A. No. The additional ten percent which I have reflected in my estimate is my best judgment of the saving to be made after full consultation with the purchasing department of the Standard Oil Company of New Jersey, and it is based upon the opinion of the men who purchase most of the pipe for them that ten percent would be a fair amount to expect on these special negotiations.

Q. If Hope Company bought it directly in the quantity required to reproduce its system, would it get an additional discount?

A. In my opinion, they would get this ten percent discount and no more.

Q. Could you state the name of the person upon whose opinion you rely on the large quantity purchases of pipe?

A. Yes, I could.

Q. Will you?

A. I don't know whether I should or not.

625. Q. You relied on that man's opinion?

A. I was guided by his opinion, yes.

Q. I do not want to ask you for anything——

A. (Interrupting.) I am not sure that I should reveal his name. If it means anything, I can do it.

The TRIAL EXAMINER. Did he express that as his confidential opinion?

The WITNESS. Not in the same way that I received this confidential information from contractors and constructors of pipe lines.

The TRIAL EXAMINER. That is his business, to get as much discount in purchases as possible?

The WITNESS. Yes, it is.

Mr. COCKLEY. I see no objection to Mr. Rhodes naming that person, unless he has some personal relations with him.

The WITNESS. I have no personal reasons, and I will look up his initials, I think I have them here. It is A. J. Kelly. He is rated as the Assistant Purchasing Agent, Purchasing Department, Standard Oil Company of New Jersey. And at the time I talked with him, he was the ranking man available, the purchasing agent himself being away.

By Mr. SPRINGER:

Q. On pages 22 and 23 of Exhibit 16–A you state that the construction conditions were surveyed on a portion of the

626 Hope system trunk and branch pipe lines, and recorded in the nearly two thousand field reports. Did you make a

personal inspection of the trunk or field lines construction conditions?

A. No, not in detail. I traveled and criss-crossed the lines of the company a number of times—many times, in fact over the past few years—and I have sent out men to make these inspections who have done construction work under my direction.

Q. You had experienced men then, you say, advising you of these conditions?

A. That is correct.

Q. How many men?

A. I think a maximum of about six.

Q. And could you tell us approximately how much experience each man had had?

A. All of the men had been with my firm for many years, and most of the men had actually worked under my direction on pipe line construction for ten years or more. One of them in particular had actually worked on construction of lines in West Virginia, as well as having worked for me for years.

Q. That was Mr. Evans?

A. That was Mr. Evans.

Q. On page 23, you say that most important are the con-
627 ditions affecting the cost of ditching. What conditions as to depth and width of ditch, and rock and soil conditions did you assume in your reproduction new estimate?

* * *

The WITNESS. The depth of the ditch from which we determined the cost was the depth of the ditch actually existing on the company's lines as found by the depth actually there when the lines were inspected, taking that into consideration, and also a lot of previous inspections. The width of the ditch was that in addition to the diameter of the pipe which we ourselves have found necessary in the construction of pipe lines. The amount of
628 rock was determined by the inspection of the outcrops and the character of the back fill, road cuts and information of that general nature. Other conditions affecting the cost, such as rocky soils, were taken into account, or swampy ground. The slope affects the cost of the ditch, particularly if steep slopes. All of these factors were facts which were recorded by these men who inspected it in detail, and know just what percentage of the lines of each size would encounter the different kinds of construction difficulties, what percentage of rock would be expected to be found.

Q. And all of that is detailed in your working papers?

A. All of that is detailed in our working papers, starting with the field inspection, and with maps and carrying right through to the summaries and the prices.

Q. In arriving at your factors in the cost of ditching, did you consider that many miles of the Hope Company's pipe lines are not underground.

A. We took into account the proportion of the lines which are still above ground.

Q. How did you make that estimate?

A. From every possible source of field inspection. In part by the records of the company. Those lines were largely the small two-inch lines.

Q. Are you sure that there are no large lines that are
629 not underground?

A. I stated they largely consisted of the small two-inch lines.

Q. Do you know the total mileage of the pipe lines on top of the ground in the Hope system?

A. I could refer to the working papers and find out. I have not that available here. There is approximately 3,000 miles of production system lines and approximately 1,000 miles of transmission lines. A small part of the field lines is above the ground, and that is reflected in the pricing which is all shown in detail in the working papers.

Q. Is there a segregation of pipe lines underground and above ground in your development of unit costs, or did you apply an average to both?

A. In the development of unit costs, we found the proportion of each size of line that was above the ground, and the proportion of each size which was below ground and its corresponding depth. The unit price was determined for the above ground pipe and the below ground pipe, and a weighted average unit price was arrived at for all of the pipe of each size, taking into account the proportionate lengths above and below ground.

Q. Do you know what percentage of field lines are above ground? Do you know approximately?

630 A. I don't recall the figures. I will be glad to look it up.

Q. Would it be as high as twenty per cent?

A. I would not think it would be that high. I would be glad to look it up for you. [Examining papers.]

Q. Would you please give us the proportion for each size of line that is above ground tomorrow some time?

A. I will have to look it up, yes; and I will be glad to give it to you.

Q. On page 24, you state that the unit costs for pipe lines are based upon the company's furnishing materials and the contractors installing those materials, in permanent locations?

A. Yes.

Q. From what responsible contractors did you secure bids for the installation?

A. I did not secure bids from any contractors. I did secure contractors' records of costs in West Virginia.

Q. How do you know what a contractor would charge for installation?

A. I estimated a fair price would be paid to contractors for installing these lines. That price was based in part on consideration of the actual cost to the contractors who have
631 actually laid lines in West Virginia as well as other costs.

Q. You say "in part." That was the basis for your estimate?

A. The actual costs in West Virginia were taken into consideration; yes.

Q. Would that be a check against the ordinary estimate of your hypothetical crew, plus ten percent, in determining the cost of installation?

A. I did not set up any hypothetical crews. I determined practically what it would cost to reproduce these lines under the conditions which actually exist in West Virginia.

Q. Don't you have in your working papers for the development of unit costs, labor performance and the number of men required to construct a given portion of the Hope Company's system?

A. Those unit costs how for each sized line in each character of country and each character of holding and each amount of clearing in the right of way; they show in detail the numbers of men required for each operation and the cost required for each operation of the sizes of pipe that determined the particular class of equipment that is required in the building of lines. Light equipment, for instance, is required in the small pipe, and heavy equipment is required in heavy pipe. Those details involve
632 something like a hundred different combinations and permutations of the conditions, for which details have been set up as to the daily progress, the number of men, the equipment that would be required, and everything that is necessary to determine the costs in any and all of the widely varying construction conditions in this State.

Q. On page 24, you speak of ditching. Is it true that machine ditching costs much less than hand ditching?

A. Not universally.

Q. What are the exceptions?

A. When the country is hillier than a slope of about one in four or one in five, it is practically impossible to use machines in ditching. Up to that slope it is possible. In flat country, the ditching machine will dig a very, very cheap ditch. It requires no assistance except that of men to trip out the ditch and to grade the ditch to cover the variations in the depth required. As the country gets rougher, this ditching machine has to be helped with a tractor or bulldozer to grade the right-of-way, and as the country gets heavier and harder and harder, more and more equipment must be with the ditching machines, so that in what is called, or what is classed here as complete machine ditching,

633 is about five machines besides the ditching machine. Even that part of the complete machine ditching in places is cheaper than the hand ditching, but when the country is broken, as it is in West Virginia, the cost of getting the machines over the valleys and up the hills that are too steep to use this machinery is so great that all of the saving of the ditching machine is completely lost in the cost of moving the machinery.

Q. Do you know whether or not machine ditching has been used on a large portion of the Hope system?

A. It has been used on much of the Hope system.

Q. You have used in your estimate of reproduction cost new, hand ditching for 4,000 miles of pipe line; isn't that true?

A. The final result is that, but the working papers will show what it will cost with machine ditching, and it would seem that the hand ditching is cheaper than machine ditching in this territory.

Q. Is that based upon experience?

A. It is based upon the experience which we have had. It is based on information that I have gained from contractors who have used this method of ditching in the country, namely that the machine ditching does not pay or save anything. You can do the work just as cheaply by hand, the detailed analysis that appears in the working papers shows that to be the case.

Q. Could you name the contractors you have just re-

634 ferred to?

* * *

The WITNESS. William Brothers built a sixteen and twenty inch line from a point near Cedarville to a point not very far from Wheeling. They used a great deal of machinery on that

line and they had a great deal of trouble with that machinery. I was told by both of the Williams Brothers separately and by their general superintendent who handled the job that the machine work did not pay. I believe there were three gangs equipped with machines and one gang by hand, and the hand gang did the work as cheaply as the machine gangs.

By Mr. SPRINGER:

Q. Do you know the construction experience of Williams Brothers in building a line for the Manufacturers Light & Heat Company?

A. That is the line to which I referred.

Q. And they concluded it would be less expensive to have used hand ditching?

A. They said, as I have already stated, that they saved nothing by the machine work.

Q. Mr. Rhodes, how did you determine the labor cost for ditching?

635 A. The labor cost of ditching is the composite result of starting out with what the average laborer will do when he has easy digging in flat country without any rain to interfere, and averaging as to what he does when things are going right. We started out with that, which is approximately half a yard per hour. Men do not dig that much in West Virginia for a number of reasons. First, the soil is rocky and slows him down, and probably you could not expect more than about four tenths of a yard per hour. I am now talking in rough figures by the way, for purposes of illustration.

In the other extreme, on a very steep hillside, a man can dig perhaps not much slower than he can dig in the low country, but other men have to be made available to shore up the back fill to keep it from running downhill. Many of these hillsides on which pipe lines are built in West Virginia are so steep that if you start a rock rolling it will keep on rolling until it gets to the bottom. It takes fully twice as many men to take care of the digging of a ditch in that kind of a country.

Of course, rock enters into it. Whether it be loose rock or hard rock—all of which is taken into account—but to determine the cost of hand ditching or any other kind of ditching in

636 a country as difficult as West Virginia is a long process, but all of the details are available in the working papers.

Q. Did you check your estimate by the actual experiences of the Hope Company in hand ditching?

A. Yes.

Q. Is your estimate higher or lower than the actual experience of the Hope Company?

A. I do not recall the exact figures, but our performance for the different sizes of line, and the different construction conditions were harmonized with the known costs of a great many lines. Dividing the country as we did into different classes of country, we were able to take advantage of the cost of digging in part of the country other than West Virginia, where we knew the construction conditions. We had lines, for instance, in Pennsylvania, where we classified the country as it is here. We had lines in Kansas and at various places, so that we would know what the costs are. All of those costs entered into it. We did not depend solely on the Hope's man-hour performance in building one line, but we depended on other people's performances. Now, as to how the Hope experience agrees with the most exact figures, I don't know.

Q. Those performance figures are available, are they not?

637 A. They are available on that analysis which was mentioned this morning where the working papers have not been finished up for general informaion.

Q. Of course, the ditching conditions in the Middle West are not comparable to the ditching conditions in West Virginia, are they?

A. Yes, they are; in the same character of country, the same rock, and the same soil. If you start in with easy hand digging in flat country, it does not make any difference what state of the Union it is in, but how much rock may be in the soil will affect the cost, and we take that into account on the West Virginia rock. We do not take it into account on the Colorado rock.

Q. Do you know the total cubic yards of excavation which you assumed would be required to construct the pipe line of the Hope system?

A. I have not calculated it.

Q. Do you think you could calculate it?

A. Yes; I could.

Q. You do not have those figures available now for computation, do you?

A. They are available in Clarksburg, but the actual computation would take several minutes of the time of this hearing, or maybe half an hour.

Q. How much did you assume a man could dig in a day,

638 for your reproduction cost estimates?

A. We started out, as I say, with perfect digging, where a man would dig half a yard an hour.

Q. You did not use that in your final estimate?

A. We started out with that, and adjustments were made for rock and for slopes and for hillsides. If I recall correctly the average was between something like a third of a cubic yard per man per hour, but it is so complicated with rock and other features that in itself it means little.

Q. Will your working papers show the rock percentage assumed in your ditch digging?

A. They will show the rock percentage that was found by field inspections, and was used in determining the unit costs.

Q. You made spot checked for rock conditions?

A. They were checked by careful examination of some two thousand miles of right of way.

Q. And throughout your reproduction cost new estimate, you have assumed that all of that property would be reproduced by using all new material, isn't that so?

A. I priced all of the materials as new materials, Yes, sir.

Q. Do you know that there are hundreds of miles of the Hope system which were constructed with used pipe?

A. I don't know what exactly the mileage is, but I do
639 know that there is a great deal of pipe in the Hope system, that was once in another location and was purchased new by Hope originally.

Q. How do you know that?

A. As to the exact mileage I do not know, but as to the amount of pipe that has been bought and various movements of the lines with which I am familiar that necessarily followed.

Q. Do you know that H–199 is constructed with secondhand pipe?

A. The number means nothing to me. I will have to know where the line is.

Q. Will you please turn to page 25 of Exhibit 16–A. Will you describe the compressor station equipment which you say was priced for the nearest of size and type, when no equivalent was available? Have you already given us that?

A. I gave you that this morning, as far as I could go by memory.

Q. What check did you make to determine whether the price quotation you used in your estimate of compressor station equipment were the prices then paid for actual purchases in kind and quantity required of the Hope System?

A. First we asked the manufacturers to give such prices and we obtained prices from the manufacturers which purported to be that. We found that some manufacturers were giving us
640 lower prices than other manufacturers. This was particularly true as to one manufacturer, and we made very careful oral inquiry from that manufacturer by visits to his factory to find out whether or not the prices he was giving to us really reflected the price at which he was selling goods, and as a result of that extended investigation, we have every reason to believe that he was giving us prices that were actually in line with current sales prices. Furthermore, they are in line with our own experience in buying 50 thousand, 75 thousand horsepower of such equipment within the last ten years.

Q. What is the name of that manufacturer?

A. The manufacturer particularly asked us not to put in the record his name.

Q. Had the National Transit Company manufactured many of the compressor station units that were used in the Hope system?

A. A great many.

Q. And that is a subsidiary of Standard Oil of New Jersey, is it not?

A. No.

Q. Was it once?

A. It was once a part of the Old Standard group that was dissolved many years ago.

641 Q. Did you rely upon prices quoted by the manufacturer who is selling incognito here, whose prices were the lowest for compressor station equipment?

A. Where the prices he quoted were the lowest, we used them, but where they were not the lowest, I do not recall exactly where, but in some cases he was not the lowest, and I used other prices. In other words, I tried to get the lowest priced compressor station equipment that would be used in these stations.

Q. Did you check those quotations against actual purchases in the last two years?

A. The actual purchases of large compressor units are not sufficiently common. We have purchased a great many units ourselves, and the last purchase was some three or four years ago, of those large units, and I reached the conclusion that the prices that we had quoted and used on the units were pretty much rockbottom prices.

Q. For 1938?

A. For 1938 and 1939, and in most cases they were lower than the prices we had actually paid for the equipment which we bought.

Q. Did you consider the fact that much of the Hope Company's compressor station equipment has been substantially altered by the company since it was purchased?

642 A. No. We priced all of the equipment that we priced at the prices of like equipment.

Q. When you say "like equipment" no such equipment exists.

A. By "like equipment" I mean if the company owned a four-cycle twin tandem gas engine with a 36-inch stroke, twenty-inch diameter of piston, I priced the engine at what it would cost for such an engine today without reference to who made it. I used the lowest prices available today for an engine of such a description. Details of manufacture may be different, but the engine is essentially the same engine.

Q. You mean essentially in performance, but it is really substitute equipment, is it not?

A. It being impossible to buy equipment such as now exists, without having to buy it made especially to order, I priced about what commercial equipment of the same description could be obtained for today; where I have no means of checking exactly the same size and dimensions, I took equipment that could be obtained today that was nearest in description to that which the company owned.

Q. The price quotations which you secured from manufacturers of equipment could not reflect the price of Hope's altered equipment, isn't that so

A. (No response.)

643 Q. Hope has made substantial alterations on some of its compressor station equipment, and when you get quoted prices for substitute equipment, they could not possibly reflect the cost to reproduce that particular equipment?

A. I am reflecting the cost of present-day commercial equipment of identical description. A twenty-inch or thirty-six inch stroke single tandem four-cycle gas engine is that whether it is made today or was rebuilt by the company.

Q. Did you price any of the engines on the basis of weight?

A. No, I do not recall of a single case where I priced them on the basis of weight, except to the extent of weight being a factor in freight. Engines not now obtainable as such are priced on the

price per horsepower of the nearest comparable equipment commercially available today.

Q. On page 25 of Exhibit 16–A, does the miscellaneous equipment which you stated was about one percent of the total include the machine shop equipment located at the compressor stations?

* * *

THE WITNESS. The major machine tools, costing roughly $100 or more were specially priced. This miscellaneous equip-
644 ment of numerous small things like small grinders, related to machine tools or maybe a small drill press, as well as hand tools, as well as all kinds of odds and ends which comprise a very long list as related to any one station.

Q. Where did you get your prices for them?

A. The manufacturers of light equipment.

Q. On page 26 of Exhibit 16–A, in determining the cost of erecting compressor station equipment, did you give any consideration to the experience of the Hope Company at the time those stations were constructed?

A. No.

Q. It is true that the Hope Company actually erected compressor station equipment gradually, over a period of years?

A. That is correct.

Q. Would there not be a substantial lowering of the costs in erecting compressor station equipment in your three-year wholesale scale, as compared with the Hope Company's actual experience?

A. There should be no substantial difference, for Hope's whole costs were known. Our experience in erecting equipment of this kind was compared by conference with the experience of the Hope men who had been erecting equipment and it was found that our man-hour experience for a given size and kind of ma-
chinery was reasonably in line with the company's own
645 experience.

Q. Do you mean that you adopted piecemeal experience for your wholesale construction estimate?

A. It is not piecemeal construction to erect all of the equipment in a given compressor station. The operation of that size is one that would generally be handled by the company's particularly skilled laborers and riggers, and the number of men employed in the company's operation is such that even the outside men they had to hire were well known workmen. That cost

by the company in building individual stations would be expected to be at least as low as the cost the contractor would be able to meet, even with the erection of a large number of stations on a three-year program.

Q. As a practical matter, though, you could build two compressor stations and completely equipment them in succession, for less than you could build one this year and one next year?

A. Somewhat less, but the labor cost in erecting equipment represents in the aggregate something of the order of five or six percent or thereabouts, so that it does not mean much money.

Q. On page 27 you referred to the installation of compressor station equipment by a contractor with an appropriate allowance. What is contained in that allowance?

646 A. The allowance amounts to approximately 8 percent of the contractor's whole field cost. Out of that allowance he must pay whatever gross income tax is required in West Virginia from him. He must pay any permits or licenses to work in West Virginia. Other than that he must take out his general overheads and set aside something to insure him against abnormal losses which occur from time to time due to unforeseen acts.

Q. Is that all?

A. I think so.

Q. Did you secure a bid from a responsible contractor for the installation of compressor station equipment?

A. No.

Q. How did you determine the assumed contractor's allowance?

A. This contractor's allowance of about 8 percent is the minimum allowance that the contractors look for in this contract work. They customarily, in figuring their costs, like 15 percent to cover the items for which I have allowed 8 percent, and I made my allowance, as in the other work, by contractors, as the minimum allowance for the general overheads and profits that a contractor is willing to contemplate in doing work.

Q. And how did you know that that was the minimum
647 allowance, that 8 percent?

A. The minimum allowance contemplated is arrived at from having let many millions of dollars of contracts and doing all kinds of construction work, as well as having made estimates of millions of dollars' worth of construction work where we ourselves had to stand the loss, if there was any.

Q. You say you have let the contracts?

A. I worked both ways.

Q. What compressor station equipment has been installed on the Hope system by a general contractor?

A. None so far as I know, excepting boilers that have been purchased, that have been erected by the manufacturer.

Q. Does the Hope Company carry on its pay rolls competent engineers and mechanics who are likewise competent to install compressor stations, and who make such installations?

A. Yes. The Hope Company has a nucleus of men who would do that. The men do that who handle the heavy major repairs on the equipment, that are required from time to time.

Q. On page 26 of Exhibit 16–A you state that the inventories were made, station by station, of the essential assemblies of valves and fittings, such as those required for high-pressure gas connections. Was that a physical inventory or an estimated inventory?

648 A. That inventory was made from the drawings available for most of the stations. The greater part of that pipe is not visible—it is buried, and we did not dig it out.

Q. If there are any errors in the drawings, those are reflected in the reproduction cost estimate?

A. Not directly so: We included in the bill of materials for these connections those materials which represent the company practice in connecting up of such equipment, which is in accord with the practice of the industry. If the company had in a thousand pound valve for three hundred pound service we made no allowance for that, but we made allowance for those major variations in the types of connections which affect the cost.

Q. Then you estimated the inventory?

A. No.

Q. You said some of it was not visible.

A. That is true, but there were available drawings. The connections between the compressor and the line pipe to who *who* knows compressor stations, are obvious. You don't know what make of valve may be underground, what make of fitting and would of necessity depend upon drawings, whether the fittings be screw fittings or welded fittings or whatnot.

Q. Don't the plant ledgers reflect the quantity of valves and fittings in each compressor station?

649 A. We did not go to the ledgers; we went to the drawings which showed the valves which were necessary in the operations of the stations. If there were any valves there that were not used, they were not shown on the drawings, and were accordingly omitted in this inventory.

Q. On page 26, you state that the cost of installing complex connection piping is based on experience. What experience is that?

A. Labor performance of erecting different kinds and sizes of fittings, and valves and so forth, has been rather well standardized. We secured from two large piping contractors, the standard labor performances, and we priced the labor costs of certain jobs which we had done ourselves, and in which we had completed detailed information, to find out what adjustments these contractors' performances—piping contractor performances were necessary to reflect the cost of piping of the nature which exists in compressor stations. We found the amount of that discount, and in all of our pricing we applied that discount to the labor performances these piping contractors say is necessary to install piping. Their figures are generally based on piping buildings that is up above the floor. In compressing station piping, most of the piping is about at the ground level at the time the station is built, and the discount below the custo-
650 mary performances reflect that fact, based on our experience in laying pipe for compressor stations.

Q. Did you study the Hope Company's experience in the installation of the complex nature of the piping?

A. The Hope's experience in that connection was not sufficiently detailed to be of any assistance to us.

* * *

663 Cross-examination (continued) by Mr. SPRINGER:

Q. Mr. Rhodes, on page 27 you state that a separate allowance is made for the cost of hauling materials to each compressor station at average cost per ton reflecting distance and the kind of road. Are those average costs per ton based on a contract price?

A. No; they are based on the estimated cost of hauling materials, and the basis was the lowest ton-mile cost of hauling pipe.

Q. Was the cost based on experience, then?

A. All of the costs here are based on experience.

Q. Of the Hope Company?

A. No; on the experience of my organization, and as I said before, on the results of other people's experience, including, to a limited extent, the Hope Company's experience, but in hauling, Hope Company's experience appeared only to the extent of consultation with their operatives in their own work. The figures

are not exact figures based on Hope's experience, since they are not available over any considerable mileage of line.

Q. On page 27, what type of property do you include
664 under "Miscellaneous minor property?"

A. All of the other accounts than buildings, structures, gas wells, pipe lines, compressor station equipment and lands and rights-of-way. All other classes of property which, in the aggregate, only amount to three per cent of the total. Meters and regulators, for instance, shop equipment, general equipment. They cover the principal items.

Q. How did you price that miscellaneous property?

A. Using the same general methods as have been described with respect to other property. Items of property that were identifiable as such, for instance, as machine tools, not in the shops, or regulators, meters or fittings—they were all inventoried by making a check between the records in the offices of the company and the existence in the field of the particular things in question.

Prices were all obtained from manufacturers who were requested to give us the lowest prices available and the labor of installation was based, as in the case of compressor stations, on the same basic experience. Most of the equipment contained in these miscellaneous accounts is of the same general type as is contained in the major accounts.

For instance, valves and fittings involved in the meters required just the same method of treatment in pricing as valves and
665 fittings involved when they are in a compressing station. A lathe in the general shop is treated the same as a lathe in a compressor station repair shop.

Equipment like drilling and cleaning equipment, which of course is not a thing which is erected, is priced at cost delivered to average destination.

Q. Did you receive manufacturers' quotations on the drilling and cleaning equipment?

A. We did. In fact, the pricing of drilling and cleaning equipment, which is a very complicated system, was actually done for us by one of the most prominent dealers in that equipment, based on their current sales prices.

Q. Who was the dealer?

A. I don't recall at the moment. I would have to look it up in the working papers.

Q. You said he was the most prominent?

A. One of the most prominent. I think it was the Oil Well Supply Company.

Q. On page 28, why did you not use reproduction cost of land instead of cost to reflect what you term "current value" in your reproduction cost new estimate?

A. In the first place, you cannot reproduce land.

Q. Should it be included in a reproduction cost estimate then?

A. If it is properly marked for what it is.

666 Q. Then you do not have a reproduction cost estimate of land in a reproduction cost estimate of the system, do you?

A. This land—that is technicalities of words—but land is in here and it is clearly explained how the pricing of land was arrived at—the most important site being the office building here in Clarksburg, and it was carefully explained that this was all priced at the same price per acre as was paid for the neighboring lot which was purchased in July 1938.

Q. You used what are known as market prices for other items of property. Do you say now that you have used market prices for land?

A. Not in the broad sense that I analyzed real estate transactions throughout the City to arrive at a present value. In this particular instance, there was a parcel of land contiguous to the existing parcel, almost the same size, that faced on the same two streets. Whether that was a market price or not, it was the price the company actually had to pay for the land, and I deemed it to be an appropriate measure of the current value of the entire lot.

Q. Wouldn't you be consistent if you took the price paid by the company for other items of property?

A. No; because this was a recent thing. It is the only transaction in the neighborhood that was available, and that was used. I might have used book cost of land, but I deemed

667 it more appropriate in cases where I had more recent information as to the prices paid for land, to use the more recent prices.

Q. The land in the Hope system has not been purchased within the last two years, has it?

A. That particular parcel which I used as the guide for the current value of the office building site was purchased in 1938.

Q. For an addition to the office building?

A. That is correct.

Q. Would any other tract of land have been as satisfactory?

A. I don't think any tract could be quite as satisfactory as an abutting tract of practically the same size as the one involved.

Q. Was there a house on the first tract of land that was demolished?

A. Which tract do you refer to? The one which was recently purchased or the original tract owned by the company?

Q. The one that was recently purchased.

A. Yes; there was a house on that.

Q. And what adjustment did you make for that?

A. None whatsoever. The tract of land was brought for the purpose of building an office building, and it was known
668 that the house would have to be demolished and is properly a part of the cost of land and is customarily so considered.

Q. Was the building on the lot a part of the consideration, do you know?

A. I know only that they bought the land on which to build the office building, and tore the house down not very long afterward.

Q. On page 28, you state the Hope Company owned rights-of-way for which no payments were made. In your reproduction cost estimate, do you assume that payments would be made for those rights-of-way?

A. I assumed that they would be obtained free as they were obtained, mostly being rights-of-way that were included in the leaseholds.

Q. You also state that the company owned rights-of-way aggregating 180,125 rods for which no payments were made. Will you please turn to Exhibit 16–B page 6, and explain the difference between the 180,000 rods and the 252,000 free roddage grants shown, using round numbers?

The WITNESS. On page 6 of Exhibit 16–B, 252,911 rods is a balancing figure, so that the sum total of the roddage
669 is equal to the total roddage of the pipe lines. The 180,000 rods, I cannot specifically name without reference to the working papers. It may be cases where there were specific grants of rights-of-way for which no charges were made, whereas the 252,000 includes such specific grants as well as those which are incidental to leaseholds.

Q. Would you be able to furnish the explanation later?

A. I would be glad to.

Q. You state that the Hope Company, page 28, of Exhibit 16–A owned 980,655 rods of purchased rights-of-way. Please turn to page 6 of Exhibit 16–B and also to page 14 of Exhibit 16–D and explain the difference between the apparent total of 992,601 rods.

A. I would have to look up the working papers to find the source of the differences. In the text, the figures are given for illustrative purposes, and in the priced inventory, they are based on actual figures, but they can be reconciled and I would be glad to do so.

Q. There is a difference of 12,000 rods between the detail which you show and the text figure. That is so, is it not?

A. That is the approximate difference, yes.

Q. You might have included the rights-of-way on the coke oven gas lines?

A. Not intentionally.

670 Q. On page 29 of Exhibit 16–A, you state that the average cost per rod of the present trunk line rights-of-way was taken as the measure of reproduction cost. Does this average cost include the cost of clearing rights-of-way?

A. It does not. It is the payment to the farmer for the right to build the line across his land, plus the damages paid to the farmer, plus the cost of securing the paper, and so forth, but there is no clearing of the rights-of-way included.

Q. In what account did you include the cost of clearing rights-of-way?

A. As a part of the cost of constructing the pipe line, under which activity it is incurred.

Q. Is that in accordance with the uniform system of accounts prescribed by the West Virginia Public Service Commission for gas utilities in 1939?

A. I do not recall the details of that particular account, but I have included the cost of clearing as a part of the cost of the operation under which it is performed.

Q. Does the cost of the rights-of-way vary with the size of the pipe line constructed?

A. In general, yes; but the company's record of experience did not permit that determination without an unwarranted amount of work. We found the company's records were

671 relatively clean-cut, as between trunk lines and field or gathering lines, and we studied them separately and arrived at the unit costs which are set forth in the priced inventories.

Q. On page 30 of Exhibit 16–A you list the components of your undistributed construction costs. Can you translate each percentage into the respective dollar amounts of your reproduction cost new estimate?

A. Such a translation is a mere matter of arithmetic. These percentages, however, were first agreed to in the former Cleveland cases, and used by the Ohio Commission. I merely adopted them in the aggregate.

Q. Did you make any check to see whether they were proper in your reproduction cost new estimate in this case?

A. Yes.

Q. What kind of check?

A. I made two kinds of checks. In the first place, I compared these allowances with actual experience in the construction of properties with which I have been closely associated, which were built by newly organized, independent corporations, rather than by large operators in the business, and I found as a result of those checks that the aggregate amount of the first four items, namely, preliminary organization expense, engineering and superintendence during construction, administrative and legal
672 expenses during construction, and taxes during construction, I found that in the aggregate these agreed rather closely with my own experience, but were rather lower than the figures which I had available from that experience, ——

* * *

Now, the matter of interest would not conform to the particular experiences of mine because none of them extended over a three-year period.

The other sort of a check that I had been making is evidenced in another exhibit, where the actual cost to the company of building its properties was determined, and it was found in recent years that the administrative costs which included the usual administration of the property in its operations and construction, plus the supervisory of the top portion of the engineering, averaged about 6 percent, exclusive of taxes.

That check of the company's experience in the actual administration of its affairs, combined with the experience in the actual construction of new properties by independent corporations, confirmed me in my belief that this 9 percent for the four
673 items mentioned was a fair and reasonable allowance which probably would be exceeded in actual practice.

By Mr. SPRINGER:

Q. Now, translating the preliminary organization expense which you have assumed in your estimate of 5 percent, into dollars, roughly would that be $403,000?

A. Roughly, yes.

Q. Now, translating engineering and superintendence during construction, which you have assumed to be 4.5 percent, translated into dollars, would that be $3,631,000?

A. Substantially.

Q. Translating administrative and legal expense during construction which you have assumed at 2 percent, translated into dollars, would it amount to approximately $1,614,000?

A. Approximately.

Q. And the taxes during construction, you have assumed at 2 percent, approximating $1,614,000?

A. The figure is correct, but I did not assume the percentage.

Q. Interest during construction, you have used 8 percent?

A. That is correct.

Q. And translating that into dollars, it approximates $7,100,000?

A. Approximately, yes.

674 Q. Please state the items which you assumed would comprise preliminary organization expense, giving the dollar amount allocated to each item.

A. I have made no assumptions or no break-downs in detail of these totals. As I have explained, I used those which have been previously and repeatedly used in connection with the properties, which I found were in accord with my own experience. I made no break-down except in a study which I made of the properties, with which I was familiar. The details or such as were available, were broken down and classified to fit the set-up of this reproduction cost new.

Q. Can you list the items that ordinarily go to make up the preliminary organization expense?

A. Starting at the beginning, there is generally an investigation of the project to determine its feasibility. It includes investigation from the economic standpoint, from the geological standpoint, and from the legal standpoint.

Following that preliminary investigation, if it is promising generally a more extended investigation is made. If the project is still worthy of consideration, then a corporation is usually organized, which involves legal expenses, and the expense involved in actually forming the corporation. I am talking now from the standpoint of the things done, rather than from the accounting standpoint, because remember, I do not necessarily subscribe to this break-down here.

675 Q. You used it in your estimate?

A. No, I did not. I specifically stated that I used the aggregate allowance as being proper.

Q. In your mind, didn't you use the customary components of preliminary organization expense, engineering and superintendence, administrative, legal, taxes and interest?

A. Only in a general way. It has been my experience in construction of these properties, that it is almost an impossible task to divide the expenses accurately as between these various classifications.

Q. Yes?

A. For instance, in the construction of the Southern Natural Gas Corporation, which I described yesterday, my time was divided between engineering and general executive engineering supervision of the work, and also the executive supervision of all of the corporate activities other than those having to do with relations with public authority and with the bankers. All of the accounting was carried on under my direction.

The question arises then, how should my time be divided, which is between engineering and administrative expenses? I had men working for me in dual capacities. Some of the men
676 that were really a part of this purely corporate organization for handling public relations work, worked for me parts of the time and part of the time they did not, so that it is very difficult to divide the costs, even as they are being incurred, between these various classifications of engineering, preliminary and administrative.

And I have found that to be the case in the actual operation of constructing the properties. The principal job is to get the property built as cheaply as possible, and the accounts are not kept in a manner during construction periods to facilitate the making of estimates of this kind in any detail.

Q. Do you have any difficulty in relating such costs to direct costs?

A. That generally also requires special thought to compare with an estimate such as made here where the construction—miscellaneous items enter into construction cost, like purchasing, for instance, are included in construction costs. It is necessary generally to separate portions of the cost which may be incurred as a part of your office expenses that should be charged properly to construction.

For instance, on the Southern Natural Gas, there was a considerable amount of construction work, possibly of the order of $1,000,000, which was carried on directly under my supervi-

677 sion, where a defaulting contractor's work was taken over in part, and for building meter stations and things of that nature.

Some portion of my time might be charged to construction, but there is no way of positively arriving at it and even if a decision were decided to try to keep your accounts straight it would necessarily be an arbitrary division of the time of all of the men who were doing work of an administrative nature that was related to the various and sundry activities that were going on simultaneously.

Q. Do you know the cost by classes of property in the 1931 East Ohio-Cleveland rate case, from which you have borrowed these indirect cost percentages?

A. These figures were taken from signed agreements.

Q. Do you know what costs were included in the classes of property to which these percentages were applied?

A. These percentages were applied to all property except leaseholds and working capital.

Q. You don't know what costs were included in the classified property accounts to which these percentages were related, do you?

A. I don't recall the figures; no.

Q. Do you know the class of costs of the property to which the percentages were applied?

A. They were applied to the estimated cost of reproduc-
678 ing substantially the same property that now exists.

Q. Do you know in the 1931 Cleveland rate case whether Workmen's Compensation insurance was included in the classified property accounts?

A. I am quite sure that it was, but I would prefer to look up the records of that particular estimate.

* * *

Q. Do you think, Mr. Rhodes, that preliminary organization expense should apply to operating automobiles?

A. These percentages, if you use them as such, are for the purpose of spreading the costs over the various classes of property, and if any attempt is made to say that this item of expense applies to this item of property and not to that item of property, one would arrive at the most tangled mazes of impossibilities that could be imagined.

Q. Perhaps you started with an amount of money then and spread it on percentages that you thought might be fair?

A. Experience starts with the amount of money that is to be spread over the prime cost, which is also an amount of money, and it is turned into a percentage which we use, in the practical preparation of these estimates.

679 Q. How were you able to determine the proper percentages for overheads, without knowing the amount in the classified basic properties to which the overheads are applied?

A. That question has no meaning to me.

Q. Don't you have any relation between overheads and direct costs?

A. In this way we do. Direct cost could be set up in such a way that there would be nothing contained in them whatsoever except payrolls and checks paid to manufacturers of equipment and supplies. Then you would have a statement: "Here is material paid for to the manufacturers at so much, and here is labor paid for to the workman as so much, and everything else is overhead."

You could make an estimate that way if you wanted to, but in choosing the percentages of overhead to be used, the estimator must have clearly in mind the line of demarkation which I have had in this case, and in comparing my own experience, I have made the same line of demarkation between the prime costs and these overheads, as has been made in the estimate of the reproduction cost of this property.

Q. And I assume that is the same formula that was used in the Cleveland case?

A. Substantially the same formula, but I base my judgment as to the reasonability of these overheads upon my own experience.

679–A In the former Cleveland case, it was assumed that the lines would be built by the company at higher wages paid by the company than contractors paid.

Q. Is it true that the percentage for engineering and superintendence during construction decreases as the cost of the project increase, particularly when the project is based on large units?

A. To some extent it does.

Q. Mr. Rhodes, as an engineer, would you design and construct the Hope system as it exists, if you were retained to build the system now?

A. What would be built now is a matter of the substitute property as a whole. I am really concerned with the engineering cost of designing the property substantially as it exists, within

the limitations of the commercial availability of materials and equipment.

Q. Is the Hope system the most modern and complete system that could be built today?

Mr. COCKLEY. I object to that. That is not proper cross examination and it is not a proper question to ask of any witness.

The TRIAL EXAMINER. Read the question.

(The question is repeated.)

Mr. COCKLEY. I suppose it is true that each year, if you
679-B were to reproduce a property and wanted to put in all of the latest wrinkles and so forth there is not a year that goes by that you could not make a little change here or there or what-not.

The TRIAL EXAMINER. Do you have any objecion to the witness making that statement?

Mr. COCKLEY. No, but it seems to me that we have wasted enough time.

By Mr. SPRINGER:

Q. You concur in that, don't you, Mr. Rhodes? You concur in Mr. Cockley's statement?

A. I concur in what Mr. Cockley said.

Q. Is not the engineering and superintendence during construction of oil pipe line properties comparable to that required for the construction of natural gas pipe line systems?

A. When built in properties of comparable magnitude, yes.

Q. Do you know that the Bureau of Valuation of the Interstate Commerce Commission and the major oil pipe line companies use less than one quarter of your figure of 4.5 per cent for engineering and superintendence during construction?

A. No, I don't know that. But there again it is a question of how much on the engineering is charged directly to the construction, as it is on the Hope's own books, and as it was
679-C in the case of the properties which I have constructed.

I have extracted the engineering charged directly to construction and grouped it together as engineering. It is quite customary in building properties, for the sake of simplicity in accounting, for instance, when surveyors are out locating the line, to charge their time and their automobile expenses and so forth to that particular line, and when inspectors are out inspecting construction on that line, to charge the time to the line. And the same in map making or making the drawings necessary.

What may have been the elements of cost included in the prime costs by the Interstate Commerce Commission I do not know, but I do know that you cannot design, supervise the construction, and inspect the construction in pipe lines for a quarter of this figure that is given here, and I have designed and constructed thousands of miles of it.

Q. Do you know that the Bureau of Valuation of the Interstate Commerce Commission uses 1½ per cent for all overhead, exclusive of taxes and interest?

A. No, sir.

Q. Do you have within your knowledge the approximate invetsment in pipe lines in the United States?

A. I do not recall.

* * *

679–E Q. On page 30 will you state the components of your assumed administrative and legal expense during construction?

A. Again, without considering the exact accounting definition of various classes of work assumed, the administrative expense would include elective officers, as the president, vice president, secretary, treasurer and assistant treasurers, and so forth, and in the case of an operating property, it would include all the expenses incurred by and on account of these particular men. These particular men would be assisted by a staff of assistants considerably greater than the staff that is required during the operation of the properties. The accounting department, for instance, would be much bigger, because the volume and the amount of the transactions are greater.

There would be legal expenses in varying amounts, depending upon the circumstances as they developed during construction. There would be printing and there would be telephone and telegraph and automobiles in the use of these administrative officers, in fact the organization to handle the corporate affairs, the administrative affairs, is very much similar to that of the later operating organization, being only very much larger.

679–F Q. Speaking of taxes during construction, what base did you use to compute those?

A. I made no computation. Taxes during construction as they may well be assessed in this State, could easily cause the total of these undistributed costs to exceed the amounts which we have used.

As previously stated I am subscribing only to the aggregate amount of these allowances as being the minimum that could be

incurred in the construction of property such as this property constructed in the manner which I have described.

Q. Does it include the sales taxes and excise taxes as well as property tax?

A. I have made no specific assumptions, but in connection with the sales tax or the gross income tax to be paid by contractors, that comes out of their allowance, and is not included in here. I have made no specific estimates to the amount of taxes that might be incurred.

Q. Taxes are not assessed until the property is completely constructed, are they?

A. As a rule they are, depending upon the customs of the State in question, and I am assured by the attorneys of the company, that in the event of the reproduction of this property, taxes would be most certainly assessed on parts of the property that
679-G were in existence on the tax dates, whether they were in operation or not.

Q. Under your assumed three-year construction program, would properties completed and assessed on a tax date be considered available for operation also?

A. In some cases yes; but in most cases no.

Q. Why not?

A. Because in some cases, property would be exatly ready for operation on the date of taxation. I am informed in that particular case, whether the taxes should be charged to operation or construction is quite a question. If the taxes were assessed the day before operation began, would that be taxes during construction or otherwise? I have made no attempt to estimate it. It is the most complex estimate and again, as I said, it may well reach the point which would make the total of these allowances exceed the overall amount which I have subscribed to and used.

Q. Such a detailed program has been undertaken in the reproduction cost new estimates, has it not?

A. Not by me.

Q. Do you know of one instance where the Hope Natural Gas Company has paid taxes during construction?

A. No.

Q. You did not make a check of the constructed natural gas companies comparable to the Hope system, to determine
679-H what percentage of taxes during construction were actually paid?

A. There are no natural gas systems comparable to the Hope system, that I know of.

Q. There are none with that amount of investment?

A. No—but there are none with the complexity involved in the Hope system.

Q. Did you make any check of actual experience in the payment of taxes during construction?

A. The experience that I have had as to taxes during construction indicates rather less taxes than would be likely assessed in the east. Most of the construction that I have handled has been in the less thickly populated territories, where the tendency to tax property during the construction period is much less than it is in this part of the country.

Q. You have used other persons' knowledge for your basis?

A. No. I find that in my own experience with the smaller taxes that have been paid, the average aggregate amount of these undistributed construction costs is greater than the amount included here including taxes.

Q. Is it not customary to build pipe lines in the summer and the tax dates are usually in the winter, are they not?

A. I think so; yes.

679–I Q. On page 30, for interest during construction, you have used an 8 per cent figure. What rate of interest did you assume in determining your allowance for interest during construction?

A. I assumed no specific rate of interest. The 8 per cent may be, in fact it is the composite result of a great many factors. If as is sometimes assumed, that the average time that money would have to be hired during the construction period was half of the construction period, that would mean that the money would be required for one and a half years, in which case 8 per cent interest during construction would be the result of a rate of about something over 5 per cent.

On the other hand, it is always necessary in constructing property by an independent corporation, without the benefit of a large operator, to borrow a great deal of money in advance of actual construction. In one case with which I am personally familiar, all of the money was made available before a dollar was spent for construction on a project that took 17 months to construct. If that were the case here, the 8 per cent might be for three years' use of the money.

On the other hand, a more common requirement is for from three to six months supply of money as being necessary to sat-

isfy the requirements of the bankers, and to establish
679–J the credit of the company.

That three months added to the one and a half years average time that might be required, would give a total period of 21 months, in which case something like 4½ per cent rate of interest would give you the final result on 8 per cent. Or, the property might be constructed in such a program that parts of it would go into operation a year or so after the beginning of construction, and some parts would be constructed well in advance and carried for considerable periods before they could go into operation, through natural limitations, so that it may be that the average time the money was used during construction would be a year in a project like this, plus the three to six months for the supply of money that it is necessary to have in advance, in which case the period that the money would be used would run from fifteen to eighteen months, in which case again, five or six per cent interest during construction might be required—and might give you the 8 per cent. Or you might be so fortunate as to be able to get your money in such a way that you would only have to hire it a year before you are able to begin operations, and then it would take an eight per cent rate of interest to achieve the eight per cent cost during construction.

All of those factors affect one another, and some of them act
in one way and some the other, and the conclusion that
680 I have reached, after consideration of all of these facts,
is that on a property such as this to be constructed over a three-year period, the interest during construction may fairly be taken as 8 per cent.

Q. Did you assume that this property would be constructed as a completely independently and publicly financed utility?

A. I did.

* * *

Q. Mr. Rhodes, did you make a study of what the cost of money would be under that assumption?

A. No; I did not.

Q. And I believe you did not state that you assumed any specific rate of interest to be used in the time of interest during construction?

A. That is correct.

Q. Mr. Rhodes, are the overhead percentages on page 30 of Exhibit 16–A the same as are used in the company's original cost exhibit, which I understand will be presented in this case?

A. No, they are not.

Q. Then you did not employ the Hope Company's expe-
681 rience to your estimate?

A. No; the Hope Company has the benefit of other experience, for which the Hope Company pays nothing and receives services from others for which Hope pays nothing. An independent company has to pay for all of those services.

Q. The company you have assumed would have no free services?

A. That is correct.

Q. And that is the only explanation for the difference between the overhead percentages you have used and the overhead percentages appearing in the original cost exhibit to be presented?

A. No. In determining the true original cost of the property, the overhead percentages to be used must necessarily be those that are reflected on the company's books. There is no way of reflecting the free services which they get. In the reproduction cost new, I have made my estimates on the assumption that nothing will be obtained free but everything must be paid for at the market price, or its equivalent.

Mr. Rhodes, did you list the free services which Hope Company receives?

A. Well, during this construction period, for instance, when money was required actively in large quanities, the money
682 was advanced as required, and no more than a nominal rate of interest was charged on the advances.

In many cases, Hope constructed its properties out of its own cash. Operators in the natural gas business, the large operators have had experience all over the country, and while the parent company in this case has made charges and does make charges from time to time, to Hope, those charges include bare out of pocke*y* costs that are incurred by the parent companies that are readily discernible, without any charge whatsoever for the knowledge and production power that makes it possible for them to carry out these projects.

I know from experience that these so-called "overhead costs" are less when the owner of the project is a large operator.

Q. Mr. Rhodes, will you please refer to page 34 and 35 of Exhibit 16–A. On page 35, your estimate shows $14,296,000 for undistributed construction costs. Will you state the application of those costs to each of the accounts listed on pages 34 and 35?

A. I made no such application except to the sum total of all of these costs.

Q. On page 34, Mr. Rhodes, account No. 330–1, Natural Gas Producing Lands, did you apply overheads to that?

A. Yes; I have spread the overhead over all of the expenditures because that is the manner in which I have learned
683 what percentages are required to cover all of the expenses of the company.

Q. Account No. 330–4, Rights of Way, did you apply overheads to that?

A. Not specifically, but as a part of the aggregate costs of the property, yes.

Q. Account No. 330–5, Other Land and Land Rights.

A. The same answer.

Q. Account No. 334—Drilling and Cleaning Equipment. Did you apply overheads to that?

A. The same answer.

Q. Account 337—Other Production Equipment?

A. The same answer.

Q. Now, on the Transmission Plant account, 351–12, Land, you made the same allocations?

A. I have made no allocations. I have merely applied the allowance percentage to the sum total of all of the construction. I have made no attempt to spread it over details.

Q. That would be true of account 354–4—Other Transmission System Equipment?

A. That is right.

Q. And under General Plant Jointly Used, on page 35, Account No. 370—Land and Land Rights, the same is true there?

684 A. Yes, sir.

Q. Account No. 372—Office Furniture and Equipment? The same answer?

A. That is right.

Q. And the same for all of those except Account 378—Communication Equipment, listed in the general plant, jointly used?

A. I applied one overall percentage to the sum total of all of the prime construction costs.

Q. Was there a separate calculation made for interest during construction?

A. Not for the purpose of arriving at the sum total. It may have been made in the working papers as an incident but not as a part of getting the final answer.

Q. Mr. Rhodes, on page 35, you captioned the account, General Plant Jointly Used. Does that mean that that plant is used by Hope with other companies?

A. "Jointly used" refers primarily to property that is used jointly with the distribution department.

Q. Does Hope Construction and Refining, River Gas Company and Reserve Gas Company, as of the date of this exhibit, use any of the plant listed under "General Plant Jointly Used?"

A. I don't know the extent to which such use is actually made. I do know, however, that charges are made by Hope to
685 these companies for administrative costs, which cover any use that might be made of the building by those companies.

Q. No segregation of the property used by other companies than Hope appears in your exhibit?

A. No; there is no segregation.

Q. Mr. Rhodes, has the Hope Company charged to expense the items you list on page 30 as overhead?

A. They have in the past failed to charge them to construction, as they should have done, and are now charging them all to construction.

Q. But in the past they have charged those to expense, have they not?

A. In effect; yes, sir.

Q. And then, is there not a duplication in those overheads, if they are placed in new reproduction costs in an estimate that might enter into the determination of a rate base?

A. Not if the rate statement properly reflects the fact.

Q. There will necessarily be an adjustment, will there not?

A. The rate statement must necessarily reflect the charging to construction of these items of expenses.

Q. In your reproduction cost new estimate, Exhibit 16–A
686 to I, inclusive, you reproduced all of the property of the Hope Company?

A. No.

Q. What have you excluded?

A. Property used solely for distribution of gas.

Q. Could you list that property now?

A. I think it is adequately listed in that statement. I have made no separate listing of the property used solely for distribution.

Q. Then your exhibit includes all of the property owned by the Hope Company, other than what you term "used in distribution?"

A. All of the physical properties. It does not include securities and things of that nature that it owns.

Mr. COCKLEY. And it does not include leaseholds?

The WITNESS. No; that is correct

Mr. COCKLEY. And the coke oven gas plant?

The WITNESS. Furthermore, it does not include working capital in the form of stores, materials and supplies.

By Mr. SPRINGER:

Q. Is all of the property which you classify as natural gas production plant used in rendering services in interstate commerce?

A. To some extent.

687 Q. Do you know the principal use of it?

A. The principal use is for the production of gas for export from the State of West Virginia.

Q. How did you determine that? Did you make a flow study?

A. You do not need to make a flow study. It is perfectly obvious that with so many billions of cubic feet of gas being measured at the Ohio River with the pressures as I know them to be lower on the other side of the river than they are on this side of the river, that that amount of gas went out of the State of West Virginia. I know the same thing is true, that the Brave station for delivery to People's Company, it is fairly obvious from the location of the meters, what gas goes out of the State. It requires no flow study to accomplish that result.

Q. Do you know what property is used in rendering gas service in interstate commerce?

A. Not specifically.

Q. What was the basis for your exclusion of what you term distribution property?

A. Gas distribution property is not used at all in interstate commerce. It is purely within the State of West Virginia.

Q. How did you determine that?

688 A. It is obvious.

Q. Is it?

A. Yes.

The TRIAL EXAMINER. How did you determine what particular properties were used for that purpose? That would not be obvious, would it?

The WITNESS. It is obvious that the distribution mains in the City of Clarksburg are not used in interstate commerce at all.

Similarly the distribution mains in Parkersburg or in Weston or the shops in those particular towns that have to do with the distribution meters—that is property that is solely used in the distribution of gas, and must necessarily be wholly within the State of West Virginia.

Q. Then did your exclusion of what you call local distribution property end at the city limits? How about the feed lines for local distribution property?

A. Those feed lines for local distribution properties may be transmission lines or they may be in fact field lines, depending upon where the gas goes in the line that is delivered to the city gates.

Q. Did you make a study to determine that classification?

A. I made no study to determine what little lines here and there around the system might be solely used to deliver gas to individual consumers.

689 Q. Do you know the use made of the long line from Sheriff Meek's station to Richmond?

A. It is used to transport gas to Richmond.

Q. For local distribution?

A. Yes; that is local distribution.

Q. And is that included or excluded in your reproduction cost estimate?

A. That is included.

Q. Included?

A. It is.

Q. Is any of that used for gas service in interstate commerce?

A. It is impossible to make a segregation except in isolated instances, of property that is used solely for one thing or solely for the other. With very few exceptions, and that is one which you have mentioned, the transmission properties of the company are used jointly to a relative indeterminate extent for the export business and the local business.

Q. Are you prepared, Mr. Rhodes, to state the extent and purpose of the use of each unit of property you have included in your reproduction cost new estimate?

A. In the broad aspects, I know what all of the property is used for. When it comes to the use of some insignificant piece of property, my memory probably would not serve, but

690 I am familiar with the use of the property in this system, and the manner in which it is operated.

Q. Did you make a study or was there a determination of the usefulness of the property you have inventoried given to you as the basis for your estimate?

A. When the field inventories of this property were made by me, I was supplied by my men with a list of items of property concerning which they needed further information as to their use. Those items of property were brought in to me and I considered those items and discussed them with the management of the company. If they convinced me that these items of property were used and useful, I included them in the reproduction cost new, and made no special consideration of them when I determined depreciation. If I disagreed with the management, in reproduction cost new less depreciation, in general I depreciated the reproduction cost to the warehouse value of that equipment, for movement to some other location as it might be needed. There was very little property concerning which there was any question as to its usefulness.

Q. You were convinced that most of the property was used, were you not?

A. I was, and I made other analyses to determine whether it was used.

Q. Could you list the property that you eliminated as
691 not used or useful?

A. The working papers show it. There are a number of items wholly unimportant in the aggregate.

Q. You state on page 11 that the items of property covered by your reproduction cost new estimate has been classified in accordance with the 1939 West Virginia System of accounts. You know that system of accounts has a functional division of utility plant accounts, entitled "Storage Plant" do you not?

A. There are two questions you have asked me. My answer to the first question is that this classification was made by the company.

The second question as to storage plant, I know that there are certain wells of this company that are filled up with gas in the summer and from which gas is withdrawn during the winter. Whether those are properly classed as storage plants or wells, as they are classed in this reproduction cost new, is a matter that have been determined by the management of the company as the proper classification of this character of property.

Q. Then you have reproduced as active producing wells, storage property?

A. I have called as active producing wells these wells which are filled up in the summer and actively drawn
692 upon during the winter. They are not just idle storage wells at all; they are used in very important functions of carrying the peak load such as we had last January, and without which, I think, there would have been a serious shortage of gas.

Q. Without a classification in accordance with the West Virginia System of Accounts?

A. Quite aside from how they might be classed, they are not idle property; they are active property, that are more properly determined as to cost and value as wells than they are as storage holders, which of course they are not.

Q. Do you have in mind the names of the pools which are used as reservoirs?

A. Primarily, the Bridgeport pool is the principal place where gas can be stored in the summer and withdrawn in the winter. I know that other operations are now being carried on experimentally.

Q. Do you know of any other reservoirs used, as of December 31, 1938?

A. I do not recall any other reservoirs in active use for the purpose.

Q. Will you please turn to Exhibit 16–B on page 2. You have summarized there the natural gas producing lands owned by the Hope Natural Gas Company in the amount of $2,275.

A. Yes; I have.

693 Q. And the page following that, are those lands owned in fee or are they interests by lease?

A. I have not examined the deeds, but information was furnished to me that that is land that is actually owned in fee, the use of which is shown on page 3 of Exhibit 16–B.

Q. Does the amount which you have set out opposite each parcel of land represent your estimate of the present market value, or does it represent the actual amount paid by the Hope Company?

A. It represents the original cost before the application of overheads.

Q. And you have captioned it "Value?"

A. Yes.

Q. Is any of the property listed on page 3 used in rendering gas service within the State of West Virginia?

A. It is used jointly with other property in rendering service within and without the state.

Q. On page 6, you show a summary of field and trunk lines, rights of way, in the amount of $772,814. On the field trunk lines, you have used a unit cost of $1.75 per rod. On the field gathering lines you have used .95 cents per rod. Do you have your working papers here now?

A. I do not. The working papers that we were bringing here, I might state were for unit cost development. I am
694 not sure that those particular working papers would appear in the unit cost development or in the general working papers, which is a stock as high as this room.

Q. Can you tell us how the unit cost was developed?

A. I can. I had a study made of the cost per rod of all rights of way purchased by the company which still exist. These costs were classified in the records which were available to us as between trunk lines and gathering lines. No attempt was made, on account of the volume of the work involved, to segregate any of these lines as between sizes, that not being necessary, as the basic information was the cost of the rights of way still held.

It was found that in the early period of the development of the company up to about 1910, the costs were low and growing.

From 1910 up to 1930 when the depression struck us, the costs were fairly reasonably uniform, from five year period to five year period, and beginning with the depression, when people were no longer buying rights of way, the cost per rod began to fall quite rapidly. It was in accordance with my own experience in buying some thousands of miles of rights of way that the greater the activity in buying the rights of way—the shorter the time you had to buy 100 miles, for instance, the more
695 you are going to pay for it, and based on those experiences of my own and the company's experiences in the twenty-year period of active development, I arrived at the unit costs separately for field trunk lines and gathering lines, which I rounded out to the nearest five cents per rod, which is as close as it can reasonably be determined.

Q. How much is in that $1.75 unit cost for the rights, and how much for acquisition, and how much for damages?

A. I have made no attempt to break down the total original cost. The original cost working papers which serve as the basis for these figures will disclose all of the information that is available. In the actual purchase of rights of way we do not,

in our own thoughts, distinguish as between the price paid for the right of way and for the damages. The division is often arbitrarily made to suit the ideas of the farmer, or for other reasons, the division might be changed, so we think in considering the purchase of rights of way that it is going to cost is $1.00 a rod or $2.00 or $3.00 a rod as the case may be.

Q. Why should field trunk line unit costs be more than field gathering lines?

A. Because they are bigger lines is the prime reason, and they perform a more important function, which generally leads to the necessity of paying more for the actual rights of way.

696 Q. The rights are identical, aren't they?

A. No. A larger, wider right of way is required for the larger lines.

Q. Does not the Hope Company have a standard right of way form which is used?

A. I assume they do; I do not recall having seen it.

Q. And that would specify a uniform width right of way, I take it?

A. Not necessarily. In buying rights of way, the width is specified to meet the particular needs of the situation.

Q. Will you furnish the detail of the development of the unit cost?

A. To what do you refer?

Q. Of the $1.75.

A. Where the $1.75 came from or the details of my original cost working papers?

Q. If you will just furnish an example of how you built up that unit cost, that will be satisfactory.

A. Well, the unit cost is $1.75 per foot and that is the average price paid by the Company for all of the rights of way purchased from 1910 to 1930, rounded out to the nearest five cents per rod. It is just an actual division of the total dollars by the total rods, determined from the original cost working papers before the overheads were applied.

697 Q. Will your working papers reveal voucher reference and total rods and the money paid by Hope?

A. The voucher reference can be found only in the original cost working papers.

Q. You have listed on page 6 of Part B of Exhibit 16, 87 railroad crossings at a unit cost of $75 each. Does this represent the actual price paid to the railroad company for the privilege of constructing lines under their tracks?

A. The figure of $75 was arrived at by averaging the cost of a considerable number of railroad crossings purchased by the Company, and reflects the actual original cost before overheads. It includes not only what was paid to the railroads, but what other costs might be involved in securing the right to cross the railroads.

Q. Did your analysis cover the same period as the rights of way?

A. We used the same records.

Q. The same period?

A. The information was obtained at the same time that we obtained information as to the cost of rights of way purchased.

Q. Does it cover the same period of time?

A. I do not recall the exact period of time covered by the rights of way, but we studied information as to all of the
698 railroad crossings, of which we were able to find records, in the original cost development.

Q. Will you please turn to page 8. You have listed here a summary of "Other Land and Land Rights, Account No. 330–5," in the amount of $21,045?

A. Yes.

Q. And the details follows?

A. It does.

Q. Does each of the amounts for each of the items listed in this account represent the cost paid by the Hope Company for this property?

A. It represents the original costs before the application of overheads.

Q. And what do you mean by "original cost"?

A. The original cost is determined and reported on in a separate exhibit.

Q. And you have termed it "value" for the purposes of your study?

A. I have considered that original cost as the best available measure of the value of those lands.

Q. Will you refer to page 9, please, and the first item you have listed at the top of page 9 is land used for unloading pipe, valued at $749. Do you know where that tract of land is located?

699 A. Not without reference to maps, other than that it is located in Boone County.

Q. And do you know whether it is currently used?

A. As to whether it is used at the moment, I do not know, but it is used when active construction is taking place in that territory.

Q. Do you know the last time it was used?

A. I have not investigated it.

Q. Did you make a check to determine whether it was used during 1938?

A. I did not make such a check, no.

Q. You accepted the original cost from the books for the purposes of this study?

A. That is correct.

Q. Without making any investigation?

A. The original cost, as determined from the books.

Q. Without making an inspection of the use of the property?

A. I did not inspect the use of each individual piece of land or other property.

Q. You have listed under Harrison County, land used for dwelling sites at McWhorter. Do you know if that property was sold about a year ago?

A. No.

700 Q. And you have listed under Harrison County the use of land for warehouse, amounting to $302.

A. Yes.

Q. And you had that as .292 acres.

A. That is right.

Q. Isn't that approximately $1,035 an acre?

A. Approximately.

Q. Is that not a high price for farm land?

A. It is what the company had to pay for the land.

Q. And you think that is the market value of the land?

A. It is the best evidence of market value. I know from my own experience that when you want a particular piece of land you pay what the farmer wants and not what you think you ought to pay.

Q. There is another item on page 9. You have listed .037 acres comprising an office building—on which an office building at Bridgeport is located, at $1,203. That is approximately $35,000 an acre, isn't it?

A. Approximately.

Q. Do you know where that building is located and the size of it?

A. I don't recall. I know only that that is what the company paid for the land.

Q. Was it purchased from the Bridgeport Gas Company?
701 A. I don't recall the details.

Q. Do you know how much of that property is used in rendering gas service within the State of West Virginia?

A. No.

Q. Do you know that the major use is for local purposes?

A. No.

Q. On page 9 you have listed three pieces of property located at Salem Station. Is that the storage yard for the Salem district?

A. It could be so used. The extent to which it is so used, I do not recall in detail.

Q. Do you know how much use the Hope Construction & Refining Company makes of that storage yard?

A. No.

Q. Do you know that there is a gasoline plant adjacent to that?

A. Yes.

Q. And have you made any allocation between the use of property listed in your inventory by companies other than the Hope Company?

A. No. Any such use that is made of that property and is charged for, is reflected as a reduction in expense in the rate statement.

Q. On page 10, you have listed 19 acres used as Regu-
702 lator Dwelling and Pipe Yard, in the amount of $603?

A. Yes.

Q. Do you know where that property is located?

A. Not specifically.

Q. Are you sure there is such a property?

A. Such a property was so located in the determination of original cost, and it is reflected by deed No. 45,033 in the records of Harrison County.

Q. All through this statement you have accepted the inventory of men who made the original cost statement, is that right?

A. No. As to the things like land, yes, but the inventory used in the original cost statement was used as a basis for the inventory which was priced here. As to operating units of property, the units are identical.

Q. Will you please refer to the third item on page 10 and described as "Storage purpose at former Aizpuru Station." Do you know what that property is used for?

A. Storage purposes.

Q. Do you know what is stored on that land?

A. No; I have not seen it.

Q. Do you know that the property was purchased?

A. The original cost records show that the property was purchased and it cost $202 before the application of over-
703 heads.

A. Do you know that the property was abandoned?

A. I don't know whether it was abandoned or not.

Q. Would you please define the operating units of property to which you have referred.

A. I will refer to it by example. First, Line H–192 is an operating unit of property. I consider each of the compressor units, for instance, each compressor unit, as an operating unit of property. Each identifiable piece of machinery is an operating unit of the property. Per contra, I do not consider a valve in a pipeline as an operating unit of property. It is a part of a unit. A building is an operating unit, as I use the words.

Q. Thank you. Now, on page 10, will you refer to the item listed as "Warehouse and Office at Gilmer." Do you know what part of that property is used by the Hope Construction & Refining Company?

A. No.

Q. Do you know what part of the property is used in rendering gas service within the State of West Virginia?

A. No.

Q. Well, where could we get the answers to these questions?

A. From the management of the company.

704 Q. From the management?

A. Yes.

Q. There are not any other exhibits prepared by you which may be subsequently presented which show the use of the property which you have listed?

A. I have made no allocations of this property.

Q. Referring to page 10 again and the item "Storage Yard and Barn at Mannington," under Harrison County, do you know what use the Hope Construction & Refining Company makes of that property?

A. I do not.

Q. On page 11, Mr. Rhodes, in the item "Office and Storage Warehouse at Ellenboro" in Ritchie County, was that office in use on December 31, 1938?

A. I was not there on that day, so I cannot state.

Q. You have relief on someone else's statement, haven't you?

A. Of necessity.

Q. And you don't know whether it is there at the present time or not?

A. If I recall correctly, it was there a few years ago when I was in Ellenboro myself, but I did not pay any attention as to whether it was in use or not.

Q. And you don't know how much use is made of that
705 property by the Hope Construction & Refining Company?

A. I do not.

Q. Do you know how much of that property, as of the date of your exhibit, the Reserve Gas Company used?

A. I do not.

Q. You knew that Ellenboro was the central point for the Reserve Gas Company, didn't you?

A. No; I have not considered the Reserve Gas Company at all.

Q. The next items you refer to, Warehouse and Office at Littleton, in Wetzel County—do you know what part of those tracts are used by the Hope Construction & Refining Company?

A. No.

Q. Nor what part is used for the local distribution?

A. No.

Q. Then to summarize this whole account, you are not sure that those items of this account totalling $21,045 should be assessed against the operations of the Hope Natural Gas Company? Well, you have already answered that "No" in detail.

The WITNESS. I do know from my organization that these tracts of lands are owned by the Hope Natural Gas Company, and carried by it in its production land account and is
706 considered by it to be used and useful in its business, which is primarily the export. I do know that when my men went around examining the property they did not call to my attention any of this property as being doubtful as to use. Under those circumstances, I have relied entirely upon the fact that the property is Hope Company property and is used and useful to it in its business.

Q. Then if any errors were made by any of the persons on whom you have relief, it is reflected in your reproduction cost estimate as to the usability and usefulness of the property?

A. There are not necessarily any errors. The management considers the property to be used and useful, and on such insignificant items of property I did not consider it necessary to give

personal attention or give any particular detailed consideration of these small items, that might be left out without any measurable effect on the answer.

Q. But we have only covered one account. These insignificant items may become great in the final answer, may they not? It is conceivable, is it not?

A. It is inconceivable to me, being generally familiar with this property, that there is any considerable amount of money represented in any kind of property but what is fully used and useful.

707 Q. But you have made no allowance for what you call the insignificant portion——

A. (Interrupting.) I say there can be no aggregate amount of insignificant things that is an important factor in the total over-all cost of this property.

The TRIAL EXAMINER. Were your men instructed to call to your attention any items where they questioned the allocation of the items already made by the company?

The WITNESS. In general they were not instructed to question allocations. In some cases we did that, but in general their instructions were only to call attention to any property which they could not see was being used by the company.

The TRIAL EXAMINER. So that in general the allocation was made by the company and not made by you or your men?

The WITNESS. That is so.

By Mr. SPRINGER:

Q. How would you make an allocation in expenses and income relating to the property that is jointly used by Hope Construction & Refining Company and the Hope Natural Gas Company?

A. I have not made any such allocation.

Q. Well, it is necessary, to be consistent, is it not?

A. If charges are made for the use of property or for services performed by Hope for these other affiliated companies, those charges may well cover all of the services performed,

708 even the use of property. It is entirely consistent.

Q. But does it cover the use of property?

A. In the opinion of the management, it covers all of the services performed.

Q. Is there one person in the management of the Hope Natural Gas Company on whom you relied for the statement of whether

items of property were used or useful and the extent used by the Hope Natural Gas Company?

A. These points to which I called attention were generally settled in a conference which was attended by Mr. Tonkin, the president and Mr. Chisler, their treasurer, and sometimes their assistants.

Q. Will you please refer to pages 19 to 24, Field Measuring and Regulating Station Structures, 588 regulator and meter houses, and 1,481 free consumer boxes. Are any of these houses or boxes used in connection with regulating or measuring gas sold to consumers in West Virginia served from the field lines?

A. I have not investigated the detailed locations of these respective regulating structures. Necessarily they regulate the pressure of the gas passing from a high pressure line to a low pressure line, if they are regulators. In most cases they are meter houses.

Q. Will you turn to page 28, please. The first item
709 that you have listed there is the Bridgeport Office, which you show as $3,197?

A. That is right.

Q. You have indicated that this is a type 37 structure?

A. That is right.

Q. Are you able to give us the breakdown of the unit cost of the 23.6 cents per cubic foot?

A. Not as between all of the items entering into the construction of that structure. Type 37 structures are structures as described here in a general way. A group of the Type 37 structures were priced in detail, these structures containing different volumes in cubic feet, and from the average cost, or from the cost per cubic foot of the structures of various sizes, the appropriate price per cubic foot was taken for structures of intermediate sizes. It is well known that a small structure of a given type costs more per cubic foot than a large structure of the same type, and that is reflected in this pricing. The unit cost development shows the full details of how this price per cubic foot was arrived at.

Q. You do not have that unit cost development set of papers with you now?

A. I don't know whether it has arrived yet or not. I do not have it with me now.

710 Q. You could furnish us an example of the composition of that unit cost, couldn't you?

A. I could furnish you with an example showing just how that unit cost was arrived at.

Q. Will you be able to do that after the noon recess?

A. I will have one of my assistants determine that for me.

Q. How did you measure this Bridgeport office building? Did you take the inside or outside measurements?

A. Generally outside measurements are used in the measurement of a structure for determination of its volume.

Q. Were you consistent? Did you use outside measurements all the way through?

A. Outside measurements were generally used. I know of no exception.

Q. Do you know what use is made of the Bridgeport office in rendering gas service within West Virginia?

A. It is used as the office in the Bridgeport production district.

Q. Is it the accounting office for the City of Bridgeport?

A. I don't know whether it is in that building or not.

Q. On page 25, you show a unit cost of $0.214 per cubic foot for item No. 3, Office and Warehouse, Bridgeport, but for the same type of structure it Item No. 1, office at Bridge-
711 port, you have used a unit cost of $0.236. What is the explanation for that difference?

A. I have already explained that the large building costs less per cubic foot than the small building, if they are of the same type.

Q. That will explain any of the differences throughout this study, where structures of the same type but a different cost per cubic foot are shown?

A. That is correct.

Q. Do you know what use the Hope Construction & Refining Company makes of the structures at Bridgeport?

A. Primarily in the operation of the Bridgeport District for the producing of gas.

Q. I said the Hope Construction and Refining Company.

A. I beg your pardon. I don't know what use the Hope Construction Company makes of it.

* * *

713 Q. Will you please refer to page 30, and referring to Miscellaneous Improvements, $2,324, can you list for each structure the miscellaneous improvements, which you have added as an arbitrary 15 per cent to the cost of the structures themselves?

A. The working papers disclose the list of such details which if typed in a case of this kind with respect to each building would take pages of this typed matter for each account.

714 We set up the details which we had available, and to avoid that complication, we found that these particular structures by districts had differing amounts of miscellaneous construction about them, innumerable items, and that as related to this Bridgeport District we found that 15 per cent fairly represented the cost of those miscellaneous items. The details are available in all of the enormous volume of the working papers, if you care to examine them. The amount being small, we preferred to reflect the average practice of the Company in such matters, which, as related to this Bridgeport District is fairly represented by 15 per cent on the cost of the structures. It is an unimportant total amount which I say would have taken pages and pages of detail to price separately.

Q. We are just seeking an example of each one of these. We would not necessarily advocate the placing of the details in the exhibit, but we would like to know just how these are arrived at. Is it a coincidence that on page 30, Miscellaneous Improvements, priced at 15 per cent of the cost of the structures is the same as on page 35, Miscellaneous improvements, priced at 15 per cent of the cost of the structures for the different districts, Buffalo and Bridgeport?

A. We studied the details of these improvements, in order to avoid complicating the record with a lot of unimportant
715 detail, we found that these various districts might be grouped into classes which contained relatively few miscellaneous improvements, and other districts where they contained a considerable amount of miscellaneous improvements. We priced in detail two typical districts of each of the groups. The Buffalo District and the Gilmer District were priced in detail and showed over 17 per cent as to the cost of these miscellaneous improvements. They were put in the 15 per cent class with the other districts, the names of which I do not have available.

We found other districts, like the Calhoun and Mannington Districts had more of these miscellaneous odds and ends which totaled up to about 25 per cent, and we priced Calhoun and Mannington in detail and found that there was more than 25 per cent represented in these structures, and we used 25 per cent for Calhoun and Mannington, and others which we found had that complexity in miscellaneous details. Salem and Shirley were districts where there was a great deal of this detail, and we found that 45 per cent was a figure that fairly represented the cost of these miscellaneous structures in the Salem and Shirley districts, and others that came in that class.

The method that we arrived at for these percentages is as explained by me, and actually reflects the Company's prac-
716 tice in those miscellaneous odds and ends of construction, but which, after all, represents a comparatively small amount of money.

Q. Do you mean 45 per cent of a piece of property would be miscellaneous improvements?

A. Well, in $100,000,000. worth of property, $5,000. worth of property in the Shirley district is an unimportant item, particularly when we used 45 per cent and found it was actually 45.2 per cent.

Q. How much does the miscellaneous improvements amount to in the aggregate of the valuations?

A. I have not figured that out.

Q. It is a substantial amount?

A. No, because these particular accounts to which it applies are quite unimportant accounts in the aggregate.

Q. Is it more than $100,000?

A. I have not the slightest idea how much it is, but I may say that the specific percentages we used were the percentages actually determined from the company's cost of property, and it was done that way to save space and save thousands of dollars involved in this infinite pricing of small items.

* * *

717 Q. Mr. Rhodes, will you define "unit cost?"

A. Unit cost is the cost of providing a unit of the particular thing or commodity involved.

Q. Will you please refer to page 4 of Exhibit 16–C.

A. I have it.

Q. Will you please describe the detail development of unit cost of .771 dollars for 6⅝-inch nominal diameter, South Penn casing, weight 20 pounds per foot, of which there are 4,553,783 feet in the Hope system?

A. I would be glad to do so, but I must have my working papers from which this determination was made.

The TRIAL EXAMINER. Are the working papers here?

The WITNESS. Yes.

* * *

720 Q. Referring to the question I asked, will you please describe the development of the unit cost for South Penn casing?

A. On page 4 of Part C of Exhibit 16, the unit price is shown for 6⅝-inch South Penn 20 pound casing as 77.1 cents per foot. That price comes from the working papers, and was arrived at as follows—this particular size and weight of casing is one of the so-called tonnage items upon which the mills quote a lower price than the non-tonnage items, and their price quoted to us was 71.54 cents per foot f. o. b. Pittsburgh. This 71.54 cents per foot is subject to a cash discount of 2 per cent, which brings the net mill price to 70.11 cents per foot. The freight from Pittsburgh to the average West Virginia destination was found to be 22 cents per cwt., which, applied to the 29 pounds per foot results in a freight cost of 4.4 cents per foot, making a total delivered cost of 74.51 cents per foot of pipe delivered.

In order to include all of the costs involved in purchasing and checking and warehousing of a part of this casing that is always necessary, we have added a miscellaneous material cost allowance of 2.61 cents per foot, which is 3½ per cent, bringing the
721 total cost per foot of this casing as found in the well, to 77.12 cents per foot. We eliminated the .02 cents, using the figure of 77.1 cents per foot, as shown on page 4 of Part C of Exhibit 16.

Q. Mr. Rhodes, how did you determine 3.5 per cent for warehousing and miscellaneous?

A. That is a matter of judgment and experience in handling materials of that kind, and I would call attention to the fact that whenever a well is drilled, more casing and tubing is sent out than the actual amount expected to be finally required in the well, because of unknown conditions that are likely to be encountered.

Generally speaking, the material for a well is ordered out at one time and shipped, but 20 to 30 percent and sometimes 40 per cent additional material is taken out of the same local stock to supply this working additional amount. That involves warehousing.

And of course, there is the purchasing, which purchasing is generally requisitioned and specifically for each well, to fit the needs of that well.

As I pointed out yesterday, casing and tubing is not purchased in bulk quantities and drawn upon as is the case of line pipe.

Q. Will you please refer to page 5 of Exhibit 16, Part C. And may I digress for a minute? Does that 3.5 per cent
722 apply to all casing or just to a particular size?

A. We applied 3.5 per cent to all casing and tubing.

Q. Now, on page 5 of Exhibit 16, Part C, Closing-in Equipment, wells with one producing string, the unit cost is $66.73. Will you please explain the development of that unit cost?

A. This item of 2,300 assemblies of closing-in equipment at a unit of $86.73 covers the material only of a bill of materials which was found by analysis of about ten per cent of the wells to be used as the Company's average practice in connecting the tubing from the well to the lead line on the ground. This bill of materials and the unit prices which we have received for these materials—quotations for materials, plus freight, are as follows—there is one 6⅝ by 2 inch by 2 inch by 1 inch casing head that costs $14.11. Approximately one-third of the wells contain two tubing clamps for holding the tubing in place. The cost applicable to one-third of the wells being $3.10 per average well. Similarly on one third of the wells there is a 6⅝-inch casing clamp, one third of the cost being chargeable to each well in the amount of $3.26. There is also a set of anchor rods on the average for each three wells, the price chargeable to each well on the average being 81 cents. There is next one 2 inch
723 extra heavy malleable iron T per well at a cost of 79 cents.

Next is two of the one-half inch blower flange per well cost $1.89. Then there is next a 10 inch by one-half inch nipple, costing 49 cents and next a nipple 11 inches long costing 22 cents and another two-inch nipple, 17 cents, a five-inch nipple, 11 cents, a half-inch nipple, six inches long, costing 4 cents. There is a two-inch plug, costing four cents, two half-inch plugs costing 2 cents and then there is a two-inch gate valve, Ludlow No. 9, reflecting average practice, at a cost of $57.38.

There are two of these two-inch gate valves at a total cost of $57.38. There is a half-inch stop valve in the blow-off costing $1.40. The sum total of the purchase price of these materials plus freight is $83.80. There is added $2.93 for purchasing, warehousing and other miscellaneous material costs, bringing the total up to $86.73.

In the working papers, but not available to me here, now, is a sketch which shows the manner in which this bill of materials is connected up between the well and the lead line to the gathering system.

Q. Have you indicated the percentages of the components of the unit cost?

A. I have shown only the dollar amount of the components.

Q. You do not have the percentage of materials?

724 A. This is all materials in this case. The labor is included in the cost of drilling the well and installing the casing and tubing.

The TRIAL EXAMINER. Will you speak a little louder, please, Mr. Springer? We cannot hear you very well.

By Mr. SPRINGER:

Q. What percentage of material overheads are applied on the materials?

A. Miscellaneous material costs are applied in the amount of 3½ per cent as was explained before for purchasing, warehousing and checking receipts, contingencies, and omissions, and so forth.

Q. On page 5 of Exhibit 16, Part C, will you please describe the development of the unit cost for Miscellaneous equipment for wells with one producing string and the unit cost you have used is $121.29.

A. The pricing of the miscellaneous equipment in the well was a complete pricing of approximately ten per cent of the wells in each class of producing strings. The list is several pages long for each district, but it consists of packers of various kinds and shapes, and casing shoes and plugs, and a hundred and one details, most of which are small. These wells having one string that were priced aggregating 228 wells. Every item of mis-
725 cellaneous equipment in those wells was shown by the well record and was priced at an aggregate amount of $27,653.88 including the same 3½ per cent of miscellaneous material costs. And the average cost per well was arrived at by dividing that total by 228 wells which gave the $121.29.

Q. Mr. Rhodes, is there a percentage of material and miscellaneous overheads applied to that miscellaneous equipment unit cost you just spoke about?

A. I don't follow what you mean.

Q. The former accounts for which you described unit costs had a 3.5 per cent figure for material and miscellaneous overheads. Is there such an element in this figure of cost?

A. I have already explained that there was a 3½ per cent allowance for miscellaneous material costs included in this unit cost per well.

Q. Will you please refer to page 6, Exhibit 16, Part C, account No. 332–2, 25 horsepower gas engines, and you have used the unit cost of $2,057.48. Will you describe the development of that?

A. This item of pumping equipment of 25 horsepower gas engines is comprised of the following bill of materials—one 25

horsepower gas engine which we have priced as a Cooper-Bessemer gas engine, at a cost delivered of $1,289.16. There is a ten-inch belt, 90 feet long on the average, at a cost of $77.40. There is a $15 item for T-frame and swivel connection, and an $8.25 item for 7/8 inch wire rope clamp. An $18.80 item for an oil saver with upper and lower stuffing box. There is an item of $556.50 for a 7/8 inch wire cable, on the average, 3,500 feet long. There is an item of $2.70 for a 7/8 inch rope for the wire line. There is an item of $27 for three pumping sinkers 1 3/8 inches in diameter and 15 feet long. There is an item of $2.15 for a valve rod, 7/8ths inches in diameter and 7 feet long. There is an item of $11.90 for a working barrel 2 inches in diameter and about 8 feet long and an item of $8.28 for one set of upper and lower valves, 1 3/4 inches in diameter. The total amount of these items delivered is $2,017.14. To this is added a miscellaneous material cost of 2 per cent which we use for miscellaneous machinery, bringing the total cost to $2,057.48.

Q. Please refer to page 107 of Exhibit 16, Part 1, captioned "Pipe, Steel, Lapweld Screw."

Will you describe the development of the material unit cost of .148 for 2 3/8ths inch O. D., weight 3.75 pounds per foot?

A. The unit cost of 2 3/8ths inch, 3.75 pounds screw-coupled steel pipe, Lapweld, as shown on page 107 of Part C of Exhibit 16, as 14.6 cents per foot. This was arrived at as follows:

727 The manufacturer's quotation f. o. b. mill in the Pittsburgh district was 15 cents per foot, subject to a discount to large purchasers of ten per cent, and two per cent successively. Applying your discount resulted in a per mill price of 13.23 cents per foot. For this class of material, the average freight rate was 22 1/2 cents per 100 pounds, applied to the weight of 3.75 pounds per foot resulted in a freight cost of .084 cents per foot, bringing the total delivered cost of the bare pipe itself as 14.07 cents per foot. To this was added miscellaneous material cost for checking, purchasing, receipting, warehousing and so forth, at 3 1/2 per cent, the amount of which was .0494 per foot, bringing the total cost to 14.56 per foot. This was rounded out to the nearest tenth of a cent as 14.6 cents.

Q. Will you describe the development of the labor unit cost related to that item, .23?

A. In order to make it clear to the engineers for the various Commissions examining these working papers, I have had prepared an explanation of the determination of the unit price of

pipe line construction as related to another size of pipe than two-inch. It is a volume of some fifty pages of tables and charts and explanations that to translate into terms of particular sizes of pipe you asked for, would be quite impossible on the witness stand.

728 Q. Then you made a unit cost study of one size of pipe as a base, and you have translated that to other sizes of pipe?

A. No; I made the unit cost development for four different sizes and all different kinds of pipe for all different kinds of construction conditions, and this explanation which we prepared and put into the working papers showed how that determination could be applied to a specific size of pipe for specific kinds and conditions that would be encountered on the average in the constructing of any particular kind and size of line. The size chosen was one representing a considerable amount of money, namely 12-inch Dresser-coupled line. I am at a loss to give you readily the development of the cost of the particular size you asked for. It would have to be prepared for me.

Q. Is the development of the unit cost for 12-inch pipe typical of the development for all other sizes?

A. Absolutely.

* * *

730 Q. Have you used different percentages in the development of material unit costs for the various sizes of pipe?

A. In general we have used 3½ percent on the sizes up to 6⅝ inches in diameter, where in general the lines are relatively short and involved a considerable amount of warehousing. The miscellaneous material cost is reduced to 2 percent on lines 8 inches in diameter and over, where in general the length is so great that

731 a considerable portion of the material can be taken directly from the cars to the right of way.

Q. Will you please refer to page 110 of Exhibit 16, part C. your unit cost of $4.35 for Dresser coupling, style 38 for ten-inch, nominal diameter 5/16ths by 7.

A. Without reference to the exact details, I think I can explain the unit cost completely. The $4.35 per coupling is made up of the manufacturer's quotation at the mill of $4.03 f. o. b. Bradford, Pennsylvania. The freight rate in this class of material is 31 cents per cwt. which applied to the average weight of 57 pounds gives a freight rate of 17.7 cents per coupling, making a total delivered cost of $4.207 per coupling. A miscellaneous

material cost which covers also the incomplete inventory in that the number of couplings was calculated at 20-foot spacings on the lines, amounts at 3½ percent to 14.7 cents per coupling, giving a total figure of $4.354 each, which we rounded out to $4.35.

Q. Will you please refer to page 113 of Exhibit 16, Part C and describe the development of the unit cost of $185.14 for drop assembly described as pipe drips, type 34, 10 inch by 33 feet?

A. These type 34 ten-inch pipe drips are made up of a bill of materials of approximately 40 items, and a list of about a
732 dozen items involved in the assembly and installation costs.

The principal items that enter into the construction is the main body of the drip, which is 33 feet of ten-inch pipe at a cost of $40.36. There is one 2-inch gate valve at a cost of $20.91.

There are two special castings on the ends of the barrel, one of which costs $17.83 and the other $16.73.

The other items are odds and ends which bring the total specific cost up to $106.61, to which there is added a miscellaneous material cost for purchasing, warehousing and so forth of $3.73, which is 3½ percent, making a total of material cost of $110.34.

There are a number of items involved in the assembly such as threading and making up threaded joints of ten-inch, four-inch, two-inch and so forth, making up certain plans, joints and so forth, and handling the things in detail. The detail would show the labor cost directly expended of $33.

In this class of labor, work in assembling drips, we have found that miscellaneous construction costs involving the use of tools and gripping and machine tools in the shop and so forth amount to 50 percent, or $16.50. This drip weighs approximately 1,800 pounds, and for the cost of unloading and hauling it and stringing it and putting it into place in the ground we have used 14.1 cents per pound, which is the average cost of pipe for pipe
733 lines under easy construction conditions, making $25.30 for carrying the assembly drip out from the shop and putting it into place in the ground, making a total installation cost of $74.80. This, added to the total material cost of $110.34 results in a total cost of $185.14.

Q. Is that drip underground?

A. Almost entirely so.

Q. How did you get the inventories for that?

A. The inventory was obtained by examination of the records, drawings as to types of drips, by conversation with the men in the shops who built such drips, and information from the line

walkers, and so forth, and from which we determined the number of each kind and size of drip that are listed in the priced inventories.

Q. You mentioned special tools for the installation of drips. Could you give us an idea of what tools were used?

A. What I mean by special tools is this—these drips are generally made up in the shops, where you have to use pipe cutting and threading tools and machinery and wrenches, and so forth. I did not have in mind that tools for no other purpose were used, but the tool cost and use of shop equipment in this kind of work generally involves miscellaneous costs, including contrac-
734 tors' allowance of 50 per cent on pipe work. That is a common experience of pipe contractors, that to their direct labor cost they must add 50 per cent to give them their true costs, with the normal allowance for profit, and so forth.

Q. Is not welding employed more than the other type you have described?

A. Not on that particular type of drip. That particular drip is made up largely of screw pipe. The item immediately below is shown as welded drips. There is about the same number of welded drips, which are shorter, and are shown to cost less.

Q. Will you please refer to page 111 of Exhibit 16, Part C. under the caption, Terminal Valve Assemblies. There is a unit cost of $80.52 for valves, gate-flanged, Ludlow, 6-inch (c) of which there are 1117.

A. This unit cost is made up of one valve at a delivered price of $51.62. There are a pair of companion flanges at a cost of $4.30 and there is one plain end nipple at a cost of 51 cents, making a total cost of materials delivered of $56.43, to which is added 3½ per cent or $1.98, bringing the total material cost to $58.41.

The labor of assembling and installing these valves amounts to $11.50 for assembling, which comprises making up of threaded threaded joints and nipple and connecting up the flanges to
735 the valve, making one welded joint, and the handling of the material and the assembly in the shop, amounting to $11.57, to which is added the miscellaneous construction cost as explained of 50 per cent in the amount of $5.79.

The installation of this valve was figured at 14 cents per pound as in the case of the drip previously described for 339 pounds, making a total cost of unloading it and hauling it out to the field and putting it in the line of $4.75, making a total cost of assembly and installation of $22.11, which added to the $58.41 material cost gives a total of $80.52.

Q. Do you know the list price and the discount on that valve?

A. I will look that up.

Q. May I ask whether your description of the development of the unit cost for this valve is typical of all the similar classes of property?

A. It is. It consists of the detailed bill of materials that are always installed together, whether it be a valve or a drip or a pair of orifice flanges or what not, there is in the case of each of these items a rather well-standardized assembly of materials, which is priced in detail both as to the materials themselves and as to the cost of threading pipe and installation following a uniform procedure.

736 In the working papers in general, sketches will be found that assist in following the details.

In determining the prices of valves, we found that this particular valve was a Ludlow 5½ valve and was quoted at $102 per valve, less 23½, 25, 10 and 2 per cent chain discount which applied to the $102, and gave a net price of $51.62 which was used in building up the unit costs of the assembly.

Q. Will you turn to page 260 of Exhibit 16, Part D and explain the development of the unit cost per foot of $1.013 8⅝ths inch 29.35 pounds per foot screwcoupled pipe.

A. This pipe is priced at a material cost of $1.013 per foot, which was arrived at as follows:

The manufacturer's quotation for carload lots was quoted to us as $1.0512 f. o. b. Pittsburgh. This for the large purchasers was subject to a discount of 10 per cent and 2 per cent successively, bringing the net price f. o. b. the mill to 92.72 cents per foot.

The freight of 22½ cents per cwt. was applied to 29.35 pounds per foot, resulting in a 6.6 cents per foot freight cost and making a total delivered cost of this pipe of 99.32 cents per foot.

To this price was added miscellaneous material costs in the amount of 2 per cent or 1.99 cents per foot, making a
737 total material cost per foot of pipe in the amount of 1.0131 cents per foot which was rounded out to 1.013 per foot.

Q. Do you have a list price and discount for that type of pipe?

A. We asked the mill to determine for us the price per foot from their standard lists and so-called basic discounts, which they did. We started in each case from the mill quotation per foot.

Q. Do you know whether that included what you call a chain discount which you described for the valves?

A. It was subject to a discount of 10 percent and 2 percent, the 2 percent being for cash and the 10 percent being the large user's discount.

Q. Will you please refer——

Mr. COCKLEY (interrupting). Before you go ahead, I have just one question to clear the record, if I may?

These pipe prices you have been reading into the record here, Mr. Rhodes, do not reflect the fact which I think you have explained before, that there is an additional ten percent taken later on all of it, isn't there?

The WITNESS. That is true. These prices are the prices at which we have priced the inventory and which we had carried out,

738 before we were able to reach any conclusion as to whether or not an additional ten percent or other discount could be obtained. We don't know now that it can be obtained on any and all sizes. The conclusion I reached was that in the aggregate, a discount of ten percent additional could be obtained, which is the equivalent of 10, 10 and 2 percent discount from the mill price.

Mr. COCKLEY. If you were building up the unit costs then to reflect all of the discounts you have taken, you would have your ten percent, ten percent and two percent right in here, would you not, instead of having 10 percent and two percent, and then 10 percent more?

The WITNESS. It might have been done that way.

Mr. COCKLEY. As it is, you have 10 percent and 2 percent here, and then another 10 percent later on on all of it?

The WITNESS. That is correct.

By Mr. SPRINGER:

Q. Mr. Rhodes, will you please refer to page 261 of Exhibit 16, part D and explain the development of the unit cost for material of 2.338 for 20-inch pipe of 65.70 pounds per foot. You have a total cost of $3,692.251.

A. That total cost is for labor as well as material.

Q. I am just seeking the development of the unit costs for material.

739 A. The mill price of 20-inch, 65.70 pounds per foot, lapweld plain end field pipe is 2.4309 per foot. Applying the large user's discount of 10 percent and the cash dis-

count of 2 percent results in reducing the net mill price to 2.1441 per foot. The freight cost of 22½ cents per cwt. is 0.1478 per foot, making a total delivered cost of the pipe itself 2.2919 per foot.

Adding to this a miscellaneous material cost of 2 percent, which is 4.58 cents, this brings the total material cost per foot of pipe in the ground to 2.3377 per foot. This was rounded out to 2.338 per foot.

Q. Now, please refer to page 262 of Exhibit 16, Part D, and describe the development of the unit cost per foot for material amounting to 1.710 for 12¾ outside diameter inches of welded pipe at 49.56 per foot?

A. This pipe in question, is plain end seamless pipe which is made up into a welded line, the pipe itself being 12¾ inches outside diameter, and weighing 49.56 pounds per foot. The quoted mill price of this pipe is $1.7745 per foot to which, applying the discounts of 10 percent and 2 percent reduces the price to $1.5651 per foot.

Freight at 22½ cents per cwt. is 0.1115 per foot, making a total delivered cost of $1.6766 per foot. Miscellaneous material cost of 2 percent is added, which brings the total material
740 cost of the pipe in the ground to $1.7101 per foot, which was rounded out to $1.710 per foot.

* * *

Q. Mr. Rhodes, is that the pipe which was used in the pipe line from the Cornwell Station to Hastings?

A. I believe so; yes.

Q. Will you please refer to page 67 of Exhibit 16, Part E. under Compressor Station Equipment, Cabot Compressor Station, main Units.

Will you explain the development of the unit costs for 470 horsepower gas engine compressor units?

A. This 470 horsepower engine, which is typical of a considerable number owned by the Company was built by the National Transit Pump & Machine Company. It is a four-cycle type of engine, horizontal single tandem, double cylinders, twenty inches in diameter by thirty-six inch stroke.

The National Transit Company quoted us a price for this engine which we rejected as not being typical of the prices at which we could buy the equivalent engines from other manufacturers. The lowest price we were able to get for such
741 engines quite in accord with our own experience was obtained from the Cooper Bassemer Manufacturing Com-

pany at $23,000, net, f. o. b. shipping point. This engine weighs approximately 153,000 pounds.

We added to this price the average freight to destination which was determined by applying to this weight of each of the engines, the freight to the respective destinations, there being almost forty such units. This freight averaged $530.91 per engine. We then added miscellaneous construction costs for purchasing, checking, receipt of engine, and so forth of $235.31, which is 1 per cent, bringing the total cost f. o. b. average, railroad siding, $23,766.22. The three engines at the unit price would cost $71,299.

Mr. MILDE. You said miscellaneous construction cost?

The WITNESS. I should have said miscellaneous material cost.

By Mr. SPRINGER:

Q. Will you describe the method by which you determined the installation cost?

A. The estimates of the cost of erecting equipment in compressor stations was based on detailed estimates of typical units of such equipment, the estimates themselves being based on experience in erecting such equipment.

For instance, engines of this general description are shipped knocked-down. They are so big and so heavy that
742 they would occupy some three or four freight cars, and they are knocked down into many pieces that have to be handled separately and then assembled when they are being erected on foundations.

That class of engines we call Class 1. We have had considerable experience and the Company has had considerable experience which we drew on by consultation, in the erection on the one hand of the twin tandem engines of such type, of which the Company has a few, and the single tandem engines, the twin tandem engines of which we have detailed costs and weigh 192 tons, and the single tandem engines of which we had erection costs weigh 85 tons.

This detailed unit cost development shows that in unloading these engines from the railroad cars, 583 man-hours would be required in riggers, riggers' helpers and common labor.

There is about half common labor at 45 cents an hour and about half of riggers and riggers' helpers at 85 cents and 55 cents an hour respectively. This cost is $324.55 bare labor costs for the 192 ton double unit and $161.50 for the 290 hours of labor of the 85 ton single tandem unit.

After unloading these engines from the cars, they have to be skidded on blocks by the use of jacks and chain and
743 falls and block and tackle, and tractors, and by a great deal of brute strength and awkwardness, because some of the parts weigh 25 to 30 tons apiece, they are erected and assembled on the foundations.

There are included in this assembly on the foundations the cost of setting the foundation bolts which have to be set in advance, of the erection, paying the cost of handling and assembling and erecting these engines, which requires 3,378 man-hours of labor for the large engine at a cost of $2,233.33, and 1,715 man-hours at a cost of $1,129.25 for the single engine?

This labor is predominently in man-hours, mechanics and mechanics' helpers, which accounts for 1,418 man-hours for the large engine and 710 man-hours for the small engine.

The mechanics are rated at 85 cents an hour and the mechanics' helpers at 55, the same as the riggers and riggers' helpers.

The next most important element in the labor is 951 man hours common labor in the big engine and 500 in the small engine which, on account of the fact that so many men are required, a certain amount of what we call first class common labor is used, which brings up the average rate per hour to 47½ cents.

There is an electrician involved for 56 hours with his
744 labor for connecting up the ignition, the pipe fitters for connecting up the oil pipe, and so forth. All of these are shown item by item and aggregating the number of dollars shown.

This total unloading and erecting cost then amounts to $2,557.88 for the large engine and $1,290.75 for the smaller engine, these being the amounts of money that would be paid to labor.

The insurance on labor in this class of work was quoted to us by the insurance agencies at 7.274 per cent of the payroll, which brought the total cost of labor plus insurance to $2,743.94 for the large engine and $1,384.64 for the smaller engine.

These are the direct labor costs. We have found from experience that a great deal of money is spent in connection with handling this kind of equipment in skids and blockings and special equipment, so that it is necessary to add to the direct labor cost, 80 per cent to cover these miscellaneous costs and the contractors' allowance.

That brings the total costs of erecting the engine to $4,939.09 for the 192 ton unit and $2,492.35 for the 85 ton unit.

In the erection of all such equipment, it is necessary to have in charge in each station a manufacturer's erection
745 engineer, the current charges for which, including expenses, are $25 a day. On the average, such a man spends 30 days per unit on the 192 ton units and 18 days on the 85 ton units. This charge we have taken as being paid directly by the company and not by the contractor, so that the total cost to the company of installing these 192 ton units was $5,689.09 and for the 85 ton units $2,942.35.

That was the first step.

None of these engines was exactly the way that the engines in which we had experience and were able to estimate definitely the cost so we interpolated between these costs for intermediate weight engines.

For instance, the particular engine that we had reference to weighed, with its compressor excluded, 88.85 tons. In interpolating between these costs for the equipment of 85 tons or 170,000 pounds for the small one, and 192 tons or 384,000 pounds, we proportionately interpreted those figures and found that the engines weighing from 176,000 to 180,000 pounds, within which range weight the 88.58 tons comes, we found a cost of $3,050 as the total cost of erecting such equipment.

This applied to three units, gives the $9,150.

Q. You spoke of a contractor's allowance. Will you give us the percentage?

746 A. The contractor's allowance is included in the 80 percent out of the total of 180 percent of labor as the price. 65 percent of the 180 percent is miscellaneous construction cost and 15 percent out of the 180 is the contractor's allowance. That 15 percent is measured in terms of 100 percent labor cost, rather than the 165 percent cost to the contractor, so that it represents about 8 percent of the contractor's own costs in the allowance for his profits, overhead, and so forth.

Q. On page 67 of Exhibit 16 Part E, will you continue your description of unit costs for compressor station units, by explaining the development of unit costs for compressor cylinders, Ingersoll-Rand?

A. Again, we found that the quotations by Ingersoll-Rand for these large compressor cylinders, were not reliable, they're not making very many such cylinders in the market today, so in pricing the Ingersoll-Rand compressor cylinders, we used the prices per cylinder of the whole range of cylinders quoted by Cooper-

Bessemer and by Worthington, which were consistent one with the other, in some particular sizes Worthington being lower, and the other sizes Cooper-Bessemer was the lower.

In each case we took Cooper-Bessemer or Worthington, whichever was the lower, and in this case the price per cylinder
747 of 34 inch diameter by 36 inch stroke, the first of the two descriptions on page 67 was $5,500 f. o. b. factory. We took the Worthington price. The Cooper-Bessemer price, for instance, was $6,042 for the same size of cylinder, the difference in the prices generally coming from the different point where they changed the frame or casting to accommodate the bore.

Starting with the $5,500 we added the average freight, $108.68, bringing the total price per cylinder delivered to the nearest railroad station $5,608.68. To this was added the miscellaneous material cost of 1 percent of $56.09, making a total cost per cylinder of $5,664.77, which applied to the three cylinders gives $16,994 shown on page 67.

Q. Will you please turn to page 90 of Exhibit 16, Part E, captioned Compressor Station Foundations, and explain the development of the unit cost per cubic yard of $18 for the 8 main units at the Cabot Compressor Station?

A. In determining the cost of foundations, for the main units, which are generally fairly large and fairly simple foundations, we determined the total cost per yard for a number of foundations aggregating over 5,000 cubic yards of concrete. We found that there was 9,071 cubic yards of excavation required, which was priced at $1.10 per cubic yard of excavation.

748 3,697 of those cubic yards of this excavation was required to be back-filled around the excavation at a cost of 84 cents per yard.

There was 5,329 yards of concrete at a cost of $10.21 per yard, and there was 56,000 square feet of rather complicated forms at 45 cents per square foot. There was 28,238 pounds of reinforced steel at 4.8 cents per pound.

Aggregating the dollar cost of all of these foundations was $94,055, which divided by the 5,329 cubic yards of concrete, gave an average cost of $17.65.

We used $18.00.

Q. Do you know what the cost of the aggregate is which is included in the $18?

A. The aggregate in this concrete, comprising sand and gravel, totalled $3.38 per cubic yard as bare cost. In other words, what the contractor would pay the vendor of that sand and gravel.

Q. Do you know what price per sack the cement was?
A. The cement was $2.41 per barrel.
Q. And the price per ton of sand?
A. We have it here as the price per yard.
Q. All right.
A. $2.60. And the gravel, $2.55.

Q. Now, Mr. Rhodes, will you please refer to page 137 of
749 Exhibit 16, Part E.

The TRIAL EXAMINER. Is there any contractor's allowance in that?

The WITNESS. Yes. After the labor is added, there is a 22 percent to cover the contractor's miscellaneous costs.

The TRIAL EXAMINER. That is included in the $17.65?

The WITNESS. That is correct.

By Mr. SPRINGER:

Q. Referring to page 137 of Exhibit 16, Part E, boiler plant, Cornwell Compressor Station, will you describe the development of the unit cost for boilers, Babcock & Willcox 500 horsepower sterling boilers.

A. These boiler units in the Cornwell compressor station comprise five five-hundred horsepower Sterling boilers, which the Babcock & Willcox Company quoted to us erected for $61,300 to which there are added *w* percent miscellaneous costs, making the total for the boilers themselves $62,526. These boilers all contained Diamond soot-blowers at a quoted cost of $5,800 erected, to which was added the 2 percent miscellaneous material cost, bringing the total for the soot-blowers to $5,916.

The superheaters were also quoted erected by the Babcock & Willcox Company at $13,445, which after adding the 2 percent miscellaneous costs, brings the total to $13,714.

750 There are stacks and bridgings at a quoted price of $17,430, which, after adding the 2 per cent miscellaneous costs became $17,778.60.

The brickwork for the boiler setting was quoted at $33,500 to which $670 was added for miscellaneous material costs, bringing the total to $34,170.

These five items add up to $34,170.

Q. Just what would those miscellaneous costs cover that you repeat very frequently in unit cost development?

A. They cover the costs involved in the purchase of the equipment and in the checking of its receipt, the payment of invoices,

the miscellaneous odds and ends of equipment which have been installed by the company since the original installation by Babcock & Willcox, who had only the bill of materials as originally sold. That generally describes the miscellaneous costs as applied to the boilers.

Q. Don't you include that same type of costs in your general administrative overheads?

A. No; those general administrative overheads are all in addition to the costs involved in the purchase and checking the receipt of materials. All the general administrative forces have to do with that are to pay the bill when it is approve if and when sent to them.

Q. Is it not general practice to put the purchase cost
751 into the general administrative overhead?

A. They can be so placed but I have not done it in this set-up, because I wanted all of the costs of construction to include the same thing, whether it is by contractor or by the Company.

Q. Do you know what the treatment was in the Cleveland rate case for this same item?

A. I don't recall.

Q. Will you please turn to page 139 of Exhibit 16, Part E. Cornwell Compressor Station Boiler Plant and Coal and Ash Handling Equipment and describe the development of the unit cost totalling $20,258?

A. This equipment described here was furnished by the Link Belt Company, and they quoted us for this equipment $19,286 f. o. b. Philadelphia, giving us a weight of 115,000 pounds.

The freight rate on this class of equipment was 50 cents per 100 pounds, which added to the factory cost gave $19,861.

Again the 2 per cent miscellaneous material cost was added in the amount of $397, bringing the total cost up to $20,258.

Q. Do you know that the Hope Natural Gas Company no longer burns coal?

A. That is a temporary situation. They must necessarily be equipped to burn coal in their stations, as the natural
752 gas supply may become short during the winter periods, or conditions may gradually change in the availability of gas.

Q. Do you know the last time that this coal and ash handling equipment at the Cornwell Compressor Station was used?

A. No, I do not.

Q. Will you please refer to page 156 of Exhibit 16, Part F, Compressor Plant, Hastings, No. 1 Compressor Station, and de-

scribe the development of the unit cost for yard-lines, 3,043 feet of 16-inch pipe at $4.24 per foot?

A. This cost of $4.24 per foot of 16-inch pipe in the yard lines, is based on pipe at a unit cost per foot that has been used in pricing pipe lines for this same 16-inch pipe, namely $2.153 per foot. That was before the allowance for the miscellaneous costs, and we found on analyzing those lines in the yard lines in a number of stations, taking into account the different sizes of lines that in the case of the 16-inch yard line, there were fittings in the run of the line which brought the total cost f. o. b. railroad to $2.799 per foot, on the average for 16-inch lines. This material being in miscellaneous lots, by that I mean that not very much of it is in existence in any one station, and consisting of a number of parts of various lengths, we treated it as small line pipe and added the 3½ per cent miscellaneous material costs instead
753 of the 2 per cent which would be done if it were laid in a main line.

The cost of installing this 16-inch pipe was based on the cost of installing such size under the conditions in West Virginia, determined by the method which is explained in the document which is Exhibit 17, with allowance for the fact that a considerable additional work is involved in the installing of fittings, as compared with pipe. This installation cost was $1.34 per foot, bringing the total cost including installation to $4.2377 per foot, which was rounded out to $4.24 per foot.

Q. Is that unit cost development which you have described typical of the prices applied to all lines?

A. That is correct, except that we find for the smaller sizes a greater additional cost because of fittings, there being a greater proportionate amount of fittings in the small lines than in the big ones, otherwise the method of determining the unit costs was the same for all sizes of line from the smallest to the largest.

Q. What was the additional amount for the two-inch pipe?

A. Proportionately we found by analyzing a considerable footage of the two inch pipe that the fittings in the two-inch lines cost almost as much as the pipe itself did. These
754 prices from the smallest up to five inches in diameter include in a general way considerable footage in the various stations, and we found on the average that the fittings cost 98 per cent of the price of the pipe, whereas from the six to fourteen inch, inclusive, the fittings only cost 34 per cent of the cost of the pipe, and the sixteen and eighteen, 30 per cent, and the 20

and 24 inch 20 per cent. Those figures are arrived at, as I say, by pricing a considerable footage of lines to avoid having to type in a complete unit cost development for a long list of bills of materials which would add nothing to the accuracy of the whole result.

Q. Will you now refer again to page 18 of Exhibit 16, Part E. For the Bee Compressor Station, you priced four main units of foundations, is that correct?

A. That is correct.

Q. On page 7 of the same volume, there appears to be only two main units in the Bee Compressor Station.

A. That is correct.

Q. What use is being made of the two idle foundations?

A. No use is being made of them, and that fact is reflected in the reproduction cost new less depreciation of that station.

Q. You priced everything not used or useful and then depreciated it?

755 A. If it was still carried in the original cost determination, it was included in the reproduction cost new, so that they could be properly accounted for, but in determining the reproduction cost new less depreciation, the cost of those foundations is wiped out.

Q. If the structure housing this compressor station and only two units being used was twice as large as required for those two units, did you also consider that in your reproduction cost new less depreciation?

A. I reflected the partial use of that structure by eliminating the cost of that which could be dispensed with and still allow sufficient operating space for the two remaining units.

Q. That situation is true in many places throughout the Hope system. Have you been consistent in your treatment of them?

A. I have tried to be, and so far as I know I have been completely consistent.

Q. Did you explain, Mr. Rhodes, why the foundations which do not have units upon them in the Bee Compressor station were included in your reproduction cost new estimates, and why you treated them as a part of the depreciation relating to the station in your reproduction cost new, in your depreciation estimates?

756 A. We tried by every possible means to make the inventory of reproduction cost new correspond with the inventory of original cost, so that the two would be properly compar-

able, and for that reason we left in the reproduction cost new certain buildings, certain foundations and certain equipment which we treated specially under depreciation to reflect the fact that the building was no longer useful or the foundation was no longer useful or the equipment was merely being held there as though in a warehouse.

Q. Then your original cost and your reproduction cost really are not comparable, are they?

A. Oh yes; because in the original cost, the entire building and all of the foundations and all of the equipment were included.

Q. The original cost does not reflect the retirement of the two foundations that are not being used?

A. No, it does not.

Q. But you do reflect that in you reproduction cost new less depreciation?

A. I take out the nonuseful features.

Q. I was just wondering why you did not eliminate it from the inventory in the first place.

A. It was desired by the management to continue these items in the original cost and to have the reproduc-
757 tion cost new correspond to the inventory and with original cost.

Q. Did you personally make an inspection of the property of your reproduction cost new less depreciation estimate to determine what was not used or useful?

A. I did not personally inspect the property for that purpose, but an inspection of the property was made by my staff to determine to what extent that was so.

Q. Will you please refer to page 25 of Exhibit 16, Part G, Indian Creek Compressor Station equipment, and explain the development of the unit cost for the generator five kilowatt DC, 125 volts at $275?

A. This motor was a motor that the Triumph Electric Company stated they were not now making and suggested that we use the General Electric Company's price for a motor of like description, which was $300 from which we took a quoted discount of 14 per cent, getting a net price of $258 f. o. b. factory. The pulley and base were added, bringing the total cost up to $270 to which, adding a 2 per cent miscellaneous material cost brought the total up to $275.44 or $275 as we used it.

Q. Now, Mr. Rhodes, will you please refer to page 95 of Exhibit 16, Part B, producing gas wells and well construction, and describe the development of the average unit cost per foot of $2.43.

758 A. I have already described the method generally, but there exists in the working papers a memorandum of the procedure followed, which corresponds to that in the determination of the cost of laying pipe. This goes into full detail, and there are fifteen or twenty pages. This is available to you for such use as you may desire.

* * *

759 Q. Now, Mr. Rhodes, will you please refer to page 7 of Exhibit 16, Part I, and describe the development of the unit costs of the general office buildings in Clarksburg, West Virginia at $0.457 per cubic foot.

A. This office building as it existed at December 31, 1938, was measured up in detail, and quantities of all kinds of work entering into the construction of the building were determined, starting with excavation and going to the buzzer system.

There are two whole pages of items and another half a page making approximately 100 items, but in pricing these items in detail, it was found that the total cost of constructing that
760 building as of the period of 1938 and 1939 was $115,762.29.

The volume of the building was 253,368 cubic feet, which gave the cost per cubic foot of 0.457 per cubic foot.

That method of pricing in an inventory was used to avoid the extreme detail of the large number of items entering into its construction.

Q. Is there a contractor's allowance in that estimate?

A. The same as in all building construction. For the contractors' miscellaneous material and labor costs and the contractors' allowance there is a total of 22 percent of which approximately 10 percent may be considered as a contractors' allowance, of which, however, he receives only about 8 percent or 9 percent on his costs.

Q. Will you compare that cost per cubic foot of $0.457 with the cost per cubic foot of the one-story wood frame building on page 10 at $0.909?

A. One is a building of 253,000 cubic feet and the other is a very small building, equipped with toilet facilities.

Q. The fireproof building is priced at a smaller cost per cubic foot on page 7 than the wood frame sheet metal building with a

corrugated roof and concrete floor on page 10. Almost twice as much per cubic foot.

A. That is due to its extremely small size. A building five foot six by thirteen feet and an average height of eight
761 feet, a little building of 587 cubic feeet, there is no possible comparison of cost in a building of that size directly with a building of 253,368 cubic feet. It is about the size of the smallest room in the big building.

The TRIAL EXAMINER. Does that include the cost of the toilet facilities too?

The WITNESS. Yes, but it is a building made solely for that purpose.

The TRIAL EXAMINER. The cost of the facilities would be worth more than the cost of the building?

The WITNESS. It may well be, in a building of that size, yes sir.

Mr. SPRINGER. Mr. Examiner, that completes our cross examintion on reproduction costs.

* * *

2923 **TESTIMONY OF F. P. C. WITNESS PACE ON ACTUAL LEGITIMATE COST OF HOPE'S PLANT**

Transcript pages 2923–2925, 2961–2963

(Omitted in Pace's Testimony Printed in Supplement to Brief of Petitioner)

* * *

Cross-examination by Mr. COCKLEY:

Q. Let us take the case of the property acquired by Hope as utility property from those particular companies; tell me what use you made in your original cost study of those original records; you can start with any one of the three.

A. In connection with the Clarksburg acquisition, there is a positive statement attached to that voucher that the amounts that you recorded in the Hope books were the exact amounts as shown in plant account on the Clarksburg Light and Heat Com-
2924 pany's books and that the same amounts and reserves are reflected in the Hope Company's books in the same amounts.

Q. Is that what you meant by our estimate of original cost; is that what you meant by the Hope's estimate of original cost at the time of acquisition, that statement on that voucher?

A. No; I would not consider that an estimate; that is cost obtainable from the prior utility's books.

Q. What did you find besides that that you would consider an estimate of original cost by the Hope Company at the time it purchased that property?

A. That particular property?

Q. That is what we are talking about; you picked it.

A. I do not know they made any estimates at all in connection with the Clarksburg acquisition; I do not think they did.

Q. How did you treat that Clarksburg acquisition? The plant account was set up as $2,000,000, we will say, and the depreciation reserve at $1,000,000, and they paid $1,000,000 for it; is that right?

A. Yes.

Q. What figure do you show in your original cost exhibit for that property on that assumption; what figure would you show in your exhibit included in the $51,000,000?

2925 A. We show the amount as original cost that was shown on the Clarksburg Light & Heat books.

Q. You would set it up here as $2,000,000 on the proposal I have made?

A. Yes.

Q. And you later put in a depreciation reserve of $1,000,000 as of that date?

A. Yes, sir.

Q. And you would have $1,000,000 net?

A. That is right.

Q. And that is the price that the Hope Company paid for it when it acquired it, is it not?

A. Yes, sir.

Q. And that is what you have got in your figures?

A. That is right.

* * *

2961 Redirect examination by Mr. SPRINGER:

Q. Now in the case of Mr. Antonelli's estimates in his claimed original cost, why didn't you accept those?

Mr. COCKLEY. You mean the part of it that was estimated, are you limiting your question to that?

* * *

The WITNESS. I could see no reason why Mr. Antonelli would be in any better position to estimate those costs than the person that estimated them at the time the property was acquired. I think if it were permitted to re-estimate the same property from time to time, that probably there would be no end to what finally might get on the books.

By Mr. SPRINGER:

Q. You mentioned the possibility of an improper distribution of expenditures explaining some of the differences in the figures which Mr. Antonelli claims for various accounts, and figures which you found to be the valid original cost. Will you elucidate that?

A. Well, there was in the direct labor and material costs which were claimed by the company to have not been capitalized. I don't think they even claim it to be expense; and they also
2962 claim it not in plant accounts. Of course if it can't be identified either in expense or in plant, I wouldn't know just exactly where to look for it.

Q. You mean you doubt that such an expenditure had been made?

A. There was some of the direct labor and material cost that was supported, but an examination of those costs indicate that it was more or less of an attempt to re-account for past costs, and by that I mean go back and change maintenance costs to plant accounts; and for that reason I disallowed that.

In fact I think, with reference to a number of those items, if I had found them in plant accounts to start with I would have thrown them out; but I considered them properly maintenance charges.

Q. And you also found unrecorded retirements, didn't you?

A. Yes.

Q. Now where you found overheads charged to expense, and there was an attempt to capitalize those retroactively in Mr. Antonelli's study, you disallowed those on an accounting principle, didn't you?

A. Yes sir; it wasn't merely the method by which they were computed, it was altogether the accounting principle.

Q. Well, to sum up your ascertainment of the valid original cost as of the end of 1938, you have not disallowed any supported asset accounts in the Hope Company's original cost, 2963 have you?

Mr. COCKLEY. I object to that: there are thousands and thousands of items.

Trial EXAMINER. Well, what difference does that make if he is familiar enough with them to say whether he has or whether he has not.

Mr. COCKLEY. All right.

The WITNESS. We haven't disallowed one dollar, that I know of, from their plant accounts; in fact I think we were very liberal.

By Mr. SPRINGER:

Q. In fact you added $1,400,000 to the plant costs, did you not?

A. We added that much to what was reflected on the books.

Trial EXAMINER. You don't mean that those amounts were unsupported?

The WITNESS. No, sir; that amount was supported.

* * *

1547 TESTIMONY OF HOPE WITNESS CHISLER ON HOPE'S ACCOUNTING PRACTICES

Transcript pages 1547–1560

* * *

JOSEPH C. CHISLER, previously sworn, resumed his testimony:

Examination by Mr. SPRINGER:

Q. You are the vice president and the chief accounting
1548 officer of the Hope Company, are you not?

A. Yes; sir.

Q. How long have you been the chief accounting officer of the Hope Natural Gas Company?

A. Since July 1, 1933.

Q. What was your accounting responsibility before that time?

A. I was assistant treasurer, in charge of all accounting work.

Q. Who was the chief accounting officer of the Hope Natural Gas Company before you?

A. Mr. R. D. Beardsley was the treasurer.

Q. Do you adopt the accounting methods employed in Exhibit 20 by Mr. Antonelli?

Mr. COCKLEY: I do not think that is a proper question to put to this witness—whether he adopts all of the accounting methods. If he wants to ask him about some particular one, why not do that?

By Mr. SPRINGER:

Q. Did you not advise Mr. Antonelli on various accounting phases of his exhibit, and do you disagree with any of the accounting principles that he said he used?

Mr. MILDE. There are two questions there. May we have one at a time?

1549 The WITNESS. I advised Mr. Antonelli on the determination, or assisted in the determination of actual original cost. We determined the interpretation of original cost as defined in the West Virginia Classification of Accounts of 1913—our interpretation.

By Mr. SPRINGER:

Q. And he followed your advice, did he not?

A. Ove a period of two years, of course, we had numerous conferences, and we consulted with our attorneys and my assistants, and Mr. Antonelli also had recommendations, but the

whole plan and procedure was worked out together and the decisions made.

Q. Then you are in agreement with the accounting methods employed by Mr. Antonelli in Exhibit 20, are you not?

A. I am in agreement with the original cost that has been determined and shown in Exhibit 20, that that is the true original cost, according to our interpretation.

Q. Do you disagree with the accounting methods employed in Exhibit 20?

A. I think, Mr. Springer, what is presented in Exhibit 20—what Mr. Antonelli has presented—is the original cost as defined in this Classification of Accounts prepared in accordance with our interpretation, and that is what he has presented here.

1550 Q. Well, then you agree with the method employed by Mr. Antonelli?

A. I agree with the method.

Q. Now, with respect to all the labor costs other than well construction, they were capitalized up to 1918 by the Hope Company, and then expensed to 1923, and then capitalized after that, is that so?

A. There was a portion that has been expensed, from 1918 to 1923—certain portions of the construction.

Q. I asked you for the labor costs other than well construction?

A. That is true, but I stated that all labor costs other than construction were not expensed. That is what I wanted to imply.

Q. For what period?

A. From 1918 to 1923. In other words, there was certain construction work on lines and compressing stations where the labor cost was charged to expense, but not on all construction.

Mr. COCKLEY. That is in the period from 1918 to 1923?

The WITNESS. 1918 to 1923.

By Mr. SPRINGER:

Q. Then from 1918 to 1923, construction labor other than well construction, was expensed, and after that time

1551 capitalized, is that right?

A. If I can make myself clear—our construction work for the period 1918 to 1923, a portion of it, the labor costs—this is other than wells—was expensed. A portion of it was capitalized.

Q. You are familiar with the rate case involving the Hope Company before the West Virginia Public Service Commission in 1921, are you not?

A. I might have been at that time; I have not looked at it for years.

Q. Do you know what the Hope Company contended for the treatment of well construction costs in the 1921 rate case?

Mr. COCKLEY. I object to that. What conceivable difference does it make what in a local rate case, down here, they contended for in 1921?

Mr. SPRINGER. I think it is highly important, Mr. Examiner, that we determine what claims were made covering the same items, now that they are attempted to be capitalized in this case.

Mr. COCKLEY. Well, we submit that here is a rate case down here which was obviously a local rate case in West Virginia, and involved distribution rates in West Virginia. The export rate, the wholesale rate, has never been under determina-
1552 tion. Are you going into that rate case in 1921, and then if the Hope Company had another one in 1927, are you going to go into what they claimed then, and then if we go ahead up to the rate case that we had in Ohio, see what they claimed in 1931, and 1932, and in the 1937 case, and I forgot one in Ohio in 1921, and see what was claimed then? Where does it all get us? Either we are entitled to include these things in the original cost or we are not; and what was claimed at one time or another is not going to make a particle of difference, and it is a perfect waste of time.

Mr. SPRINGER. Mr. Examiner, I think this will show the Company's stand and past accounting practices, where it is claimed as operating expense items which now are attempted to be capitalized, and I think that you and the Commission are entitled to know the past accounting practices and the exercise of managerial discretion in accounting for these things. All I am asking the chief accounting officer of the Hope Company is whether or not he knows the past claims of the Hope Company in a rate case.

The TRIAL EXAMINER. After all of this discussion, he may know what you mean. The objection is overruled.

Mr. COCKLEY. Exception.

The WITNESS. I know what he means, but I don't recall what treatment we gave on the construction costs in that rate case.

By Mr. SPRINGER:

1553 Q. Well, Mr. Chisler, are you aware that the West Virginia Public Service Commission stated in that 1921 rate case that well construction costs was a proper operating expense

for the purposes of that case, and that is reported in P. U. R. 1921 E., page 418?

A. I have not reviewed that and I am not just familiar with what treatment might have been given to well construction costs in 1921.

Q. The financial statements that your company has made in the past have been issued in the expectation that they would be relied upon as being an accurate statement of your accounting policies, isn't that so?

A. They have reflected our accounting, yes. They are prepared monthly, and reflect the conditions and the principles that are followed.

Q. And you consider your books of account to be important sources for the basis of your financial statements, don't you?

A. I do.

Q. Taking the $17,000,000 that, but for a small percentage, has been charged to operating expenses now capitalized in Mr. Antonelli's exhibit, when your company decided to expense those amounts, it did so in the exercise of managerial discretion, did it not?

A. Well, we followed the Code of Accounts, or we exer-
1554 cised that discretion.

Q. Sometimes you had an option to expense or capitalize well construction costs, for instances, didn't you?

A. That is true.

Q. And you made an election and expensed those costs?

A. That is true.

Q. Has the Hope Company always had a competent accounting officer?

A. Well, they have had several of them, and in my opinion, they have been competent; otherwise I do not think they would last very long.

Q. Then the Hope Company's past accounting policies have been the result of competent and well informed deliberate accounting advice, isn't that so?

Mr. COCKLEY. I object to that as calling for a half a dozen conclusions. The facts have been developed and they are perfectly obvious as to how these things were charged, and that is all that is important in this record. I object to it as wholly incompetent, immaterial and irrelevant.

Mr. SPRINGER. I think it is important, Mr. Examiner, that we determine whether or not these representations made through

their financial statements, were well advised, well informed and deliberate.

Mr. COCKLEY. Of course there were not any representa-
1555 tions made through financial statements, to anybody.

Wholly aside from that, this question calls for about three or four different conclusions and is wholly immaterial.

The TRIAL EXAMINER. I think the witness is able to take care of himself and answer the question.

* * *

The WITNESS. I would say that is true.

By Mr. SPRINGER:

Q. Was not the expensing of well construction costs the accounting practice at the time it was employed by the Hope Company in its accounting?

A. The well construction costs, from the beginning of business up to December 31, 1922, was charged to operating expense.

Q. And that was an accepted practice at that time, was it not?

A. That is the accounting principles that we followed, and I think generally in the oil business, and so on, that those construction costs were charged to expense.

Q. As even today some oil companies charge well construction to expense?

A. That may be so, but I don't know. January 1st, 1923, when the new Code of Accounts came in, we started to capitalize
1556 it.

Q. Were the Hope Company's books periodically audited by a certified public accountant?

A. We had our own internal auditing department for quite a number of years. It is only since recently that we have had outside Certified Public Accountants, Price, Waterhouse, I think since the Social Security came in, which made it mandatory at that time.

Q. Was there not a periodic audit by Certified Public Accountants before that time?

A. No, not to my recollection.

Q. Has your company in the past made under oath financial statements based upon your policy of accounting, to regulatory States and Federal taxing bodies?

A. We did.

Q. What effect did the noncapitalization of well construction costs have upon the Hope Company's financial statements to

stockholders, regulatory bodies, Federal and State taxing authorities, and institutions issuing financial publications?

A. Well, of course, the stockholder is the Standard Oil of New Jersey; that is the one stockholder. I don't know that had this $11,000,000 of well construction costs been capitalized,
1557 how large a depreciation allowance there would have been. I don't know what the net effect would have been.

Q. Was not the effect of noncapitalization of well construction costs to reflect less profit because that was charged to operating expense?

A. Well, the difference between the depreciation and the full amount of the well construction costs would probably reflect some change in the net income.

Q. What was that?

A. I say, the difference between the amount capitalized and the full 100 per cent of the well construction costs would have some effect on the results.

Q. I believe you stated that the Hope Company practice of noncapitalization of well construction costs would likewise affect the stockholding company, the Standard Oil Company of New Jersey?

Mr. MILDE. We object to that. That is not a fair statement of anything the witness said.

* * *

The WITNESS. Would affect them in what way?

My Mr. SPRINGER:

Q. Just as you have said. It would be a statement showing less profit if the well construction were expensed.

1558 A. It might be less loss or increased loss.

Q. Doesn't that make some difference in the Standard Oil Company of New Jersey's consolidated financial statement? It is a chain without a broken link, isn't it?

* * *

The WITNESS. Well, of course, the Hope Company happens to be one small company out of a large number in the Standard Oil of New Jersey. I don't know that it would greatly distort their picture.

By Mr. SPRINGER:

Q. You mean that $11,000,000 would not distort the financial statement? That is a sizeable sum, isn't it, Mr. Chisler?

A. Over a period from 1898 down to 1922, it is an accumulated sum.

Q. Are you aware of the Federal Income Tax regulations, which require the Hope Company to elect to treat well construction costs either as operating expenses or as a capital item?

A. Yes; I am familiar with that.

Q. That is Article 223 of Regulation 69, Income Tax Act of 1926, United States Internal Revenue. What election did the Hope Company make in connection with well construction costs for income tax determination?

1559 A. I would not be positive, but I think it treated that as an expense item.

Q. You made a consistent practice of doing that?

A. That is my recollection.

Q. During the period when the Hope Company began capitalizing well construction costs, did the Company's financial statements show the full effect of a change in accounting policy?

A. In effect, we continued to charge that to expense—the well construction costs. There was a reserve set up of the full 100 percent which was charged to depreciation expense or amortization expense, so in effect, as far as the net income is concerned, there would be no change.

Q. In effect, the capitalization of well construction costs was nullified by concurrent additional accounting?

A. That was the effect. I mean we amortized it fully 100 percent each year.

Q. How long did that practice continue?

A. That continued after 1923, to the time when we had this depreciation adjustment which was January 1st, 1927.

Q. Do you mean that after 1923 your company practiced the capitalization of well construction costs, with concurrent additional accounting entries, which nullified that change

1560 in accounting, and that continued from 1923 to 1927?

A. I would not say it nullified it. We capitalized it and amortized it fully down through 1933.

Q. How long did the policy continue after 1923 of capitalizing well construction costs where the net effect was not to change the net income of the company?

A. Beginning with 1934, January 1st, the well constructing costs were placed on a depletion basis, and on the amount of gas withdrawn, rather than on this amortization basis, and as far as the financial statements are concerned, that change-over would

be reflected, as I recall, as of January 1st, 1934. This adjustment was made, of course, and would appear in your surplus adjustment which was referred to before. That would not affect any of the current year's financial statements down through.

Q. Did the Hope Company in its history make any other substantial changes in its accounting principles and methods?

A. I don't recall of any offhand.

* * *

1171 TESTIMONY OF HOPE WITNESS ANTONELLI ON ESTIMATED "ORIGINAL COST" OF HOPE'S PLANT

Transcript pages 1171–1271, 1325–1353, 5068–5104, 5107–5196, 5572–5658, 6250–6345

* * *

Cross-examination by Mr. SPRINGER:

Q. Will you please turn to page 5 of Exhibit 20. How did you determine what property to exclude, which you term "distribution and General, used solely for the distribution of gas in West Virginia?"

A. The properties to exclude for distribution, used solely for distributing gas in West Virginia were indicated to me by the company as such properties, and they were not included in this particular report.

* * *

1172 Q. And that was consistent with the property listed by Mr. Rhodes in his reproduction cost new estimate?

A. Yes, sir.

Q. Do you know what features of general property you did exclude as being used solely for the distribution of gas in West Virginia?

A. I believe some of the transportation and equipment was excluded, and there might be some others, that I could not tell you offhand.

Q. Were there any buildings?

A. Of course, the buildings in the various city plants were not included in our original cost estimates.

Q. What is the basis for your determination of items formerly charged to operating expenses and which should be re-stated as capital items, in your Exhibit 20?

A. Because, in order to determine the complete original cost, it is necessary to include all costs, regardless of how they were shown on the company's books.

Q. And what authority have you for that statement?

A. I was engaged to determine the complete original cost of Hope properties, and in order to determine the complete
1173 original cost it was necessary to include all elements of cost irrespective of how they were shown on the books of the Company.

Q. Are you familiar with the instructions in the Uniform System of Accounts for Gas Utilities, prescribed by West Virginia in 1939, Exhibit 13 in this case?

A. Yes, I am.

Q. Will you please turn to page 20, Account No. 100–1, "Utility Plant in Service" which reads:

"This account shall include the original cost of utility plant, included in accounts 301 to 390, together with the amounts recorded in accounts 391 and 392, owned and used by the Utility in its utility operations, including such property owned by the Utility but held by nominees."

Then will you please refer to page 48 under "Instructions—Utility Plant Accounts," and paragraph B reads:

"The cost to the Utility of its utility plant shall be ascertained by analysis of the Utility's records. In ascertaining the cost, it is not intended that any correction need be made for depreciation, depletion or amortization, applicable to operating units or systems previously acquired, whether or not such depreciation, depletion of amortization was recorded in the books of the accounting utility. It is likewise not intended that adjust-
1174 ments shall be made to record in utility plant accounts amounts previously charged to operating expenses in accordance with the uniform system of accounts in effect at the time or in accordance with the discretion of management as exercised under such uniform system of accounts."

Does not that instruction forbid you to re-state as you have in exhibit 20, items which were formerly charged to operating expenses, that you have now capitalized?

A. We determined the original cost based on the accounting principle of the uniform accounts prescribed by the West Virginia Commission. And according to the definition given on page 5 for original cost, original cost as it applies to gas utilities, it means the cost of such properties to the person first devoting it to public service. Also on page 48, it states in paragraph C that if the original cost is not obtainable, it could be estimated.

It seems to me that paragraph B on page 48 is inconsistent with what the definition of original cost is stated to be and what is said in the paragraph C and we determined the original cost, the complete original cost, as I said, irrespective of the charge on the Company's books.

Q. Then your determination renders meaningless the specific part of Instruction B for Utility Plant Accounts, does it not?

A. Well, I think these instructions are inconsistent.
1175 I think there must be some mistake in stating that here. In one place they tell us to determine the original cost,

and if you don't know the original cost, it can be estimated. In another place you are told to record the cost as determined from the Company's books. It could not be original cost because, for instance, if we take the account of equipment or take the account of wells, the original cost of a well will be the cost of the equipment, plus the construction cost for sinking it. If we follow these instructions here, we go to the books and obtain only the cost of the equipment, because the cost of the construction has been expensed. I do not see how the cost of the equipment is the complete original cost of the well.

Q. You did not choose to follow the specific instruction for utility plant accounts, then?

A. No, sir; we followed the accounting principles.

Q. Are accounting principles supposed to be consistent? Is not one of the virtues of accounting claimed to be consistency?

A. I don't understand your question; I don't know what you mean.

Q. Is it consistent to charge to operating expenses and make financial reports based upon that discretion of the management——

1176 A. (Interrupting.) No, but ——

Q. (Continuing.) And then later restate those same amounts as capital items?

A. I was not doing an accounting job. I was determining the original cost of the property existing on December 31, 1938. I was not interested in bookkeeping or accounting practices of the companies at all. My job was to determine the original cost of the Hope properties.

Q. But you said you did it in compliance with the Uniform System of Accounts for Gas Utilities, prescribed by West Virginia.

A. I followed the accounting principles, yes.

Q. You followed accounting principles, but you did not do an accounting job?

A. No, sir. My job was to determine the correct original cost of these properties.

Q. Now, on page 6, you say that there was no system of accounts prescribed for the Hope Company prior to 1922. Does that mean that the Hope Company was not subject to regulation prior to 1922?

A. The Public Service Commission of West Virginia was organized in 1913 or 1914, and I believe that all of the companies

were required to furnish annual reports, because I have seen such reports. That is prior to 1922, so judging from that, I
1177 assume that they have been under regulation, but I am not not quite sure.

Q. On page 6 you state that the Hope Company did not capitalize well construction costs. How much have you restated in Exhibit 20 for that item?

A. The amount?

Q. Yes.

A. $11,279,554.08.

Q. And that amount was formerly charged to operating expenses, was it not, by Hope?

A. Yes, sir.

Q. Was the Hope Company involved in a rate case before 1922, do you know?

A. No, I don't know.

Q. And you don't know what the Hope Company contended for the treatment of well construction costs in its 1921 rate case then?

A. No, sir.

Q. And you are not aware of the fact that the West Virginia Public Service Commission stated in the 1921 Hope Rate Case that well construction costs was a proper operating expense for the purposes of that case?

A. No, sir.

Q. You stated that the Hope Company did not capitalize well construction costs. Was that an accounting discretion
1178 exercised by the management?

A. It must have been an accounting practice. In those days, I suppose that was the proper way to do it.

Q. Do you know who made the decision?

A. No, sir; I do not.

Q. Do you know that there are periods when non-capitalization of well-construction costs was practiced by Hope and when it was discontinued?

A. It was discontinued in 1923.

Q. And practiced from 1891 up to that time?

A. Yes, sir.

Q. And was the non-capitalization of well-construction costs the accepted accounting practice at the time it was employed by the Hope Company?

A. I believe that generally is correct.

Q. Some oil companies practice non-capitalization of well construction costs today, do they not?

A. That is my understanding, yes, sir.

Q. The Hope Company's decision not to capitalize well construction costs would affect its financial statements, would it not?

A. Yes.

Q. In effect, it would reflect less profit because the well construction was charged to operating expense?

1179 A. I would not know that.

Q. Doesn't it follow?

A. I don't know.

* * *

Q. Do you know what effect non-capitalization of well-construction costs would have upon the Hope Company's financial statements to the stockholders, regulatory bodies, and Federal and State taxing authorities and financial publications?

A. No, sir.

Q. The Hope Company's practice of non-capitalization of well-construction costs, you say, would affect its financial statements. It would likewise affect the consolidated statement of the Standard Oil Company of New Jersey, would it not?

A. I don't know. I have not given any thought to that.

Q. Are you familiar with the Federal Income Tax regulations, which require the Hope Company's officers to elect to

1180 treat well-construction costs either as operating expenses or as capital items?

A. No, sir; I am not.

Q. Do you know what election the Hope Company did make in connection with Well Construction costs for income tax determination?

A. No, sir.

Q. During the period when the Hope Company began capitalizing well-construction costs, did the Company's financial statements show the full effect of the changed accounting policy?

A. I don't know.

Q. Did you analyze the Hope Company's books from 1891 to the present time?

A. I analyzed the vouchers pertaining to the existing properties at December 31, 1938. As I said before, we had an inventory of all of the units in the Hope system, and my job was to determine the original cost, and I went to the proper vouchers and the proper company's books to determine the actual original cost. I was not interested in any of the company's bookkeep-

ing practices, as far as financial statements and so on were concerned.

* * *

1181 By Mr. SPRINGER:

Q. Then you did not make a complete examination of the books throughout the history of the Company?

A. I did, as far as the existing property is concerned; yes, sir.

Q. Did you consider all of the entries that related to the property in existence?

A. I considered all the entries that related to the costs of the properties in existence.

Q. But you do not know what changes were made by the Hope Company in its accounting procedure at the time it started to capitalize well-construction costs?

A. I was not interested in the accounting procedures of the company's. I determined the original cost of existing properties from the company's records.

* * *

Q. Mr. Antonelli, who made the decision that well-construction costs which were charged to operating expenses should be restated as capital items, in your Exhibit 20?

A. Well, I was asked to determine the real original costs of the properties, and I did so by going to the company
1182 records and finding the real costs of these properties. Nobody made the decision, as far as I was concerned, or as far as that is concerned. I had the general instructions to determine the complete original costs.

Q. Can we say in summary then, Mr. Antonelli, that you restated more than $11,000,000 for well-construction costs, which were charged to operating expenses, and you have placed them in capital now, without consideration to the specific instructions in the West Virginia System of Accounts?

A. Well, the only thing I did, as I said before, was that I determined the original costs, the complete original costs.

Q. On page 48 of the System of Accounts, you have rendered meaningless the instruction B, the last sentence: "It is likewise not intended that adjustments shall be made to record in utility plant accounts, amounts previously charged to operating expenses in accordance with the Uniform System of Accounts in

effect at the time or in accordance with the discretion of management and as exercised under such uniform system of accounts."

A. Well, if I had followed these instructions, I could not determine the real original costs.

Q. Why?

A. It just could not be done. The books do not record
1183 the complete costs. I had to go to other sources to get that cost.

* * *

Q. Was the effect of the Hope Company capitalizing the well-construction costs modified or nullified by concurrent additional accounting entries?

A. I don't understand the question.

Q. Well, is it not true that when a well construction job was closed, and charged to fixed capital, an additional entry was
1184 made charging operating expenses and crediting reserve for depreciation and depletion with an amount equal to the cost of well construction capitalized?

A. I did not pay attention at all to the Company's procedure, as I said before. My job was to determine original cost.

Q. Do you know whether the Hope Company, in its history, made any substantial changes in its accounting principles and methods other than those required by the various systems of accounts prescribed by the West Virginia Public Service Commission?

A. No; I don't know offhand.

Q. Were any changes in the Hope accounting principles and methods made without competent advice and authorization from responsible officers?

A. I don't know.

Q. Did not your analysis of the books reveal who the accounting officer was each year, and whether or not there had been determinations of principle and method by the management?

A. I was determining original cost. This was a job of going to the company's records and finding out how much should be charged as original cost, and that is all.

Q. Is the determination of original cost an exact science?

A. If all of the data and information is available, it would be an exact science.

1185 Q. In this case all of the data and information were not available, is not that so?

A. They were all available to the extent of 94 per cent. We estimated about 6 per cent.

Q. How many dollars does the 6 per cent amount to?

A. $4,000,000 or $5,000,000.

Q. Four or five million dollars?

A. Yes.

Q. Do you know whether the Hope Company has ever reclassified its property accounts before?

A. Do you mean since this Commission came into existence—since the West Virginia Commission came into existence?

Q. Well, no. From the beginning of the Hope Company's history.

A. Yes. In the beginning, the Company had its property classified as perhaps ten accounts. Material prices were in one account, the labor was in another account, the compressing station, structures and equipment, were in the other accounts. Then in 1923, of course—No. It was reclassified once more, I believe, in 1913. The properties were reclassified as to production, transmission and distribution properties. Then they were reclassified in 1923 in accordance with the new classification of accounts of the West Virginia Public Service Commission. Then, there
1186 were some changes made in the classification of accounts in 1932—just minor changes. I believe the drilling and cleaning account was changed from "Production" to "General."

Q. What is the difference between the former reclassifications and your present one in Exhibit 20—fundamentally?

A. There are reclassifications as to the items of property and the general accounts have been reclassified considerably. In the prior accounts, the overheads, the so-called undistributed construction items, were all grouped together under several accounts. They were not distributed. In this case here, in this new system of accounts, they are all distributed with the items of equipment.

Q. Well, Mr. Antonelli, did the reclassification by the Hope Company in 1913 result in an increase in the total book cost.

A. I don't know. I could not answer that question.

Q. Did the reclassification in 1923 increase the total book cost?

A. I would like to make a correction. They reclassified the properties in 1920 and not in 1923. It did not increase it; no, sir.

Q. In 1932, did the reclassification result in an increase of the total book cost?

A. I don't think so.

1187 Q. Did the 1920 reclassification result in a decrease in the total book cost?

A. No, sir.

Q. Are the company records available to show the basis for the determinations made in the previous classifications?

A. It might be possible to obtain the information, but it would be a tremendous job and would take several years to do it, because properties have been abandoned and changed. It would be a very difficult job.

Q. Are the working papers available, underlying the former reclassifications?

A. You would have to go to the vouchers and other records to obtain the information. It would be a very difficult job to do.

Q. Did you have access to the working papers underlying the reclassifications formerly made?

A. I used them indirectly through vouchers. For instance, the reclassification made in 1920 was done through a memorandum voucher known as M–699, and we worked through that voucher considerably, to determine our original costs.

Q. Were there working papers supporting the memorandum vouchers?

A. Yes, there were a lot of vouchers, which all go back to this M–699 voucher.

1188 Q. Did you make use of those?

A. Yes, sir.

Q. Did you have available working papers summarizing all of the supporting vouchers in the former reclassification?

A. No, sir; I went direct to the original vouchers.

Q. Were those working papers available?

A. I did not need those papers to get my original costs.

Q. Well, they are in existence then, and available to the Commission's staff, I presume?

A. I presume they are. I don't know.

Q. You know they are in existence?

A. There are such papers; yes, sir.

Q. On page 8 of your exhibit, the caption, "Inventory of the Company's Properties as of December 31, 1938,—" did you make a check to determine whether the items of property listed in your inventory are used and useful in the Hope Company's Export business?

A. No, sir; I did not.

Q. Did you rely on someone else's determination?

A. The inventory as used in the original cost is the inventory of the properties existing at December 31, 1938, and recorded on

the Company's books, and I was instructed by the Company to include all properties so recorded, unless the Company advised me otherwise.

1189 Q. Who gave you the instruction?

A. The management of the Company.

Q. Would that be one person or several?

A. Mr. Chisler, who is the Vice President and Treasurer of the Company, and Mr. Cross, one of his assistants.

Q. In Paragraph B on Page 8, you say that your book inventory was checked account by account against all other available records. Could you tell us the general office and field office records which you used to check the book inventory account by account?

A. In the general office, we checked all of the records available in the Geological Department, such as well pockets and well cards. Information in the engineering department, such as surveys, line maps, and line pockets, and information in the district offices such as line pockets and all miscellaneous records.

Q. Did you make a check on the working papers under the previous re-classifications?

A. No, it was not necessary.

Q. Have all of those records been made available to the Commission's staff?

A. Yes, sir.

Q. On page 9, Mr. Antonelli, you state that substantially all visible property was verified by field inspection as to its

1190 existence and description. What dollar per cent does the visible property bear to the total property in the Hope system?

* * *

The WITNESS. The invisible properties consist of gas wells and pipe lines. They are the large items, and that represents about 75 per cent of the total properties.

My Mr. SPRINGER:

Q. You would say then that approximately 25 per cent of the property could be visually inspected?

A. Yes; the visible property, the visible properties.

Q. How much money is that?

A. About $55,000,000 original cost.

Q. And $55,000,000 could not be seen?

A. Could not be seen.

1191 Q. On page 9, you state that buried pipe was checked in the field by sampling method as to its existence and description. Would you describe the sampling method and the extent used?

A. This sampling method was done during the time the pipe was examined for condition, and as I understand it, the pipe was uncovered at equal intervals and examined.

Q. Just as Mr. Rhodes described?

A. Yes, sir.

Q. You relied on that?

A. Yes, sir.

Q. Would that furnish information as to the description of the pipe?

A. It will give the size of the pipe.

Q. And the length, of course, could not be determined by the sampling method?

A. No; we did not attempt to determine the length by the sampling method, no.

Q. I thought your statement was that you checked for description as well as existence?

A. Yes.

Q. And the length and size would be a description?

A. Through the sampling method we were able to determine the kind of pipe, whether it was a steel pipe, or a plain-end
1192 pipe, or what. In most of the cases—not in each case.

Q. The sampling method would not give you the complete answer, would it?

A. No, sir.

Q. Now, on page 9, you state that the book inventory was corrected to reflect only property in existence at December 31, 1938. Will you state the number of actual adjustments made to the book inventory by reason of the sampling method used for buried pipe, and the total effect in terms of dollars from those adjustments?

A. I could not do that. That is quite a job. I could prepare a statement.

* * *

Q. Were there numerous adjustments, Mr. Antonelli?

A. Yes, sir; there were. Some of them very minor, but there were adjustments.

Q. Both for inclusion and exclusion of pipe?

A. Yes, sir.

Q. Could you estimate the amount of money involved?

A. No, sir; I could not.

Q. On page 9, you state that in connection with the field
1193 field check of compressor station structures and equipment, you say use was made of an agreed inventory used in 1931 in the East Ohio-Cleveland Rate Case before the Ohio Commission. Do you know who made the 1931 inventory?

A. That inventory was prepared by Ford, Bacon & Davis.

Q. Was it a complete physical inventory?

A. It was a complete physical inventory, as of December 31, 1931.

Q. Can a physical inventory be made of the Hope system?

A. I am referring now to compressing stations, structures and equipment.

* * *

Q. On page 9, do you have the schedules which reflect additions and retirements to 1938, which have been applied to the 1931 inventory?

A. Yes, I have, and a copy of those schedules was furnished to the Federal Power Commission.

Q. To whom?

A. Mr. Lyons.

Q. On page 9 again, Mr. Antonelli, you state that additions and betterments from June 30th, 1931 to December 31, 1938, occurred in the field. How was that field check accom-
1194 plished?

A. By visiting each station and checking each item individually. The items that were not found there were retired, and other items that were found and not recorded in the inventory——

Q. (Interrupting.) Do you mean that you can go out in the field and look at property and tell whether there is an addition or a retirement involved?

A. By "addition" and "retirement" I mean we added additional items and retired others.

Q. Were you able to distinguish from former additions and former retirements?

A. I don't understand what you mean by "former additions and former retirements."

Q. Did you say you looked at the property in the field?

A. Yes, sir. All of the visible property was examined.

Q. Well then, how can you distinguish your additions and retirements from ones that were formerly made?

A. I don't understand what you have in mind. We had an inventory as of June 30th, 1931. This inventory was taken out in the field and checked, item by item. If we did not find the items in the field as recorded in our inventory, of course, we retired that item.

The TRIAL EXAMINER. You had an inventory of each
1195 compressor station, you mean?

The WITNESS. Yes, sir; of each compressor station. If we found an item in the field that was not recorded on our inventory, it was added.

Mr. MILDE. By "retired" you do not mean retired in an accounting sense, do you? I think that is where the difficulty is.

The WITNESS. No, sir; I mean it was eliminated from our inventory.

The TRIAL EXAMINER. You mean it was not there when you went back?

The WITNESS. That is right. It was not there when we went back in 1938 and 1939. It was there in 1931.

Mr. COCKLEY. Then you took it off your list?

The WITNESS. Yes; we took it off the list.

Mr. COCKLEY. And if you found something there that was not on your list, you put it on?

The WITNESS. Yes; that is the way we did it.

Mr. COCKLEY. And of course, you could not put anything on but a bare description of the equipment?

The WITNESS. That is all that was necessary, to put the description on so that we could identify it from the Company's books and vouchers.

By Mr. SPRINGER:

1196 Q. Did you reconcile that information with the book cost then?

A. Yes, sir; at the time that we went in the field, in addition to the 1931 inventory, we also had with us a transcript of the inventory as shown on the Company's books, and those two inventories were reconciled.

Q. You mean they were reconciled as to the existence of the units of property, or the dollar basis?

A. As to the existence of the units of property.

Q. Should there not be a reconciliation of the related dollars to the units of property added or retired?

A. The books do not reflect the complete original costs. It records only the book costs. We did not pay much attention to the dollars as shown on the books because they were not complete.

Q. You had a total dollar amount and you fitted what you call a check inventory into it without relating dollars to the units of property, is that right?

A. No, we prepared an inventory, and then we went to the Company's records, not only the Company's ledgers, but all of the Company's records, and we went back into the vouchers and found the actual costs of the amount of money that the Company actually spent to construct these properties.

Q. Are the Company's records adequate to enable you
1197 to determine the total cost to the company of compressor stations?

A. Yes, sir.

Q. Will you please refer to the last paragraph on page 9. What is the original source of the inventory of the pipe lines you mention there?

A. The inventory of the pipe lines was a transcription from the company ledgers checked against the information and data shown in the engineering department, and what is shown in the various districts, line pockets, and so on, and also survey maps and survey plats. Of course, they were spot-checked out in the field to determine their accuracy.

Q. Who determined when it was necessary to confirm the accuracy of the inventory data on hand?

A. I did. I made sure that the inventory was as accurate as humanly possible.

Q. Would you please describe the extent and nature of the new surveys which were made to confirm the accuracy of the pipeline inventories?

A. We prepared a list of all lines, line by line, and our first job was to go out in the field in each district and have all of the line-walkers come in, and we discussed the existence of these lines. That was our first step. For instance, I would
1198 ask a man, "Do you know anything about a certain line?" and he would say "Yes, this line is still there." And I would ask him, "How long is the line?" and he will say, "1,000 feet." If he said it was four miles, I knew that there was something wrong. So that was our first check. Then a discrepancy of that kind was checked in the field by actual measures.

The next check was by setting out on parallel columns the inventory lines as shown by the engineering department and as shown by the treasurer's department, and the discrepancies were noted, and if it could not be explained, they were checked out in the field by actual measurements.

We also checked the inventories with the surveys made by the engineering department and line plats. When a line is laid, there is a plat prepared showing the length of the line and the kind of the line, the beginning point and the end.

Q. And how can you make an actual measurement of a pipe line?

A. By measuring the line with a chain.

Q. With a chain on top of the ground?

A. Yes.

Q. Do you penetrate?

A. No; you just follow the line.

Q. Could you tell us how many miles were measured that way?

1199 A. I am not quite sure, but I think it was about ten or fifteen per cent.

Q. Of the 4,000 miles?

A. Yes, sir. It was not necessary to measure all of the lines where we were certain that the inventory was correct. We measured all of the lines on which we were in doubt.

Q. And you say that that was about 15 per cent of the 4,000 miles of pipe lines?

A. Offhand I would say that is correct. I would have to refer to my papers to find the correct amount.

* * *

Q. Could you have the papers here late today and give us the correct answer on that?

A. Yes, sir.

Q. Will you please turn to page 10 of Exhibit 20 and referring to paragraph D, were you able to identify in the transcription of investment ledgers, the specific units of physical property shown in the new inventories made in the field as of December 31, 1938?

A. In most cases, we did. In some of the general accounts, particularly in the shop equipment, we were unable

1200 to identify the items found in the field with the items shown on the company's ledgers, but of course that is only a very small portion of the properties involved.

Q. In the case of pipe and fittings at a compressor station, if you could not find it at the time of the field check, did you put it under construction labor and class it as supplies expended during construction?

* * *

The WITNESS. I will have to refer to my papers to answer that question.

By Mr. SPRINGER:

Q. And on page 10 again, what is the dollar amount of your adjustments, in connection with the property no longer in existence which was still carried on the company's books?

A. Again I will have to refer to my papers, Mr. Springer. I could not answer that question offhand.

Q. You would not know the dollar amount of your adjustments in connection with property found by field check which had not been recorded on the books?

A. No, sir, that would be a big job to determine.

Q. Was it a large amount?

A. I would not say so; no, sir.

* * *

1201 Q. The Trial Examiner and the Federal Power Commission would not be expected to get the answer that way, would they?

A. Of course, in order to get the answer to these questions, it would require me to go over 70,000 pages and summarize them. It is a tremendous job, because they are shown by units of property. They are all there and all explained, and the reasons why the adjustments were made.

Q. You did not make any summaries for your own information?

A. I have the adjustments shown on this statement B.

Q. You do not know how much property you added to that inventory which was in existence which did not appear on the Company's books?

A. Not offhand; no, sir.

Q. Your working papers won't show that in summary form?

1202 A. Yes, sir; Statement C gives the various kinds of adjustments, but not as specifically as you would like to have them.

* * *

1205 Q. Mr. Antonelli, referring again to the dollar amount
1206 of your adjustments in connection with property no longer in existence which was still carried on the company's books, do you consider that important information?

A. No, sir.

Q. Now, in considering the dollar amount of your adjustments in connection with properties found by field check, which had not been recorded on the books, do you regard that as important information?

A. No, sir; there are not many such properties.

Q. And did you state the amount of money involved in these adjustments?

A. I stated the inventory adjustments, and I also stated the amounts involved reduced the original cost $449,042.39. That is a reduction to the original cost.

Q. That is a net figure?

A. Yes, sir; it is shown on page 34, statement C.

Q. Then there are other columns involved too, aren't there, such as material and labor costs, unloading and hauling, and warehouse handling?

A. Those are a different type of adjustments. I am referring now to the inventory adjustments only.

* * *

1208 Q. Mr. Antonelli, referring to column 6 on page 32 of your exhibit, you have used net figures there, have you?

A. Yes, sir; I did.

Q. And the working sheets do not show the dollar amount of adjustments in summary form, do they? The total dollar amount?

A. The working sheets will give you the total amounts for each account as it appears in statement C.

Q. You have stated that it was net and your working papers do not show the total gross.

A. The working papers show in detail each item added or retired in the inventory, and this is the result of the additions and retirements. The net figure is shown in the statement C, account by account.

The TRIAL EXAMINER. Does it show how you arrived at each amount as related to the original books?

The WITNESS. No. For such information it would be necessary to go back to the working sheets. It does record the amounts added and retired, item by item.

* * *

1209 Q. You have stated, Mr. Antonelli, I believe, that the dollar amount of your adjustments, in connection with property no longer in existence, which was still carried on the
1210 Company's books, was not important?

A. Not as far as dollars is concerned.

Q. Well, what do you mean? That $1,000,000 is not important?

A. I would not say that it was $1,000,000. It was not $1,000,000.

The TRIAL EXAMINER. Is it half a million dollars?

The WITNESS. I am not quite sure, but it is less than half a million dollars. I would have to look it up, because I cannot remember the figure.

By Mr. SPRINGER:

Q. In reference to the dollar amount of your adjustments in connection with the property found by field check, which had not been recorded on the books, you said also that you did not think that was important. Is that a million dollars?

A. Oh, no; it is a small amount. I am not sure—I don't know how much, but it is not a million dollars.

Mr. SPRINGER. Mr. Examiner, we renew our request for the tabulation showing the dollar amount of adjustments in connection with property no longer in existence which was still carried on the Company's books, and the dollar amount of adjustments in connection with property found by the field check, which had not been recorded on the books?

* * *

1212 Q. Would it require much work to prepare that tabulation?

A. After you see these work sheets, perhaps you will be satisfied with what we have. I believe they will show just what you wish.

Q. You will be able to testify to it from your sheets then?

A. I think so.

Q. Please refer to page 10 of your exhibit. How could property exist that was not recorded on the Company's books?

A. There is a lot of property that is not recorded on the Company's books and still it is in the field and owned by the Company.

Q. Does that mean that the property was in existence but it did not show in the plant accounts, and probably has been charged to operating expenses?

A. What property do you have in mind?

Q. How does property exist which does not show on the
1213 Company's books? What causes that? Is that an omission?

A. No; it might be that during the re-classification of accounts, certain properties were missed, or it might have been charged to expenses, although only a small portion of the properties are charged to expense.

Q. You mean the former reclassifications, do you not?

A. Yes; I mean the former reclassifications.

Q. Of 1920 and 1932?

A. Yes; sir.

Q. On statement B at page 31, you show the restated original cost of operated leaseholds, gas rights and royalties, totalling $1.684,635. Will you state the amount which was added to book costs to get that result?

A. The amount added to the books to get that result would be the difference between $1,684,635.98 and $1,331,100.55.

Q. Will you explain in detail how you determined the original cost of operated leaseholds, gas rights and royalties for each of the columns across page 31?

A. Column 4 was obtained from the financial statement. That is the amount shown in the financial statement for operated leases.

Column 12 was determined by adding the costs to the Hope Company, exclusive of the expense items and overhead, of the first lease acquired from other utilities.

1214 Column 5 was obtained by subtracting Column 12 from Column 4, and it is not supported by detailed leases adding up to the total of the column. This column was just a balancing figure.

Column 6 is the difference between the original cost of the leases and the book cost as shown on the Hope Company's financial statement.

Q. Column 6 is the difference between the figures and what other columns on page 31?

A. Column 5 plus column 6 plus column 12 and less column 4 will give you column 6.

The TRIAL EXAMINER. Will you repeat that answer, Mr. Reporter?

(The answer is repeated.)

The WITNESS. It is the original cost—it is the difference between the original cost of the leases, which is column 5, column

6 and column 12, less the cost capitalized on the company's books of column 4, and that will determine the original cost of the leases to be $1,583,852.73 and the cost capitalized on the books is $1,331,100.55. The difference represents the inventory—no; it represents the adjustment, which is $252,752.18.

By Mr. SPRINGER:

Q. Is that sum of $252,752.18 under column 6 also a
1215 balancing figure?

A. No; that is an adjustment that had to be made on the books, in order to obtain the adjusted book cost of the operated leases.

Q. Is that supported by detail of the leases?

A. The detail? The total original cost is of the operated leases and is supported by detailed vouchers.

Q. Is the amount of $252,752.18 in column 6 supported by detailed leases?

A. That is only an adjustment.

Q. It is a balancing figure, is it not?

A. Well, you might call it a balancing figure. The original cost of the operated leases is $1,583,852 and the leases on the books are recorded at $1,331,100. The difference had to be shown under an adjustment, and that represents the $252,752.

Q. Will you explain how you determined direct material and labor costs not capitalized for operated leaseholds, gas rights and royalties?

A. I don't understand your question.

Mr. SPRINGER. I will ask the Reporter to repeat the question.

(The question is repeated.)

The WITNESS. Well, the leasehold consideration has
1216 always been capitalized, and only cost of obtaining for the years prior to 1921 were expensed, and also some of the recording was expensed, but most of the leasehold costs were capitalized. The items that were expensed were determined by ascertaining how much the company actually paid for such leases through vouchers and Company records.

By Mr. SPRINGER:

Q. Could you tell us how you arrived at the $64,398.61 in column 7 for direct material and labor costs, not capitalized, relating to operated leaseholds?

A. This amount comprises the cost of obtaining—and by the cost of obtaining, I mean the cost of the agent going out in the

field to acquire leases. I think it also includes certain recording charges. In some cases we were able to find the actual costs through vouchers. In other cases part of this $64,000 was estimated on the known costs of the other leases. By that I mean we knew how much it cost to obtain a lease by study of 3,700 or 3,800 leases, and we used that cost to estimate the cost of the leases that we did not know.

Q. Were the conditions comparable during the period that you have stated, to the test costs, which you used in your estimates?

A. This cost of obtaining price which we used as an estimated price, was based on leases purchased or acquired after
1217 1921, and was used for the cost of obtaining Hope Company leases purchased prior to 1921. Although the wages paid by the Hope Company after 1921 were higher than prior to 1921, the transportation after 1921 was very accessible, and offsets the difficult transportation prior to 1921. The means of going from one place to another to see the various farm owners was not very good prior to 1921, and it took three or four or five times as long to reach a farmer prior to 1921 as it did after 1921.

Q. Now, Mr. Antonelli, will you please refer to the unoperated leases, gas rights and royalties, on page 31, with the restated original cost $681,882 and state the amount which was added to the book cost to get that result?

A. We had to add the amount shown on column 6, namely $104,881.48.

Q. Is that a balancing figure?

A. You may call it so. It is an adjustment figure.

Q. What is your description of an adjustment figure?

A. It is the difference between the original cost and the book cost, in order to balance with the books in column 4, we had to show this adjustment in the next column. It does not mean anything, as far as that is concerned—it is just an adjustment figure. It was shown just for the purpose so that we could balance with the Company's books, and it really has no
1218 effect on the original cost whatsoever.

Q. Now, will you please explain in detail how you determined the original costs for each of the other items of cost at page 31 for unoperated leaseholds, gas rights and royalties?

* * *

A. It was determined from the Company's records and vouchers.

Q. Starting with column 4.