El Paso's situation we actually lose money on the low flow where we transport that gas. It's costing us more to operate the meter station than the transportaion of the gas from those wells, the revenue from that transportation.

Q. Does a Welker meter work on a high volume well or a conventional well?

A. It would but you'd get to the point where the risk, either to the producer, royalty owner, or the pipeline, becomes greater with the amount of the volume. The differences you saw here could be the same thing but at a higher

level. And with what we see is the risk of being very far off at a low flow is minimal, both to the pipeline and the producer.

COMMISSIONER WEISS: Thank you.

CHAIRMAN LeMAY: Just one question, Mr. Crawford. The 125 Mcf, was it chosen as a cutoff for low volume because of your general contract terms, I guess, that you can't disconnect at 15.

THE WITNESS: No, sir. Mr. Chairman, Mr. Harry Bean, who was our measurement engineer several years ago, was asked to do a study on where the uncertainty of measurement became of such proportion that it became burdensome, the uncertainty was great enough that the errors would go both ways, and the 15 Mcf came from that study done by Mr. Bean in 1987. And then that number was put into the tariff based on his study.

And he was a contractor for us at the time. He retired in 1983, and he was very well-known in the industry. His dad wrote AGA-3.

COMMISSIONER BAILEY: When I go through this, I need to know about the universe of these wells tested. Are they all from one formation?

Are they all particularly one chemical composition, or is there representation of most of the differences?

THE WITNESS: There's a representation across the basin, San Juan Basin, starting in close to Farmington out to the Jicarillas.

COMMISSIONER BAILEY: Are they all particularly from Basin Dakota or --

THE WITNESS: No. They are a sampling of the ten wells that were low flows across that. And there is a listing of where those wells under -- I'm looking for the tab. Excuse me. Under tab 13 is a listing of where those wells -- which wells were selected, and the information is shown there.

Everything that's on that particular location as far as orifice recording, it shows the operator, the well name, the location. The area that it happens to be in is a company area, but it shows -- that last two digits of that shows what area and pipeline location it's in. Shows the meter information, shows the date of the switch installation.

COMMISSIONER BAILEY: That's all.

CHAIRMAN LeMAY: Additional questions

of the witness? If not, he may be excused. Thank you, Mr. Crawford.

THE WITNESS: Thank you much for the opportunity to appear.

CHAIRMAN LeMAY: Mr. Pearce, do you have anything further?

MR. PEARCE: I do not, Mr. Chairman. Thank you.

CHAIRMAN LeMAY: All right. Mr. Carr.

MR. CARR: May it please the Commission, at this time I would call Mr. Bill Hawkins.

JAMES WILLIAM HAWKINS

the witness herein, after having been previously duly sworn, was examined and testified as follows:

EXAMINATION

BY MR. CARR:

Q. Will you state your full name for the record, please.

A. James William Hawkins.

Q. Mr. Hawkins, where do you reside?

A. Denver, Colorado.

Q. By whom are you employed and in what capacity?

A. I am employed by Amoco Production Company as a Senior Petroleum Engineering Associate responsible for regulatory affairs in Colorado and New Mexico.

Q. Have you previously testified before the New Mexico Oil Conservation Commission?

A. Yes, I have.

Q. At that time were your credentials as a petroleum engineer accepted and made a matter of record?

A. Yes, they were.

Q. Are you familiar with the changes that have been proposed in this proceeding to Oil Conservation Division Rule 403?

A. Yes, I am.

Q. Have you caused these changes to be reviewed by Amoco personnel located both in Denver and in the Houston regions?

A. Yes, I have.

Q. And so representatives of Amoco who are responsible for gas production, both in the northwest and southeastern portion of the state, have been involved in this review?

A. Yes.

Q. Are you prepared to comment on these

rules for your company and express their concerns?

A. Yes, I am.

MR. CARR: Are the witness' qualifications acceptable?

CHAIRMAN LeMAY: They are acceptable.

Q. Mr. Hawkins, how many wells does Amoco operate in New Mexico which might be affected by this particular proposal?

A. We estimate that approximately 700 wells that Amoco operates would be affected by this proposal.

Q. And of that 700 how many of those are currently producing?

A. About 250 are producing. The remainder are incapable of producing against current line pressure.

Q. Have Amoco's concerns previously been submitted to the Commission?

A. Yes, they have. In a letter dated October 3, I provided the Commission our concerns and some proposed language that we'd like to see inserted into the revised rule.

Q. Has a copy of that letter been marked as Amoco Production Company Exhibit No. 1 in this

case?

A. Yes, it has.

Q. Would you refer to that exhibit and then just briefly review for the Commission Amoco's concerns and then also move right on in and explain the amendment which are you proposing.

A. In general, Amoco is in support of the proposed revision to measurement for low volume gas wells. We do have a couple of concerns we'd like to express. First, we have a concern that the operator have primary control over which wells would be affected by this measurement procedure.

The reason for that is that although there are a number of wells which may fall under 15 Mcfd volumes, historical records may show that that well has a significantly higher capacity at varying line pressures. And it may be more important to go ahead and continue actual measurement on some of those wells to get the most accurate measurement possible as opposed to going to the low volume method.

Q. Now, language in the current rule would require operator concurrence before an

alternative method was actually employed; isn't that right?

A. That's correct. And we want to make sure that that language is retained in the proposed rule.

Q. Now, Amoco is also recommending a proposed amendment to the rule. Would you identify and review that for the Commission.

A. Yes. The amendment we'd like to see inserted into the rule is as follows: The operator may apply for a new production test on said well should operating conditions change, such as lowering of the line pressure, et cetera.

Our concern here is that many of the wells that we have that are not capable of producing into the current line pressure have historically produced at rates of 500 Mcfd. If there are some changes in line pressure that could result in significant changes in production, we think that those should be allowed to be retested and that language, explicit language, in the rules should allow for a retest of wells should operating conditions change.

I recognize that the current language

allows for testing on an annual basis, and that may not be appropriate for every well in New Mexico that would fall under this category.

Q. Now, Mr. Hawkins, if the proposed amendments to Rule 403 are adopted with the amendment proposed by Amoco, do you have an opinion as to whether or not the correlative rights of producers in New Mexico will be protected?

A. Yes. I think with this additional language it will help protect the correlative rights of all parties involved. The language we have offered is primarily to show our concern. I think the NMOCD could certainly modify that language somewhat, but we would like to see provision for a retest.

Q. Was Exhibit No. 1 prepared by you?

A. Yes, it was.

MR. CARR: At this time we would move the admission of Amoco Production Company Exhibit No. 1.

CHAIRMAN LeMAY: Without objection Exhibit No. 1 will be admitted into the record.

MR. CARR: That concludes my direct examination of Mr. Hawkins.

CHAIRMAN LeMAY: Thank you, Mr. Carr.

Questions of Mr. Hawkins? Mr. Pearce.

MR. PEARCE: Thank you, Mr. Chairman.

EXAMINATION

BY MR. PEARCE:

Q. Mr. Hawkins, if I may briefly, I think, under Roberts Rules of Order, what I want to know is if you'll take an amendment to your amendment. Your suggested change to Rule 403 has raised a concern that retesting could be required based on what have in the past been normal pipeline pressure fluctuations. Obviously, those pipeline pressures are not exactly the same all the time.

We understand what you're suggesting is that you are talking about some kind of substantial change, and we understand that concern. I'm wondering if you would object to the parenthetical in your suggested change which currently says, "such as lowering of the line pressure, et cetera," be amended to provide, "such as a substantial change in line pressure, et cetera."

We hope that will take care of your concern and the other concern about excessive

retesting of wells.

A. I don't have a problem with that. I think the concern we have is that operating conditions may change, and we're not sure how much of a change might result in a substantial change in producing volume.

So where we see indications that substantial change in producing volume is occuring due to operational conditions changing, then I think those wells should be allowed to have a retest.

I'm not exactly sure what appropriate language should be put in the rule, but I think the provision for that retest should be allowed.

MR. PEARCE: With the understanding, Mr. Chairman, I think we've just sort of summarized between us, we, El Paso, does not have an objection to the proposed amendment.

CHAIRMAN LeMAY: Thank you, Mr. Pearce.

MR. PEARCE: Thank you, Mr. Hawkins.

CHAIRMAN LeMAY: Additional questions of the witness?

MR. STOVALL: I have one, Mr. Chairman, just for clarification on that.

EXAMINATION

BY MR. STOVALL:

Q. As the rule is written, it basically requires an application. And from an operator's perspective, if you saw a situation where you felt that, for example, line pressures went down considerably over a period, would it be your understanding that you could withdraw your request for your alternative measurement, in effect, go back to a --

A. Well, I'm not sure if I have that understanding or not. My understanding is that there would be an agreement between the pipeline company and the operator to use an alternate method.

I think we would also have to have that agreement between those parties when you're going to revert back to an actual measurement. And I'm not sure that that agreement may always be easily obtained.

But I do think there should be some explicit language that allows for some changing conditions and changes in what the expected producing rate of that well might have been and provide at least a forum for operators and

pipeline companies to come before the NMOCD and if necessary request retest.

And I think this type of amendment in this rule would provide for that.

Q. Are you suggesting then that, just to use an example, that with your amendment what would happen is, say, if Amoco felt that line pressures had gone down and remained down somewhat, which would mean more production, that you would go to El Paso and say, "Let's retest."

And if El Paso -- or the transporter, I should say -- didn't agree, that you would then come to the OCD and say, "Require a retest"; is that the concept of your proposal?

A. I think that would be part of it, yes. I think originally, or initially, if we feel there like there are some problems in calculating the well's production, we would go to the transporter, pipeline company, and ask for a retest. And under the proposed language, if both those parties did agree, then a retest could be submitted to the NMOCD for approval.

If there was not agreement between the pipeline company and the operator, I think this language would also allow at least a forum for

those parties to come before the NMOCD and request a new test under order, if necessary.

MR. STOVALL: I have nothing further.

MR. SEXTON: Do you know your well characteristics well enough to write this into the agreement that you submit to us, say, if line pressures varies so much, a new test can be called and get approval from the pipeline before the approval is obtained from either the BLM or the --

THE WITNESS: I think for the majority of the wells that we have, they are -- we are currently automated, and we would have very good records over what the well's producing characteristics are and what the line pressures are likely to be. I think there would be sufficient information to come before the gas gathering company or transporter and present that information and request a retest.

The majority of the time, I'm hopeful that both parties can agree on the need for a retest and resubmittal to the NMOCD. The concern I have is that if that agreement couldn't be reached, that there might still be at least an avenue for reconciliation, I suppose, before the

NMOCD.

But I am hopeful that for all wells that we agree between producers and transporters on the estimated or calculated production method, that if there are indications that that is changing and a new test is needed, then agreement can be reached and we can just submit it to the NMOCD.

MR. SEXTON: Should this part -- one of the things we were trying to get away from is thousand dollars hearing costs for both the producer and the fee to come to a hearing. Can you submit this data that you'd like to see a new test on on this form to where it can be done, or the majority of them can be agreed on at the district level instead of coming to a hearing?

THE WITNESS: Oh, I would hope so, yes. I put that into our testimony that the NMOCD might be required simply as an indication that there may not always be agreement between a producer and a transporter. I think the majority of the time those parties can agree and, hopefully, are encouraged to agree on a number that will be reasonably accurate and protect correlative rights and prevent the premature

abandonment of a number of low volume gas wells.

But I do foresee potential where those parties would not agree and we may need to do something beyond just saying we can't agree on what to do.

CHAIRMAN LeMAY: Commissioner Weiss.

EXAMINATION

BY COMMISSIONER WEISS:

Q. Who pays for a test?

A. I'm not sure if the test is paid for by the operator or mutually by the transporter and operator or what.

Q. Seems to me that would have some impact. And then the other question, you mentioned in your testimony there at the beginning, you had 700 wells, 250 of which are producing?

A. These are the wells that would be affected, potentially affected, by this. Amoco operates, oh, probably on the order of 4,000 wells in the San Juan Basin, but about 700 of them we currently show would be 15 Mcfd or less in their current producing characteristics. And of that 700, about 250 of them are currently producing, and the other 450 are unable to

produce right now at the current line pressures.

Q. Well, will this new rule affect those 450 wells, or do you have an estimate of how many? I'm just curious as to --

A. Well, I think we're going to have to see some lowering of the line of pressure before we can tell. At this point if they're unable to produce against line pressure, they're basically just shut in. If line pressures do come down, then those wells would have to be tested to determine whether or not they're going to fall in the Mcfd or less category or not.

To put it in perspective, the wells that are currently shut in have historically averaged about 100 Mcfd in total, but many of them produce as much as 500 Mcfd or more. So some of those wells that can't buck line pressure probably would not fall in the less than 15 Mcfd rate if line pressures begin to come down.

COMMISSIONER WEISS: Thank you.

CHAIRMAN LeMAY: Just a question to follow up a little bit on Mr. Sexton's questions.

EXAMINATION

BY CHAIRMAN LeMAY:

Q. Is it your understanding that some operator agreement with the transporter would also maybe define substantial depending upon the wells in the area? You're talking about how much of a pressure swing in that pipeline that would require retesting?

A. It's difficult for me to say that we can identify today or even in the near future what amount of pipeline pressure change would be called substantial. I think you're going -- it may vary on individual wells.

A small change in pressure on some wells may result in a very small change in rate, and there may be no question on those type of wells.

Other wells, as I've indicated, may have a substantial change in producing rate with a relatively small change in pipeline pressure, and those are the ones that I think we would have the most concern over.

And so I don't know that it's necessarily a substantial change in pipeline pressure as it is a substantial change in expected production due to changing operating conditions.

If you'd see what I mean, not all wells are going to change on the same amount depending on a, you know, a 20 pound pressure differential or a change in the pipeline pressure.

MR. CHAVEZ: Frank Chavez, OCD Aztec.

Mr. Hawkins, wouldn't it also be appropriate for an amendment to include the provision for the transporter to request a retest in case of significant changes in operating conditions?

THE WITNESS: Certainly.

CHAIRMAN LeMAY: Mr. Pearce.

MR. PEARCE: Mr. Chairman, if I may just add something with regard to the question that Commissioner Weiss asked about payment for these.

El Paso has had some internal discussions about what's appropriate and fair in that regard. And I think what we've come to -- and I'm not sure it's a suggestion for inclusion in the rule -- but we believe that it's appropriate for the transporter gatherer to be responsible for bearing costs of the annual testing but that whichever party requests the subsequent special test be charged with bearing

the cost of that test.

And we would suggest that the Amoco proposal that the operator can apply for a new production test be amended to include a provision for either the operator or the transporter to request that special test.

As I say, I don't know that that's anything that ought to go in the rule, but I did want to give Commissioner Weiss El Paso's sense about what might be a fair solution to that problem.

CHAIRMAN LeMAY: Thank you, Mr. Pearce. I think that is helpful since it wasn't brought up previously.

MR. STOVALL: In other words, Mr. Pearce, if I might clarify what you say, is that the issue of cost is still something to be decided between the operator and the transporter and it shouldn't be addressed by the Commission; is that correct?

MR. PEARCE: That's my personal sense. My client may shoot me in the back of the head, but that's my sense.

MR. STOVALL: I certainly think that's the Division's position.

UNIDENTIFIED SPEAKER: To shoot him?

MR. STOVALL: We thought of that too. And what was the name for the record on that?

CHAIRMAN LeMAY: That guy there.

Additional questions for the witness? If not, he may be excused, and we can finish this thing up.

Mr. McCord.

MR. McCORD: Mr. Chairman, I have a letter I'd like to read and made a part of the record. Can I do it here, or would you like me to go up --

MR. STOVALL: Would you come up for the recording, so she can record it with the mike, Kevin.

CHAIRMAN LeMAY: Let me ask you, at this point, I think that probably would would be a statement. I'm wondering if there are any other witnesses that would like to offer testimony in the case, or are we at the point now where probably we'd be taking statements?

Okay. Mr. McCord, you may proceed with your statement.

MR. McCORD: I have a letter here from Robert L. Bayless to the OCD, attention Mr. Bill

LeMay, Director.

"Gentlemen: Robert L. Bayless would like to go on record in support of the proposed changes to OCD General Rules No. 403 and 1110 concerning low volume gas wells. Unfortunately, we operate a considerable amount of low volume wells in which the current metering costs meet or exceed revenues currently being generated by the well.

"The proposal for alternate measurement methods for low volume gas wells submitted by El Paso Natural Gas Company appears to be a win-win proposition for all concerned parties.

"We encourage the NMOCD and the BLM regulatory agencies to accept less expensive methods of determining well production volumes to lengthen the lives of these low producing wells, which in turn will increase revenues to ourselves and to our state. Sincerely, Robert L. Bayless, Producer."

CHAIRMAN LeMAY: Thank you.

MR. McCORD: Would you like a copy of this letter?

CHAIRMAN LeMAY: Please. Thank you, Mr. McCord.

Mr. Kellahin.

MR. KELLAHIN: Thank you, Mr. Chairman. On behalf of the New Mexico Oil and Gas Association, we want to thank Mr. Sexton for his efforts in conducting the study process to provide what we think is a viable rule change to provide not only the small operators, such as Mr. Bayless and Mr. Dugan and others in the northwest, but the larger operators the opportunity to prolong the life of significant oil and gas recoveries up in these fields.

And we thank you for the opportunity to make these rule changes, and we think our membership will welcome those changes and we can take advantage of them. Thank you.

CHAIRMAN LeMAY: Thank you, Mr. Kellahin.

Additional statements in Case No. 10398?

MR. STOVALL: Mr. Chairman, it's already been done, but as I indicated during Mr. Sexton's testimony, the actual form, what will be the C-136 if approved by the Commission, certainly would advise you, it's probably unnecessary to say so, but please comment on how

it works once we start working with it. I think that really is going to be the working tool that makes this system work. So keep us informed once we get going.

Again, I'm making a presumption that the Commission might adopt this rule. But if they do, tell us how it's going.

CHAIRMAN LeMAY: I would also like to state that we will leave the record open ten days for additional comments, written comments, for consideration. At that time we will close the record and take the case under advisement.

Thank you very much.

(The proceedings were concluded at 10:40 a.m.)

CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I, Debbie Vestal, Certified Shorthand Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Commission was reported by me; that I caused my notes to be transcribed under my personal supervision; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL OCTOBER 12, 1991.

Debbie Vestal

DEBBIE VESTAL, RPR
Certified Shorthand Reporter No. 400