

Y4  
.In 8/4

1019

94-158  
In 8/4  
7/8/78  
7/4/76

94-158  
GOVERNMENT DOCUMENTS

# ALYESKA OIL PIPELINE OVERSIGHT

Storage

APR 14 1977

FARRELL LIBRARY  
KANSAS STATE UNIVERSITY

## SUPPLEMENTAL HEARING

BEFORE THE

### SUBCOMMITTEE ON ENERGY AND POWER

OF THE

### COMMITTEE ON

### INTERSTATE AND FOREIGN COMMERCE

### HOUSE OF REPRESENTATIVES

NINETY-FOURTH CONGRESS

SECOND SESSION

TO CONTINUE TO EXPLORE THE PROBLEMS OF MORE  
FALSIFIED X-RAYS ON THE TRANS-ALASKA OIL  
PIPELINE

DECEMBER 14, 1976

**Serial No. 94-158**

Printed for the use of the  
Committee on Interstate and Foreign Commerce



U.S. GOVERNMENT PRINTING OFFICE  
WASHINGTON : 1977

83-958 O

KSU LIBRARIES



111900 816857 ✓

74  
28  
4-128  
DOC

COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE

HARLEY O. STAGGERS, West Virginia, *Chairman*

JOHN E. MOSS, California	SAMUEL L. DEVINE, Ohio
JOHN D. DINGELL, Michigan	JAMES T. BROYHILL, North Carolina
PAUL G. ROGERS, Florida	TIM LEE CARTER, Kentucky
LIONEL VAN DEERLIN, California	CLARENCE J. BROWN, Ohio
FRED B. ROONEY, Pennsylvania	JOE SKUBITZ, Kansas
JOHN M. MURPHY, New York	JAMES M. COLLINS, Texas
DAVID E. SATTERFIELD III, Virginia	LOUIS FREY, Jr., Florida
BROCK ADAMS, Washington	JOHN Y. McCOLLISTER, Nebraska
W. S. (BILL) STUCKEY, Jr., Georgia	NORMAN F. LENT, New York
BOB ECKHARDT, Texas	H. JOHN HEINZ III, Pennsylvania
RICHARDSON PREYER, North Carolina	EDWARD R. MADIGAN, Illinois
JAMES W. SYMINGTON, Missouri	CARLOS J. MOORHEAD, California
CHARLES J. CARNEY, Ohio	MATTHEW J. RINALDO, New Jersey
RALPH H. METCALFE, Illinois	W. HENSON MOORE, Louisiana
GOODLOE E. BYRON, Maryland	
JAMES H. SCHEUER, New York	
RICHARD L. OTTINGER, New York	
HENRY A. WAXMAN, California	
ROBERT (BOB) KRUEGER, Texas	
TIMOTHY E. WIRTH, Colorado	
PHILIP R. SHARP, Indiana	
WILLIAM M. BRODHEAD, Michigan	
JAMES J. FLORIO, New Jersey	
ANTHONY TOBY MOFFETT, Connecticut	
JIM SANTINI, Nevada	
ANDREW MAGUIRE, New Jersey	
MARTIN A. RUSSO, Illinois	

W. E. WILLIAMSON, *Clerk*

KENNETH J. PAINTER, *Assistant Clerk*

*Professional Staff*

CHARLES B. CURTIS	WILLIAM P. ADAMS
LEE S. HYDE	ROBERT R. NORDHAUS
ELIZABETH HARRISON	BRIAN R. MOIR
JEFFREY H. SCHWARTZ	KAREN NELSON

MARGOT DINNEEN

JAN B. VLCEK, *Associate Minority Counsel*

SUBCOMMITTEE ON ENERGY AND POWER

JOHN D. DINGELL, Michigan, *Chairman*

TIMOTHY E. WIRTH, Colorado	CLARENCE J. BROWN, Ohio
PHILIP R. SHARP, Indiana	CARLOS J. MOORHEAD, California
WILLIAM M. BRODHEAD, Michigan	JAMES T. BROYHILL, North Carolina
BOB ECKHARDT, Texas	H. JOHN HEINZ III, Pennsylvania
RICHARD L. OTTINGER, New York	SAMUEL L. DEVINE, Ohio
ROBERT (BOB) KRUEGER, Texas	(ex officio)
ANTHONY TOBY MOFFETT, Connecticut	
ANDREW MAGUIRE, New Jersey	

HARLEY O. STAGGERS, West Virginia  
(ex officio)

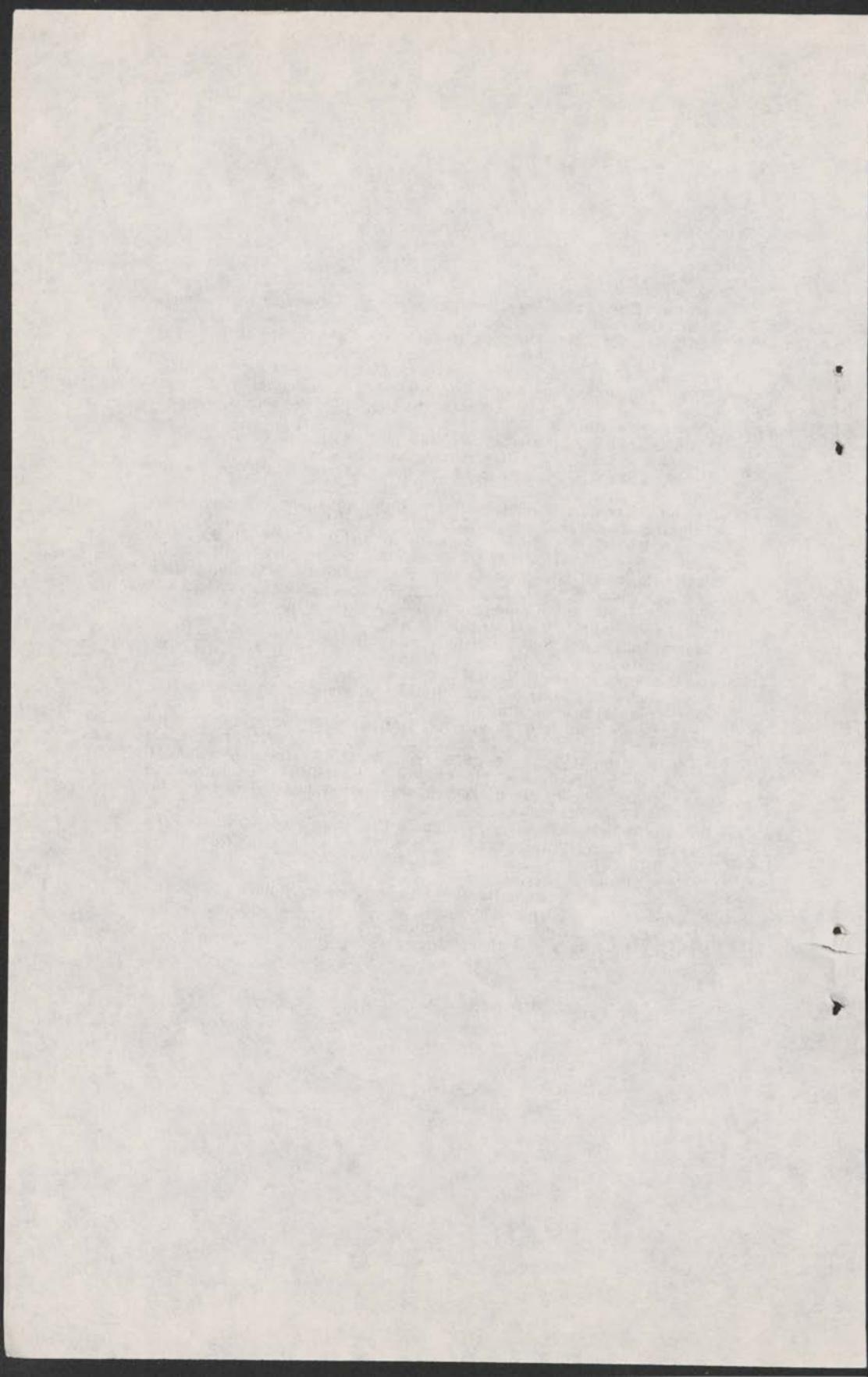
FRANK M. POTTER, *Staff Director and Counsel*

MICHAEL F. BARRETT, Jr., *Counsel*

PETER D. H. STOCKTON, *Research Assistant*

## CONTENTS

	Page
Testimony of—	
Barnum, Hon. John W., Deputy Secretary, Department of Transportation .....	13
Curtis, James T., Jr., Director, Materials Transportation Bureau, Department of Transportation .....	13
Frizzell, Hon. D. Kent, Under Secretary, Department of the Interior ..	43
Garner, Hugh C., Deputy Solicitor, Office of the Solicitor .....	43
Latz, John E., Technical Assistant to the Under Secretary, Department of the Interior .....	43
Olive, Donald W., International Union of Operating Engineers, Radiographic Local No. 2, AFL-CIO, St. Louis, Mo. ....	4
Patton, Edward L., chairman of the board, Alyeska Pipeline Service Co .....	123
Powders, Kenneth R., International Union of Operating Engineers, Radiographic Local No. 2, AFL-CIO, St. Louis, Mo. ....	4
Rollins, Maj. Gen. Andrew P., retired, authorized officer, Alaska Pipeline Office, Department of the Interior .....	43
Taylor, Marshall W., Chief, Central Region, Office of Pipeline Safety Operations .....	13
Wormeli, John, senior welding engineer, Alyeska Pipeline Service Co. ....	123
Additional material submitted for the record by—	
Energy and Power Subcommittee, Interstate and Foreign Commerce Committee:	
Correspondence between Chairman Dingell and Kent Frizzell, Under Secretary of the Interior, re welding program on the trans-Alaska pipeline .....	44
Excerpts from 49 CFR part 195, transportation of liquids by pipeline .....	22
Letter dated June 14, 1976, from R. J. Westerheid, manager, Alyeska Pipeline Service Co., to A. P. Rollins, Jr., authorized officer, Alaska Pipeline Office, with attachments, re double joint weld radiographs .....	87
Interior Department, memorandum to the files dated April 21, 1976, from AOR re minutes of meeting dealing with the radiograph audit, April 5, 1976 .....	98
Transportation Department:	
Coast Guard examination of girth weld radiographs on the trans-Alaskan crude oil pipeline .....	33
Complaints from construction personnel working in Alaska .....	24
Qualifications for a U.S. Coast Guard marine inspector .....	35



## ALYESKA OIL PIPELINE OVERSIGHT

TUESDAY, DECEMBER 14, 1976

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON ENERGY AND POWER,  
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,  
*Washington, D.C.*

The subcommittee met at 10:30 a.m., pursuant to notice, in Room 2359, Rayburn House Office Building, Hon. John D. Dingell, chairman, presiding.

Mr. DINGELL. The subcommittee will come to order.

At this morning's hearing the subcommittee will continue to explore the problems of more falsified X-rays on the trans-Alaska oil pipeline. For some time now the subcommittee has been investigating the role of the Government monitors and the ineffective way they have policed the pipeline's construction.

Last Friday, the subcommittee heard sworn testimony in executive session from three top-ranking radiographers at one of Alyeska's two double joint yards who admitted as follows:

1. They participated in a scheme to falsify numerous X-rays.
2. The falsification scheme was developed by their Bechtel Quality Control supervisor who threatened to have them fired if they did not go along with the scheme.
3. Falsification could have occurred at the other double joint yard as easily as it had at their yard, and
4. Not one X-ray hand at either of the double joint yards has been contacted or interviewed by either the Government or Alyeska concerning the widespread rumors of faking of double joint X-rays.

The witnesses did not agree on the number of films that were faked. The range is somewhere from about 60 to 200. The witnesses also could not agree on the status of the welds that were trucked out of the yard by mistake. Two of them testified that they believed that the missing pipes included those which still needed repair, were missing the required X-ray or were missing an acceptable X-ray. Another witness claimed that all of the pipes in question had been X-rayed and the welds found acceptable, but that the film had been found unacceptable, requiring the faking of the X-rays.

Of course, the exact number of faked films and the status of those welds are irrelevant to the discussion today. An acceptable film for each weld on the pipeline is required before the Federal Government can allow oil to flow through the pipeline. Falsified films are a clear violation of Federal safety regulations and stipulations. These disclosures are critical because this is a whole new area, involving 42,000

sections of pipe which the Government has never audited, analyzed or reviewed.

Let me make clear at this time that we are not talking about the five sections of double-jointed pipe which, according to Alyeska, got out of the Valdez double joint yard without being X-rayed, or the eight sections which got out of the Fairbanks yard. The subcommittee is well aware of this problem and the action taken to correct it. The subcommittee has obtained copies of the Bechtel audits relating to these joints, dated July 22 and July 29, 1975. We also have copies of a letter from Mr. R. J. Westerheid, manager of Alyeska Quality Assurance, and some of this handwritten notes relating to the status of those joints as of June 14, 1976.

What we are looking at today is the disclosure that in addition to those 13 pipes which got out without X-rays, there are a number which now, according to the witnesses, have faked X-rays on file. We are concerned with the faking, the easy way fakes can get past Bechtel's Quality Control, Alyeska's Quality Assurance and Government monitors, and the problem of how to obtain the required X-rays at this late date.

Last June, the subcommittee heard testimony<sup>1</sup> from Peter Kelley, a former X-ray hand on the pipeline, who admitted to his role in the falsification of field X-rays. As a result of Mr. Kelley's earlier disclosures, Alyeska had audited and fingerprinted 100 percent of its X-rays taken in the field. This resulted in nearly 4,000 questionable welds being discovered and repaired. Mr. Kelly testified that 10 months after he told Alyeska about the faking, no one from the Federal Government had interviewed him. As a result of the original disclosures that Mr. Kelley had falsified five X-rays, Alyeska ultimately found that nearly 300 X-rays had been falsified.

It is important that there be 100-percent valid X-rays on the pipeline to assure is structural integrity. The Department of the Interior recognized this when it made 100 percent X-rays a requirement of the agreement by which Alyeska is permitted to build a pipeline. When we see how easy it is to falsify X-rays and to slip them into the records of the company, we have to call into question the entire quality control program designed to prevent this. The last time X-ray falsification was uncovered, it showed that the entire quality control program was ineffective. Last Friday's testimony showed again the ineffectiveness of a quality control program that could not spot falsification of records.

The last time falsification was publicly disclosed, the Government did nothing; it never interviewed Mr. Kelly or anyone else involved; and it let Alyeska conduct its own audit without any supervision or comment. Only after the audit was completed did the Government make any inquiry. Now we have a repetition of the same breakdown in quality control, an apparent repeat of falsification of X-rays—and we have to ask again where was the Government? What was it doing?

As a result of Mr. Kelley's disclosures, Alyeska conducted an 8-month audit. Then the Department of the Interior hired Arthur Andersen

<sup>1</sup> See "Alyeska Oil Pipeline Oversight" hearings, June 21, 1976, before the Subcommittee on Energy and Power, Committee on Interstate and Foreign Commerce—Serial No. 94-125.

and Company to audit the Alyeska audit. Alyeska then hired Peat, Marwick & Mitchell to audit the Arthur Andersen audit. Now the Department of the Interior is hiring another auditor to audit the audit of the audit of the audit. With respect to the disclosures that have come out concerning the double joint problem, we want to avoid a repetition of the same mistakes that were made in the first audit. We want to be assured that adequate procedures are instituted and followed so that when the oil finally begins to flow along the pipeline, everyone will have fulfilled every condition required by law and regulation.

The question of the double joint problem was raised in April of this year at a high-level meeting between Alyeska and Department of the Interior. The fact that there were problems or rumors of problems was discussed and it was quickly tabled. The information about possible falsification problems with double joints was recently disclosed to an Alyeska official, who has undertaken no action that we can discern.

Under these circumstances, the subcommittee is concerned about who is going to protect the public interest. With the record before us of what happened in the first instance of falsification, we want to be sure that we do not see a repetition.

I understand the Government officials have expressed a statement in a December 7 staff memorandum to me that there may have been conspiracy on the part of some to cover up these problems. I found it incredible these officials are concerned about this suggestion, but apparently are not concerned about testimony under oath that the films were falsified.

These films were made available to Government inspectors who apparently relied upon them. Such evidence should have resulted in Government lawyers and investigators scurrying around to see if 18 U.S.C. 1001 and other laws have been violated. Instead of doing that, Government officials are busy issuing denials and so-called forceful rebuttals. The best rebuttal would be an honest admission that at the very least the Government should investigate to prove or disprove the allegations rather than to seek to blow smokescreens over this testimony.

I believe the Congress and the public would rest easier if this were done, or that we were concerned about the effects of oil spills resulting from poor welds.

The Chair now calls for our witnesses Mr. Donald Olive and Mr. Kenneth R. Powders.

Gentlemen, will you please come forward.

Gentlemen, if you will stand and raise your right hand.

Do you have any objection to being sworn?

Mr. OLIVE. No, sir.

Mr. POWDERS. No, sir.

Mr. DINGELL. Gentlemen, do you solemnly swear the testimony you are about to give is the truth, the whole truth, and nothing but the truth, so help you God?

Mr. OLIVE. I do.

Mr. POWDERS. I do.

Mr. DINGELL. You will observe a copy of the Rules of the Committee and the Rules of the House is there at the witness table, as required by the rules.

Do either of you wish to have counsel sit with you during the time you give testimony?

**TESTIMONY OF DONALD W. OLIVE AND KENNETH R. POWDERS,  
INTERNATIONAL UNION OF OPERATING ENGINEERS, RADIO-  
GRAPHIC LOCAL NO. 2, AFL-CIO, ST. LOUIS, MO.**

Mr. OLIVE. No, sir.

Mr. DINGELL. I assume that is true in each case?

Mr. POWDERS. Yes.

Mr. DINGELL. Gentlemen, you have been duly sworn. The Chair will now recognize counsel for purpose of asking questions.

Mr. BARRETT. Mr. Olive, for the record would you indicate your present address and your present employment.

Mr. OLIVE. My address is route 1, box 5, Marmac, Okla. I am employed by the International Union of Operating Engineers, local No. 2, St. Louis, Mo.

Mr. BARRETT. Mr. Powders, would you state your present address for the record, and your present employment.

Mr. POWDERS. Route 1, box 301, Henryetta, Okla., employed by the International Union of Operating Engineers, local 2, St. Louis, Mo.

Mr. BARRETT. Mr. Olive, what is the role of the Radiographers Union in the radiographic industry as a whole?

Mr. OLIVE. In 1966 local 2 gained jurisdiction of 50 States for non-destructive testing.

Mr. BARRETT. What was the union's role in Alaska?

Mr. OLIVE. Our members were included in the project agreement for the International.

Mr. BARRETT. Were all radiographers employed on mainline girth weld radiography and double joint radiography members of your union?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. What is the use of radiography in the pipeline industry?

Mr. OLIVE. To inspect the welds, to find if there are any flaws within the welds.

Mr. BARRETT. What kind of defects are you looking for when you are inspecting the welds?

Mr. OLIVE. There are various types of defects. You look for slag, inadequate penetration, burn bruise, cracks, porosity, gas pockets, internal undercut, external undercut.

Mr. BARRETT. What other forms of nondestructive testing are there besides X-ray?

Mr. OLIVE. There is ultrasonic, dye penetrant, hydrostatic testing, which is destructive if there is a flaw.

Mr. BARRETT. It is destructive if the weld is flawed, is that what you said?

Mr. OLIVE. Sir?

Mr. BARRETT. I didn't understand your last statement.

Mr. OLIVE. I said the hydrostatic testing is destructive if the weld is faulty.

Mr. BARRETT. Can hydrostatic testing spot all the defects that an X-ray can?

Mr. OLIVE. No, sir.

Mr. BARRETT. Would you agree with that, Mr. Powders?

Mr. POWDERS. Yes, sir.

Mr. BARRETT. Could a weld pass a hydrostatic test and still be defective by Government and industry standards?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. And, Mr. Powders, you would agree with that?

Mr. POWDERS. Yes, sir.

Mr. BARRETT. Mr. Olive, were you present at an executive session of this subcommittee last Friday?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. Did you hear testimony concerning falsification of X-rays of double joint welds?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. Are you satisfied that X-rays were, in fact, falsified?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. Do you think it is possible that some of those falsified X-rays were of welds which got out without an adequate X-ray having been taken?

Mr. OLIVE. Yes, sir.

Mr. BROWN. Could I inquire if you are asking the witness if he is satisfied from personal knowledge, or on the basis of the testimony?

Mr. BARRETT. Are you satisfied on the basis of the testimony?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. And from your personal knowledge of the individuals involved?

Mr. BROWN. Of the circumstances. There is a difference.

Mr. BARRETT. From your personal knowledge of the individuals who testified?

Mr. OLIVE. Yes, sir.

Mr. BROWN. Could I interrupt and say I think the question ought to be whether he has knowledge of this from personal knowledge of the incidents rather than personalities.

Mr. BARRETT. Do you have personal knowledge of any incident involving X-rays?

Mr. OLIVE. No, sir.

Mr. BARRETT. Before the subcommittee investigators contacted you and asked you about falsification of X-rays, did you tell anyone from Alyeska that there might be problems with the X-rays of the double joints?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. Who?

Mr. OLIVE. John Waldrup, with Alyeska Labor Relations.

Mr. BARRETT. What did you tell him?

Mr. OLIVE. I told him I had reason to believe there was some falsification in the double joint yard back at Fairbanks.

Mr. BARRETT. Is that all you said, or did you tell him it was a pretty serious charge, or that there was substantial indication?

Mr. OLIVE. He asked me where I got my information. I told him I was not at liberty to tell him where I got my information.

Mr. BARRETT. Were there any witnesses when you told Mr. Waldrup this information?

Mr. OLIVE. Yes, sir, Mr. Barry Levine.

Mr. BARRETT. Have you talked to Mr. Waldrup since?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. Has he had any comment about this?

Mr. OLIVE. He called me yesterday morning.

Mr. BARRETT. What did he say?

Mr. OLIVE. Excuse me. I called him and returned his call yesterday morning.

Mr. BARRETT. What did Mr. Waldrup say to you?

Mr. OLIVE. He said I got him run off, first.

Mr. BARRETT. Why?

Mr. OLIVE. Because I gave his name in the testimony the other day, Friday.

Mr. BARRETT. Do you know Don Thomas?

Mr. OLIVE. Yes, sir.

Mr. BROWN. Could we get an explanation of what being run off means?

Mr. OLIVE. Fired, sir.

Mr. BARRETT. Do you know Don Thomas?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. Who is Don Thomas?

Mr. OLIVE. Don Thomas is a level 2 radiographer.

Mr. BARRETT. Was Don Thomas in Alaska?

Mr. OLIVE. Yes, sir, Don Thomas went to Alaska in 1975 working for EXAMCO. Then in 1976 he worked for Peabody Miller.

Mr. BARRETT. Did Mr. Thomas ever come to you and advise you that he had been asked to falsify X-rays?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. What did you do with that information?

Mr. OLIVE. That information at that time?

Mr. BARRETT. My question might better be stated: Did you tell anybody with the Government about Mr. Thomas' statement that he had been asked to falsify X-rays?

Mr. OLIVE. The Barnum committee.

Mr. BARRETT. The Barnum committee, when they came to Alaska in July of this year?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. Whom did you tell, Mr. Barnum and his people at a meeting?

Mr. OLIVE. Yes.

Mr. BARRETT. What were you told would happen as a result of your identifying Mr. Thomas? Were you told that someone would contact Mr. Thomas?

Mr. OLIVE. Mr. Steele, after the meeting, asked me if I would contact Don Thomas and set up a meeting to where he could interview Mr. Thomas.

Mr. BARRETT. Mr. Steele was going to meet with Mr. Thomas to get more information?

Mr. OLIVE. Yes, sir, if I set up the meeting.

Mr. BARRETT. Did you set up such a meeting?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. Did the meeting take place?

Mr. OLIVE. No, sir.

Mr. BARRETT. Do you know why?

Mr. OLIVE. No, sir.

Mr. BARRETT. Were you ever told by Mr. Thomas that he had canceled the meeting?

Mr. OLIVE. No, sir.

Mr. BARRETT. Did Mr. Steele not make contact with Mr. Thomas? Is that the reason why the meeting did not take place?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. Are you familiar with an incident involving Gulf Interstate and a pipeline that they are putting in in Alaska?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. What do you know about that pipeline, specifically with reference to information provided to you by Mr. Roger Bell?

Mr. OLIVE. Mr. Roger Bell came to me in Anchorage, Alaska, at the airport. I happened to run into him at the terminal, and he told me he was really upset with Gulf Interstate. He was inspecting for Gulf Interstate. He had hired out to Gulf Interstate. He was not doing the radiography work. And he came to me and told me he was really upset, they wouldn't let him do his job. And I asked him some questions about why they wouldn't let him do his job. It seems like the X-ray company involved on the pipeline at that time was taking three exposures and this was not up to the 1104 code.

Mr. BARRETT. The code required how many exposures?

Mr. OLIVE. Four exposures.

Mr. BARRETT. And they were only taking three?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. And Mr. Bell told you that?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. And did you tell anybody, or did Mr. Bell tell anybody besides you about this?

Mr. OLIVE. Yes, sir, I advised Mr. Roger Bell to go to our international to see if there was somebody that the international knew at the Department of Transportation for him to call and report this.

Mr. BARRETT. To your knowledge, did he report it?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. What action was taken as a result of this?

Mr. OLIVE. As far as I know, there has been no action.

Mr. BROWN. Excuse me. Could I ask one clarifying question?

To whom did he report it? To the international or to the Department of Transportation?

Mr. OLIVE. He reported to a Mr. Paul McBride with the International Union of Operating Engineers here in Washington, D.C.

Mr. BROWN. And?

Mr. OLIVE. Mr. McBride got him a name and number and reported back to Mr. Bell. Mr. Bell in turn called that name and number.

Mr. BROWN. You don't know the name and number?

Mr. OLIVE. I was told by Mr. Bell it was Mr. Ceasar DeLeon.

Mr. BARRETT. Do you know who Gulf Interstate is?

Mr. OLIVE. I know they are a pipeline company, or oil company.

Mr. BARRETT. Are there provisions for X-raying offshore pipelines?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. And are you satisfied that the X-rays for offshore pipelines are satisfactory?

Mr. OLIVE. No, sir.

Mr. BARRETT. Why would you say that?

Mr. OLIVE. All offshore work is worked off a short cutter barge, or a real short operation. From the time that pipe is welded to the time it is put into the water is a short length of time, and no radiographer has time to perform his duties properly under those conditions. He has to use as fast a film as he can get. He has to heat his chemicals to where the film he gets that he interprets is not really presentable film.

Mr. BARRETT. You say a short length of time. Could you estimate how long? Is it in minutes?

Mr. OLIVE. I have seen a pipe come through the X-ray stall on a barge every 5 minutes.

Mr. BARRETT. So he has less than 5 minutes in which to X-ray the weld, develop the film, interpret it, and halt operations if it is defective?

Mr. OLIVE. Yes, sir. He can catch it in the next stall, that is another 5 minutes. In the next stall down from the X-ray stall they usually put the coating on and this sort of thing on the pipe. You can catch it there if it is a defective weld.

The point is, the film is not an effective film to really interpret, so he couldn't see all the defects.

Mr. BARRETT. What does he do with that film?

Mr. OLIVE. It is usually thrown away.

Mr. BARRETT. There is no requirement for keeping the film and reading it later?

Mr. OLIVE. Some pipeline companies will require you to keep the film maybe until the job is over. They don't care what happens to it.

Mr. BARRETT. The Government standards, as far as you know, do not require retention of that film?

Mr. OLIVE. That is true.

Mr. DINGELL. Can I ask about Gulf Interstate. Do they have a function with regard to construction of the trans-Alaska pipeline?

Mr. OLIVE. As far as I know, they have none.

Mr. BARRETT. I think we can establish later on, Mr. Chairman, Gulf Interstate is a Government subcontractor performing inspection on the pipeline for the Department of the Interior.

Mr. DINGELL. I happen to be aware of that. We will direct that question to the Interior Department witness.

Mr. BARRETT. Mr. Powders, you have experience with offshore pipelines and radiography. Would you agree with Mr. Olive's statement with respect to the short time, and so on?

Mr. POWDERS. Yes, sir, very much.

Mr. BARRETT. Could I ask just from the standpoint of qualifying the witnesses, have you done offshore radiography?

Mr. POWDERS. Yes, sir.

Mr. BARRETT. Is that your major employment, offshore work?

Mr. POWDERS. No, sir, but I have worked several jobs offshore.

Mr. BARRETT. For how long a period?

Mr. POWDERS. Anywhere from 2 to 6 weeks at a time.

Mr. BARRETT. And, Mr. Olive, you are a radiographer.

Mr. OLIVE. Yes, sir.

Mr. BARRETT. And you have done offshore work.

Mr. OLIVE. Yes, sir.

Mr. BARRETT. So both of these statements come from personal knowledge?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. Mr. Olive, how much of a problem is falsification of X-rays in the industry?

Mr. OLIVE. I have been in the industry since 1957, and falsification is something that is not new, because of pressures.

Mr. BARRETT. What you are saying is that there is a problem and there has been since you have been in the business?

Mr. OLIVE. There is a big problem.

Mr. BARRETT. Why is it a problem?

Mr. OLIVE. It seems if you walk onto a pipeline job and you are a radiographer you have got an inspector to answer to on this job. If that inspector doesn't like your looks or the way you dress or the way you wear your hair, or whatever, he can find reasons to get rid of you, and so you try to get along with this inspector.

Mr. BARRETT. Mr. Powders, would you agree that falsification is a problem?

Mr. POWDERS. A very big problem.

Mr. BARRETT. Would one of the reasons for this be the tremendous pressures that are put on the radiographers?

Mr. POWDERS. That is true.

Mr. BARRETT. Are radiographers offered money or bribes in connection with their work?

Mr. POWDERS. There have been situations.

Mr. BARRETT. Are you aware personally of any such incident?

Mr. POWDERS. None that I would mention.

Mr. BARRETT. But you have heard rumors, and that is the general story?

Mr. POWDERS. Yes, sir.

Mr. BARRETT. Mr. Olive, would you support that same statement that there are rumors of payoff?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. Have you ever personally been offered a payoff?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. I assume you declined.

Mr. OLIVE. Sir?

Mr. BARRETT. Did you decline?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. One question I think we should make clear, Mr. Olive. You did not volunteer your information with respect to the double joint X-ray problem to the subcommittee staff, did you? Were you not first contacted by the subcommittee staff?

Mr. OLIVE. That is true.

Mr. BARRETT. Assuming that there is a problem with falsification of some X-rays involving the double joints, could these be identified in some way?

Mr. OLIVE. Yes; I believe so.

Mr. BARRETT. Do you think you could tell us how they might be identified?

Mr. OLIVE. From the hearing Friday I think the only way to identify those welds would be to go through them, mark off all repaired welds, measure this with a tape measure and keep records on them, and then go back and see how many identical records you have got and then overlay your film.

Mr. BARRETT. It would require some form of manual overlay ultimately to establish whether there were falsifications?

Mr. OLIVE. Yes, sir, or comparing them on the same viewlight together.

Mr. BARRETT. If you were requested by the Government, could you assist in spotting the falsified X-rays?

Mr. OLIVE. If my business manager agreed to it.

Mr. BARRETT. But you have the expertise if that were necessary?

Mr. OLIVE. Yes, sir.

Mr. BARRETT. Mr. Chairman, that concludes my questions.

Mr. DINGELL. The Chair recognizes the gentleman from Ohio, Mr. Brown, for questioning.

Mr. BROWN. Mr. Olive, how many members are there in your union?

Mr. OLIVE. Presently 800.

Mr. BROWN. How many active radiographers are there in the United States?

Mr. OLIVE. I have no way of telling. I would say presently 2,000 to 3,000.

Mr. BROWN. How does one get to be a radiographer?

Mr. OLIVE. By on-the-job training.

Mr. BROWN. And how does one qualify for membership in the union?

Mr. OLIVE. To qualify for membership he has to have a job. He can also get on referral at the hall and then when his name comes up he is dispatched out and then he becomes a member.

Mr. BROWN. Apparently there are 800 members in your union, but 2,000 to 3,000 radiographers. Suppose one of those radiographers would like to join your union, how does he do that?

Mr. OLIVE. He gets on our referral list.

Mr. BROWN. How does he do that?

Mr. OLIVE. By sending \$10 to St. Louis with his short résumé up and his phone number and address.

Mr. BROWN. What checking on his qualifications is done? Do you have a test?

Mr. OLIVE. No, sir, the union has no test.

Mr. BROWN. So he gets on the referral list. Is he picked in the order he is put on the list?

Mr. OLIVE. Yes, sir, when his name comes up he is called.

Mr. BROWN. If I send you my \$10 I can ultimately get up high enough on the list that I would be asked to take a job somewhere?

Mr. OLIVE. Yes, sir. If I called you because a company called me for a technician—

Mr. BROWN. That happens automatically? You don't go down the list and select friends? You get on the board and move up?

Mr. OLIVE. Right.

Mr. BROWN. I ultimately would be high enough on the board that I would be referred to a job, and then what would happen?

Mr. OLIVE. You would be referred to the job. Then the company you were referred to would give you a test.

Mr. BROWN. And who makes up that test?

Mr. OLIVE. The company.

Mr. BROWN. What is it based on?

Mr. OLIVE. It is based on the 1104 code usually, but radiation and safety—

Mr. BROWN. Who wrote the 1104 code?

Mr. OLIVE. I am not sure.

Mr. BROWN. Is it a Government code? Is it an industry code?

Mr. OLIVE. It is an industry code.

Mr. BROWN. Set by what organization?

Mr. OLIVE. The American Society of Nondestructive Testing.

Mr. BROWN. Is it a standard test, or do they establish a number of questions from which that test is put together?

Mr. OLIVE. Each company has its own test, and each company's could differ.

Mr. BROWN. The other day we heard testimony that it occurs occasionally that a man who is referred by the union is not tested by the companies, that occasionally he is tested with this test which you make reference to, and occasionally a somewhat more severe test, is that right?

Mr. OLIVE. Yes, sir.

Mr. BROWN. So that the companies vary in their determination as to the qualification of these members referred to them by the union.

Do you know anything about the 1,200 to 2,200 nonunion radiographers, or radiographers who do not belong to your union. Are they similarly tested?

Mr. OLIVE. Some are, some are not.

Mr. BROWN. Do they belong to other unions? Are there other unions involved in the industry?

Mr. OLIVE. Yes, sir.

Mr. BROWN. What other unions are they?

Mr. OLIVE. The United Association of Pipefitters have some non-destructive testing organization.

Mr. BROWN. The people involved in the alleged falsification of radiographs on the Alaskan pipeline were hired by whom?

Mr. OLIVE. Repeat your question.

Mr. BROWN. Who were they working for, who was their employer?

Mr. OLIVE. Superintendence Co.

Mr. BROWN. Out of where?

Mr. OLIVE. Calgary, Canada.

Mr. BROWN. Does the company still exist?

Mr. OLIVE. Yes, sir, as far as I know.

Mr. BROWN. Does the Superintendence Co. have a legal responsibility, to your knowledge, for the performance of their duty under contract with Bechtel Co.?

Mr. OLIVE. I would say so, yes.

Mr. BROWN. And Bechtel Co. was hired to do what?

Mr. OLIVE. To construct the pipeline.

Mr. BROWN. To construct it?

Mr. OLIVE. Oversee the construction.

Mr. BROWN. To inspect it?

Mr. OLIVE. Sure.

Mr. BROWN. For whom? Who hired them?

Mr. OLIVE. Alyeska.

Mr. BROWN. So these are employees in terms of their company of employment in the third degree. They were employed by Superintendence, which was a subcontractor of Bechtel, which in turn was a subcontractor of Alyeska. Is that correct?

Mr. OLIVE. Yes, sir.

Mr. BROWN. How long have you been in the industry, again?

Mr. OLIVE. Since 1957.

Mr. BROWN. How long have you been a radiographer? When did you take your first test as a radiographer?

Mr. OLIVE. I was a radiographer before I took the first test. I think I helped a radiographer probably 3 months and I was told that I was a radiographer, to go to work.

Mr. BROWN. How long has radiography been used to test pipelines?

Mr. OLIVE. I am not sure, in the 1940's sometime.

Mr. BROWN. And on the Alaskan pipeline are there other unions that provide radiographers?

Mr. OLIVE. Just at the terminal there was a construction company that had their own radiography.

Mr. BROWN. Did you have a closed shop on the radiography operation, or not?

Mr. OLIVE. No, sir.

Mr. BROWN. And is there an ethical oath or anything like that that a radiographer must take to belong to your union or to perform his function?

Mr. OLIVE. No, sir.

Mr. BROWN. I think that covers my questions for the moment, Mr. Chairman.

Mr. BARRETT. I have one additional question.

Mr. DINGELL. Mr. Barrett.

Mr. BARRETT. Mr. Olive if an X-ray is of inadequate quality, does that mean you could still spot every defect in the X-ray, or is it possible that you could miss a defect because of the inadequate quality?

Mr. OLIVE. With the inadequate quality you could miss several defects.

Mr. BARRETT. Would you agree with that, Mr. Powders?

Mr. POWDERS. Yes, sir.

Mr. BARRETT. And you are both qualified level 3?

Mr. OLIVE. Level 2.

Mr. BARRETT. And, Mr. Powders, you are also level 2?

Mr. POWDERS. Yes, sir.

Mr. BARRETT. It is both your testimony that if an X-ray is of inadequate quality you might very well not spot a defect?

Mr. POWDERS. Yes, sir.

Mr. OLIVE. That is true.

Mr. BARRETT. That would be of sufficient seriousness to cause it to not meet Government standards?

Mr. OLIVE. That is true.

Mr. BARRETT. Mr. Powders, you agree?

Mr. POWDERS. Yes.

Mr. BARRETT. That concludes my questions, Mr. Chairman.

Mr. DINGELL. Gentlemen, the committee thanks you. We ask that you remain with us until the conclusion of this hearing in order that we might have you available for further comment on testimony as is required by the committee for purpose of our hearing today.

We thank you and we excuse you temporarily, gentlemen, if you will please remain with us.

Our next witnesses are witnesses on behalf of the department of transportation, the Honorable John Barnum, Mr. James T. Curtis, Jr., and Mr. Marshall W. Taylor. If you gentlemen would come forward, please.

Gentlemen, in view of the fact we are administering the oath to all our witnesses today, the Chair asks you, do you have any objection to being sworn at this time?

Mr. BARNUM. None whatsoever.

Mr. DINGELL. Is that true for the others?

Mr. CURTIS. Yes.

Mr. TAYLOR. Yes.

Mr. DINGELL. The Chair will observe the rules and regulations are available to you at the witness table.

If you will raise your right hand. Do you solemnly swear the testimony you are about to give will be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. BARNUM. I do.

Mr. TAYLOR. I do.

Mr. CURTIS. I do.

Mr. DINGELL. If you will each identify yourself for purpose of the record and for our reporter, we will receive your testimony.

The Chair is advised Mr. Barnum has a prepared statement, and although the statement was not submitted to the committee 24 hours previous to the time of the hearing, we will nonetheless receive your statement.

**TESTIMONY OF HON. JOHN W. BARNUM, DEPUTY SECRETARY, DEPARTMENT OF TRANSPORTATION; JAMES T. CURTIS, JR., DIRECTOR, MATERIALS TRANSPORTATION BUREAU; AND MARSHALL W. TAYLOR, CHIEF, CENTRAL REGION, OFFICE OF PIPELINE SAFETY**

Mr. BARNUM. Thank you. My name is John W. Barnum. I am Deputy Secretary of Transportation.

Mr. DINGELL. Mr. Curtis.

Mr. CURTIS. James T. Curtis, Director of the Materials Transportation Bureau, Department of Transportation.

Mr. TAYLOR. Marshall W. Taylor. I am chief of the central region, Office of Pipeline Safety Operations in Kansas City, formerly onsite coordinator for the Alaskan pipeline.

Mr. DINGELL. Mr. Barnum, you may consider yourself recognized for the purpose of reading your prepared statement, or such other

comments you wish to make. Then the Chair will recognize next the counsel, Mr. Barrett, for purpose of questioning.

Mr. BARNUM. Thank you, Mr. Chairman. I appreciate the opportunity to make a brief statement at the outset.

I realize that the Chair and the committee in the interest of expedition requested that there not be opening statements, and I will try to be as brief as I can.

I would like to state first that I regard the statements in the memorandum of the committee staff that there has been a conspiracy on the part of the Department of Transportation to cover up or to ignore allegations of falsification of welds is a very serious charge, albeit stated as it is "on the evidence available to the subcommittee staff."

I should advise you, Mr. Chairman, that based on the evidence available to me I reject that charge as being utterly without foundation.

Mr. DINGELL. Mr. Barnum, for purpose of the record, that is the matter into which we are inquiring today. Also we are inquiring into the falsification of a large number of X-rays with regard to double joint welds in certain parts of the yard at Fairbanks.

The Chair and the committee, of course, will make the proper and I think necessary judgments upon the conclusion of the testimony.

Mr. BARNUM. I appreciate that, Mr. Chairman, but since the staff's charge has been made available to the public, I think it is incumbent upon me to reject that charge at the outset and leave it to the committee to determine whether or not it is, indeed, with any foundation.

Mr. DINGELL. The Chair does observe there appears to be strong testimony in the record at this particular moment relating to falsification of X-rays and inadequate quality control in at least one of the yards under the jurisdiction of the pipeline, and also under inquiry by your agency and the Interior Department.

Again, the Chair reiterates we will review the testimony this morning to ascertain the facts and circumstances on conclusion of our inquiry.

Within that framework, the Chair will now recognize you for your statement.

Mr. BARNUM. Thank you, sir.

Over the past weekend two further issues regarding the integrity of the welds of the Trans-Alaskan Pipeline System have been raised, and they were reiterated this morning in the testimony of the two previous witnesses.

I would like to review and comment on these allegations very briefly.

The first issue is, according to press accounts, the possibility of "several hundred" faulty welds made in shops in Fairbanks and Valdez, the so-called double joints, where sections of the pipe are connected prior to shipment to the field.

The information that we have from your subcommittee's executive session held last Friday leads me to understand that the extent of the problem is as follows:

First, possibly eight double joints identified as faulty went to the field without being repaired. Subsequently at least two of these were repaired.

Second, after faulty welds in another 60 double joints had been repaired, reradiographed, reinterpreted and established by Alyeska's contractor as being in compliance with DOT standards and the pipe shipped to the field, the radiographic records of those welds were lost or found to be of inadequate quality.

Since a record of that process exists, there appear to be records other than the radiographs themselves that indicate that the welds in question meet DOT standards.

There are now allegations, however, that some falsification of the radiographic records may have been made thereafter, in order to establish complete radiographic records of those welds for the purpose, I assume, of complying with the stipulation with the Department of the Interior.

Thus it is my understanding that the quality control contractor has the radiographers' logs and other records that could verify that the quality of the weld repairs in the 60 double joints in question meets DOT standards. It is my further understanding, however, that that contractor has not yet been questioned in this matter, or those records examined.

In any event, Mr. Chairman, we in the Department of Transportation intend to address any possible problem of alleged additional faulty welds in the same manner as we are addressing the problem of the 3,955 girth welds made in the field which were questioned last summer and, indeed, all other field girth welds. As outlined in our report to the Energy Resources Council on July 31, a two-phase audit is necessary to provide a statistically reliable judgment concerning the integrity of the welds and their radiographic records.

The first phase entails a statistical sample of welds and radiographs to demonstrate the correlation between actual welds and the radiographic records of those welds. After this is satisfactorily done, a statistical sample of those records must be made to determine whether those welds are in compliance with DOT standards. That is phase 2.

With regard to the phase of correlating the welds and their radiographs, our efforts were aided by a recent Department of the Interior-sponsored sample of 600 welds made in the field in 1975 and 1976. We have just completed our analysis of the Department of the Interior report. It indicates to us that there is little probability that there are any substantial numbers of welds for which inadequate radiographic records exist.

With regard to the possibility of falsifications of the radiographic records of the double joint welds made in shops in Fairbanks and Valdez, a further analysis of the records of those welds will have to be made prior to determining the appropriate course of action. We will investigate those records in the course of other audits we plan for the winter season.

Given the acceptability of the correlation phase of the audit, it remains only for our experts to verify statistically the Alyeska hypothesis that the remaining 1975 welds and welds made in 1976 all comply with DOT standards.

This procedure can be applied to welds made in the shop as well as to welds made in the field. This statistical audit of radiographic rec-

ords to be made in the next few months will not impede progress of the construction program on which welding has been halted for the season.

The second issue raised by Mr. Olive's testimony in your executive session on Friday and in your staff's memorandum concerning DOT's actions and in Mr. Olive's testimony this morning, concerns charges of falsification of radiographs of double joint welds and what the Department of Transportation did about it.

According to the minutes of my meeting with Mr. Olive in Alaska on July 2, Mr. Olive told us, and I would like to quote very briefly:

There has been one case I know of where a technician has been handed a list to duplicate—asked to falsify records. This was last year. He was asked by either a Bechtel man or an Exam supervisor, I don't know which. If you want to know, you'll have to ask him. He left to go home last May or June rather than falsify. He's back now working for Peabody-Miller. He's a good man and I respect him for standing up. His name is Don Thomas.

That is the conclusion of the excerpt from our minutes. I misspoke when I said July 2. The meeting with Mr. Olive was actually July 13.

We sent a copy of the minutes of that meeting with Mr. Olive to Mr. Olive asking for his confirmation of their accuracy, and we have not received any response one way or the other.

After Mr. Olive made that statement, I asked the chief representative of the Office of Pipeline Safety Operations in Alaska, Admiral Steele, to set up a meeting with Mr. Thomas. Admiral Steele made contact with Mr. Olive, as Mr. Olive testified this morning, but Admiral Steele acknowledges he did not follow through on arranging a meeting with Mr. Thomas.

I should point out, Mr. Chairman, that none of us who were in Alaska has any recollection that Mr. Olive or anyone else raised the possibility that there was a problem with the double-jointing process. We carefully asked every individual we interviewed, including Mr. Olive, whether there was any problem other than the field girth welds that we should know about.

Some people called to our attention the possible problem with VSM's, which we already knew about.

Mr. BROWN. What is a VSM?

Mr. BARNUM. Vertical support member. Those are the support posts that hold the aboveground portion of the pipeline. There was a question whether those pipes that make up the VSM were also faulty. There were also certain related environmental problems of settling and a question as to whether their specially designed refrigerated thermal devices were able to keep the heat out of the ground, but no specific problem with respect to the welding as such was ever identified, nor did we ever find one. In any event, we know about concern for the VSM's, but that, as far as I can recall, is virtually the only other type of problem that was raised.

In any event, nothing was said with respect to the double jointing weld problem. The only references to the double joint welds, to our recollection, were made on three different occasions. Mr. Jack Turner of the Department of the Interior's Alaska Pipeline Office said that they had made a spot check of the double joint welds. Mr. Vic Osadchuk of Perini, one of the section construction contractors, stated

that the rejection rate on double joint welds was in the 3 to 8 percent range, and Mr. R. C. Schmid of Bechtel mentioned that the double joint rejection rate ran about 5 percent.

We were advised of those rejection rates by those gentlemen in the context of comparison with the rejection rate for field girth welds, not because the double joint rejection rate presented any problem in and of itself. Indeed, those rejection rates are not troublesome. The Department had not received any indication prior to those that came to light in your subcommittee's executive session on Friday, either indirectly or from interviews held in the field or elsewhere, that any falsification might exist with regard to double joint welds made in the shop.

In short, Mr. Chairman, the principal focus of the Department of Transportation's response to charges of falsification of radiographs has been to design a rigorous statistical examination for the purpose of determining the integrity of the universe of TAPS welds and their radiographic records. We can augment this approach as necessary to include information from individuals concerning specific welds. We intend to do precisely that with the further information that Mr. Olive has supplied.

Thank you very much, Mr. Chairman.

Mr. DINGELL. Thank you, sir.

The Chair recognizes Mr. Barrett for questions.

Mr. BARRETT. Mr. Barnum, I think you could clarify one point in the staff memorandum. The staff memorandum does not say Mr. Olive told the Department of Transportation in July that there were problems with the double joint yard. What the memo does say is that in following up the staff, through inquiry with Mr. Olive and others, ultimately found out about the falsification problem on the double joints. I think for the record we ought to clarify that point.

Mr. BARNUM. I think the record is quite clear that your memorandum does not say that Mr. Olive told us about double joint falsifications, and I simply wanted to make it clear that the record does not make that point.

Mr. BARRETT. I would suggest, however, it was our own contact of Mr. Olive, something which could have been done by the Department but which was not done, might have led to this discovery.

Also, I would like to ask you for the record whether anybody from the Department of Transportation has yet contacted Peter Kelley?

Mr. BARNUM. Not to my knowledge.

Mr. BARRETT. Has anybody contacted anybody else involved or possibly involved in the original falsification scheme?

Mr. BARNUM. Not to my knowledge.

Mr. BARRETT. So it is your testimony that the falsification scheme which took place during July of 1975, which came to the Department's attention in September, at least, of 1975, which has been the subject of scrutiny by Transportation as well as the Department of Interior, that with all of this background information, nobody from the Department of Transportation has yet interviewed anybody who was involved with the falsification?

Mr. BARNUM. I accept your statement that we have not interviewed those individuals who have been identified as having falsified the

records. We have, of course, talked to many people that you might say are involved in that they were working on the pipeline at the same time.

Mr. BARRETT. No one has made any attempt to contact any of the alleged falsifiers, is that your testimony?

Mr. BARNUM. That is my testimony, and I will tell you why. It is because our problem is not tracking down individually identified welds that may have been improperly done per the testimony of a welder or improperly done radiographs per the testimony of the radiographer. Our problem is looking at the entire universe, and as the chairman said in his opening statement, even the testimony of Mr. Kelley led only to five specific falsified X-rays, although it later developed that there were some 300 X-rays that were falsified. So rather than approach it on a piecemeal basis by trying to extract the truth from each and every welder and radiographer as to which weld and radiographs were falsified or not satisfactory, our approach has been to determine whether or not, in fact, the welds in the pipeline that are in the ground are good, satisfactory welds. That can be done best by looking at the records to determine whether they are satisfactory and completely correlated to the welds in the ground and not by chasing after a number of individuals.

Mr. BARRETT. But do you not have to know how they did it? If you are going to determine whether or not falsification has occurred, you ought to have some idea of how it was done.

Mr. BARNUM. We were told how it was done by Mr. Kelley when he testified here in June. All we needed to know—

Mr. BARRETT. That was several months after the Department of Transportation met with Alyeska and the Department of the Interior concerning the falsification problem.

Mr. BARNUM. That is correct.

Mr. BARRETT. So several months after the audit had been done, by Alyeska, the Department of Transportation had still not contacted anyone to find out how it had been done.

Mr. BARNUM. For the same reason that I gave you before, because how it was done is not so important as the fact that apparently it was done and our problem was determining the magnitude of the falsification. Accepting the fact that there were falsified X-rays, and we did as a result of the audit because Alyeska itself identified falsification or the duplication which suggested falsification, our problem was to determine how big the problem was, and what the answer was.

Mr. DINGELL. Let me, if I may, come back to several points.

First of all, I want to talk about your statistical methodology in the audits, but I want to talk about that a little later.

Second, and more important, I want to talk to you first about the impact of the falsifications which transpired here. Here it is pretty clear we had, first of all, in connection with Mr. Kelley's testimony earlier before this committee, rather clear evidence of falsification of X-rays and that sort of thing, am I correct?

Mr. BARNUM. That is correct.

Mr. DINGELL. That brings into question a number of items, the first of which is the X-ray process itself, am I correct on that, sir?

Mr. BARNUM. Yes.

Mr. DINGELL. And it also brings into question the prior audits and the prior quality control, am I correct on that?

Mr. BARNUM. As of that point, I think it only brings into question the prior quality control.

Mr. DINGELL. Prior quality control, all right. And it brings into question not only the activities with regard to Alyeska, but Alyeska's contractors, Alyeska's quality control, whether delegated to other companies or not, and Alyeska's quality assurance, am I correct?

Mr. BARNUM. That is correct.

Mr. DINGELL. And it raised questions to a whole large number of welds which ultimately came into being and which have been fixed, I think, generally at the level of 3,955, if I recall your testimony.

Mr. BARNUM. That is correct. And all those items you properly say were brought into question by the evidence of falsification were, in fact, examined by us.

Mr. DINGELL. But your folks have not talked to Mr. Kelley. Can you explain to us why your folks have not talked to Mr. Kelley, and why you have gone through a statistical analysis which may or may not be good but which may not be as good as talking to Mr. Kelley? Apparently there are folks up there that were beating the system all along.

Mr. BARNUM. Let's assume we had talked to Mr. Kelley and talked to any other welder or radiographer whom he identified as participating in or otherwise being knowledgeable concerning falsification. I would not have been satisfied and you would not have been satisfied that we had, in fact, exhausted the possibilities of falsification.

Mr. DINGELL. We are in firm accord on that point. But we have two problems here. One is the problem of establishing the new statistical audits and new statistical audit base, and the other problem being the question of finding out what had gone on by receiving the comments and testimony of people who might have knowledge of it or be involved in it. You did the first but did not do the second.

Mr. BARNUM. You will recall, Mr. Chairman, when I was in Alaska, you and I had a brief telephone conversation, and in the course of that conversation I said to you that I may conclude it is desirable for us to talk with Mr. Kelley. And I asked whether you had any objection to that because I did not want there to be any question concerning our tampering with a witness of the committee. You stated that you did not have any objection to our talking with Mr. Kelley.

Mr. DINGELL. That is correct.

Mr. BARNUM. I make that point now not to suggest you urged us in any way not to talk to him, but to make the point that we did, indeed, consider talking to Mr. Kelley. I concluded following our conversation that, indeed, the preferable way of determining the scope of the problem was not to go running around looking for radiographers or welders, but to go to the heart of the matter, and that is to go to the records Alyeska had and determine whether they properly represented the pipe that was in the ground.

Mr. DINGELL. Mr. Barrett.

Mr. BARRETT. Last Friday at our executive session, Mr. Barnum, we requested a number of people be present from the Department of Transportation as observers. At the conclusion of that executive testimony our witnesses remained in the room for some period of time

and would have been available to be interviewed by the Department of Transportation people. Nevertheless, not one of your staff remained around to ask a single question of one of our witnesses. Is this for the same reason that no contact was made of Mr. Kelley?

Mr. BARNUM. They came back from the hearing here to have a meeting with me to discuss what had transpired and to prepare for this hearing.

Mr. BARRETT. But nobody bothered to find out whether they could have further inquiry of the witnesses, nobody bothered to find out whether all of the witnesses agreed they were satisfied, to let the record stand and to leave the room immediately upon the conclusion of the hearing. We have never been asked to make those witnesses available to the Department of Transportation. I would ask why.

Mr. BARNUM. I would suggest that the answer is substantially the same as the one I gave with respect to Mr. Kelley. We will investigate allegations of falsified radiographs with respect to the double jointing, but we will achieve that not by talking to individual radiographers, but by looking at the radiographic record, and by looking also at the as-built surveys that Alyeska is producing in connection with the pipeline.

Mr. BARRETT. In your statement, Mr. Barnum, beginning at the last line on page 1, and continuing to the next line on page 2, you talk about:

After faulty welds in another 60 double joints had been repaired, re-radiographed, re-interpreted, established by Alyeska's contractor as being in compliance with DOT standards and shipped out to the field, their radiographic records were lost or found to be of inadequate quality.

That is your understanding of what transpired. You did hear the testimony of two qualified radiographers just before you who said that if a film is of inadequate quality it is not possible to spot every defect. Did you not hear that testimony?

Mr. BARNUM. Yes; I did, and I don't contest the testimony. I think it is quite clearly accurate. If the picture is blurred or otherwise, you could not necessarily assure compliance with DOT standards.

Mr. BARRETT. So what we are saying is: If the picture were of inadequate quality, we don't know whether that was established as being in compliance with DOT standards, is that not correct?

Mr. BARNUM. You do not know it if you do not have in front of you at this minute the radiograph of sufficient quality to determine that the weld meets the standards. That does not mean that there never was a photograph or radiograph of sufficiently quality. It certainly does not mean that a report does not exist that, indeed, a satisfactory radiograph was taken and either through exposure or other treatment no longer retains the quality to determine whether or not the weld is satisfactory. I do not know what the particular circumstances are there. I merely point out that, in addition to the radiograph itself, radiographers keep logs and there are other records concerning the process of radiography which will tell you there has been at some point a satisfactory radiograph.

Mr. DINGELL. Let us ask this question though. What about then the further instances, as we appear to have before us, where the radio-

graph itself was of an entirely different section of pipe, and which is cataloged in the logs and records of the radiographers as being a radiograph of a weld which has been redone to cure an earlier announced defect? What is the situation with regard to that kind of action?

Mr. BARNUM. You are describing a situation where the radiograph which is in the pocket or the box for radiograph number 2 is, in fact, a radiograph of weld 32, is that correct?

Mr. DINGELL. That's right.

Mr. BARNUM. That I would regard as a falsification and not an adequate record for Department of the Interior purposes of a radiographic record of each weld.

Mr. DINGELL. The question then is how do you catch that, though?

Mr. BARNUM. I am advised that one way that can be done is the same method that Alyeska used in auditing the field girth welds, using the fingerprint method. There is, I gather, some question as to the ability to fingerprint machine welds compared to the ability to compare the fingerprint radiographs of girth welds because they don't have the same individual workmanship characteristics. But there I defer to an expert.

Mr. DINGELL. How do you catch that statistically where the description of the weld as being one thing is false?

Mr. BARNUM. I think you would do just what Alyeska did with the initial allegations concerning the field girth welds. They will have to determine that they have a distinct radiograph for each weld and then by some statistical correlation prove that the radiographs that they have, in fact, relate to welds that are in the ground.

Mr. BARRETT. Just to refresh my recollection on what you said, is it your testimony that falsified X-rays, putting a picture of No. 2 weld in No. 32 slot does not meet the Department of the Interior requirements as you understand them?

Mr. BARNUM. The Department of Interior stipulation with Alyeska requires that there be 100 percent radiography of all girth welds in the Trans-Alaska Pipeline, and that in all other respects, they comply with DOT standards. We do not require 100 percent nondestructive testing by radiography or otherwise.

May I at this point clarify the record with respect to a point made by one of the earlier witnesses, and that is the DOT requirement to maintain the record of nondestructive testing of girth welds. We do, in fact have a requirement that, with respect to liquid pipelines, the record of nondestructive testing must be retained by the carrier who is involved, and if radiography is used the developed film, so far as practicable, with the location of the weld appropriately indicated, must also be retained. These records must be retained for 3 years after the line is placed in operation. And I would assume, therefore, that the Department of the Interior would regard their stipulation as not only requiring nondestructive testing, but also maintenance of the records of that nondestructive radiographic testing.

Mr. BARRETT. Your regulations to which you have just cited I would ask, Mr. Chairman, be inserted in the record at this point.

Mr. DINGELL. Without objection, so ordered.

[The material referred to follows:]

EXCERPTS FROM 49 CFR PART 195 TRANSPORTATION OF LIQUIDS BY PIPELINE

§ 195.234 WELDS: NONDESTRUCTIVE TESTING AND RETENTION OF TESTING RECORDS

(a) A weld may be nondestructively tested by any process that will clearly indicate any defects that may affect the integrity of the weld.

(b) Any nondestructive testing of welds must be performed—

(1) In accordance with a written set of procedures for nondestructive testing; and

(2) With personnel that have been trained in the established procedures and in the use of the equipment employed in the testing.

(c) Procedures for the proper interpretation of each weld inspection must be established to ensure the acceptability of the weld under § 195.228.

(d) During construction, at least 10 percent of the girth welds made by each welder during each welding day must be nondestructively tested over the entire circumference of the weld.

(e) In the following locations, 100 percent of the girth welds must be non-destructively tested:

(1) At any location where a loss of commodity could reasonably be expected to pollute any stream, river, lake, reservoir, or other body of water.

(2) Within railroad or public road rights-of-way.

(3) At overhead road crossings and within tunnels.

(4) At pipeline tie-ins.

(5) Within the limits of any incorporated subdivision of a State government.

(6) Within populated areas, including but not limited to, residential subdivisions, shopping centers, schools, designated commercial areas, industrial facilities, public institutions, and places of public assembly.

(f) When installing used pipe, 100 percent of the old girth welds must be non-destructively tested.

(g) A record of the nondestructive testing must be retained by the carrier who is involved, including (if radiography is used) the developed film with so far as practicable, the location of the weld. This record must be retained for 3 years after the line is placed in operation.

[34 F.R. 15473, Oct. 4, 1969, as amended by Amdt. 195-1, 35 F.R. 5333, Mar. 31, 1970]

§ 195.234 WELDS: NONDESTRUCTIVE TESTING AND RETENTION OF TESTING RECORDS

\* \* \* \* \*

(e) \* \* \* \* \*

(1) At any onshore location where a loss of commodity could reasonably be expected to pollute any stream, river, lake, reservoir, or other body of water, and any offshore area unless impracticable, in which case only 90 percent of each day's welds need be tested.

\* \* \* \* \*

(Amdt. 195-11, 41 F.R. 34035, Aug. 12, 1976)

Mr. BARRETT. They apply only to liquid and not to gas pipelines, is that correct?

Mr. BARNUM. That is what I was advised this morning.

Mr. BARRETT. And they apply only to those sections of offshore governing the Department of Transportation's jurisdiction?

Mr. BARNUM. With respect to offshore pipelines, we require 100 percent nondestructive testing as we do with respect to other sensitive areas such as under river crossings, roads, and in built-up areas.

Mr. BARRETT. Returning to my question, is it your testimony that a falsified X-ray in this situation, the double joint situation, if it is true,

would not meet the Department of the Interior's requirements under its agreement with Alyeska?

Mr. BARNUM. I hesitate to interpret the Department of the Interior's agreement.

Mr. BARRETT. If you had a falsified X-ray in the sense that it was an X-ray of weld No. 2 and was put in weld No. 32's slot, you would not have an X-ray of weld No. 32 or a satisfactory one. It is your understanding that would not meet the stipulations of the Department of the Interior?

Mr. BARNUM. That would be my understanding, but I would defer to Mr. Frizzell.

Mr. BARRETT. One other point I would like to raise. You make mention of the fact that there are the radiographer's logs and other records besides the X-ray from which you could build. Are you aware of the testimony that the records that were maintained by the contractor may have been obtained from the person who admits to faking the X-rays? In other words, they came to him and asked him for his records.

Mr. BARNUM. Yes; I am aware of that testimony.

Mr. BARRETT. So that may give some additional problems in the way you are going to conduct an audit?

Mr. BARNUM. That's correct. It points up the fact that, indeed, the logs themselves may not be reliable.

Mr. BARRETT. So you may have to, in fact, do more than a statistical audit?

Mr. BARNUM. It depends on what the statistical audit reveals. If I would take a statistical audit and find 100-percent correlation between a valid radiograph in my hand and a weld in the ground, I would be reasonably satisfied, depending upon the portion of the universe I was examining, that the pipeline was safe.

Mr. BARRETT. Mr. Barnum, you heard the testimony concerning the Gulf Interstate Pipeline this morning?

Mr. BARNUM. Yes, sir.

Mr. BARRETT. Do you know who Gulf Interstate is?

Mr. BARNUM. To a degree, yes.

Mr. BARRETT. Do you know their role in connection with the Alyeska pipeline?

Mr. BARNUM. I believe we interviewed some Gulf Interstate people when we were in Alaska.

Mr. BARRETT. And they are the Government's hired monitors for inspection on the line, check of quality control and other procedures?

Mr. BARNUM. I believe that is their function for the Department of the Interior.

Mr. BARRETT. You have also heard the testimony that they may have been requiring less than full X-rays on their own pipeline?

Mr. BARNUM. Indeed that would be in compliance with DOT standards.

Mr. BARRETT. It would be in compliance or not?

Mr. BARNUM. It depends on where the weld is.

Mr. BARRETT. At least at some point four pictures are required of welds, is that not correct, under some of DOT regulations?

What I was going to get to, Mr. Barnum, is at this point we have not had a chance to check out the question of whether or not the pipeline

that GIE is building at this time is or is not in compliance. Because of the role that GIE is playing in connection with the Alyeska pipeline, I would ask that the Department check out the accuracy of the information we have and report back. I would ask, Mr. Chairman, that the record be held open at this point to check that out.

Mr. DINGELL. Without objection, so ordered.

[The material referred to is included in the following insert.]

Mr. BARNUM. May I submit for the record for inclusion at this point the report that was given to me concerning the telephone contact from Mr. Roger Bell to Mr. Cesar DeLeon, Acting Director of the Office of Pipeline Safety Operations, concerning the event that was testified to this morning?

Mr. DINGELL. I think that would be appropriate.

Without objection, so ordered.

[The material referred to follows:]

#### COMPLAINTS FROM CONSTRUCTION PERSONNEL WORKING IN ALASKA

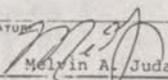
Mr. Roger Bell telephoned Mr. C. DeLeon, Acting Director, Office of Pipeline Safety Operation (OPSO) from Louisiana around the middle of October 1976 to voice a complaint regarding irregularities in the construction of a 10 inch crude oil pipeline for the Nikiski Alaska Pipeline Company. Mr. DeLeon advised Mr. Bell to send a letter setting forth the details of his complaint. The letter was never received by OPSO.

Later, Mr. Bell contacted the staff of the House Subcommittee on Energy and Power to set forth his complaint. Mr. Stockton of the Subcommittee staff contacted Mr. DeLeon on December 2 when Mr. DeLeon was in Seattle holding a conference with the OPSO Western Regional Chief and the Western State representatives participating in the OPSO pipeline safety program. Mr. DeLeon, Mr. Jack Overly, OPSO Western Regional Chief, and Mr. Irwin Mitchel, Alaska Public Utilities Commission, contacted Mr. Stockton by telephone and discussed the matter. The details of the complaint were unclear, but Mr. Stockton said that Mr. Bell had indicated he would send him a letter setting forth the details of his complaint.

On December 3, Mr. William Whiteman, staff engineer in the OPSO Western Regional Office contacted Mr. Bell and discussed the matter with him. Mr. Bell alleged that the radiographs on this pipe were not being taken in conformance with API 1104 and that the full circumference of the girth welds was not being radiographed. Mr. Gordon Tyree of the Alaska Pipeline Coordinator's Office investigated this complaint at OPSO's request.

Mr. Tyree reported that there is adequate film coverage on the girth welds. The girth welds are being radiographed with three outside shots, each film length being 17 inches with good readable contrast over 14 inches on each film strip. Three shots of 14 inches of readable X-ray film each can adequately cover the 33.75-inch circumference of the pipe.

The regulations in 49 CFR 195.234 require that a written set of procedures be established for nondestructive testing and does not require adherence to API 1104 in this regard. (Section 8.3f of the radiographic procedures in API 1104 requires that each film strip be 11 inches for a pipeline of this size when radiographing from the outside of the pipe, thereby requiring four film shots instead of three. However, adequate film coverage is being obtained because Nikiski is using 17-inch film strips.)

RECORD OF <input type="checkbox"/> VISIT <input type="checkbox"/> CONFERENCE OR <input checked="" type="checkbox"/> TELEPHONE CALL		TIME	DATE
		2 p.m.	12/2/76
NAME(S) OF PERSON(S) CONTACTED OR IN CONFERENCE AND LOCATION			
I returned a call to Pete Stockton of Congressman Dingell's office. (Phone: 225-1030)			
SUBJECT			
Alaska Pipeline Query Received from Congressman Dingell's Staff			
DISCUSSION			
<p>I advised Pete Stockton in response to his call that I had talked with Mr. DeLeon about the complaint on the pipeline in the Anchorage, Alaska area. I advised him that (1) Mr. DeLeon believed that this was a telephone complaint which he had received from someone in Louisiana. (2) He thought this had been referred to the Western Region OPSO office for their follow-up. (3) He was checking that out with the Chief of the Western Region as they are both in Seattle now, and he would be getting back to Pete Stockton as soon as he had a more definitive answer. (4) Mr. DeLeon indicated that this might not be today in view of his travel difficulties in his effort to catch the first flight out of the Seattle area which was presently weathered in. This was all Mr. Stockton needed at the moment and he looked forward to hearing from Mr. DeLeon.</p>			
<p>Roger Bell was man's name Pete Stockton thought.</p>			
CONCLUSION, ACTION TAKEN, OR REQUIRED			
CC:			
C. DeLeon			
DATE	TITLE	SIGNATURE	
12/2/76	Chief, Industry Programs Division	 Melvin A. Judah	

RECORD OF <input type="checkbox"/> VISIT <input type="checkbox"/> CONFERENCE OR <input checked="" type="checkbox"/> TELEPHONE CALL		TIME	DATE
		noon (WST)	12/2/76
NAME(S) OF PERSON(S) CONTACTED OR IN CONFERENCE AND LOCATION			ROUTING
			SYMBOL INITIALS
TO: Pete Stockton, Staff Member, Congressman Dingell's House Subcommittee on Energy and Power			
SUBJECT			
Query from a former employee of a products pipeline in Alaska.			
DIGEST			
In response to a telephone call from Mel Judah, who was Acting Director, OPSO, in my absence (attending the Western Region/State agency meeting in Seattle, Washington), I telephoned Pete Stockton, in reference to a call he had received from Mr. Roger Bell, previously employed by the Nikiski Alaska Pipeline Company. I told Pete that I had previously spoken to Mr. Bell over the phone and had asked him for a letter setting forth the details of some allegations he had made regarding welding - the letter was never received from Mr. Bell. Mr. Stockton indicated that he thought that Mr. Bell was alleging that the entire circumference of the girth welds was not being X-rayed. I told Mr. Stockton I would look into it and would provide him with the results of our investigation.			
CONCLUSION, ACTION TAKEN, OR REQUIRED			
DATE	TITLE	SIGNATURE	
12/3/76	Acting Director, OPSO		



RECORD OF <input type="checkbox"/> VISIT <input type="checkbox"/> CONFERENCE OR <input checked="" type="checkbox"/> TELEPHONE CALL		TIME 4:40 p.m.	DATE 12-7-76
NAME(S) OF PERSON(S) CONTACTED OR IN CONFERENCE AND LOCATION Mr. Gordon Tyree, Alaska Pipeline Coordinator's Office		ROUTING SYMBOL INITIALS	
Phone (907) 279-1502			
SUBJECT Report on Alleged Radiographic Violations on Construction of Nikiski Alaska Pipeline Company			
DIGEST			
Mr. Tyree investigated a complaint that girth welds on the Nikiski pipeline were not being radiographed over their full circumference. This was done for the State of Alaska at OPSO's request.			
Mr. Tyree reported that there is adequate film coverage on the welds. The welds are being radiographed with three outside shots. The film length is 17 inches and there is uniform density and contrast over 14 inches of each film strip. The circumference of the weld (for 10.750 inch diameter pipe) is 33.75 inches. One third of this is 11.3 inches so a 14-inch uniform density and contrast length provides sufficient overlap between successive film strips to provide adequate coverage.			
Mr. Tyree reported that Section 8.3f of the radiographic procedure details in API 1104 is not being complied with by Nikiski because the maximum length of each film strip for 10.750 inch diameter pipe is 11 inches when radiographing from the outside of the pipe (per Table 4 of API 1104) and Nikiski is using 17 inches. However, this is not significant since adequate film coverage is being obtained.			
(The regulations in 49 CFR Section 195.234 requires a written set of procedures be established for nondestructive testing. API 1104 is not required. Mr. Tyree will send us a copy of Nikiski's radiographic procedures.)			
CONCLUSION, ACTION TAKEN, OR REQUIRED			
DATE 12-8-76	TITLE Senior Engineer	SIGNATURE <i>Lloyd W. Ulrich</i> Lloyd W. Ulrich	

Mr. BARRETT. Mr. Barnum, are you familiar with the way the Department of Interior handled the Alyeska audit the last time there was evidence of falsification?

Mr. BARNUM. Generally, but not specifically. If you can narrow your question, perhaps I can respond.

Mr. BARRETT. Well, it appeared that the Department of the Interior awaited the conclusion of the Alyeska audit before involving itself in the audit, is that not correct?

Mr. BARNUM. I do not know.

Mr. BARRETT. If that were the case, would you think that that is a satisfactory method of pursuing an audit, or should the Government be involved in the audit from the beginning?

Mr. BARNUM. That sounds like a hypothetical question, Mr. Barrett. I prefer to know the facts before I comment on the priority of the action.

Mr. DINGELL. Let me then ask this question, if you please, sir. Can you inform us how your agency can be assured that an audit is appropriate and proper as to matters gone forward under the audit without involving yourself either in the preparation, the planning or the conduct of the audit as it went on?

Mr. BARNUM. How can I be assured that an audit is adequate without being personally involved?

Mr. DINGELL. Without your agency being involved.

Mr. BARNUM. I can determine that by looking at the instructions to the auditors and by studying their report.

Mr. DINGELL. Let's take the specifics of the audit to which we are addressing ourselves now. First there is the audit, am I correct, by Alyeska?

Mr. BARNUM. That's correct.

Mr. DINGELL. Then there is an audit by Arthur Andersen of the Alyeska audit?

Mr. BARNUM. That's my understanding.

Mr. DINGELL. And Arthur Andersen said succinctly the Alyeska audit was just no good.

Then there was a subsequent audit of the Arthur Andersen audit by another firm. As I understand it, that audit sustained the Alyeska audit, and there is now going to be another audit of that audit.

It strikes me we have a great number of audits going forward coming to diverse conclusions, and we would have been better served to have the original Alyeska audit better planned, better crafted to avoid this multiplicity of audits which now plague us.

Does it strike you there ought to be some rather more careful supervision of who audits whom to get an audit we can have some faith in in the first instance instead of having no less than four audits, and three audits of the first audit?

Mr. BARNUM. I am not familiar with the chain of audits to which you refer in your statement or in this question other than to know or believe on the basis of the information given to me that after Arthur Andersen, for the Department of the Interior, reviewed but did not audit the Alyeska audit and made a record, Peat, Marwick & Mitchell was asked by Alyeska to respond to the Arthur Andersen review. I do not think either of those constituted an audit. I believe they were efforts to reconcile the views of Peat, Marwick & Mitchell and Alyeska

on the one hand and Arthur Andersen and the Department of the Interior on the other hand with respect to the audit. On the details of that, I would defer to Mr. Frizzell.

Mr. BROWN. I am a little confused as to how many completed audits there have been. Could somebody bring me up to date on that?

Mr. BARNUM. I think the fact of the matter is, there is only one audit as such and that is Alyeska's audit. The work done by Arthur Andersen is not properly described as an audit, but I could stand corrected by any auditor—

Mr. BROWN. Whatever Arthur Andersen has done has been completed and it questioned the propriety of what Alyeska did, is that correct?

Mr. BARNUM. I think it questioned the methodology.

Mr. BROWN. Has there been an audit of the Arthur Andersen efforts or—

Mr. BARNUM. Not to my knowledge.

Mr. BROWN. Is such an audit or questioning of the Arthur Andersen criticism in process by somebody?

Mr. BARNUM. My understanding is that Alyeska retained Peat, Marwick & Mitchell to review the report submitted by Arthur Andersen to the Department of the Interior. I don't think that was an audit, but again—

Mr. BROWN. Is that in process, or has that been completed?

Mr. BARNUM. I am under the impression that had been completed but to the extent they—

Mr. BROWN. That has not reconciled the criticisms Arthur Andersen made of the Alyeska audit?

Mr. BARNUM. Not to my knowledge.

Mr. BROWN. Is there some other critique or audit by anybody else of what has transpired?

Mr. BARNUM. May I say, not by the Department of Transportation.

Mr. DINGELL. If the gentleman will yield, it is by Interior, is that correct?

Mr. BARNUM. That is my understanding, because all the Alyeska audit did was test the radiographic records of the pipeline. My concern has always been whether the radiographic records accurately reflect the welds in the ground. The Alyeska audit compared radiograph with radiograph and inspected individual radiographs for their qualification and acceptable welds in accordance with existing standards. It did not attempt to establish that the radiographic records maintained by Alyeska reflected each and every weld in the ground. That was to be done in the normal construction process when the as-built surveys are submitted to the contractor. There you have the correlation between the radiographic record and the weld in the ground.

Mr. BROWN. Who checked to see that the welds in the ground had an adequate radiograph?

Mr. BARNUM. Both the Department of the Interior and ourselves.

Mr. BROWN. And out of the total welds, how many radiographs were found not to be extant of the welds in the ground?

Mr. BARNUM. My belief is none.

Mr. BROWN. In the second checking of the welds in the ground, were all the welds radiographed or checked in some way?

Mr. BARNUM. Yes. My understanding is that Alyeska and the Department of the Interior and its contractors did that in connection with Alyeska's repair program, and what they did and, indeed, what the Department of Transportation people in Alaska did, was take the opportunity to inspect the actual weld in the ground and compare it with the radiograph which Alyeska had in its vaults and ascertain whether that was, in fact, a radiograph of that weld.

Mr. BROWN. You can tell whether or not it is a radiograph of that weld. One weld will be 6 inches long and another weld will be  $5\frac{1}{2}$  inches long, and other weld will be 7 inches long. Or if there are two  $6\frac{1}{2}$ -inch welds, one will be a little fatter, or have a different beading arrangement, is that correct? Is that where you get the fingerprint?

Mr. BARNUM. Not precisely. You get the fingerprint because each weld, certainly each field girth weld, has certain easily visible characteristics. They are the distance from the button at the top of the weld to the point on either side where the finishing welder uses up his first welding rod. So you have two measurements down either side. You have two additional measurements in that from the top button one can measure the distance to the longitudinal weld or seam coming in from one side, and the distance from the button to the longitudinal weld coming in on the other side. So those are relatively easily identifiable visual checks that you can make to determine that the radiograph you have in hand could be or could not be a radiograph of that weld.

Mr. DINGELL. Would the gentleman yield?

Is that true in both the cases of the field welds and the yard welds to which we are addressing ourselves?

Mr. BARNUM. That is a question I am not entirely clear on.

I am advised that, so far as we know, that has not been attempted. It could be possible, but I cannot assure you, that indeed, it is possible, Mr. Dingell.

Mr. DINGELL. If the gentleman would yield further?

If I understand the yard welds where they are redone, the whole weld is redone as opposed to portions of segments that are redone. I am referring to the double joints that took place in the yard.

Mr. BARNUM. I don't know that to be true, Mr. Chairman.

Mr. BROWN. If I could continue just a minute. If somebody had given the description you have given of the weld going around the girth of the pipe, if there was a measure, a tape around the pipe and somebody slipped that tape measure around on a good weld, an initially good weld, could that be determined?

Mr. BARNUM. Could what be determined?

Mr. BROWN. That the tape measure had been slipped around? In other words, the beginning of the weld to where you ended with your rod—

Mr. BARRETT. I think, Mr. Brown, if I might clarify, when we are talking about a double joint weld with a reject or defect in it, you then have another reject with a repair that has been made. That repair is satisfactory. If both repairs are roughly 3 inches long and the second is a good repair, what you can do is slip a belt around with the lead numbers on them so the X-ray of the repair of the good repair looks like an X-ray of the bad repair or the nonrepair, is that not correct, Mr. Barnum?

Mr. BARNUM. I think that is right, Mr. Barrett. But I would suggest even in that instance, provided you have a radiograph not just of the repair but of the entire pipe, you could locate the radiograph of that repair based on the distance to the longitudinal weld or to the button.

Mr. BARRETT. The testimony the subcommittee received on Friday was to the effect the repair X-rays were in the order of 10 to 12 inches long and not a film of the entire weld.

Mr. BROWN. This is what I am trying to get at. If you get a good weld, then you can tell from where the weld begins, the button, is that—

Mr. BARNUM. I believe so.

Mr. BROWN. And where that weld passes the longitudinal seam, you can tell if you are looking at the same weld, can you not?

Mr. BARNUM. If, as Mr. Barrett points out, you have a radiograph of the entire weld. But if you have only a radiograph of that part of that weld which has been repaired and that radiograph excerpt, if you will, does not include either the longitudinal seams or the button, or some other distinguishing characteristic, it may not be possible to determine that it is, indeed, not the weld on some other place.

Mr. BROWN. I understand that.

Now, my question is, if you were to know that there were some bad welds that had been repaired, and you had a picture of the alleged repair which was not, in fact, of that repair, and you took another picture of the repair so that you were sure you had a real picture of the repair, could you determine that those two were different pictures?

I am asking you, Mr. Barnum, but I am looking at whoever it is over here in the fancy suit.

Mr. BARNUM. Let me attempt to answer the question first, if I may.

My understanding is that those four characteristics that I gave you are not the only ways in which you can say this is or is not a radiograph of a specific weld. Indeed, once Alyeska had pulled those for which those four characteristics overlap within a half-inch, you can tell almost immediately if it is an X-ray of another weld because of the other characteristics that are reflected in the radiograph differ just the way X-rays of one individual differ from one another.

Mr. BROWN. I understand that we have two sections of pipe that have been welded together in the yard. These go out in the field and those two sections welded together are welded in the field with other two sections welded together. And our first problem some months ago was that some of these welds made in the field, otherwise called field welds, were not adequately done, is that right?

Mr. BARNUM. Yes.

Mr. BROWN. Now, in this hearing, the two sections of pipe welded together in the yard, otherwise called yard welds, are the ones under question. DOI, DOT, and I guess Alyeska have all checked the field welds. It is my understanding that these field welds generally were adequate but that there were some missing radiographs, is that correct?

Mr. BARNUM. That's correct. That's where the interest has been up until now.

Mr. BROWN. There were missing radiographs, were there not?

Mr. BARNUM. There were.

Mr. BROWN. There were.

Mr. BARNUM. I believe there were both missing radiographs and duplicated radiographs.

Mr. BROWN. But the welds of the missing radiographs have been rechecked?

Mr. BARNUM. That's correct.

Mr. BROWN. And those welds have been found by the reradiographing to be adequate, is that correct?

Mr. BARNUM. Not in all cases, but in any event, we have a radiographic record of that weld. There remains the question whether the radiograph shows a satisfactory weld or not.

Mr. BROWN. If they were not adequate, or if there was some question as to whether the reradiograph showed a satisfactory weld, have they been repaired or are they in the process of being repaired?

Mr. BARNUM. It is my understanding they are in the process of being repaired, but I further understand that there are some radiographs which, in the judgment of some of the people who have looked at them, do not reflect a satisfactory weld.

Mr. BROWN. What is the process being used in that instance?

Mr. BARNUM. Can I have Mr. Taylor talk to that point? That is what he has been charged with doing.

Mr. TAYLOR. In the latter part of September I was sent to Anchorage to represent the Department of Transportation to coordinate work with the Department of the Interior. I was supplied Coast Guard radiographers to review X-rays and the discrepancies and so forth that we thought we had up there. We reviewed some 1,000 X-rays.

Mr. BROWN. How many?

Mr. TAYLOR. Around 1,000 X-rays in this area. So to answer your question, we do have a feel for what the X-rays are like on that pipe line.

Mr. BARNUM. I have a statistical compilation of just what we did in looking at radiographs, it has many numbers in it and perhaps I can submit it to the committee.

Mr. DINGELL. I think that would be helpful and it will be received for the record.

[The following information was received for the record:]

COAST GUARD EXAMINATION OF GIRTH WELD RADIOGRAPHS ON THE TRANS-ALASKAN CRUDE OIL PIPELINE

A. Regarding the remedial weld program, four Coast Guard radiographers reviewed girth weld radiographs in the field and in the X-ray vaults in Anchorage. At the time the Coast Guard radiographers were reviewing the X-rays, not all of the remedial X-rays were available to them. This condition obtained because either the repair of the defect did not require an X-ray (such as grinding out an arc burn), or the X-ray of the repair was in transit, or the repair of the defect had not been completed.

1. Coast Guard radiographers addressed 483 of the 612 girth welds petitioned for waiver. Of these 483 girth welds:

The radiographers read and accepted as meeting the DOT standards 416 radiographs of welds in the petition after repairs were completed. About 80 percent of these radiographs were read in Anchorage.

61 welds were cut out or abandoned, therefore, no radiograph was available and the welds were withdrawn from the petition.

6 welds were repaired and the repairs were accepted visually, therefore, no radiograph was available for the Coast Guard radiographers to review.

2. Coast Guard radiographers read 380 radiographs of the remaining 3,955 defective girth welds, excluding the 612 girth welds petition for waiver.

The remedial radiographs for 334 welds were acceptable.

For 44 welds, there were no radiographs of the repair of the girth welds.

For two welds, Alyeska determined that the welds were acceptable, but the Coast Guard radiographers determined that the initial X-rays of the girth welds were of insufficient contrast to determine the quality of the girth welds.

B. Regarding the girth welds made during 1975 that were not found deficient by the Alyeska audit, the Coast Guard radiographers reviewed a number of these radiographs in Anchorage.

1. Coast Guard radiographers read 100 radiographs (20 weld radiographs per section) picked at random by the Coast Guard radiographers. All welds were found to meet API 1104.

2. Coast Guard radiographers read 31 radiographs of the 54 girth welds which, according to the GIE report, did not meet API 1104. Eleven of the 31 girth weld radiographs examined did not meet API 1104, according to the Coast Guard radiographers.

Mr. BROWN. Mr. Chairman, I would like to pursue some questions about the yard welds but I don't want to do it until it is appropriate.

Mr. DINGELL. The Chair does recognize this is a good idea.

Mr. BARRETT. With respect to the double joints is this an entirely new area about which DOT was not aware?

Mr. BARNUM. Yes.

Mr. DINGELL. If counsel would yield, that was not alluded to in your earlier comments with regard to statistical analysis welds in the colloquy between yourself and Mr. Brown.

Mr. BARNUM. I don't think it was excluded from that colloquy and many parts of it were applicable to that problem.

Mr. BROWN. If I may, what was done when you were repairing field welds was to check the field welds which in fact is every other weld in the pipeline, is that correct, roughly?

Mr. BARNUM. Roughly, yes.

Mr. BROWN. And now the questions are being raised about every other weld in the pipeline, the ones that were done in the yard, is that where we are?

Mr. BARNUM. Yes.

May I offer a small correction to your statement? There were about 100,000 segments of pipe most of which are approximately 40-foot long. There are about 42,000 double joint welds. Not all the pipe went to the field double jointed.

Mr. BROWN. In other words, not all of it went in 80-foot segments.

Mr. BARNUM. That is correct. I think there are also some 60-foot segments but I could be incorrect. The point is half the pipeline was not double jointed.

Mr. BROWN. I understand.

Mr. DINGELL. The Chair thanks the gentlemen.

The Chair recognizes again Mr. Barrett.

Mr. BARRETT. Mr. Barnum, if the Department of Transportation were asked by the subcommittee to conduct an audit or to be involved in an audit of the double joint weld X-ray problem, would you be able to present the subcommittee with a proposed course of action?

Mr. BARNUM. Yes, sir.

Mr. BARRETT. Are you prepared to do that today or will it take more time?

Mr. BARNUM. This is something that I would want to first discuss with the Department of the Interior which has primary responsibility in this area but I am sure that between us we could make a recommendation to you as to the appropriate action.

Mr. BARRETT. Does the Department of Transportation have qualified people who could read X-rays?

Mr. BARNUM. Yes.

Mr. BARRETT. Do you have any idea how many people or—

Mr. BARNUM. Let me say first they are not in the Office of Pipeline Safety Operation. The department is fortunate to have the Coast Guard, which does have radiographers, and we have been using them to perform our radiography work in Alaska.

Mr. BARRETT. If necessary, the Department could use the Coast Guard services again?

Mr. BARNUM. Well, if we get into a major undertaking, I would want to consider doing it in some fashion other than by taking Coast Guardsmen who have other primary responsibilities. We used the Coast Guard in July because they were on the Department of Transportation payroll and able to go to Alaska immediately.

Mr. BARRETT. That concludes my questions, Mr. Chairman.

Mr. DINGELL. The Chair recognizes the gentleman from Ohio.

Mr. BROWN. Thank you very much.

I think first, Mr. Barnum, in view of the Coast Guard radiographers having just been brought into this discussion it would be helpful if you would supply us the qualifications of a Coast Guard radiographer and relate them to the radiographic qualifications for the pipeline. We have already had some discussion about the qualifications of the union radiographers and how one qualifies to be a union radiographer, so if you could put those two things together to assure that the Coast Guard radiographers are competent to do this job or perhaps establish that they are not.

Mr. BARNUM. I of course will be pleased to do that but may I be clear on this, Mr. Brown. If our recommendation to the committee involves using an entity other than the Coast Guard for conducting the audit or radiographic inspection, would you still want this information?

Mr. BROWN. I would still want it with reference to the Coast Guard radiographers because I understand they have been used on the other portions of the pipeline, the initial "every other" problem, but whoever you intend to use in this process I would want us to have a description of their qualification to do this job.

Mr. BARNUM. Yes, sir.

[The following information was received for the record:]

#### QUALIFICATIONS FOR A U.S. COAST GUARD MARINE INSPECTOR

Commissioned officers in the grades of Lieutenant and Lieutenant (junior grade) and chief warrant officers are selected for assignments to commercial vessel safety duty to become marine inspectors. These officers have shipboard experience either in the Coast Guard or merchant marine, or have marine-associated backgrounds.

Officers entering their initial tour of duty in commercial vessel safety do so upon completion of an eleven week course in marine safety. Welding and the

inspection of weldments is a major subject with instruction given on the following topics: introduction to welding, welding joints and symbols, welding electrodes, performance and procedure qualifications, welding stresses and sequences, welding imperfections, and eight hours of actual welding in a laboratory. The weld inspection study includes introduction to nondestructive inspection, dye penetrant, ultrasonic inspection, magnetic particle testing, radiographic control of welds, X-ray reading lab, and a practical exercise in nondestructive testing.

Following the formal eleven week training course, the officer is assigned to a marine safety or marine inspection office for a three year on-the-job-training period. During this tour he is employed in all phases of safety activities gaining the necessary experience to become qualified in each phase of commercial vessel safety. Normally he spends 24 months as field inspector which includes shipyard work, factory inspection of approved equipment, and general vessel safety inspections.

Various short term functional training courses are used to further our officer's knowledge of many facets of commercial vessel safety. Since welding plays such an important role in vessel construction and repair, particular emphasis is placed on the proper inspection of welds. The U.S. Army Materials and Mechanics Research Center at Watertown, Mass., is used extensively to train our officers in weld inspection.

The courses utilized include such methods of nondestructive inspection of materials as: magnetic particle and liquid penetrant inspection, radiographic inspection, ultrasonic inspection, and weld inspection. In addition to these formal training courses, our officers attend various conferences and seminars sponsored by industry, classification societies, and standards organizations.

Mr. BROWN. Now is the issue here, to your knowledge or from your impression, one concerning the quality of radiographs or the quality of the welds or both?

Mr. BARNUM. At this point I can't exclude either.

Mr. BROWN. Well, if I may address that with a little reading out of the testimony we got the other day—Mr. Chairman, I trust you will be patient for me to establish this. I think it gets us down to the point.

I would like to read this. This is as it is transcribed.

Mr. BROWN. Could I ask a question at this point. The list we are talking about was what Dirks asked you to get radiographs for to replace the radiograph of the repair on that pipe that they couldn't find; isn't that right?

FIRST WITNESS. Evidently, that is what it was for.

Mr. BROWN. You were asked to get a radiograph and put it in there for that number?

FIRST WITNESS. Yes.

Mr. BROWN. Because they couldn't find the pipe where a radiograph of the repair had been done?

FIRST WITNESS. Yes.

Mr. BROWN. This then was all of the repaired pipe, isn't that correct?

SECOND WITNESS. Yes.

Mr. BROWN. So if I could pursue this just for a minute, you have so many pipe that had been welded, and you got a first picture of what was OK, but some of those were not OK, and they had to be repaired; isn't that right? What was the percentage of those that had to be repaired of the first weld not being adequate; do you know?

SECOND WITNESS. Over the entire job, about 12 percent.

Mr. BROWN. Now then what was the percentage of the second welds that were not properly done; do you know that?

SECOND WITNESS. Probably about 1 percent.

Mr. BROWN. So we are talking about 1 percent of 12 percent, so that about 1 percent of these second welds that you were asked to put some other picture in because they couldn't find where the pipe had been welded the second time—it would be the normal frequency of having one of those welds show up to be a bad weld; is that correct? Do you understand what I am asking?

SECOND WITNESS. I understand what you are asking, but most of these films were Bechtel's. There had been film and for some reason the film was kicked

out by Bechtel and we knew, I would say, 90 percent of those that were re-X-rayed already had film on them and probably more than that, and they kicked the film out for some little reason of not being able to clearly see a "two" on them, or the pentrometer or some minor thing. The pipes had already gone, you know.

Mr. BROWN. But my question is this: Are you suggesting that, say, all 60 of those welds where they couldn't find the weld, or couldn't find the pipe, and didn't have a picture of that second weld, that repaired spot, are you saying that those were all bad welds or all inadequate radiographs?

SECOND WITNESS. All bad radiographs?

Mr. BROWN. You don't know whether the weld was good or bad?

SECOND WITNESS. According to what the radiograph showed they were all good, but there was some minor thing with the film.

Mr. BROWN. Now, but do you know that weld was good?

SECOND WITNESS. We had already read it.

Mr. BROWN. And you decided it was good?

SECOND WITNESS. Yes.

Mr. BROWN. And the second repair weld was good?

SECOND WITNESS. Yes.

Mr. BROWN. Wait a minute. Are you telling me now you were just replacing radiographs of welds that had previously been established as being good welds?

FIRST WITNESS. Most of these had. They lost some of the film, also you see, on this. And people would take film and this guy would take a box with him to his motel and he would drag up or something that night and they would find it.

Mr. BROWN. What is that?

FIRST WITNESS. He would quit.

Mr. BROWN. There is a little bit of semantics here that I am not up with. I thought maybe "drag up" was something else, but I don't want to get into that too far.

So that is the way they lost it, you are telling me?

FIRST WITNESS. They lost a lot of the film.

Mr. BROWN. But you are telling me that the film had been read and it had been established as an adequate repair weld?

SECOND WITNESS. I would say better than 90 percent.

Mr. BROWN. Let us say 10 percent of them were bad. We are talking about 10 percent of 60 films that had disappeared, and so you are talking about six welds that were bad, that is what we are saying here, or are we talking about the estimated 1 percent that might be bad, or are we saying that you knew that all 60 of those were originally good welds that had just been lost and so you were replacing them with a fake weld that there is some question about? Could you answer that for me?

SECOND WITNESS. What we are saying is Bechtel kicked the film out for some reason, or they lost the film, or something, that we originally had the film on, and their quality control decided not to take, or didn't take action for some time after it was started, that it was too late to do anything with these.

Now I want to skip over to a little bit later discussion where we got into the same question again, this time with Mr. Dingell asking.

Mr. DINGELL. If you please, Second Witness, can you tell us whether there was a satisfactory X-ray taken?

SECOND WITNESS. Evidently it wasn't a satisfactory X-ray because some of those they kicked the film out.

Mr. DINGELL. When you say "kicked the film out," what is that?

SECOND WITNESS. They just gave it back and said this isn't any good.

Mr. DINGELL. They gave those 60 back then to you and said that the weld is no good or the film?

SECOND WITNESS. They didn't actually give us the film back, they gave us the numbers.

Mr. BROWN. Numbers on that yellow pad list.

SECOND WITNESS. Yes; as far as we were concerned we had radiographed that area and we knew some of the radiographs weren't up to their standards, but there was that weld, and there was where you could read it, and see that it had been repaired, and it was in code, c-o-d-e.

Mr. BROWN. An adequately repaired weld?

SECOND WITNESS. Yes.

Mr. BROWN. Could you say that is true of all 60 or on some of those would the radiograph be so bad that you couldn't tell about whether that repaired weld meant code?

SECOND WITNESS. I believe all of them you could have read. The only thing that was any different was some of these welds were  $1\frac{1}{2}$  wide and you couldn't get all of the identification on them that they wanted.

Mr. BROWN. You haven't answered my question, quite. Do you think those original radiographs, that some of those welds were bad welds the second time—in other words, they hadn't been adequately repaired—or do you feel they were all adequately repaired and what was lost here was a radiograph of good welds?

SECOND WITNESS. As far as my records reflects from what I remember of it, every one of them had been—every one of them had been repaired and reradiographed and was an acceptable weld. There were none unacceptable through quality control.

Mr. BROWN. It was the radiograph that was unacceptable and not the weld, is that correct?

SECOND WITNESS. As far as I know.

Mr. BROWN. And you think all of the welds, based on the radiographs that you looked at, the ones you remember, they didn't find acceptable to the standard of the radiograph, that those were good welds?

SECOND WITNESS. As far as I know.

Mr. BROWN. Up to code standard.

SECOND WITNESS. Yes.

Mr. BROWN. Then we were replacing the radiographs with something that you are saying were good welds?

SECOND WITNESS. As far as I know.

It was later developed that perhaps there was a small percentage of welds that might have gotten into the field that were bad welds. However, the testimony at that point seemed to be fairly clear that the witness didn't think there was a possibility that some of these may still have been bad welds. If it can be established that there are bad welds, is it possible to go through the pipe as you did on the field welds and determine whether or not we have acceptable radiographs of yard welds that are good welds? That would be the first step, I assume.

Mr. BARNUM. Do you mean literally through the pipe?

Mr. BROWN. Through the pipe that has been put in the ground or through the radiographs that exist to assure which radiographs may be bad radiographs.

Mr. BARNUM. My question, Mr. Brown, is do you mean can you by going through the pipeline—

Mr. BROWN. Let me ask the question again so as not to confuse you and just strike out the first question.

I assume the first step would be to determine whether or not the radiographs that exist of the yard welds include some bad radiographs, some that are duplicates, some that are not radiographs that correspond to actual numbers, is that right?

Mr. BARNUM. Yes; I think if I understand your question that is correct and that is indeed what Alyeska did with respect to the radiographic record of the field welds. They cross-checked the radiographs against each other and against the numbers of the welds to make sure that they had a different radiograph for each weld and one that they believed applied to the weld in the ground. They did not actually look in the ground to determine whether that weld No. 2 was reflected by radiograph No. 2.

Mr. BROWN. It was described in some specific detail how if quality control did not have an adequate radiograph that met radiographic

standards then if they could find the pipe, they reradiographed it but in other instances where they could not find the pipe, they would say, "Get us a radiograph of a good weld and we can insert it in this spot."

Mr. BARNUM. That is the allegation.

Mr. BROWN. Now my question is, if you find duplicate radiographs, is it possible for you to go to those numbered weld spots and radiograph both welds and find out which is the weld for which you had the right radiograph and which is the weld for which you did not have a radiograph in the first instance?

Mr. BARNUM. If either.

Mr. BROWN. I am sorry.

Mr. BARNUM. If either. You could have two radiographs that are in fact identical with different numbers on them and neither of the welds with those numbers is the weld that was radiographed.

Mr. BROWN. But my question is then, is it possible to go to those spots in the pipeline, get a radiograph of those welds and establish whether that weld is okay and whether it in fact is or is not the repair weld for which you have the radiograph?

Mr. BARNUM. That is literally possible. It would, of course, be a monumental task.

Mr. BROWN. Was it done in the first instance? I understand that some of the bad radiographs of the field welds—

Mr. BARNUM. That is precisely what was done with respect to the 3955, is my understanding.

Mr. BROWN. So here we are dealing—

Mr. BARNUM. Not necessarily by taking a second radiograph.

Mr. BROWN. How is it done?

Mr. BARNUM. It could have been done by the identification process.

Mr. BROWN. All right.

Mr. BARNUM. They did it by the identification process in many instances.

Mr. BROWN. But we have a somewhat more difficult problem again with the repaired weld. There we have only a section of the weld that was originally inadequate that had been repaired. So you only have that repaired section that has been radiographed. We have been told that the tape that was put on the original radiograph showed where the weld came on the pipe but that then when the radiograph is falsified the tape is put on another pipe, slipped around to where the repaired weld on that pipe was, and then a radiograph is taken as if it were on the tape in the right spot for the weld that they did not have a radiograph for. Do you understand what I am saying?

Mr. BARNUM. I gather that is the allegation, yes.

Mr. BROWN. Now, therefore, it would be difficult, I assume, because the tape was moved around on the pipe, to know that you have a good picture on any particular weld. How do you identify those welds that are duplicates if the tape has been jiggered with?

Mr. BARNUM. If you have nothing but that very short segment of film, I am not sure that you could other than by comparing it with the actual weld, or perhaps records exist which would otherwise reflect it is a picture of the repaired well.

Mr. DINGELL. If the gentleman would yield, you are in difficulty at this point?

Mr. BARNUM. What was that?

Mr. DINGELL. You are in difficulty at this point?

Mr. BARNUM. That is not clear to me yet.

Mr. DINGELL. Well, I said at this point you are in difficulty. You are in sort of a mess at this point. At this point you are in kind of a bad way, aren't you?

Mr. BARNUM. I am not sure that we are.

Mr. DINGELL. I mean with regard to checking the weld against the X-ray or knowing whether it is a valid X-ray for the weld that it purports to be for.

Mr. BARNUM. Well, we are not far enough into our analysis of what we have been told, let alone the records of Alyeska concerning the double joint welds or any efforts on their part or on the Department of the Interior to correlate them with the actual welds in the ground. I believe Mr. Frizzell is prepared to talk on that point and I defer to him.

Mr. BROWN. If I could continue just for a moment. There seems to me to be two ways to check here. First, one of the allegations that was made the other day has not been brought up in this hearing but with reference to the 60 duplicated or falsified radiographs, some of which may have been bad welds and some of which may have been good welds, we will be able to establish which of those welds based on the reading of an inadequate radiograph were good welds and which may have been bad welds, if any, if the records of the person who I referred to here as the Second Witness can be found in the Bechtel or the Alyeska files, is that correct?

Mr. BARNUM. I think that is correct. What I think you are saying is that indeed that witness said the only problem he was aware of was the falsification of radiographs but that the welds themselves so far as he knew were in compliance with the DOT standards after they had been repaired.

Mr. BROWN. He testified—I did not read that testimony—that it was his responsibility to do the reading of the radiograph and determine whether or not that was a good weld. He apparently did that in most instances and made some notes of it and those notes, it is hoped, are extant—they were at least sent to Bechtel later on and we also apparently have the list of the 60 radiographs by number that the radiographers were asked to falsify and so those ought to be fairly easy to check out if that is the only falsification.

Now there is apparently one other problem which has not been referred to and that is for the first 3,000 field welds, there is the prospect of inadequate records having been kept of the radiographs taken of those welds so the correlation with those welds and whether or not they were adequately recorded and properly matched up is also a question that is raised. That is a somewhat different problem and it seems to me that has to be addressed by whatever system you would come up with to check these welds. But based on what we have discussed, is it possible to make a determination that those welds are adequate?

Mr. BARNUM. Not yet.

Mr. BROWN. Would you say that again?

Mr. BARNUM. On the basis of what we have discussed, is it possible to make a determination that those welds are adequate?

Mr. BROWN. Could you at some future date make a determination?

Mr. BARNUM. Not solely on the basis of what we have discussed.

Mr. BROWN. Would you suggest how it might be done?

Mr. BARNUM. I think we have to know a good deal more about the state of the records, not just the radiographs but also any other records that were maintained by the radiographers or quality control or quality assurance personnel with respect to the radiography process.

Mr. BROWN. And you have not yet examined those records?

Mr. BARNUM. No, we have not.

Mr. BROWN. Are you satisfied that those records exist?

Mr. BARNUM. I am told that they exist, I am not yet satisfied that they exist.

Mr. BROWN. Just a couple of specific questions to clean up a couple of points. Who has quality control responsibility for the Alyeska pipeline welding?

Mr. BARNUM. Quality control?

Mr. BROWN. Let's go down the line. What Government departments are involved?

Mr. BARNUM. The Alyeska pipeline is the responsibility of the Department of the Interior. It is the Department of the Interior that entered into the grant of right-of-way agreement and other agreements with Alyeska for the construction of the pipeline over Government land.

Mr. BROWN. And Alyeska has responsibility for their own pipeline which they subcontracted to Bechtel?

Mr. BARNUM. Quality control to Bechtel.

Mr. BROWN. Quality control.

Mr. BARNUM. That is correct.

Mr. BROWN. Do they subcontract to others? How many quality control subcontractors are there in the Alyeska pipeline?

Mr. BARNUM. I am not aware of the precise number and I don't know who in addition to Bechtel is performing the quality control function.

Mr. DINGELL. Maybe that is a question that should be directed to the Interior Department. The Chair observes that a lot of these questions are questions that should be addressed more clearly to Interior than to the Department of Transportation.

Mr. BROWN. One final question relating to standards on pipelines. I asked Mr. Olive how those are set and who provides the tests. Are you aware of who sets the standards or where they originally come from in terms of pipelines and the radiographic qualifications of the radiographers?

Mr. BARNUM. I believe that the standards to which Mr. Olive was referring are the American Petroleum Institute standards for pipeline welds, not the American Society of Non-Destructive Testing.

Mr. BROWN. Does the Department of Transportation have any responsibility for qualifications of radiographers?

Mr. BARNUM. I think only in the sense that we require as part of the process of building a pipeline a procedure for nondestructive testing which could in the option of the pipeline builder include radiographer.

Mr. BROWN. Thank you, Mr. Chairman.

Mr. BARNUM. But we do not require radiography in our regulations.

Mr. BROWN. Or the qualification of radiographers?

Mr. BARNUM. It is my understanding that we do not.

I stand corrected on the comment on the 1104 standard; it is in fact a joint committee of the API and the American Gas Association in which the Society for Non-Destructive Testing participates.

Mr. BROWN. Thank you.

Mr. DINGELL. Gentlemen, the Chair thanks you. We will excuse you and we would ask that you remain briefly. It may be necessary to have you back for some further questions after we have concluded with the Interior Department witnesses.

The Chair will now call the witnesses from the Department of the Interior.

Mr. BARNUM. Do you want us to stay?

Mr. DINGELL. If you would remain in the room, not at the table.

Mr. BARNUM. Could I remain on 10-minute call? I have a number of things at the Department that I really ought to be pursuing.

Mr. DINGELL. Certainly. I think that is appropriate. I think that we can probably safely excuse you because you have left us your experts. We can probably excuse you completely but if you would remain on call why we would appreciate it. I think if you leave your experts behind, we will probably all be well served.

We do thank you, Mr. Barnum, for your appearance this morning.

Mr. BARNUM. Thank you, Mr. Chairman.

Mr. DINGELL. We excuse you. Your experts will remain.

We will then proceed with our witnesses from Interior.

At this time the committee calls the Honorable D. Kent Frizzell, Under Secretary of Interior, who is accompanied by Mr. John E. Latz, Technical Assistant to the Under Secretary, and Maj. Gen. Andrew P. Rollins, Jr., retired, authorized officer, Alaska pipeline office.

Gentlemen, if you will come forward, please.

Gentlemen, in view of the fact that we have been receiving testimony under oath, do any of you have any objection to being sworn at this time?

Mr. FRIZZELL. None.

Mr. DINGELL. Do any of you desire to have counsel at the table with you?

Mr. FRIZZELL. Not I.

Mr. DINGELL. Copies of the rules of the committee and copies of the House are available there at the witness table for your assistance if you so desire.

At this time would you raise your right hand, please.

Do each of you swear that the testimony you will give will be the truth, the whole truth and nothing but the thruth, so help you God?

Mr. FRIZZELL. I do.

Mr. LATZ. I do.

General ROLLINS. I do.

Mr. DINGELL. Gentlemen, you may consider yourself sworn.

If you will each identify yourself for the record and then the Chair has some preliminary questions.

TESTIMONY OF HON. D. KENT FRIZZELL, UNDER SECRETARY, DEPARTMENT OF THE INTERIOR, ACCOMPANIED BY JOHN E. LATZ, TECHNICAL ASSISTANT TO THE UNDER SECRETARY; MAJ. GEN. ANDREW P. ROLLINS, JR., RETIRED, AUTHORIZED OFFICER, ALASKA PIPELINE OFFICE; AND HUGH C. GARNER, DEPUTY SOLICITOR, OFFICE OF THE SOLICITOR

Mr. FRIZZELL. Mr. Chairman, my name is Kent Frizzell. I am presently Under Secretary with the Department of Interior. The gentleman on my right is Mr. Latz who is technical assistant to the Under Secretary and a member of my immediate office. The gentleman on my left is Major General Rollins who is the authorized officer in our pipeline office in Anchorage, Alaska.

Mr. Chairman, I also have an opening statement that I would like to make to this committee. If you would bear with me, I believe I can clear up about 98 percent of the issues and questions that have been raised earlier here today and then I am fair game for the committee. I would like to make an opening statement if I might, sir.

Mr. DINGELL. We will give you that opportunity and you may consider yourself recognized for that purpose.

Mr. FRIZZELL. Mr. Chairman, members of the committee, I think it is necessary to briefly recap certain events and allegations.

On October 18, of this year, I responded to the chairman's letter and to the subcommittee staff's preliminary report relating to the Trans Alaska Pipeline. On page 1 of that letter I stated as follows:

In general, I find the report to be biased, totally lacking in objectivity and replete with inaccuracies. My larger concern, however, is with the overall tenor of the staff report \* \* \* its general accusatory language with no specificity, its negative innuendo without affirmative recommendations indicating where improvement might be achieved. Its major goal appears only an attempt to discredit.

Mr. DINGELL. The Chair at this point would inquire, are you referring to the matter under consideration by the subcommittee at this time or to the earlier correspondence between yourself and the chairman?

Mr. FRIZZELL. Mr. Chairman, I deem that it is necessary to address those matters under consideration by the subcommittee today to make this brief review of events leading up to today's hearing.

Mr. DINGELL. I don't think that those have to do with the matter. I will insert the correspondence in the record and we will let it speak for itself.

[Testimony resumes on p. 74.]

[The correspondence referred to follows:]

NINETY-FOURTH CONGRESS

JOHN D. CINSELL, MICH., CHAIRMAN  
 TIMOTHY C. WIRTH, COLO.  
 PHILIP W. SHARP, IND.  
 WILLIAM W. BISHOPKAD, MICH.  
 JOHN M. MURPHY, N.Y.  
 BOB EDWARDS, TEX.  
 RICHARD L. OTTINGER, N.Y.  
 MORRIS (BOB) BRUCKER, TEX.  
 ANTHONY JOSE MURPHY, OHIO.  
 ANDREW MAJORS, N.J.  
 HARLEY G. BRADGERS, W. VA.  
 (EX OFFICIO)

ROOM 3204  
 HOUSE OFFICE BUILDING ANNEX NO. 2  
 PHONE (202) 225-1830

CONGRESS OF THE UNITED STATES  
 HOUSE OF REPRESENTATIVES  
 COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE  
 SUBCOMMITTEE ON ENERGY AND POWER

WASHINGTON, D.C. 20515

August 9, 1976

The Honorable Kent Frizzell  
 Under Secretary of the Interior  
 Department of the Interior  
 Office of the Secretary  
 Washington, D. C. 20240

Dear Mr. Frizzell:

I have reviewed the recent exchange of correspondence you initiated with officials of Alyeska Pipeline Service Company on July 20, 1976. This exchange relates to the new x-ray and audit requirements you have imposed upon the pipeline now in its final stages of completion.

At the request I want to correct the representation you made in your letter of July 20, to Mr. E. L. Patton, that "a copy of this (Arthur Andersen & Co.) report has been delivered to the appropriate Congressional committees and to your counsel, Mr. Quinn O'Connell." That report had not in fact been furnished to the Subcommittee on Energy and Power. We later received a copy by mail on August 4, only because we had requested it. I would hope that in the future we can expect your Department to keep us better advised of pipeline developments. You will recall I raised this precise point with you at the Subcommittee hearing on June 21, 1976.

On the substantive issue of redundant markings and radiographs, I can certainly agree with Alyeska that your directives are unnecessary. They are also too late.

As I read the correspondence, you are requiring Alyeska to make a duplicate copy of each new radiograph and to submit that copy to the Alaska Pipeline Office. There, that duplicate will be enshrined in a storage facility yet to be created. You will not have a complete set of x-rays because more than eighty percent of the welding and radiography is finished already. Since no one presently with the Alaska Pipeline Office is capable of interpreting these x-rays, your order will have the effect of turning that office into a bureaucratic repository -- historically interesting perhaps, but serving little purpose.

In looking at this new requirement for duplicate x-rays, I find it most interesting that this requirement was imposed without even the slightest consultation with the Authorized Officer in Alaska. General Rollins is supposed to be your on-site expert. When members of the Subcommittee staff met with him following your letter of July 20, he expressed to them general dismay and utter unfamiliarity with this burdensome and useless requirement.

The Honorable Kent Frizzell

-2-

August 9, 1976

This highlights the lack of coordination between the Washington and Anchorage offices.

It surprises me that so much attention is being placed on the 1975 welding program and the problems associated with that year but so little attention is being paid to the current year. If you had reviewed the materials in the files of the Alaska Pipeline Office in Anchorage, as members of the Subcommittee staff have done, it would certainly have become clear that the company's performance in 1976 must be examined as carefully as in 1975. While there has been an improvement, nevertheless, some problems which existed in 1975 are still being found in 1976. Radiographers were observed more than two days behind. Quality control inspectors were not always present when welding was being done. But the problems go well beyond welding and radiography. They have been confirmed by a number of people within the Alaska Pipeline Office and within the company and its contractors. The detection and reporting of these problems by the Department's representatives in the field and their support staff reflect the good field work presently being performed by them. I encourage greater scrutiny of their reports.

Your decision now to move on the Arthur Andersen & Co. report underscores the Department's mistake in failing to move swiftly once the x-ray problem had surfaced. Alyeska was allowed to investigate itself for nearly eight months without any Federal controls, monitors, input or coordination. During this entire period, Alyeska continued to weld, x-ray (occasionally) and bury pipeline Interior's inertia encouraged the problems to multiply.

Imposition of additional paperwork burdens on Alyeska at this time is, in my judgment, probably too late. The Department had inspectors on site at all times during the development of the pipeline and had the right of unlimited access to the records of the company. The scramble for additional paper at this time indicates to me that you may be more interested in paper for its own sake than in the substance of the pipeline and its problems. The fact remains that the Department's role in failing to approve a quality control and assurance program on a timely basis and in failing to move on the falsified radiographs has contributed to Alyeska's problems.

I believe that serious consideration should be given to the value of or the need for the duplicate radiographs. You should also review the files in the Anchorage Office and determine whether the 1976 program deserves more scrutiny. You should consider the fact that the additional paperwork encourages the signing of blank pages which are only later filled in (a fact confirmed by Subcommittee staff). Consideration should be given to seeing how much of this additional paperwork should be eliminated.

I will welcome any comments you may have to offer on the points I have raised.

Sincerely,

John D. Dingell  
Chairman

JDD:scs

UNDER SECRETARY



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
WASHINGTON

AUG 27 1976

Dear Mr. Dingell:

Thank you for your letter of August 9, 1976, concerning the welding program on the Trans Alaska Pipeline.

At the outset, I want to correct your representation that a copy of the Arthur Andersen Report was not made available to your subcommittee. My staff advises me that on the day following our receipt of the report the same was made available to members of your staff. You may be assured that what appears to be an apparent breakdown in staff communication will not affect my continued commitment to keep you appropriately advised of current pipeline events.

Your support of Alyeska Pipeline Service Company in voicing your apprehension with respect to my recent stiff requirements on x-ray marking and control is perhaps understandable. However, I respectfully disagree with you that these new requirements are too late. True, only about 20 percent of the welding remains to be done, but having knowledge of the problems experienced by Alyeska in control of x-ray film, I could scarcely neglect the remaining 20 percent of the welding. There has been, as you point out, an additional paperwork burden on Alyeska Pipeline Service Company as a result of new control requirements. I couldn't agree more with you that government regulations and control of private enterprise is stifling our economy and in so many instances are counter productive. However, in this case, I believe that the additional paperwork requirement is justified in light of the deficiencies in Alyeska's past record-keeping procedures.

Your letter also states that "No one presently with the Alaska Pipeline Office is capable of interpreting these x-rays." This competence is contained at a high level in the personnel of our principal contractor, Mechanics Research, Inc. You will recall Mechanics Research as being represented on the government panel at the hearing before your subcommittee.

Again, I must correct your statement that my July 20th directives were made "without the slightest consultation with the Authorized Officer in Alaska." Indeed, he was consulted, and what is apparently a characterization by your staff of General Rollins' knowledge, familiarity, and concurrence in my directives is both grossly inaccurate and unfortunate.

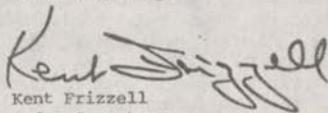
You indicate that you feel that the Department is paying more attention to the 1975 welding problems than to the current welding program. Let me assure you that this is not the case. As you know, much public and congressional attention has been focused on the 1975 welding program, and, for this reason, it may appear that our attention has been unequally divided. I appreciate very much your recognition that there has been improvement in the welding procedures and that the Department's representatives are doing good field work. We will continue to do the best possible job in the oversight of the Trans Alaska Pipeline.

Finally, you have suggested that perhaps the Department should have acted sooner concerning the welding problems. Hindsight, as you know, is much clearer than foresight. The truth is that there was no reason to consider the welding problems as being widespread when the first indications surfaced. As Alyeska's investigations continued (with government knowledge, cooperation, and input, notwithstanding opinions to the contrary), the desire then and always has been to determine facts so that appropriate action could be taken. Much of the time period during which the investigations were ongoing was covered by the cold season during which no welding was being done. Furthermore, indications are that the vast majority of the problems had already occurred before any knowledge of them was available. As you know, investigations are continuing today to determine the exact magnitude of the problem and remedial work is being accomplished at the fastest possible rate.

I have given considerable thought to the specific suggestions you make concerning our oversight responsibilities. Please be advised that I find my requirement for duplicate radiographs to have sufficient value to continue this requirement. Mr. John Latz of my staff has advised me that he is continually assessing the Anchorage office and that the 1976 welding program is, in fact, receiving close scrutiny. As I stated earlier, the additional paperwork required of Alyeska Pipeline Service Company by our control directives is unfortunate, but in our judgement necessary.

Please contact me anytime as your comments and suggestions are always welcome.

Yours sincerely,

  
Kent Frizzell  
Under Secretary

Honorable John D. Dingell  
House of Representatives  
Washington, D. C. 20515



## United States Department of the Interior

OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20240

OCT 18 1976

Dear Congressman Dingell:

This is in response to your letter of September 8, 1976 concerning the "Preliminary Report" of September 8, 1976 prepared by your staff relating to the Trans Alaska Pipeline.

In general, I find the report to be biased, totally lacking in objectivity and replete with inaccuracies. My larger concern, however, is with the overall tenor of the staff report...its general accusatory language with no specificity, its negative innuendo without affirmative recommendations indicating where improvement might be achieved. Its major goal appears only an attempt to discredit. I have assumed from the beginning that the goal shared by you and the subcommittee was identical to that of the Secretary of the Interior and myself, i.e., build the best pipeline possible, applying the most advanced engineering standards and technology available, and above all, protect the environment to the maximum extent possible. Our hope was that we could embark on this undertaking cooperatively together, and with mutual respect. Unfortunately, the staff report "misses the mark" in helping your subcommittee and the Department of the Interior to achieve our common goal.

However, I appreciate your giving me the opportunity to make corrections in the report. I will not attempt to comment on each of the many unsupported accusations and innuendos contained in the report. I will point out a few specific shortcomings.

1. The report concludes that with respect to the Alyeska welding program, "every one of the major 1975 problems has been repeated in 1976." This statement is so misleading as to be absurd. Anyone with an ounce of objectivity knows that vast improvements have been made in the program since 1975. We are confident that new QC procedures and Government requirements instituted since May 1976, have precluded any falsification of x-rays in 1976 and that radiographs do exist for 100% of all field girth welds performed in 1976.
2. The report concludes that "Quality Control is not always present" during welding and that in such instances cutouts are required and welding has to be redone in the presence of QC inspectors. This, of course, has occurred in some instances and the requirement to reweld is a sound QC practice. Our own auditors have reported that by July 1976 we no longer observed any instances of the absence of QC on new work.

3. The report also finds that radiographers continue to "fall far behind welding crews;" and that "production and QC personnel do not have the x-ray analysis by 7:00 am the next day."

My overall observation concerning the above three findings is that beyond the fact that the same are unsupported in any way and give the impression that such occurrences are wide-spread, these findings are for the most part misleading. Although it is possible there may exist in a project of this magnitude isolated instances where QC personnel are not present during welding, the Authorized Officer has not detected this since June of 1976. One fact your "fact finders" missed is that there are twice as many QC personnel in the field in 1976 than there were in 1975. That a few staffers can visit Alaska for two weeks and observe an 800-mile pipeline for a few days and conclude that the number of x-ray crews is inadequate is presumptuous to say the least. The proof of the pudding will be whether the 1976 welds have each been x-rayed and I can assure you this will be the case. There have also been isolated instances where x-ray crews have fallen behind the ideal distance for a temporary period. This, I am told, was primarily due to their being held up by visual QC inspectors. These instances as well as those when the 7:00 am deadline was not met are exceptions that can and do occur in any large construction project and are not indicative of wide-spread inadequacies. We are constantly working to keep the QC at the highest level. The impression that the report gives that the 1976 welding season is really no better than 1975 is both unfair and false.

4. The report states (without indicating how the writer came to know) that paperwork requirements are "being signed in blank." We have no evidence of this and do not believe such practices are occurring. You may be assured that if the writer of the report can point to specific places people or times, the Authorized Officer will investigate immediately.
5. The report discusses (in one of the few instances where specifics are found) the Tsina River crossing. The writer concludes several things among which are that Federal inspectors were not present during construction of the crossing and were "not even aware that the Tsina River crossing was being made."

The AOFR was indeed informed that work was in progress on the crossing on State land. The Execution Contractor was experiencing problems with dewatering the ditch, bringing the pipelaying to a halt. The AOFR was fully cognizant of this problem, and with the knowledge that the State Pipeline Coordinator's representative was present at the site that day, he personally attended to other critical ongoing work. The following morning, July 17, 1976, one of his representatives observed the work at that crossing. These facts were available if your staff had but made a simple inquiry of the Authorized Officer.

6. The report on pages 13 through 22 discusses various topics under the heading "Environmental Problems." At the outset the report concludes that "Alyeska has done a better environmental job than was initially anticipated." It is unclear who's "anticipation" has been exceeded, but this admission is appreciated. Inasmuch as the report does not contain a single specific reference to the actual environmental protection stipulations imposed upon the builders of the pipeline, perhaps a review of the protection measures taken is in order. The protection of the environment consumed the overwhelming majority of time and effort of the Department prior to the signing of the permit agreement. The Environmental Impact Statement took two years to complete and cost \$9 million which was reimbursed to the Government by Alyeska. All of the Stipulations of our Permit Agreement exist to protect the environment. It has been said that this project has received more intensive environmental protection scrutiny than any other private construction project in the world.

I have the following specific comments concerning the environmental items discussed in the report.

#### River Training Devices

Alyeska is building river training structures to protect both above-ground and belowground pipe. As written, one could conclude from the report that river training structures are being built to protect above-ground pipe only. The purpose of the river training structures is not to keep the pipe from being inundated, but rather to prevent channels from forming or flowing across the pipeline and scouring out the pipe or the VSM's (see Stip. 3.6.1.1). The third sentence in this section of the report is completely in error. The construction mode, aboveground or belowground, is determined by the type of soil encountered and not whether or not river training structures are being proposed (see Stip. 3.3.1). River training structures are commonly used to protect facilities such as highways and railroads, and population centers.

The purpose of a river training structure is to have a short-term (life of project) effect on the river, i.e., to prevent shifts of the main river channel where it could cause scour and expose the buried pipe or VSM's (see Stip. 3.6.1.1.1.4 and 3.6.1.1.1.5).

#### Pipe Not Buried Below Scour Depth

The statement that some river crossings "may not be buried below the scour depth" is incorrect. The APO has approved Alyeska's burial

depths based on independent evaluation in compliance with Stipulation 3.6.1.1.1.3 and/or protective structure to control scour.

There are many formulas and ways to calculate scour depth. Application of the various methods varies with the site conditions and the judgment of the designer. There is no single "correct" method. Also, contrary to the report, there is no "Corps of Engineers method" since the Corps, too, utilizes many methods in its work.

At least two different scour calculation methods were used to check Alyeska's scour estimates. Generally, APO's analyses resulted in less burial depth than Alyeska's proposals. The writer of this section of the report appears to lack the necessary technical expertise and understanding of this area.

#### Glaciers

The comments pertaining to the potential hazards associated with the proximity of Castner, Black Rapids and Worthington glaciers are reasonably accurate, except that the probability of an untoward incident is greatly over-emphasized. These concerns were addressed in the environmental impact statement. There would be ample time to shut down the pipeline and take other appropriate action before any glacier could pose an immediate threat to the pipeline. I need not remind you that the Congress approved the Environmental Impact Statement as being adequate and its discussion of glaciers and their minimal probable impact on the pipeline has not changed since that statement was written several years ago.

#### Erosion and Subsidence

Erosion has taken place in some instances because erosion control work was not always done in a timely manner. We do not know how the number of workpad washouts was determined by the writers of the report since we have not compiled a list or know of the existence of such information.

The information in the report concerning the Lost Creek cut is not entirely correct. First, the cracks are primarily in the floor and not in the face of the cut. Secondly, no movement in the formation has been detected. The current hypothesis is that the cracks were formed when in situ ice melted and the permafrost surface regressed. The cut is considered stable.

#### Fuel Gas Line

The information presented in this section of the report is grossly incomplete. It does not cover all comments and considerations that went into the initial decision regarding the location of the line and in subsequent resolution of problems that developed. There were

numerous interdisciplinary discussions among APO, JFHAT, MRI, GIE and EEI staffs and between APO, BLM and the State of Alaska regarding the location of the fuel gas line. The first route proposed by Alyeska traversed considerably more area outside either the oil pipeline or the State Highway Right-of-Way than the route subsequently approved by APO. Alyeska was requested to resubmit its application keeping it within the pipeline or highway right-of-way as much as possible. The State of Alaska Department of Highways would not permit the fuel gas line in the toe of the highway embankment where APO felt it should be placed. Alyeska opposed placing it in the workpad for safety reasons, and because of construction problems associated with digging through the insulated workpad immediately adjacent to the oil pipeline. It was finally agreed to place the fuel gas line 15 feet from the toe of the highway with Alaska Department of Highways' concurrence. Tests were run in the northern part of Section 5/6 which substantiated that this work could be accomplished in an environmentally acceptable manner. It was not until Alyeska entered that particular section noted in the report that some of the problems alluded to appeared. We were concerned about this particular area, but Alyeska assured us that they could accomplish the work with the Roc-Saw and the Barber Green ditchers. However, as indicated in Mr. Turner's memo, the Execution Contractor was not responsive nor was the construction element of Alyeska. Changes subsequently were made in Alyeska's construction management as well as the Execution Contractors at APO's direction.

Although not noted in the report, the use of explosives was stopped by APO. Notwithstanding that this section of the report is merely an incomplete reiteration of historical facts, the pipe in place meets all codes, welds have been radiographed and meet Code requirements, and the subject portion of the line has been satisfactorily hydrotested and is in compliance with Stipulation 3.2.1.1, and all other stipulations.

#### Oil Spills

I agree with the report that fuel spills during construction are to be expected. With the benefit of hindsight, it is now possible for the writers of the report to argue that some of the spills might have been prevented through better management of the fuel handling personnel and fuel handling procedures. You should be advised that the APO has required and Alyeska has implemented: (1) tracking system of fuel usage at all camps (metering and record keeping) and (2) periodic pressure testing of camp fuel lines. It also should be noted that Alyeska is immediately reporting all spills of 50 gallons and larger in accordance with reporting procedures approved by Federal and State agencies. They are to report all spills weekly by listing to all appropriate agencies (also see Stipulation 2.13). We know of no instances where this is now not being done nor have any of the agencies expressed knowledge of non-compliance to this office on this subject.

In accordance with EPA guidance to APO on fuel spill cleanup, APO monitors have taken the lead in some cases during spill cleanup activities until Alyeska management could take over crew direction. Fuel spill cleanup equipment was provided by Alyeska to all pipeline sections.

With regard to the remarks allegedly made by Mr. Max Brewer, former Commissioner of the Alaska Department of Environmental Conservation (DEC), it is appropriate that Mr. Brewer respond as I am not aware of any such statement. It is the responsibility of the Permittee to report spills, and not APO (see Stipulation 2.13.2).

The paragraph pertaining to the oil spill observed by your staff is not accurate. A spill was observed, the station attendant had spread materials to soak up the oil but, contrary to the staff report, the valve had been shut off. Alyeska oil spill report indicated that 103 gallons had been spilled and the cause was a malfunctioning automatic shutoff valve.

#### Leak Detection (Main Pipeline)

Our review of Alyeska's leak detection system had determined that they are utilizing the best state-of-the-art systems available. While many methods of leak detection have been studied, the planned installation represents the most practical, reliable and accurate system available for long-term operations.

Alyeska's Operations and Maintenance plan will include periodic monitoring along the buried pipeline route which will detect hot oil flow through any initially frozen ground. With this use of present technology for leak detection, the probability of a small underground leak going undetected over an extended period of time is minimized to the highest degree possible. We know of no detection system better than the one proposed to be used. However, if, as your staff seems to suggest, a better system exists, we would, of course, be happy to examine it.

#### Feeding the Animals

Alyeska has complied with Stipulation 1.14; however, as reported, feeding of wildlife by individual workers has been and continues to be a problem. In such instances authority for enforcement of stipulations against individual workers lies with Alyeska as the employer or the State of Alaska fish and game enforcement officers. APO has continually stressed the importance of proper enforcement, and suggested that violators be dealt with harshly.

The Alaska State Department of Fish and Game has recently issued instructions making it unlawful to feed animals within the pipeline corridor.

#### Materials Sites

Alyeska performed exploration work on every material site on Federal lands prior to opening the site. The exploration work consisted generally

(pre-1974) of a drilling program, whereas after permit issuance other techniques were also used. This work was carried out under the surveillance of the BLM (pre-1974) and APO thereafter. In a few cases, the material in the site was not representative of the data obtained in the exploration program in accurately determining the quality of mineral material in the site. Most likely the only way to overcome this would be to allow more extensive explorations, which would involve more environmental disturbance than the methods used.

Only in a very few cases was a small area cleared and no gravel removed from the site; however, these sites were subsequently used as disposal sites, which eliminated the need to disturb another area for disposal of waste material. We are not aware of any case where material sites are mined deeper than authorized by the approved mining plan or the AOFR. In some cases, deeper mining was subsequently authorized to preclude the need to disturb additional areas. A separate environmental assessment was made for all proposed material sites, disposal sites and access roads and, if acceptable, was the basis for authorizing use of the site (see Stipulation 2.6).

#### Big Game Crossings

Alyeska has provided, or is in the process of providing, elevated crossings for all locations required by the Federal (APO) and State (SPCO) offices. Contrary to what is stated in the report, there are no disagreements between governmental entities on resolution of animal crossing requirements.

#### Low Water Crossings

Alyeska's Low Water Crossing (LWC) design concept was approved. It was initially recommended by staff elements that LWC be used to the maximum extent practicable. The LWC concept is sound and will become mandatory during the operational phase of the project in most locations. However, not all LWC's were properly constructed (well-graded gravel, rock, etc.) and/or utilized (pipeline spread construction traffic only, not designed to be used as an access road by heavy equipment). These discrepancies have been or are being corrected.

Application of approved designs was made in the field on a case-by-case basis. This section of the report leaves one with the impression that all APO decisions in regard to the project must have unanimous concurrence by all parties involved in order to be proper and valid. The AOFR has the authority and responsibility to make decisions on Alyeska's requests for field approval after considering all factors. There are times when the AOFR's decision is not in complete agreement with each staff member's recommendations.

The APO has not ignored the advice of JFWAT (part of APO, not a separate entity) or of its Technical Support Contractor in reaching decisions on subjects where differences of opinion exist.

7. Intimidation of QC Inspectors

Your staff reporters state that they were "regaled" with stories of threats to QC inspectors, that QC people are "routinely" threatened by subcontractors, and that on an "inordinately large number" of occasions QC representatives have had to ask Federal inspectors for help. Yet, the report contains only a sketchy description of two events, both of which are based on pure hearsay and both of which your staffers admitted could not be substantiated.

Contrary to the report, there have been no instances where Alyeska Quality Control personnel have approached the AOFRs to use their authority specifically because of a threat of possible injury. Furthermore, within the APO our turnover of surveillance people has been almost non-existent.

The Department is very interested in knowing if threats are in fact taking place and you may be assured that the Department will investigate any reports and will do everything in its power to prevent violence. Your staff report, however, sheds very little light on this subject.

8. Out of Round

Gauging pigs are used in conjunction with hydrotesting prior to operation to assure that the pipe ovality does not exceed the design/operation limits. This is standard practice in the pipeline industry. We have no reason to believe that the frequency of out-of-round occurrences on the trans Alaska pipeline is unusual or significant to the integrity of the line.

9. Sag River Crossing

Your staff report comments are obviously based upon a preliminary report of the Sag River incident. A more comprehensive study now concludes that the exact cause of the incident cannot be determined with certainty from among various possibilities.

The statement that no Government official had seen the pipe that had been pulled out of the Sag River is inaccurate. The AOFr and a GIE representative were among the first (if not the first) people to observe the pipe on June 8, 1976 while on a helicopter overflight of the pipeline in that section.

High water prevented immediate access to the pipe to determine probable cause of failure. APO representatives also observed the damaged pipe after it was removed from the ditch.

Based on the circumstances regarding the reconstruction of the A.S. 123 crossing as compared to the original crossing, it is Alyeska's belief that the same problems with pipe ovaling are not likely to occur. At this time we have no reason not to concur with that view. Again, contrary to the staff report, about the only similarity between the original crossing and the reconstructed crossing design and procedures is the crossing location and burial depth. The original crossing was done in winter - the new crossing was done in summer. The original crossing was pulled into a ditch filled with water and ice - the new crossing is being placed in a dry ditch. The original crossing was welded up into one section and pulled into place on rollers - the new crossing is being welded up in about 500 foot sections and lowered in the conventional way. The original crossing had concrete coating - concrete weighting is not being used on the new crossing since it is being immediately backfilled. It is plain from the above that Alyeska did not, as stated in the report, install the new crossing by "basically following the same procedures it had established last year."

Alyeska's information indicates that on other river crossings (A.S. 125 and A.S. 126) which were made during the winter and where frozen soils and ice are part of backfill, were not crushed out of round. Further, we know of no Government engineer who made a statement about ice apparently crushing the pipe.

The last paragraph in this section of the report is incorrect. APO is checking the bellholes for ice lensing and the pipe for any kind of damage when it is exposed for remedial weld/radiograph work. The tape, bedding and padding, and zinc anodes are also checked at that time.

#### 10. Completion Date

Your staff report suggests that the completion date of the pipeline may be delayed. This conclusion, the writers say, is based upon statements by "persons familiar" with the problem and from observations made from a helicopter. I submit that completion date projections are difficult at best but certainly their reliability must be based upon better information than that enumerated in the staff report. Our present information indicates that no substantial delay in completion is anticipated.

## 11. Allegations of Subcommittee Obstruction

Many of the comments in the final section of the staff report are pure nonsense. I frankly have trouble even commenting on many of the subjective and distrusting statements, such as a general suggestion that Federal employees deliberately withheld information, that Federal interviewees "appeared extremely tense" or that a request by some to have a lawyer present during questioning demonstrates anything but good sense. I am told that your staffers refused to talk to Federal employees with a lawyer present and that access to such employees was then allowed in private and without their being represented.

As you are quite aware, I have directed the Department staff to cooperate to the fullest with your Subcommittee and I know of no information or document that has not been made available to your staff upon request. In fact, I have allowed members of your staff complete and unrestricted access to all Department pipeline related files and they have even come into my office and perused my personal files on the subject.

Your "investigators" include in their report instance after instance of totally unsubstantiated hearsay as a basis for conclusions drawn. The report shows not even a half-hearted attempt at impartiality or objectivity. Although Alaska Pipeline Office personnel were interviewed and in many instances contradicted statements that are contained in the report, those contradictions were omitted. I have pointed out no less than 17 specific and material inaccuracies contained in the report, all of which could have been avoided if the staff had simply inquired of the APO. The unfair impact of the report, given to the press and publicly disseminated prior to our having been furnished a copy or the opportunity to comment thereon, and correct misleading and erroneous statements contained therein has come and gone. The record, however, stands corrected.

In conclusion, it is my hope and expectation that your Subcommittee will reject the staff report in its entirety. In the future may we work together in a spirit of cooperation which will enhance both our performance and your oversight.

Sincerely,

*Kent Drizzell*  
Under Secretary

The Honorable John D. Dingell  
Chairman, Subcommittee on Energy & Power  
Committee on Interstate & Foreign Commerce  
House of Representatives  
Washington, D. C. 20515

NINETY-FOURTH CONGRESS

JOHN D. DINGELL, MICH., CHAIRMAN  
 TIMOTHY E. WIRTH, COLO.  
 PHILIP H. BURKH, IND.  
 WILLIAM M. BRIDGES, MICH.  
 JOHN J. STUPNY, N.Y.  
 BOB ECKHART, TEX.  
 RICHARD L. OTTINGER, N.Y.  
 ROBERT (BOB) KRUEGER, TEX.  
 ANTHONY TONY MUFFETI, CONN.  
 ANDREW MADOLE, N.J.  
 BAILEY G. STARGERS, W. VA.  
 (EX OFFICIO)

CLARENCE J. BROWN, OHIO  
 BARBARA J. BOOTHMAN, CALIF.  
 SAMUEL Y. BROTHMAN, N.C.  
 H. JOHN HEINE III, PA.  
 SAMUEL L. DEVINE, OHIO  
 (EX OFFICIO)

ROOM 3354  
 HOUSE OFFICE BUILDING ANNEX NO. 2  
 PHONE (202) 225-1500

CONGRESS OF THE UNITED STATES  
 HOUSE OF REPRESENTATIVES  
 COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE  
 SUBCOMMITTEE ON ENERGY AND POWER  
 WASHINGTON, D.C. 20515

October 26, 1976

The Honorable D. Kent Frizzell  
 Under Secretary of the Interior  
 U. S. Department of the Interior  
 1801 C Street, N. W.  
 Washington, D. C. 20240

Dear Mr. Frizzell:

Your letter of October 18, 1976, responding to the preliminary report of the Subcommittee staff relating to the Alyeska Pipeline is, to use your own words, "replete with inaccuracies". I suggest that if you had referred to the materials in your own files and those of Mr. John Latz, your technical advisor, you would have found that the assertions you are making in your letter of "no less than 17 specific and material inaccuracies" are simply not true.

To set the record straight, I am attaching to this letter the following items:

1. an extract of spot check reports from the Alaska Pipeline Office files which were obtained from Mr. Latz' office in Washington and were introduced at the Subcommittee hearing on June 21, 1976;
2. a copy of page 21 of a September 10, 1976 report to you by Mr. Al Reynolds, your Director of Audit and Investigation;
3. a table disclosing a startling 66% increase in welding and radiographic nonconformance in 1976 over 1975; and
4. a true copy, with names deleted, of a September 23, 1976 memorandum, prepared on Government stationery, reporting criminal implications from falsified certifications.

These items were all available to you on October 18 but it appears you chose to ignore them.

The Subcommittee staff reported that weld certification forms were being signed in blank and without documentation necessary to support the certification. Alyeska has pointed out that this is a Federal crime. One Government agent (a GIE inspector) refused to file a formal report when he learned of a false

The Honorable D. Kent Frixzell  
 October 26, 1976  
 Page Two

certification because he realized there were "criminal implications". Attachment number 4 to my letter details an instance of a weld having to be cut out after it had been certified for burial. The cut-out was ordered because the weld contained a double repair. The problem was caught during a Quality Assurance audit. The GIE field representative refused to write a spot check report on the incident because he recognized that the certification had been improperly made by the various parties, including, possibly, the Government agent, and this might have "criminal implications". There are a number of instances of 1976 welds, already buried, which had to be dug up because they were never radiographed or P-30'ed.

The Subcommittee staff report makes the point that "Every one of the major 1975 problems has been repeated in 1976. They have been observed and reported by the Federal and State inspectors in the field." These problems include:

1. welds buried without radiographs;
2. unreadable radiographs;
3. double repairs;
4. cut outs not ordered although required by established procedures;
5. cut out orders overridden;
6. quality control inspectors absent during critical construction stages, such as welding;
7. absence of Government inspectors during critical construction stages;
8. an inadequate number of radiographic crews and radiographic analysis;
9. excessive distances between mainline welding and radiographic crews;
10. distances between welding crews in excess of those required by the Authorized Officer;
11. construction continuing without final approval by the Alaska Pipeline Office of the basic design, such as vertical support members;
12. Government failure to conduct independent testing;
13. duplication of radiographs or their numbers.

These problems, if the records in the Department of the Interior are to be believed, are as bad, if not worse, this year than they were last.

The Honorable D. Kent Frizzell  
 October 26, 1976  
 Page Three

For example, attachment number 1 to my letter discloses that in 1976

1. double repair is still occurring;
2. the 75% daily radiographic requirement is not being observed;
3. welding reject rates are excessive;
4. welders who should have been disqualified were not;
5. the quality control inspectors on-site were unaware of certain welding requirements;
6. quality control is overruled when it orders cut-outs.

In his September 10 report to you, Mr. Reynolds refers to the Government's spot check reports for 1975 and the first half of 1976. His analysis of some 2,355 spot check reports on welding and radiographic work shows that nearly one-third (32%) of the checks made by the Government inspectors in 1976 showed that work was not meeting requirements. This represents a startling 66% increase over last year's nonconformance. This means either that your inspectors missed a lot of nonconformance last year or that this year's work is being performed even less well than the unsatisfactory work completed last year. Furthermore, Mr. Reynolds' data shows that the number of spot check reports still unresolved has increased 57.5% this year. Of the number of all unresolved spot checks where nonconformance existed, more than half (52%) were either critical (51%) or urgent (1%).

Your representation that the AOFR was fully aware of the Tsina River crossing and the absence of a Federal monitor was not serious simply is not accurate. You will note that the staff report pointed out: "According to the State official with us, Mr. Tyree, Federal monitors should have been at the site throughout the operation." Whether or not a State inspector should have been present (Mr. Tyree could not find one), the simple fact is a Federal inspector was needed. Contrary to your suggestion that the staff did not talk to the AOFR about the absence of a Federal monitor, the Subcommittee staff met with Mr. Donald Knight, the AOFR for that Section on the particular day in question. As the staff report shows, the Subcommittee personnel even reviewed the spot checks for that day. (I must point out that the staff found Mr. Knight to be a highly dedicated, hard working Federal employee who deserves credit for his valuable service.) Mr. Knight advised the Subcommittee staff that he would have had someone present at the site at the time if he had known about the particular operation. He also indicated, as your letter points out, that the next day he had someone present to observe the operations. Thus, your statement, "These facts were available if your staff had but made a simple inquiry of the Authorized Officer" is meaningless. Certainly he could not have given a better answer than the man in the field.

The Honorable D. Kent Frizzell  
October 26, 1976  
Page Four

In his report to you, Mr. Reynolds, your Department's Director of Audit and Investigation, notes at page 14, "We also noted that 22 of the 68 critical NCRs (nonconformance reports) written in April, May and June of 1976 still question matters such as lack of preheating welds (7) and QC personnel not being present during welding (15). These are the type problems strongly objected to during 1975, yet no stop work orders were issued for these type welding or quality control problems." At page 17, Mr. Reynolds cites two welds which were marked for cut out by Quality Control but the cut out order was overridden. Although apparently the APO permitted corrective action to be taken (according to the Reynolds report at pages 19 and 20), the APO is not certain what that corrective action was. In a footnote to his report, Mr. Reynolds objects to this situation because, "We believe this is a critical omission since information in the daily logs of the AOPR indicates he was not satisfied with this resolution."

When the Subcommittee staff learned about the discharge of one radiographic crew in Section 1, they questioned the Alyeska Project Manager in Section 1, Mr. Ron Schmidt, and his deputy, Mr. Fred Hayes, about the reason. They, like the AOPR, were unaware of the discharge although it had occurred three days earlier. In fact, while the staff was there, the deputy made a telephone inquiry and reported back to the staff that no crew had been laid off. Subsequently, the staff information was confirmed by other sources. The episode does, however, indicate that the correct answers are not always available simply by asking supervisory personnel.

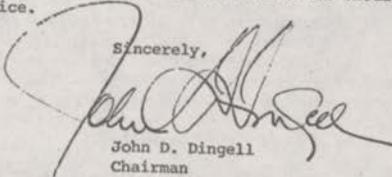
In addition to points made in the Subcommittee staff report, I am concerned by a point made in the report to the Energy Resources Council by Mr. John W. Barnum, Deputy Secretary of Transportation. According to that report, the APO is permitting Alyeska to continue installation of the vertical support members without having approved the final design. As of July of this year, with most of these members in place, the APO explained that continued installation was no problem since if the design was not finally approved as installed, retrofit would not be a major problem. Such a blasé attitude hardly characterizes a vigorous Government monitor.

Meanwhile, the APO is allowing Alyeska to hydrottest the pipe itself but to crib up the pipe so that no weight will fall on the VSM's. The justification for this is that the VSM's had not been in place for a full winter season and, therefore, had not yet settled. The implication is that next year when the line is operational the VSM's will be satisfactory. But the fact is that their ability to support the pipe will not have been tested. We know of a number of instances in which the VSM's during hydrottesting actually did settle -- in some cases more than seven inches. Since VSM's are a novel procedure in a construction project of this sort, I find it troubling that Alyeska is allowed to proceed without the APO approving the final design. This is exactly the situation we saw previously when the APO permitted Alyeska to proceed without finally approving the quality control, quality assurance programs. Ultimately, the programs as initially implemented did not disclose the radiograph problem and they have been substantially revised in 1976 to compensate for this failure.

The Honorable D. Kent Frizzell  
October 26, 1976  
Page Five

One remaining fact concerns me greatly. I asked in my letter that you review the preliminary staff report and comment thereon, which you have now done. I also stated, "If there are inaccuracies in the report, and if these are called to our attention, we will be in a position to correct them. We will assume, for these purposes, that those items in the report which are not commented upon, by your Department or by other parties in this matter, are accurate and need not be changed." The report of the staff detailed instances of Federal employees not being backed up by their management, that the ability to transfer people to different Sections of the pipeline was used to discipline individuals, that Washington had given specific instructions on the manner of cooperating in interviews with the Subcommittee staff to include writing down the questions and answers, that the Authorized Officer's Representative had not been candid on specific items when questioned by the staff. In view of your failure to respond to these points in your letter, I am forced to assume that these particular points are admitted to be accurate. Accordingly, the Subcommittee will have to consider whether or not the matter should be referred to the Department of Justice.

Sincerely,



John D. Dingell  
Chairman

JDD:Bvp

Enclosures

## REVIEW OF GOVERNMENT (MRI - GIE) SPOT CHECK REPORTS FROM ALASKAN PIPELINE OFFICE FILES

-- In boxes in John Latz' office at Interior -- none were xeroxed

-- quick review of spot check reports for 1975 through May, 1976

-- many of the reports point out non-conformance with government welding regulations marked "urgent" or "critical" -- however, there is no required remedial action report attached to a number of these showing that the problem was solved -- An MRI representative could not explain the missing sheets -- so is it not clear from their records that Alyeska ever fixed the urgent problem welds -- MRI was somewhat embarrassed and concerned.

-- MRI said they did not check out trends in problems checking out nonconformance reports

-- An example of a missing remedial sheet, remedial action sheet -- attachment #4 number 093

060 -- 4/23/76

No quality control people present on line  
 Noncompliance  
 Critical  
 Double repair still going on  
 Noted violation of APO telex  
 No remedial action reported  
 No quality control people on the job in April, '76  
 "poor, quality control work is occurring" and there is no QC coverage"

066 -- Only one x-ray out of 57 welds -- requirement 75%

5/5/76 -- x-rays' still way behind, no welds on that date were x-rayed  
 MRI nonconformance reports indicate 30% repair rate which is extremely high

5/5/76 -- longitudinal seams are not offset -- APO disappointed

5/6/76 -- No x-rays

MRI -- point out its critical to stay up -- helps welders

5/7/76 -- welding rods stand in bucket in rain

MRI representative said that the quality control guy on the line would have to go and bitch to his boss, telling him that he was going to have to shut down the operation if they continued to screw up -- he says this is not exactly an effective system

056 -- 5/8/76

report excessive welding reject rates  
 several welders involved  
 according to the manual they should be disqualified  
 no action taken

037 -- 5/11/76

30-40 welds on May 9th none x-rayed on May 10  
 this is a repeated problem with the x-ray crew far behind  
 AO merely notified Alyeska  
 why aren't they shut down when this happened?  
 This very problem caused the falsification of the records and a number  
 of the welding problems identified in the welding program

057-3/31/76

x-ray crew three days behind  
 one of the reports points out that Bechtel's quality control man on  
 the welding crew was not aware of certain welding requirements a number  
 of these reports identify problems constantly repeated, why was there  
 no threat by the government to shut the welding down until they got straightened  
 out?

020-8/28/75

nonconformance -- critical  
 x-ray crew 3.5 miles behind; at least a week behind, Alyeska promised to  
 get them within one mile  
 Nix -- GIE -- pointed out in the report this problem of contributing to  
 the high rejection rate of 15 to 50 percent -- which is enormous

014-8/28/75

nonconformance -- critical  
 Bechtel QC -- marked for cut out because of offset problem  
 cutout instruction was marked out  
 requested by the GIE  
 APO said practice should stop but did not make them cut it out

012- 8/27/75

same problem  
 no action

82-056 8/17/75

GIE wanted weld cut out  
 ADFR disagreed, refused  
 no QC on job for hours at a time  
 MRI report

ATTACHMENT 3 --- APO Field Memoranda

043 6/25/75

Non conformance-- urgent  
 Stop work order by Bechtel ignored  
 work continued  
 not clear AO forced a stop

Serial Number 3325 -- 11/3/75

Non conformance  
 stop order again ignored  
 "Alyeska in direct flagrant violation of the conditions of the government contract"

AO action -- ask Alyeska for an explanation -- what kind of a deterrent is this

Spot Check report 062 4/19/76

Non conformance - critical  
 two welds were made with no quality control person present  
 how could this possibly be certified  
 ergo, QC ordered the welds be cut out  
 overruled, by someone  
 x-rayed

report state "indicates that someone is overruling QC"  
 IS INTERESTING to note this was as late as April 1976, these are not old 1975 problems  
 I think what we can conclude from this is that they still don't have a responsible  
 quality control system in place and basic problems in the welding program are occurring  
 with some regularity

NONCONFORMANCE REPORTS PERCENTAGES

	<u>1975</u>	<u>1976</u>	<u>1976 (Increase over 1975)</u>
Nonconformance as percent of total SCR's	21	32	66
Percent NCR's unresolved	23	40	57.5

UNRESOLVED NCR's FOR 1975 AND 1976<sup>1/</sup>

	<u>% of Total</u>
critical	51
urgent	1
routine	48

<sup>1/</sup>

Based on data compiled by the Department of the Interior

MEMORANDUM

9/23/76

TO:

FROM:

SUBJECT: POSSIBLE PIPELINE INTEGRITY PROBLEMS IN SECTION 3

1. A P-30'ed weld was reported to have been cutout in PS #6. This was reported to me by GIE (Name) who observed the incident. (Name) stated that he did not write a GIE Spot Check on this activity -- due to the criminal implications of a weld having to be cut out after it was supposed to have been fully certified with signed approvals.

Also 1976 welds have been dug up on AS 68 -- I saw the dig out at the transition south of Slate Creek -- because they were never x rayed or P-30'ed.

In both of these cases, the problems were discovered and corrective action taken, but they open the question of how accurate/effective is APSC 1976 weld audit program.

2. On As 54, 55 & 56, GIE (Name) told me that APSC is cutting out sections of a already hydrostatic pipeline and removing excess pipe in the A/G mode. That is to say the G/G alignment is incorrect -- too much pipe between anchors -- and APSC is removing the extra 48". APSC makes a cutout and then welds in a smaller pup of pretested. GIE (Name) stated that APSC told him that they do not plan to rehydrotest these sections of the main line.

I have observed two of these cutouts on AS 55-56.



United States Department of the Interior

OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20240

December 6, 1976

Hon. John D. Dingell  
Chairman, Committee on Interstate  
and Foreign Commerce  
Subcommittee on Energy and Power  
House of Representatives  
Washington, D. C. 20515

Dear Chairman Dingell:

Your letter to me of October 26, 1976, is essentially a restatement of your staff's conclusions, and fails to recognize my earlier responses to such allegations.

Notwithstanding, I will once again address each of your points below:

1. Blank certifications and your Attachment #4.

Our Authorized Officer has no evidence of weld certifications being signed in blank. Your reiteration concerning this subject sheds no new light. If you or your staff have specific information, why don't you give it to us? Also, be assured that we have searched our files and they contain no such memo even similar to the one you have enclosed. Your suggestion that the matter be turned over to the Justice Department is a good one. Maybe their investigation will turn up something besides unsigned pieces of paper with names deleted. If there are "criminal implications" and your staff knows the names of the people who purportedly have information, the law requires that such information be provided to the appropriate law enforcement agency.

Incidentally, Paragraph One of your Attachment #4 states that a P-30'ed weld was reported to have been cut out in PS #6 and that GIE observed the incident, but stated that he did not write a GIE spot check on the activity. Our records show that a GIE representative did indeed observe two P-30 welds being cut out in PS #6 on September 2, 1976. The GIE representative then wrote Non-Conformance Report No. 031-342 dated September 2, 1976 (copy attached) on this observation and processed the NCR through normal channels. QA has subsequently submitted a report explaining the incident. It should be noted that the cut out resulted from a double repair which was detected and corrected by the QA/QC system.

Paragraph Two of Attachment #4 states that 1976 welds were dug up because they were never x-rayed or P-30'ed but the problems were discovered and corrective action taken. The fact is that the situation was investigated by the AGR and GIE representative because an identification problem arose from the As-Built Survey. This is a typical example of the QA and our Surveillance system working to resolve problems.

Finally, your Attachment #4 implies that it is improper to install short sections of pre-tested pipe in previously hydro-tested sections without re-hydrotesting the entire section. Such welds are considered tie-in welds. 49 CFR, Paragraph 195.308 states:

"Pipe associated with tie-ins must be hydrostatically tested, either with the section to be tied in or separately."

2. 1975 problems reoccurring in 1976.

All available facts dispute your staff's conclusion that 1976 welding quality is no better than 1975.

Welding problems in 1976 have diminished both in number and significance over 1975. Problems of QC inspectors and government inspectors being absent has occurred, but the occasions are rare. The work accomplished on such occasions has been subsequently accepted by QC. It should be emphasized that there is no criteria which requires 100% presence of Government Inspectors during any construction phase, critical or otherwise. The Right of Way Agreement does not require a one to one ratio of inspectors to workers. The Government requirement is to spot check Alyeska's QA efforts, not QC the job. The assertion that there has been a Government failure to conduct independent testing is totally false, e.g., the Government had extensive fracture mechanics testing accomplished and solicited the opinion of the top men in the country on the welding problem.

Your Attachment #1 purports to "disclose" 6 iters of discrepancy and is a "quick review" of spot check reports for 1975 through May 1976, written by GIE. It lists 16 SCR's either by incomplete number identification or date only. The review lists selected portions of department reports and your staff's interpretation of the same. In any case, the "quick review" is incomplete, lacking in depth and understanding, and does not support your implications. Copies of the referenced spot checks are attached. Note that all these non-conformances have been followed up and closed out by acceptable Remedial Action Reports.

Your comment of a "startling" increase in non-conformances is an example of your staff's misuse of statistics. Since the reporting system which you have used is on a Spot Check basis and not designed as a full time inspection system, quantitative conclusions drawn from raw numbers with no understanding of the overall operations can be misleading and incorrect. For example, in Attachment #3 to your letter, the 1975 Spot Check Report statistics on welding and radiography are compared to the 1976 statistics, and a conclusion of a "startling 66%" increase in non-conformance reports is drawn. Below is the professional analysis:

SCR's in 1975 were taken over a six month period of routine spot checking of line activities. SCR's in the 1976 sample represent a three month period. While it is true that the percentage of non-conformances reported increased 11% (21% in 1975 to 32% in the 1976 reports) the important analysis to make is that although the 1976 effort was especially directed toward welding, the critical/urgent non-conformances were 40% versus 70% for the 1975 period or a "startling 75%" improvement. In 1975, 28 HCR's were urgent; in 1976, only 3 ...or in your words a "startling 900% decrease." To the professional these statistics reflect a decided improvement in the QA/QC effort and a "startling 66%" was a result of a greater number of reports because of a more concentrated welding surveillance effort.

### 3. Tsina River Crossing.

A rehash of the Tsina River Crossing seems unnecessary. I believe this was adequately answered in my previous response and in that of Mr. Patton in the Alyeska response to the Subcommittee Staff's report. The Government team was aware of the crossing going on, and the work done for four weeks up to that point had been observed. As Mr. Patton stated in his response, "Discussion of the river crossing with State and Federal monitors took place that day and on numerous occasions prior to and throughout the work."

The fact that Mr. Knight, the AOFR in Section 1, was not aware of the work at the Tsina Crossing is simply explained: Mr. Knight had just arrived in Section 1 as an interim replacement for the Alternate AOFR in that Section. The briefing Mr. Knight received upon his arrival did not include a detailed discussion of the Tsina River activity simply because it was a lower priority item than other construction activities then taking place. Mr. Carson, the primary AOFR in Section 1, was aware of the river crossing activity and would have had a member of the APO team present if he felt it necessary. The point to be made is that the primary AOFR is responsible for planning surveillance coverage in the field. There is no requirement for Federal monitors to be present at every construction activity. The AOFR decides what daily events, in his best judgment, should be observed.

#### 4. Comments of DOI Audit and Investigation.

First: I should point out to you that I personally asked the Division of Audit and Investigation to look at our entire oversite operation in Alaska after the Arthur Anderson report, which I had earlier commissioned, was made available to me. The investigation was done by career employees without any restrictions by my office whatsoever. The bottom line of that investigation was that no evidence emerged that showed wrongdoing, negligence or impropriety on the part of DOI personnel in the performance of their duty.

Relative to your specific comments concerning the DOI Audit and Investigation Report, you imply that stop work orders should be issued whenever construction activities do not appear to conform to Stipulation requirements. As noted, the question of matters such as failure to preheat during welding appeared in spot check reports written in April, May, and June of 1976. As a result of these observations, the matter was brought to the attention of QC Personnel, who then gave closer scrutiny to that aspect of the welding operation. It is important to note that in this scenario as well as in many others, it is often more prudent to have QC investigate suspect activities rather than arbitrarily issue stop work orders. Under guidelines issued to APO Field Personnel (and Alyeska's QC), this instance did not constitute a condition warranting a stop work order.

Your staff report also implied that a stop work order should be issued whenever QC personnel are not "in sight" during welding operations. As noted, spot check reports indicate that QC personnel were not present at some welding activities. It must be understood that QC was not staffed to provide a "one to one" condition for monitoring every activity at all welding operations, nor is such surveillance required procedure. The QC supervisor must determine the allocation of his staff. It is his responsibility to insure that even though all activities may not be attended, they are checked frequently enough to verify that work quality is at an acceptable level. If work was accomplished without the knowledge of QC, or if workmanship is unsatisfactory, the QC does not accept it. QC's decision not to accept such work can only be overridden by higher authority, namely QA and/or Alyeska's Project Manager, with concurrence of APO.

Concerning the two welds marked for cut out by QC, the decision was made (with APO's approval) to accept the welds on merits other than visual inspection, i.e., radiography and hydrotest results. The fact that the AOFR did not agree with this resolution should not be used to discredit the decision. Many designs must involve APO Technical Staff, who have more technical knowledge in specific disciplines than AOFR's. Seldom is any decision arrived at with unanimous approval of all parties concerned. To expect 100 percent concurrence on every decision made by APO Staff would be like expecting the U.S. Congress to vote unanimously on every bill it considered. However, if your staff would have fully investigated its accusations, they would have found that indeed the

AOFR did agree with this decision. The comment referred to in the log was prior to the time the AOFR was fully informed on the technical considerations and discussions with his alternate. Such factual information was all available to your staff on October 26, 1976, but it appears they chose to ignore it.

Your comment about vertical support members in the latter part of page 4 is another example of lack of technical understanding and the failure to learn all the facts surrounding the situation. Early in the design review phase, the APO made known its concern about the Alyeska criteria in its VSM's. As a result, a memorandum of understanding was written whereby Alyeska was authorized under certain constraints imposed by the APO to proceed with VSM installation and to provide the APO with the results of laboratory and field tests for continued evaluation. The APO believes that Alyeska claimed a higher criteria performance from its VSM design than could be demonstrated. The point to be made is that the design will meet the stipulation requirement of providing at least 2 feet between the ground surface and the pipe. Moreover, before the pipeline reaches undesirable stress levels and well in advance of any risk of even a wrinkle, much less a rupture, a large number of VSM's must settle several feet. Such settlement will not be possible in a properly designed and implemented O&M program such as is required by the APO.

As to cribbing up the pipe so that no weight will fall on the VSM's the inference here is that this was done in all cases where pipe was supported by a vertical support member. There are at least ten types of VSM's. When Alyeska desired to continue hydrotesting in aboveground sections the APO warned that the slurry and soil around some Thermal VSM's may not have experienced a temperature sufficiently below freezing to have adequate resistance (one winter season minimum design criteria requirement from placement to loading). Therefore, the APO required that these Thermal VSM's in thawed soils or in soils with a mixture of frozen and thawed soils which had not been installed for one winter season would be cribbed to prevent possible pipe displacement. Since hydrotesting the pipe is not a test for VSM's this allowed important testing of the pipeline to be accomplished without interfering with other construction observations. The number of this specific type of Thermal VSM's is less than 4 percent of the total of VSM's used in the aboveground pipeline construction.

The APO has been acutely aware of the VSM Design Question since the concept of an elevated pipeline was originally proposed by the Permittees. Government representatives have worked closely with Alyeska throughout the development of this sophisticated system, which has been designed using the latest technology available. Many studies have been made and test reports analyzed during the past two years. APO recommendations made to and accepted by Alyeska have resulted in design improvements. Further, ongoing consideration of design criteria calls for use of data generated by 1974 and 1975 tests to carefully evaluate in-place performance of VSM's during operation of the pipeline system. This intimate involvement and concern hardly characterizes the biased attitude which you have attributed to the Government monitors in this instance.

Finally, there is absolutely nothing to support your statements that Federal employees were not backed up by management, that transfers were used to discipline individuals or that the AOR had not been candid with the Subcommittee Staff. You state that your staff report "detailed" instances of misuse of transfers, etc. Mr. Chairman, your staff report doesn't give me one specific instance with names or dates or places. Give us the facts and we will look into it. I explained in my last letter that the Department offered to have a member of the Solicitor's Office attend the interviews held between your staff and department employees, but your staff refused to allow those whom they questioned to be represented. In fact, if a lawyer was to be present they threatened to pack-up and go home. The interviews were carried out without an attorney present. Frankly, in the light of subsequent events, and after reading the staff report, it perhaps would have been prudent to have recorded the interviews rather than give a mere instruction to make notes of questions and answers.

With respect to employees being candid with your staffers, am I to believe that your staff's "opinion" of the lack of candor will be taken as true unless I state an "opinion" otherwise? If so, I hereby state that my opinion is that APO employees were candid.

Mr. Chairman, I feel compelled to repeat what was stated in my earlier letter to you. This letter-writing "campaign" between you and your staff and me and my staff, though challenging and entertaining, is not the best means of solving problems arising out of the construction of the Trans Alaska Pipeline. I know your, and your subcommittee's, basic purpose is the same as mine and Secretary Kleppe's . . . and that is to complete the pipeline in compliance with all Stipulations, applying the best engineering and technology available, and protecting the environment to the maximum extent possible. Sure there have been problems, and more will likely occur before start-up time next summer. But let's try to cooperatively solve those problems by working together, keeping one another informed if problems arise, as opposed to revealing information or attempting to make someone look bad "after the fact." Knowing you and the subcommittee members, I am confident that such a course can be pursued, and I pledge my best efforts to do likewise.

Sincerely yours,

D. Kent Frizzell  
Under Secretary

Enclosures

Mr. DINGELL. I want to make it very clear the function of this gathering today is to discuss the falsification of X-rays and radiography in connection with the so-called double joint welds and not to discuss any previous disagreements that you and I or that you and our staff or your folks and our staff might have had.

Now if you wish to address yourself to those, I would be most delighted to receive your comments. If you want to have a hearing with regard to the matters that you now are addressing yourself to and wish to request that of the subcommittee, we will certainly try and accommodate you.

Mr. FRIZZELL. Mr. Chairman, nobody wants to reach the merits of today's allegation more than the Department of the Interior but I have indicated to be able to lay the necessary groundwork and to get the necessary knowledge to understand the basis of today's allegations I want to make an opening statement. If you are attempting to censor my opening statement, then I will accede to that but otherwise I would like to continue and make the statement.

Mr. DINGELL. I just want your statement to address itself to the matters that are currently before the committee and the matters now relate to the yard welds and not our earlier correspondence. If you address yourself to that, we will be—

Mr. FRIZZELL. Our earlier correspondence is germane to today's discussion.

Mr. DINGELL. That may very well be your view of the matter, it is not mine, with all respect.

Mr. FRIZZELL. If you are going to not allow me to make those statements and you are going to gag and censor my testimony today—

Mr. DINGELL. Now, Mr. Frizzell, you are an intelligent man, or at least you are supposed to be, and I don't see any gag on you. I simply am delineating for your benefit—you seem to have some difficulty gathering it—the bounds and the scope of our inquiries. The bounds and the scope of the inquiry relate to the transcript which was made available to you which was under discussion between your people and our staff folk with regard to the double joint welds. I would be most pleased to receive your testimony on those matters and even afford you a right which is not available to you under the rules of the committee and that is to present prepared testimony which has not been submitted to the committee 24 hours in advance.

Now if you wish to testify with regard to the double joint welds which are the subject of this scrutiny, we will be delighted to receive any comments you wish and I don't think you can fairly regard yourself as being gagged or being denied an opportunity to be heard. That is the function of the hearing. As the Chair is responsible for the conduct of the hearing, I insist that the bounds of the hearing be adhered to.

Now within those bounds I will recognize you again for comments.

Mr. FRIZZELL. With the understanding, Mr. Chairman, that these opening statements were part of the testimony with regard to today's discussion and you have disallowed them, I will proceed to—

Mr. DINGELL. I have not disallowed anything. The bounds of the hearing are the double joint welds which you good folk—

Mr. BROWN. Mr. Chairman, may I arbitrate this little dispute?

Mr. DINGELL. There is no dispute. The Chair thanks the gentleman but I am sure I do not need arbitration with anybody in this subcommittee.

Mr. BROWN. If I could only make this comment.

Mr. DINGELL. I recognize the gentleman for comment but not arbitration.

Mr. BROWN. We have already gotten into some discussion with Mr. Barnum on the question of how the matter of the field welds was dealt with in a technical sense and it seems to me that to the extent that the DOI witnesses would want to address that point I assume that the Chair has no objection to them addressing that point as it affects the question of what to do about the possibility of bad welds in the yard welds. I don't know whether there is a relationship here between the witness and the subcommittee which the witness feels he ought to get into but I don't feel that is appropriate to this hearing.

Mr. DINGELL. I am not aware of it and I will certainly agree with the gentleman on that particular point. In any event we are going to try to give you, Mr. Frizzell, all the opportunities to comment on the matters before us. If you have a desire to appear before the subcommittee in connection with other matters, we will try to honor those wishes.

Now again we recognize you for the yard welds that we are addressing ourselves to.

Mr. FRIZZELL. Considering that my statement has been abbreviated for me, I will proceed.

Mr. DINGELL. It has not been abbreviated, it is just held to the matter at hand for which we should all be thankful with the lunch hour coming up.

Mr. FRIZZELL. I say here for 2 hours this morning and listened to testimony and have not heard anybody else have their remarks deleted, Mr. Chairman.

Mr. DINGELL. The gentleman's remarks shall not be deleted, they are just held to the matter at hand. You seem to have some difficulty but I am prepared to be patient.

Mr. FRIZZELL. I think they are germane to today's hearing and I have so stated three times now.

Mr. DINGELL. I thank you for that appreciation and again I will reiterate if you wish to discuss other matters, we will hear you at a time later if you wish to request it.

Mr. FRIZZELL. I will so request at this time.

Mr. DINGELL. All right.

Mr. FRIZZELL. Would the chairman notify when I can give my full remarks at a later hearing?

Mr. DINGELL. If you will submit your request, we will receive it and review it.

Mr. FRIZZELL. Consider it to be submitted this instant.

Mr. DINGELL. All right. We will consider it and you may be in touch with our staff regarding what you wish to testify on and we will see what we are going to do about it.

Mr. FRIZZELL. If that ruling from the Chair reviews what happened recently, then regarding the latest accusations.

Mr. DINGELL. You may consider yourself recognized, and I am not aware of any accusations. Now the chairman may be aware of accusations.

Mr. FRIZZELL. Mr. Chairman, are you going to characterize for me my testimony or may I testify?

Mr. DINGELL. I am not interpreting your testimony at all. You are free to testify and I am awaiting your testimony. I just am advising you you are not accused of anything.

Mr. FRIZZELL. Well, the record will speak to that.

On November 15, 1976, Mr. Witness X was interviewed by Mr. Don Olive, a labor organizer and representative of the Operator Engineers Union together with Peter Stockton and Michael Barrett of your subcommittee staff. On page 3 of Witness X's interview your staff's characterization of what he said makes the following strong statement:

Of these 400 repair welds he estimated about half or 200 got out of the yard without X-rays being taken of the repairs. Few and possibly none of the repairs were made.

In that same statement on page 4 he is recorded as saying:

No one knows what happened but said that everyone assumed it had been hauled out and strung along the line.

He did not know whether or not the repairs were made although he thought probably not.

Then, Mr. Chairman, on November 22, 1976, Messrs. Stockton and Barrett of your staff interviewed Witness Y by telephone. Lo and behold, Witness Y stated on page 2 of his interview:

All the pipes were repaired before they got out of the yard but the falsification was not necessary because the film was missing or of poor quality, that it was merely a case of falsifying the film for accounting purposes.

On December 8, 1976, the following day, Mr. Barrett became even bolder in a memo to you. On page 1 at the top the heading of that memorandum to you—excuse me.

On a previous day, on December 7, your staff wrote a memorandum to you as chairman which memorandum was leaked to the press stating, among other things, and representing as proven facts some of the following:

More fake X-rays and defective welds discovered on Alaska pipeline. The subcommittee staff has obtained statements from a number of workers who admit to falsifying hundreds of additional X-rays of double joint welds. At least 200 welds buried along the pipeline are still in need of repair. There may even have been a conspiracy on the part of the Department of Interior, Department of Transportation and Alyeska to cover up—those sacred words—or at the very least actively ignore.

Then on the following date, December 8, that is when Mr. Barrett became even bolder in a memo to you. He said:

The subcommittee staff has identified a number of individuals involved in a scheme to cover up the fact—not guesstimate, but fact—that as many as 200 defective welds may be buried along the Alaska pipeline which the defective welds were mingled with pipes having good welds and were welded into the pipeline.

Now on December 10, last Friday, you opened an executive session of the subcommittee by inserting into the record a statement of your

own containing some but not all of the same allegations. As of that time and date, last Friday, I as Under Secretary in charge of the Alaska pipeline activities within the Department of Interior had received no information from you or your staff concerning any allegations or the general subject matter of today's hearing.

Mr. DINGELL. Well, now, that does not happen to be so at all because you were invited to have witnesses up here.

Mr. FRIZZELL. I said as of that time and date, 10 o'clock last Friday morning.

Mr. DINGELL. And you were invited to have people up here to monitor last Friday's hearing.

Mr. FRIZZELL. I had them here. My reference is to that time and date as of the time you entered your statement into the record at 10 o'clock last Friday morning. My statement is accurate to that extent. True, we have had observers and I have talked to them obviously since. Now the press started calling immediately thereafter, and being somewhat unable to reply certain headlines were obtained.

Now though it seems redundant at this late date, what are the facts? Are they fact or fabrication? True or false? Accurate or inaccurate? Fact or fiction?

Let's use your own staff's memorandum to you, Mr. Chairman, dated December 7—an appropriate date for such a memo on the basis of your inquiry. Let's start on page 1. The very heading of the memo entitled "Subject" reads as follows: "More fake X-rays and defective welds discovered on Alaska pipeline."

That is false. Nobody had or has discovered any more defective welds on the pipeline.

Mr. DINGELL. Well, at this point are you going to tell us that there were not faked X-rays?

Mr. FRIZZELL. That is not my statement. Don't put words in my mouth, Mr. Chairman. I said nobody has or had.

Mr. DINGELL. You are making comment here.

Mr. FRIZZELL. Mr. Chairman—

Mr. DINGELL. Just a minute.

Mr. FRIZZELL. I will address the falsified X-rays in a moment and I intend to.

Mr. DINGELL. All right.

Mr. FRIZZELL. Now what was the basis for your staff's allegation? Well, they had four possible witnesses or statements on that date to rely upon. First they had a union organizer who testified here today who has never been an employee of the pipeline, who has never made a weld on the pipeline, who has never made a radiograph on the pipeline and he has never read a radiograph on the pipeline.

You had an assistant radiographer apparently with no advance written statement in testimony last Friday who agreed although there were approximately 60 radiographs that may have been falsified, all were repair welds which had been repaired before they were brought to the yard and it was merely a case of falsifying film for accounting purposes after the fact.

Third, you had assistant radiographer witness X who under questioning by Mr. Brown admitted he didn't know whether any defective welds got out on the pipe or not.

Fourth, you had a senior radiographer witness Y who stated (1) all repair welds were made and radiographed, (2) no defective welds got out of the line  $\alpha$  with the exception of 8, (3) falsification of approximately 60 radiographs were for accounting purposes only.

Now it is necessary to explain the double-jointed welding process that occurred in Fairbanks during 1975 from January to June. I don't appear as any expert on radiography or welding or procedures but perhaps I can help the subcommittee. Unlike your own staff, Mr. Chairman, when you want to get expert answers you ought to call on the experts. Even though this whole problem involves Alyeska, isn't it strange that they were not asked by this subcommittee or staff to appear today or the Quality—

Mr. DINGELL. For your information, Mr. Frizzell, since you make a comment, we will have Alyeska in today.

Mr. FRIZZELL. They are here today at our invitation, not yours.

Mr. DINGELL. Well, we will have them here and if you don't mind I will conduct the affairs of this subcommittee. If you have some suggestions, we will be happy to receive them but I am not aware that you are chairman of the subcommittee, I happen to be, and I will hear the witnesses in the order that I deem proper. If you have some suggestions, I will be glad to receive them.

Mr. FRIZZELL. Fine.

Mr. DINGELL. But I don't receive your dictation.

Mr. FRIZZELL. Now if during January to June of 1975 in the Fairbanks double jointing yard with respect to the 60 alleged falsified radiographs, if my understanding is correct, and I stand certainly to be questioned on it or further explanation from those who know Alyeska and Bechtel—my understanding of the process as a layman is that double-jointed pipe was assembled there in 40-foot or 30-foot sections and double jointed by machine weld and when the machine makes its pass at the circumferential weld it is either a good weld or it is a bad weld. The way we tell it at Interior and the requirements we laid on to Alyeska for the entire length of the 800-mile-length pipeline was to give us a radiograph of that weld so a radiograph is taken. That radiograph shows one of two things: good weld, bad weld.

Mr. DINGELL. Or an inadequate radiograph.

Mr. FRIZZELL. It could show that.

If it is a good weld, that radiograph goes in the file and the pipe is code marked and put back out into the yard to go into the line. If it is a bad weld according to the radiograph, it is also marked as a defective weld and is immediately marked for repair.

The repair is made and a second radiograph is made of the repaired weld. One of two things happens there again, either the repair is a good one—in which event the pipe is marked, it goes to the yard to go to the field—or if it is a bad one, we don't give them a third chance because no repair welds can be welded for the second time. The radiograph, if it shows it is bad, that pipe goes out and is cut out. No second repair weld may be made.

Now let's go on to that statement with that background of your staff to you on December 7. "The subcommittee staff has obtained statements"—I am reading from page 1—"from a number of workers

who admit to falsifying hundreds of additional X-rays of double joint welds." The testimony and even the statement was not hundreds, it was not even 200, it was not 75 to 200 as represented here, it was 60.

Mr. DINGELL. Well, if you will read the record, Mr. Frizzell, you will find that the statement was made that the witnesses had told our staff members that there were as many as 200 and that they subsequently in the proceedings before the committee changed the number to 60 or more.

Mr. FRIZZELL. Then on page 2 we get to the allegation of the conspiracy on the part of the Department of the Interior and Alyeska to cover up or at least actively ignore. I would like to share with the committee at this time some of the involvement with the Department of the Interior with respect to welds on the trans-Alaska pipeline. All of this material was available to your staff investigators and they either chose to ignore it or did not use it.

On February 24 of this year Mr. Rollins on my left as my authorized officer sent a letter to the FBI requesting investigation of X-ray disappearance and falsification. On March 11 of this year—

Mr. DINGELL. Which X-ray falsifications. Which X-ray falsification and disappearances did this communication relate to, the yard welds that are the subject matter of our proceeding today?

Mr. FRIZZELL. Field welds.

Mr. DINGELL. Field welds?

Mr. FRIZZELL. Yes.

Mr. DINGELL. We are discussing yard welds.

Mr. FRIZZELL. We are accused of a conspiracy throughout this.

Mr. DINGELL. We are discussing yard welds. Now I am delighted to note that the request was made of the FBI for an investigation with respect to field welds but was there a similar request made with respect to yard welds?

Mr. FRIZZELL. There are investigations, Mr. Chairman, going on this very day with respect to it.

Mr. DINGELL. With regard to the yard welds?

Mr. FRIZZELL. Absolutely, but I have not chose to get headlines. I have let the FBI go about it in their quiet, efficient manner.

Mr. DINGELL. I rejoice in that. We will have some questions on this matter at a time later.

Mr. FRIZZELL. Now the question has been asked, why hasn't the Department of the Interior talked to any of the potential witnesses with regard to this matter of double-jointed welds? Anticipating the fact that it didn't address double-jointed welds I even heard the question asked by the Chairman earlier this morning with respect to field welds and why such a Ketchbaw employee had not been employed by the Department of the Interior. Let me answer that first, Mr. Chairman.

That gentleman filed his lawsuit when the first allegation became know to the public in September of 1975. Litigation ensued, the Department of the Interior was named as a defendant. We chose to take the usual route, the route dictated by the courts of this country, that once you are named as a party in litigation you don't go out and contact parties to the litigation that are parties without going through counsel and taking their deposition. Those depositions of that Ketch-

baw employee that you spoke of have been going on for months. They were just concluded about 6 or 8 weeks ago and we are still awaiting from the court reporter his sworn testimony thinking that that sworn testimony is what we should proceed on.

Likewise with your mysterious Mr. Witness Y, my staff is accused of never contacting him. Here again in the 128-page deposition which we carried to your counsel last June which was available to us for the first time on June 12 and we delivered to Mr. Barrett on June 14, the deposition of Mr. X is taken in depth. Let me read to you from pages 8 and 9, and I could go on to 30, 31, 32, 33, 34, and 35 but it is not necessary because it all comes to one conclusion.

When Mr. Witness X was asked under oath, unlike your staff investigators that got his statement over the telephone, he said at that time in answer to the following question:

Do you have any information to believe that all of the double joint welds were not X-rayed 100 percent?

Answer: Not that I know of.

Mr. DINGELL. Would you read that again?

Mr. FRIZZELL. Yes.

*Question to Mr. Witness X.* Do you have any information to believe that all of the double joint welds were not X-rayed 100 percent?

Answer. Not that I know of.

*Question.* OK.

Answer. Or not out of Fairbanks.

And he qualifies it because he was just at Fairbanks only, he cannot talk about Valdez.

We had, I believe, four—on, I take it back, eight that got out without being re-X-rayed, but they know what they was.

Then on the next page he gets into the discussion of the eight.

*Question.* OK. Is there any specific individual that you can name who you're referring to?

Answer. Well, I believe Joe Dirk is the one who actually came back to me with it, but like I told them, I knew what they'd got out, and it was not my business, they knew where they were supposed to go. If they didn't bring them back, it wasn't my fault. All I told them was the contractor wasn't going to get paid for them until they was okayed.

Again on page 30 and for the ensuing 6 pages—

Mr. DINGELL. Can you tell us who was asking the questions?

Mr. FRIZZELL. You have a copy of this deposition that was delivered to your counsel on June 14.

Mr. DINGELL. Who was asking the questions, if you please?

Mr. FRIZZELL. It appears on the reporter's notes that a Mr. Richard D. Pennington, Esq., of 310 K Street, Anchorage, Alaska, was asking the questions.

Mr. DINGELL. Who is he and who is he representing?

Mr. FRIZZELL. He is an attorney for the defendant.

Mr. DINGELL. For the defendant.

Mr. FRIZZELL. The defendant named on the caption of this deposition is Houston Gamma Ray Co., a Texas corporation, et al., and H.C. Price Co., Inc., a foreign corporation, et al. My understanding is that Houston Gamma Ray is Ketchbaw.

Now if I may proceed, the question asked on page 30 is as follows:

*Question.* Now, I was trying to understand your testimony with respect to the eight double joints. Could you explain again, please what—I think that eight is the correct number but I am not sure what the significance of it was. Could you explain that again, please?

*Answer:* Well, it's just that we X-rayed on the rack itself, the first X-ray, tried to, unless something happened to the film or we could not read it or whatever. From there, it was either sent to the good pile, to cutouts, to repairs or to re-X-ray. We had racks built outside the whole pipeline. If it was to be re-X-rayed it was taken out to be put on the X-ray rack. If it was to be repaired, if it was to be cut out, it went to the cutout rack. If it was good, it went to the good. After it was repaired, it was packed up and put back over on the re-X-ray rack. If the welder felt it was bad, he didn't want to repair it, it was eliminated pipe. If it was too much defect to be able to remove, it went on cutouts.

Now there is more testimony to that effect but I won't belabor the committee at this time.

Now consistent with that testimony and the great puzzlement here today as to what about the process, the records, the alleged falsified radiographs in the Fairbanks double joint yard, had your committee staff inquired of Alyeska who were building this pipeline or had they asked of Bechtel who were the quality control people on this pipeline, they could have been furnished as I was furnished since last Friday's executive session several hundred worksheets showing the exact weld number, showing the disposition of every weld in the Fairbanks double joint yard, the disposition thereof. It reads as follows.

As a sample they are all dated, they are entitled "Alyeska Service Company Radiographic Inspection Report." They have a sign-off of the radiographic inspection contractor. They have a personalized signature sign-off of the radiograph technicians. And by the way, your Mr. Witness X, his name is on every one of these. These are his written records of every weld in the Fairbanks yard. It has the personal sign-off of the welding inspector, it has the personal sign-off of the personal interpretation. It shows the milepost number, the weld number, whether it was X-ray or gamma ray. It shows the recommendation whether it was within the code, whether it was without the code. If without the code, it indicates the type of defect or cutout.

Mr. BARRETT. Could I ask whether or not the same type of records would not have been the same in the field weld problem?

Mr. FRIZZELL. I don't know. You would have to ask Alyeska.

Mr. DINGELL. Aren't you supposed to be seeing to it down at Interior that these stipulations are properly being carried out? Shouldn't you be able to answer that question?

Mr. FRIZZELL. I would be glad to.

Mr. DINGELL. I asked you to answer. Aren't you supposed to see to it that you can answer those questions?

Mr. FRIZZELL. I am sure that one of my technical people here can if you will allow them to answer it. I am the Under Secretary, I don't get up and walk up and down the pipeline every week, Mr. Chairman.

Mr. DINGELL. I suggest you might.

Mr. FRIZZELL. Mr. Rollins, would you care to answer the chairman's question if you know what it was?

General ROLLINS. Yes; I believe if I understand your question, sir, you said were there not similar records to this used for the field welds up and down the line.

Mr. DINGELL. That is right.

General ROLLINS. Records were kept to the field weld but not in this format, it was another form, but the purpose of the field weld was to keep account of the field weld and to reach the numbers.

Mr. BARRETT. Isn't that the same purpose, Mr. Rollins, that these records are?

General ROLLINS. These records are to keep track of every double joint that goes through the two.

Mr. BARRETT. Were there not false certifications in the field weld records?

General ROLLINS. There were some false certifications in the field weld records.

Mr. BARRETT. Then I would suggest if there were false certifications it is not inconsistent that there be false certifications in the double jointed records.

Mr. FRIZZELL. I am glad you asked the question because I asked the same thing when I received these on the weekend. I did more than ask the question. I did likewise as you did, I had a telephone interview of the gentleman whose name appears on every one and who appeared before this committee last Friday. His name I shan't reveal because it is in confidence but it is here again Witness Y.

What does he say? On December 13, 1976, at 9 o'clock—that was last night—my staff spoke by telephone to Mr. Y in such and such a location, I won't say. He gave a deposition on April 16, 1976, in connection with litigation now pending in Alaska. He had been one of the principal radiographers at the Fairbanks double jointing yard during its operation in 1975. We asked him to explain to us the use of the radiographic inspection report form. That is this form here, several hundred copies that I just quoted from.

He answered that the form records all welds by number, date of radiograph, interpretation of radiograph and need, if any, for repair. Welds in need of repair retain their original number with the letter R as an added suffix meaning "Repair." This report form contains three copies. One copy was retained by Superintendence Co., the inspection contractor who employed Mr. Y. The morning after the completion of any one form the other two copies were distributed to Bechtel quality control and the Bannister Co., the operations contractor.

Mr. Y stated that with the exception of the previously identified eight welds, as far as he knew all double joint welds at Fairbanks were reported on these forms, including all repair welds. He further stated that he believed that all such welds had indeed obtained all needed repairs and that all repairs had been made and furthermore that all welds including repairs had received radiographic inspection and had been interpreted to be in compliance.

We asked him if he knew of any falsification of these report forms and he answered no. We asked if he had falsified the report forms personally and he answered no. We asked him if he knew of anyone who had asked him or been asked to falsify these report forms and he said no. He said it would be very difficult to do so since one person did not retain all forms.

Remember, Mr. Barrett, these were made out at the day the repair welds were made and knowledge of radiographs that were incomplete or not of sufficient quality.

We further asked him if the reported list of about 60 welds which it is alleged someone was asked to make up contained any repair weld numbers with the suffix R and he said yes. We asked him if he thought any falsified or makeup film would be included on the report forms and he said no. We concluded by asking if that indicated to him that there were no defective welds other than possibly the eight that left the yard and he said yes, those report forms would so indicate.

Mr. DINGELL. Now to clear up a couple of points. There still is the question remaining of falsification of X-rays.

Mr. FRIZZELL. No doubt. We concur 100 percent in your recommendation to refer that to the Department of Justice and get the boys that were involved in that falsification.

Mr. DINGELL. That is the first point.

The second point is that if you have falsification of X-rays upon which there is agreement, how then are we to be assured that there is not other falsification and other failure with regard to quality controls with regard to the same welds in the yard and/or other welds in the yard? Now can you give us assurance that given the fact that there is falsification of the X-rays upon which we are in agreement that there is not also failure with regard to other quality control?

Mr. FRIZZELL. We are not in agreement. You say we are in agreement that 60 were falsified. You have two or three witnesses that say that. Now isn't it amazing here again that the man that supposedly had them to falsify was not asked to come and testify and in fact as recently as Saturday night your staff contacted him by telephone and asked him, "Did you order these radiographers to falsify them?" and he said "No" but they didn't ask him to come to Washington. Now that is amazing to me. Mr. Dirks, Bechtel quality control. Now if we are in an investigation, we ought to get all of the facts.

Mr. DINGELL. It is the intention of the Chair to do so.

To perhaps repeat the question, if we are faced with a situation where radiographs or welds are falsified, how are we to be assured that these are not bad welds or that they are not other quality control failures with regard to either the same welds or other welds within the same yard?

Mr. FRIZZELL. Mr. Chairman, I guess my most honest and candid answer to that is that there are very few things in life that you can be sure of. Building pipelines, reading radiographs, legislating and being a Member of Congress is not an exact science. For instance, I think it is necessary that this committee understand the accuracy of interpretation of radiographs. I don't care how long standing you have been a member of the union, I don't care how many courses you have been through, the method of inspection, whether you come from the Coast Guard, whether you come from Oklahoma, whether you come from any source.

We commissioned a study of the Southwest Research Institute in San Antonio, Tex., recently. We wanted the review of radiographic interpretation to be told to us. Here is what they tell.

Depending on a man's background and all, there are two methods of training radiographers. In the one certified radiographer group they disagree 44 percent of the time looking at the same radiographs. In the other group under unified training they disagree 17 percent of the time. Mr. Chairman, get this one. This is an additional reference

and the documentation source thereof is a Dr. L. B. Lustraf, Medical Decision-Making and Science magazine of 1971, where he says an interesting study made of the reproducibility of the diagnosis of tuberculosis by radiography by members of the medical profession in which the average disagreement between colleagues was 1 out of 3 whether you or I have got tuberculosis read the same X-ray and on the second independent reading of the same series of tests of radiographs a physician would disagree with his own previous diagnosis on an average of 1 out of 5 times. It is not an exact science.

Mr. DINGELL. I am not sure what that has to do with the matter before us.

Mr. FRIZZELL. It has a lot to do with it.

Mr. DINGELL. A doctor would have the matter reradiographed, would he not, and have further tests?

Mr. FRIZZELL. He says four times you don't have tuberculosis. The fifth time he says you do.

Mr. DINGELL. Regardless of whether you can take a medical X-ray and use it or whether you can reinterpret it or not or whether you can relate that information to pipeline X-rays, isn't it a fact that if you had that kind of difference of view you would either have further tests or you would have another X-ray?

Mr. FRIZZELL. If you were to do that, you would take 50 years to build a pipeline. I am saying that depending on the radiographer whether it is level 2, level 3, level 1 or the Bechtel quality control supervisor when he looks at it, that is why these repair welds were initially written down. When they looked at the first radiograph it was of the weld, the second one was of the repair weld and if witness Y approved it as a good one, then a day or two later when quality control says this radiograph does not have sufficient quality or clarity, I want another one. He was not able to provide him one. The pipe had already been okayed and sent to the field.

Mr. DINGELL. So then he made himself up a fresh radiograph of the pipe.

Mr. FRIZZELL. That same Bechtel quality control supervisor went to 1, 2, 3 radiographers and said, "My files I cannot justify to my employers. I want you to make up 60 fake radiographs." and whether they did or not it depends on who you believe, the radiographers or their quality control supervisor who says no, he didn't.

Mr. BROWN. Could I ask a question at this point?

One of the things that I have tried to determine here is whether or not out of those 60 radiographs that were apparently kicked out because they were not up to radiographic quality, whether there was any question about whether they represented bad welds. The testimony that I read earlier from one of the witnesses who I assume is the same person to whom you referred as witness Y or radiographer Y indicated they were not bad welds.

Now at issue I suppose, in terms of who did what to whom, is whether the Bechtel supervisor who said, "Here are 60 radiographs that are no good, get me the radiographs to replace them"—whether or not the radiographs that he was asking for were radiographs of the same repair weld or whether in fact he was asking the radiographers to falsify by going out and radiographing another repair weld. In other words, whose inspiration was it to get a picture of another weld repair to re-

place the picture that you didn't have? The radiographer's suggestion is that that was done by the Bechtel supervisor.

If I understand what you said, the Bechtel supervisor who I guess we have identified as Mr. Dirk, has said that that was not the case, that he didn't suggest that. I suppose that is a matter that has to be pursued by someone.

Mr. FRIZZELL. Yes.

Mr. BROWN. We seem to be down to the eight joint pipe welds that there is some question about. Now is it appropriate that we try to figure out those eight pipe joints?

Mr. FRIZZELL. That was my next item to address, Mr. Brown.

Mr. BROWN. Thank you.

Mr. FRIZZELL. Because in connection with those eight this December 7 memo and since and the day earlier repeated allegations that the Department of Interior sat on its hands, didn't make themselves available of the same evidence that the committee staff counsel had, and that is false and it is untrue. This is not the first time we have heard of allegations of double joint weld problems and it isn't the first time we have addressed the problem.

Let me say right here and now no matter who you believe on whether there were 60 falsifications, we intend to pursue that and follow all 60 wherever they are, above the ground or in the ground, with Alyeska. I am not satisfied based on the evidence I hear now.

Mr. BROWN. I guess based on the fact that the person was telling the truth or not telling the truth when he said they were all right or when he said they were falsified.

Mr. FRIZZELL. I am satisfied with that but my problem is as Under Secretary of Interior even though I am convinced they were good welds that went out in the field, we have a 100 percent radiography requirement of each and every weld and that speaks in and of itself that it has to be an accurate one, not a false one. So I have got to try and come up with an accurate 60 radiographs. As I say, Alyeska, that is my interest, to review that.

Now what about the eight? Here again this staff knew because they have a copy of this. They knew we had pursued the double joint weld problem long ago. On June 12 when we had for the first time this deposition of witness Y, we knew there were at least allegations of double joint weld problems. Before we got the report back from Alyeska 2 days later on June 14—sometime between June 12 and June 14 this gentleman here, my Authorized Officer, either telephoned or wrote to Alyeska and said, "What about the double joint problems?"

Mr. BROWN. How did this deposition come into your hands?

Mr. FRIZZELL. Because we were a party to the litigation. We have since been dismissed.

Mr. BROWN. You saw that as a part of the natural legal process of these accusations?

Mr. FRIZZELL. Yes; and ethically and under the rules of the court the only way we could get a statement from a witness was through the deposition and notice to opposing counsel.

Mr. BROWN. And you are suggesting that you could not, because you are a party to the suit, talk to the person whose deposition it was and ask him for further details. Is that what you are saying?

Mr. FRIZZELL. No; that was not included in my original statement. All I am saying is that he put us on notice when we received his

deposition on June 12 and here is what we did, and I am prepared to share that with you.

Mr. BROWN. All right.

Mr. DINGELL. Let me ask a question at this point. Did General Rollins send notification with regard to this double joint weld problem that existed to his superiors in Washington?

Mr. FRIZZELL. I better let him answer that.

Mr. DINGELL. Maybe he can answer.

General ROLLINS. Yes, sir, I wrote this letter. I told him we were asking Alyeska to respond. I think by request was verbal. "Please give me a letter as to your reaudit or quality reaudit of the radiographs on the double joint production." This letter was given to me and I hand carried it here when I flew back for the hearings in June and gave a copy to the Department at that time.

Mr. DINGELL. Gave a copy to whom?

General ROLLINS. To the Department.

Mr. DINGELL. Who is the Department?

General ROLLINS. Mr. Frizzell and Mr. Latz, Mr. Chairman.

Mr. DINGELL. To whom?

General ROLLINS. Mr. Frizzell and Mr. Latz. I brought this copy with me.

Mr. FRIZZELL. Since the chairman is trying to pin you down, did you give it to Mr. Latz or did you give it to me or do you remember?

General ROLLINS. Frankly I brought it in the office and gave it to the normal sources in the office.

Mr. FRIZZELL. I received it.

Mr. DINGELL. What did you do, Mr. Latz?

Mr. LATZ. I read it.

Mr. DINGELL. Then what?

Mr. LATZ. I judged that Alyeska was knowledgeable as to the status of those eight welds.

Mr. FRIZZELL. Would it not be helpful if I let you know what the report said?

Mr. DINGELL. I think it would be.

Mr. FRIZZELL. Good. This letter is dated June 14, 1976, and it is addressed to Mr. A. P. Rollins, Jr., this gentleman here, at his Anchorage office. It is signed by Mr. Westerheid, manager, quality assurance and safety, for Alyeska.

Re: Double joint weld radiographs.

DEAR MR. ROLLINS: A review has been made of the double joint weld radiographs as you requested. These welds were made in two double joint yards, one in Valdez and one in Fairbanks, using a controlled submerged arc process. The entire process was done under controlled conditions at a single location at each yard and used an automatic welding process. In addition, there was constant inspection coverage and surveillance by your office and that of the SPCO. As you know, each weld was radiographed and interpreted before it left the welding building to go into the storage yard.

The above procedures and safeguards notwithstanding, there has been a Quality Control review of film accountability and more recently—

Mr. BARRETT. Mr. Chairman, the report and also your opening statement this morning points out that there was this kind of an audit. We have this letter and we have had it for some time.

Mr. DINGELL. Without objection, the letter will be made a part of the record.

[The letter follows:]

June 14, 1976

Letter No.: 1671  
Ref.: RJW 536

Mr. A. P. Rollins, Jr.  
Authorized Officer  
Alaska Pipeline Office  
808 E Street  
Anchorage, Alaska

RE: Double Joint Weld Radiographs

Dear Mr. Rollins:

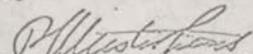
A review has been made of the double joint weld radiographs as you requested. These welds were made in two double joint yards, one in Valdez and one in Fairbanks, using a controlled submerged arc process. The entire process was done under controlled conditions, at a single location at each yard and used an automatic welding process. In addition, there was constant inspection coverage and surveillance by your office and that of the SPCO. As you know, each weld was radiographed and interpreted before it left the welding building to go into the storage yard.

The above procedures and safeguards notwithstanding, there has been a Quality Control review of film accountability and more recently, a Quality Assurance audit to test the QC review of film accountability as well as interpretation and film quality.

In 1975 our Pipeline Department Quality Control organization made a complete audit to assure that there was a radiograph for all welds. This audit determined that some eight radiographs from the Fairbanks yard and five from Valdez required further clarification. All of these radiographs have been tracked in the system, with appropriate action either already taken or planned to be accomplished in the normal sequence of construction operations. In addition to this detailed accountability audit by QC in 1975, the Alyeska Quality Assurance organization again reviewed the film accountability on an audit basis and verified the QC count. In addition, Quality Assurance film interpreters performed a non-statistical random sample of some of the film from the Valdez and Fairbanks double jointing yards. This film is stored in Fairbanks and the Mountain View (Anchorage) storage vaults. The Quality Assurance interpreters found the film to be of good quality and more important, they found no rejectable discontinuities; the original interpretation conformed with the QA interpretation.

In summary, we believe that the results of these reviews and audits have given ample evidence that the double joint welds have the proper quality, with good radiographic documentation for each and everyone. Please let me know if you desire additional information.

Very truly yours,  
ALYESKA PIPELINE SERVICE COMPANY  
Agent for the Permittees

  
R. J. Westerheid, Manager

6/14/76

SUMMARY OF DOUBLE JOINT Q.C. AUDIT  
CURRENT STATUSFAIRBANKS

POOL 2410

.2405

.0102

3 IN FACT HAD X-RAY

2 HAVE BEEN RE-X-RAYED

1 WAS A CUT-OUT

2 ARE BEING TRACKED IN THE SYSTEM,

LOCATION KNOWN, WILL BE RE-X-RAYED

8

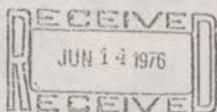
VALDEZ

3 IN FACT HAD X-RAY

2 ARE KNOWN, IN STORAGE YARD, WILL BE RE-X-RAYED

5

epw



## Bechtel Incorporated

## Interoffice Memorandum

To Section Q.C. Supervisors

Date July 22, 1975

Subject Fairbanks Double Joint Welds to be Located and Field Radiographed

From Rick Simanek

Of Quality Control

Copies to E.H. Belter  
R.C. Schmid  
C.D. Eastling  
L.C. Hatlen  
R.N. Smith  
J. Chiselli  
D. Rogers

At Fairbanks

- Reference: 1) Memo from R.N. Smith to R.C. Schmid on June 27, 1975  
"Audit of Fairbanks Double Joint X-ray Film."
- 2) Memo from G.D. Eastling to R.C. Schmid on July 10, 1975  
"Audit of Fairbanks Double Joint X-ray Film."

The results of the Fairbanks Double Joint operation x-ray film audit indicated that twelve (12) welds were without x-ray film. Of these twelve, four (4) have been cut apart and therefore do not require reshooting. The remaining eight (8) still remain to be found and reshot.

The attached list of weld disposition is for your use in locating these welds. It is requested that the Section Q.C. Supervisors have their personnel search thru records and the appropriate pipe storage yards for these welds. Once located these welds are to be scheduled for complete x-ray and inspected to assure that they are acceptable. Please forward to John Chiselli a report of your actions in this matter by August 1, 1975. It is critical that these welds be located and proven acceptable.

*Rick Simanek*  
R.A. Simanek

RAS:llk

FAIRBANKS DOUBLE JOINT

XRAY FILM AUDIT

Pys. Det  
A.

① welds cut out - NO FURTHER ACTION REQUIRED:

WELD NO. JOINT NOS.  
 4573 FWN09881 & FWN09874  
 5407 FWS11696 & FWS11695  
 5408 FWS11697 & FWS11698  
 13999 FWS29473 & FWS29478

② welds to be located & re-shot:

WELD NO.	JOINT NOS.	GRADE	WALL	CONTING	WELD FINISH DATE	STACKER YARD	DATE MOVED	TRUCK LOADING NOTE	TRAILER	SEE FILE NO.
1313	FYS02876 & FYS02887	X65	.462	202	2/28	? to be found	24-013	2209		
2686	KWK05924 & KWK05934	X65	.562	202	2/27	88-2	24-018	2203		
2687	FWK05932 & FWK05935	X65	.562	202	2/27	88-2	14-012	2909		
2968	FWN06570 & FWN06572	X65	.562	202	3/1	3-1-1	-	-		
3279	FWN07210 & FWN07230	X65	.562	202	3/4	81-2	-	-		
5244	FWS09881 & FWS09874	X65	.562	816	3/23	3-3R	6/2	12-076	2209	
7810	FWS17166 & FWS17071	X65	.562	202	4/21	3-1A	6/11	11-036	2278	
11249	FYS23378 & FYS23380	X65	.462	816	5/17	3-4R	6/3	3-002	2227	

C. G. DC &  
 Pacific  
 Pacemont  
 Surveillance

Section 3 & 4 to check  
 these storage yards



## Bechtel Incorporated

## Interoffice Memorandum

To R.C. Schmid

Date July 29, 1975

Subject Partial Audit of Valdez Double  
Joint X-ray Film

From R.N. Smith

Of Quality Control

Copies to G. Eastling  
L. Hatlen  
D. Moore  
J. Ghiselli

At Fairbanks

The results of the partial x-ray film audit of Valdez Double Joint operation are as follows:

Of the 20,037 accountable joints made 20,032 are accounted for. The remaining 5 and their disposition in the storage area are as follows:

<u>Joint</u>	<u>Film Status</u>
767	missing - no film
798	reshoot
2524	needs repair film
2545	needs repair film
3353	needs repair film

Submitted for your information.

*R.N. Smith*  
R.N. Smith

Mr. BARRETT [reading]:

We believe that the results of these reviews and audits have given ample evidence that the double joints welds have the proper quality, with good radiographic documentation for each and every one.

If you go up and you read the body of the letter, you find what has been done has been a nonstatistical accountability determination with no comparison as to whether or not falsification may have occurred.

Mr. DINGELL. Well, as a matter of fact, isn't that so, Mr. Frizzell?

Mr. FRIZZELL. No; that is not so.

Mr. DINGELL. Let me read the last paragraph of the letter.

Well, without objection the whole letter will be inserted in the record.

In summary, we believe that the results of these reviews and audits have given ample evidence that the double joint welds have the proper quality—

And then goes on and says as follows, and I want you to pay particular attention to this, Mr. Frizzell:

with good radiographic documentation for each and everyone. Please let me know if you desire additional information.

Now particularly I want to call your attention here to the statement:

With good radiographic documentation for each and every one.

Now that is slightly at variance with the testimony that we have received with regard to the fact that there have been substitutes of radiographs in the files up there in the Fairbanks yard. Now am I correct or not?

Mr. FRIZZELL. I would have to defer to Alyeska who knows what went on. I just don't know. I cannot answer your questions yes or no. They are the best people to speak.

Mr. DINGELL. It is the subject matter of the hearing here.

Mr. FRIZZELL. They don't cover the eight welds.

Mr. DINGELL. All right.

Mr. BARRETT. I think if you read the second paragraph it says:

The above procedures and safeguards notwithstanding, there has been a quality control reviews of film accountability:

Which means they counted up and they found they had enough film to cover their records.

Mr. FRIZZELL. No.

Mr. BARRETT [continuing]:

And more recently a quality assurance audit to test the QC review of film accountability as well as interpretation and film quality.

There was no audit made to determine whether or not falsification may have occurred. Furthermore, this audit is supposed to have been done at a time after the falsification of the yard weld showed up.

Mr. FRIZZELL. I thought the question of Mr. Brown was what happened to the eight welds.

Mr. DINGELL. We are not talking about the 8 welds, we are talking about the 60 to 200 or however many falsified radiographs were in the files up there.

Mr. FRIZZELL. In that event the best witness to answer your question is Alyeska and Bechtel. I frankly don't know what "a quality control

review of film accountability" means. I don't know what "a quality assurance audit to test the QC" means. Alyeska and Bechtel would be the best witness.

Mr. BARRETT. It is your document.

Mr. DINGELL. Maybe General Rollins can give us some comment.

Mr. FRIZZELL. Yes.

Mr. BROWN. We are talking about two different things here because we have testimony that the 60 falsified radiographs were radiographs of good welds, if I understand it, and that testimony is from the person who said that the radiographs were falsified but the welds were good. We have the question about the radiographs of 60 presumably good welds and then we have these 8 good welds that got out of the yard for which there was no radiograph for which we have assurance that the weld was good. Isn't that correct?

Mr. FRIZZELL. That was my understanding.

Mr. DINGELL. Well, you still have got the problem—maybe General Rollins can comment. We have got this letter to him from Mr. Westersheid in which he says in paragraph 2:

The above procedures and safeguards notwithstanding, there has been a quality control review of film accountability and more recently a quality assurance audit to test the QC review of film accountability as well as interpretation and film quality.

Now what does that mean?

General ROLLINS. Mr. Chairman, as a prudent manager that I thought and I still think I am, I felt at the time that when we were having the problems that we knew about in the field girth welds that it could do good to ask Alyeska to review their procedures and check that their records of the double joint radiographic data bank and the radiographs were good. This led to my request for this letter of June 14.

Mr. DINGELL. This dealt with field welds; did it?

General ROLLINS. No, sir, this is only for the double joint welds of which there were 41,715 double joint welds, 27,153 in Valdez and 14,562 in Fairbanks.

Mr. DINGELL. Let me read the text.

General ROLLINS. I asked Alyeska to review this and make it a matter of writing that they had reviewed their film accountability and their film storage to determine did they have a film for every one of the double jointed welds. That is what we were searching for.

Mr. DINGELL. And not to find out whether in fact the radiographs were falsified or not falsified?

General ROLLINS. We had no indication that we had falsification in the double joint yards. This was a shop-type controlled operation and I had faith at that time in Alyeska's hiring of Bechtel, one of the largest engineering companies in the United States, and their world renowned capability of being able to run an operation like that and control it.

Mr. DINGELL. Now on April 21, I have a memorandum to the files here from AOR. I guess that is you, General Rollins.

General ROLLINS. Sir?

Mr. DINGELL. I have here a memorandum to the files from AOR dated April 21, 1976. I assume, General Rollins, that is you.

Now it is the minutes of the meeting dealing with the radiograph audit dated April 5. On the third page, the second paragraph, I read this:

It was noted there is hearsay information based on Ketchbaw suit that there are also problems in the double jointing. Mr. Patton said it is not the case with double joint welds. The pipe is processed in the plant, and there is no reason to suspect any problems. They question whether automatic welds could be fingerprinted because the anomalies just aren't there as in manual welding. Mr. Latz stated that unless specifically charged we would not do more than the law requires. Mr. Rollins asked where the double joint film is in the 25,000 films that were taken

Now does that not indicate that you were on notice that there were some problems in the yard?

General ROLLINS. Yes, sir, we had heard rumors of this, we had investigated it, and later after that meeting—it was in the interim within the next 2 weeks—I was exposed to the deposition taken in the case in which one of the radiographers, who interestingly had been mentioned by Mr. Kelley in the June testimony later, had said that as far as he knew there were no problems in the Fairbanks yard.

Mr. DINGELL. Whom all among the radiographers in the Fairbanks yard did you talk to?

General ROLLINS. I did not talk to any because the individual concern that I am talking about is the man from whom the deposition is taken.

Mr. DINGELL. We are now talking about Mr. Kelley, is that right?

General ROLLINS. No, sir, not Mr. Kelley.

Mr. DINGELL. He is the litigant.

General ROLLINS. No.

Mr. DINGELL. Who was it then that you referred to?

Whom did your folks talk to up there with regard to the Fairbanks yard? Did you talk to anybody up there?

General ROLLINS. We had people in the yard during the time that the work was going on, Mr. Chairman.

Mr. DINGELL. You had people in the yard at the time the work was going on.

General ROLLINS. Yes, sir, we had employees of our organization and our subcontractors watching the setup and the initiation and the carrying out of the double joint program.

Mr. BROWN. Which is the automatic machine?

General ROLLINS. Yes; done by a machine and it is different than the stick welding or manual welding that was done along the line in the field weld.

Mr. BROWN. At what percentage of failure of the weld?

General ROLLINS. Our failure rate as I checked it within the last 2 days ran in the order of 3 to 5 percent, I believe.

Mr. BROWN. Of the machine welds?

General ROLLINS. Of the machine welds on the double joint rack.

Mr. BROWN. Where does the reference made to 12 percent and 20 percent come from?

General ROLLINS. I think the 12 percent was overall project and 20 percent was overall project but the reject rate—

Mr. BROWN. For field welds and for yard welds or for yard welds?

General ROLLINS. The figure of 12 or 20 percent would be a more

comparable rate for either the total project which is half field and half yard or all field because the reject rate in the automatic welding process done at the two places was in the order plus or minus 5 percent.

Mr. BROWN. Might I suggest a little mathematical computation might determine if there were a 20 percent field failure of welds and a 5 percent failure of yard welds, that perhaps the overall project failure is 12 percent.

General ROLLINS. That might well be.

Mr. FRIZZELL. I think it is important to point out, Mr. Brown, that these same persons—same contractor, subcontractors—were the ones responsible in rejecting initial welds for repair. They were not making false radiographs to repair faulty welds. They were rejecting 3 to 5 percent in the Fairbanks yard, 15 to 20 percent in the field. Their purpose there was to build a pipeline with integrity.

Now if I could go on, I would like to explain the missing eight as explained by the memorandum of June 14. Now there is an update on that since then but as of June 14 there was attached to that letter to Mr. Rollins four exhibits or attachments. The first one says, "Summary of Double Joint Quality Control Audit" and it specifies two yards, Fairbanks and Valdez.

In the Fairbanks yard they had traced these eight welds that got out without good X-ray. Three in fact had been X-rayed they found out, two have been re-X-rayed. One was cut out, two are being tracked in the system; location is known and will be re-X-rayed. My understanding is they have been re-X-rayed between that date and this one in Valdez—

Mr. DINGELL. Mr. Frizzell, we are addressing ourselves to this, and while I appreciate the comments you are giving me with regard to these which slipped out un-X-rayed we are addressing ourselves to the question here of the yard welds.

Mr. FRIZZELL. I thought you were through with that.

Mr. DINGELL. No; I am not sure we are.

Mr. FRIZZELL. Go ahead.

Mr. DINGELL. These are a specific set of yard welds.

Mr. FRIZZELL. Yes; these are yard welds.

There is just one last fact with regard to the yard weld; that is, Valdez, five of them, three in fact had been X-rayed, two are known in the location in the storage yard and my understanding is they have been.

Mr. DINGELL. This hearing is not directed at those but rather with the falsification of radiography.

Mr. FRIZZELL. Fine. I will answer any questions you have on that subject, Mr. Chairman.

Mr. DINGELL. Let me come back here. We have discussed the question here in referring again to this comment that you read here. You said rather that the memo that we have already been discussing says that.

Mr. FRIZZELL. How did I say it, Mr. Chairman?

Mr. BARRETT. He is referring at this point, Mr. Frizzell, to Mr. Rollins' memo to the file.

Mr. DINGELL. This is General Rollins' memo to the file.

Mr. FRIZZELL. I have that.

Mr. DINGELL. Let me read it to you.

It was noted there is hearsay information based on Ketchbaw suit that there are also problems in the double jointing. Mr. Patton said it is not the case with double joint welds. The pipe is processed in the plant, and there is no reason to suspect any problems. They question whether automatic welds could be fingerprinted because the anomalies just aren't there as in manual welding.

Now the fingerprinting refers to the anomalies that exist with regard to the welding.

Mr. FRIZZELL. I am familiar with those.

Mr. DINGELL. Mr. Latz stated that unless specifically charged we would not do more than the law requires.

What did Mr. Latz mean by that statement?

Mr. FRIZZELL. Let's ask him. He is sitting here at my right.

Mr. DINGELL. That is the question.

Mr. LATZ. I would be very happy to put that excerpted sentence or couple of sentences from a four page single spaced typed memorandum in proper perspective.

Mr. DINGELL. I am asking you to tell me what it says and what it means.

Mr. LATZ. I intend to do that, Mr. Chairman.

I was in Alaska not routinely but for very specific purposes. I traveled on April 4 to Alaska. I met the morning of April 5 at 9 o'clock with representatives of Alyeska—Mr. Patton and Mr. O'Connell who are in this room today—Mr. Rollins of our Alaska pipeline staff and others on his staff and Dr. Ivan Getting of Air Space Corp., specifically to address the operations and maintenance phase of monitoring the pipeline.

Additionally, I went up there and did later inspect winter construction methods, snow road construction methods up near the Happy Valley area along the pipeline. After the 9 o'clock meeting on operations and maintenance monitoring ended there was a meeting convened at approximately 11 o'clock on the morning of April 5, a meeting previously arranged by Alyeska and General Rollins to provide General Rollins with an update, a progress report on the audit or review of Alyeska's 1975 welding program.

The allegations of falsification and the findings of records deficiency precipitated the initiation of that audit, that review, in the fall of 1975. It was a lengthy and detailed undertaking as was testified to before you in June past.

Our intention was keenly and sharply focused on this process. Unlike an earlier illusion during this hearing that Mr. Rollins and the Department awaited Alyeska's presentation of their audit, Mr. Rollins gave very close overview and oversight to the performance. He was constantly apprised of it on an almost daily basis.

Alyeska on April 5 was getting close to the completion of this very important audit. They were presenting to Mr. Rollins and his staff where they stood that day which indicated that within several weeks they would have it finalized and we were preparing indeed to receive it.

Attending that meeting—

Mr. DINGELL. I am sure that is important, but what does it mean you would do only that which the law requires?

Mr. LATZ. I am getting to that point, Mr. Chairman.

Attending that meeting is the AOR to whom you refer. It was not Mr. Rollins, it was the Deputy, Mr. Morris J. Turner. Mr. Turner made handwritten notations in the course of that meeting. The subject matter of that meeting was singularly the Alyeska audit of its 1975 field welding program. Some 16 days later Mr. Turner reduced his handwritten notes to writing and produced the memo which you apparently have.

I invite a full reading of that memorandum, it will clearly reflect that that meeting and my presence there at the invitation to attend that meeting was an opportunity in my role to the Under Secretary for me to understand the details of the audit as it was progressing, its procedures and status. A full reading of that memorandum will reflect a very positive thrust on my part to get to the facts attendant to that audit.

Mr. DINGELL. Well, without objection so that this is all clearly before us and so that it is fair to you, we will insert the memorandum in the record at this point.

Mr. LATZ. Thank you.

[Testimony resumes on p. 105.]

[The memorandum follows:]

NATIONAL FORM NO. 10  
 JULY 1973 EDITION  
 GSA FPMR (41 CFR) 101-11.6

UNITED STATES GOVERNMENT

## Memorandum

TO : Memo to Files

DATE: April 21, 1976

FROM : AOR

In reply refer to:  
 POOI. 2410, 2405, .0812,  
 .0206

SUBJECT: Minutes of Meeting Dealing with the Radiograph Audit, April 5, 1976

Subject meeting was conducted in the PARC Room at Alyeska. The following personnel were in attendance:

From Alyeska - Messrs. Patton, DeMay, Willing, Westerheid,  
 Boorman, Thomas, Knodell and O'Connell

From Interior - Messrs. Rollins, Latz, Michels, Green, Ausman,  
 Keyes and Turner

Mr. Patton opened the meeting welcoming the group and stating that the purpose of the discussion was to review for the Interior group the status of the weld audit.

Mr. DeMay gave a historical summary of the organization, past and present. Previously Bechtel had been the construction management contractor; whereas now Alyeska is performing that role, and Bechtel is charged only with performing a quality control function. The audit for welds in 1975 was 100 percent, whereas for 1976, 25 percent of all radiographs will be audited daily. It is not intended that Alyeska will audit 100 percent of the welds in 1976 as they did in 1975. The reason should be obvious from the standpoint that with QA/QC the falsifications, lost radiographs and missed calls that took place in 1975 should not exist in the 1976 program.

Mr. Westerheid reviewed the 1975 program. The various radiograph contractors took the film, and a Type II interpreter read it. The interpreters are union people who report to Alyeska, but they are on the rolls of the radiograph contractor. Mr. DeMay indicated that in 1975 some of the pipe was placed in the ground without x-rays being read. This will not be the case in 1976. No pipe is to be placed in the ground until x-rays have been read and have been found acceptable. Alyeska's line organization is responsible for the quality control of the project. QC is supposed to say the pipe is OK to bury with no holds on it. Mr. Patton stated that there was to be a sign off (paper) to note that such was satisfactory to bury. Mr. Latz asked what this was, and Mr. Patton discussed the July QC/QA review in which the Alaska Pipeline Office was instrumental in instigating QC authority to shut the work down if necessary to ensure quality control. In August 1975 they reviewed with Mr. Latz the revised QA/QC program based on the ad hoc committee's recommendations (and the APO mandate). Mr. Patton



said that his managers were just not managing. Mr. Latz asked what other records besides film existed. Mr. Westerheid said a piece of paper exists on which the interpreter writes the weld number and what he saw—that it is alright, or if not, what the problem is and where it's at. Consequently, we have a film as well as the written record if the film is not satisfactory. If the film is satisfactory, it just tells that it is satisfactory. If not, it tells what the defects were or what the call happened to be.

Mr. Westerheid then reviewed the fingerprinting (QA audit) telling how they accomplish this work and the extreme confidence they have in it. He also noted that the people interpreting the welds work strictly by the code, and they were Type III radiographers. They did not try to make judgment calls as to whether they were minor or major. In 1976 Alyeska will also fingerprint 100 percent of the welds. This does not necessarily require rereading all of the radiographs, but it is a mechanism of utilizing the computer in fingerprinting.

Mr. Westerheid indicated that in some cases the differences and bad calls in 1975 were because the Bechtel QC, those people reading the film and those taking the film were just not qualified. The faking of x-rays that took place was sometimes obviously deliberate. For example, 13 x-rays had been taken from one weld very convenient to the Glennallen Camp in Section 1. Mr. Westerheid stated that they have reinterpreted 100 percent of the films taken in 1975 and have passed out a revised weld audit summary that is included herewith as an enclosure. Basically it says that there appears to be faking in Sections 1, 3 and 5, and in Sections 2 and 4 there was no faking of x-rays. He also indicated they have reworked 729 of the questionable welds to date.

Mr. Latz asked if they were retaking the x-rays in areas where radiographs were missing. Mr. Westerheid said yes they were; they have access to this. He also noted that as of April 21 we should know exactly where all the welds are. Discussion ensued as to what x-ray should actually take place depending on the difficulty to get to or like problems. In other words there may be more harm caused by trying to get the x-ray, and it may be better to use the interpreter's notes if in fact the defect is serious. A short discussion ensued regarding the stolen radiographs in Section 2 where all we have are pieces of paper with the interpreter's comments on them, but we don't have the film. Mr. Latz said we may be able to work the problems if we have the film and/or the interpreter's sheets. Then rationale may be used to evaluate and possibly accept or not accept the weld. The audit people did not try to make an interpretation as to whether or not the welds were acceptable, whether or not they were outside of code. Mr. Rollins stated that it would be desirable to keep things working (comments and reviews) within our respective offices until we know where we stand, so there won't be misinterpretations in the newspapers.

Mr. Thomas said that we can't leave any defects in the line that would cause a problem integrity-wise, i.e., it is just unacceptable. There was unanimous agreement on this subject. Mr. Rollins indicated it appears Ketchbaw is getting data on a lot of the interpretations and radiographs before Alyeska management is getting the information; there is an internal problem.

It was noted there is hearsay information based on Ketchbaw suit that there are also problems in the double jointing. Mr. Patton said it is not the case with double joint welds. The pipe is processed in the plant, and there is no reason to suspect any problems. They question whether automatic welds could be fingerprinted because the anomalies just aren't there as in manual welding. Mr. Latz stated that unless specifically charged we would not do more than the law requires. Mr. Rollins asked where the double joint film is in the 25,000 films that were taken.

Mr. Thomas reviewed problems as he sees them and what the pluses and minuses are. On the plus side the pipe is very ductile. The 1104 Code, from the standpoint of acceptable defects, was based on small diameter pipe with thinner walls, not the large inch pipe with thicker walls. We have much in excess of the 10 percent circumferential weld radiographs required by code; therefore, we can take more porosity and slag than the code allows, and the nondestructive techniques are such that we can now use better engineering judgment. His concerns on the minus side are those cases in the heat effective zone where, even though we are preheating (which is a plus factor), if due care is not taken it can cause problems. We are testing the pipe to .95 specific minimum yield pressure, whereas the maximum design is .72. This is also a plus. There have not been problems to date in this regard. We cannot accept any large cracks; they must be repaired. Mr. Latz stated that we need to take into account problems on the line such as creeping, thrust blocks, relative locations and all of the geotechnical stress-strain problems when we consider defects.

\* The discussion got into areas of repair cutout such as the problem where the pipe fell off its supports in Section 6. It was apparent that Mr. Patton had not heard of the pipe creeping. Arctic Constructors had not taken due care even though they had been warned a number of times this would happen if they didn't lock the pipe to the supports. A number of problems were generated when the pipe fell off the supports. The pipe was dented; see the attached enclosure on this subject.

Mr. Thomas continued the welding discussion and used examples of areas he felt could be accepted. He indicated that in Britain even though they use the 1104 Code they also allow use of fracture mechanics in making judgments and interpretations. He said that any time they had 150 inches of weld in a circumferential 48-inch line, engineering judgment must be

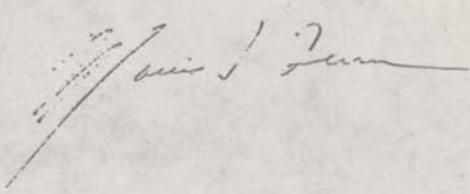
utilized. Regarding a question of double repair not allowed by 1104, Mr. Boorman said it should not be an allowable repair inasmuch as this is not allowed in the pressure vessel standards of ASME. Mr. Latz stated that we need to be cognizant of and concur on all weld interpretations based on the audit. Messrs. Latz and Rollins raised the point that APO may be auditing Alyeska's audit from an overview standpoint.

Mr. Latz asked who did the auditing, and Mr. Westerheid indicated that they used Peabody-Miller as well as Alyeska radiographers. The question was asked whether Alyeska felt the execution contractor's race horse bit had something to do with the weld problems and whether they were buying off to get it in the ground. Mr. Patton said he felt that should not have been the case.

Joe Willing passed out the sketch of a concept that's being looked at by Holosonics in which they can show an interpretation which could be done from inside the pipe (not necessarily on a radiographic film). Hopefully in many cases verification can be made without digging up the pipe. It was indicated there probably will be a demonstration of the new concept at Richland, Washington in the next couple of weeks. Apparently it's an accoustical logger.

Mr. Latz asked Mr. Patton if Alyeska is going to be able to meet their schedule. Mr. Patton indicated their current problem is hydrotesting, but they still hope to do it in 1976.

Enclosures



## RADIOGRAPH STATUS HISTORY

AND

## ACTIVITY COMPLETION FORECAST

FILM INTERPRETATION COMPLETE	COMPUTER CHECK COMPLETE	AUDIT FILM IN STORAGE	RECONCILE WELD HISTORY STATUS LOG	PREPARE FINAL LIST (NUMERICAL)	CALCULATE CONSTRUCTION STATIONING	PLOT LOCATION OF WELDS	PRODUCE LOCATION DRAWINGS	REMARKS
3/06/76 100%	3/20/76 100%	3/31/76 100%	3/31/76 100%	4/05/76 55%	4/04/76 95%	4/05/76 95%	4/07/76	*59 critical welds
3/21/76 100%	2/9/76 100%	4/04/76 100%	4/02/76 100%	4/07/76 5%	4/07/76 95%	4/08/76 90%	4/10/76	*40 critical welds
3/15/76 100%	4/03/76 100%	4/04/76 100%	4/06/76 5%	4/09/76 0%	4/10/76 95%	4/11/76 85%	4/13/76	*No critical welds to date
3/10/76 100%	3/10/76 100%	3/28/76 100%	3/28/76 100%	4/02/76 100%	4/03/76 95%	4/04/76 95%	4/06/76	*Audit verified. No critical welds to date
3/24/76 100%	4/02/76 100%	4/04/76 100%	4/14/76 0%	4/16/76 0%	4/18/76 0%	4/19/76 65%	4/21/76	No extra equipment or critical welds evaluated to date

fidelity generally refers to sensitive location.

## Radiograph Audit Breakdown by Defect

Type	Section					Total
	1	2	3	4	5/6	
Incomplete Penetration	4	85	1	0	14	104
Incomplete Penetration	22	1	5	4	43	75
Incomplete Fusion	52	15	5	39	109	220
Elongated Slag Inclusion	48	38	19	28	239	362
Isolated Slag Inclusion	4	1	1	5	8	19
Gas Pocket	96	46	12	13	281	448
Spherical Porosity	2	13	0	4	35	54
Clustered Porosity	4	18	1	4	114	141
Wormhole Porosity	4	16	8	1	106	135
Hollow Lead	3	12	1	3	80	99
Crack	12	8	2	5	10	37
Crater Crack	8	7	97	5	34	151
Burn Through	11	10	0	0	3	24
Arc Burn	54	5	1	106	206	372
Double Repair	24	49	1	14	37	125
Long Seams Intersect	9	4	0	12	1	26
Incomplete Coverage Repair Film	90	24	28	71	189	402
Incomplete Coverage Initial Film	21	13	7	12	29	82
Damaged Pipe	3	3	0	3	53	63
*Radiograph Missing	60	31	89	231	164	575
Incomplete & Uninterpretable	4	1	13	0	0	27
Duplicate Welds	53	10	153	10	54	280
TOTALS	588	410	444	570	1814	3826

\*Contingent on weld status log verification.

## WELD RADIOGRAPH STATUS BY PIPELINE SECTION

SECTION	WELDS INSPECTED	WELDS ACCEPTED	WELDS REWORKED	WELDS REJECTED
1	53	508	86	592
2	10	410	113	297
3	153	444	251	193
4	10	570	220	350
5	<u>54</u>	<u>1614</u>	<u>60</u>	<u>1754</u>
TOTALS	280	3826	729	3097

Mr. DINGELL. What does it mean you do no more than the law requires?

Mr. LATZ. I will get to that and address it, Mr. Chairman, if you will just be patient.

The casual mention of "hearsay information" about double jointing in Mr. Turner's memorandum during that meeting was distracting to the principal purpose of the meeting. I did indeed—

Mr. DINGELL. What was the principal purpose of the meeting?

Mr. LATZ. I just stated, Mr. Chairman, the audit of Alyeska's girth weld program.

I did indeed refocus. Having had the casual hearsay mention I refocused the attention of that meeting to its important purpose. I do not recall using the words "we would not do more than the law requires."

Mr. DINGELL. That is in your memo, however.

Mr. LATZ. It is in Mr. Turner's memorandum to the files, one sentence of a four-page single spaced typewritten memorandum. To so characterize my input to that meeting or my attitude and conduct in the discharge of my duties is absolutely and categorically inaccurate. It is belied by my vigorous solicitation of the interest of the Federal Bureau of Investigation in the 6 weeks preceding April 5.

Our files are available to your staff to peruse. My efforts in this regard following the April 15 and 16 depositions which came to our attention were reviewed by our regional solicitor in the litigation previously mentioned with Mr. Rollins. I insisted that we pursue the matter with Alyeska resulting in the June 14 memorandum we just discussed.

Mr. Patton, Mr. O'Connell, and Mr. Rollins are all here present today and I invite this committee to elicit from them their observations and characterization of my presence at that meeting and my statements.

Mr. DINGELL. Right now we are addressing ourselves to the matters to which the Chair has laid his question. You did discuss here some comments that you indicated had been made by Mr. Patton and I will refer to the two sentences up previous to the one which is now under discussion.

Mr. Patton said it is not the case with double joint welds. The pipe is processed in the plant, and there is no reason to suspect any problems. They question whether automatic welds could be fingerprinted because the anomalies just aren't there as in manual welding.

Now the purpose of the fingerprinting was to achieve an understanding of whether there was in fact a falsification of the radiograph. Isn't that the reason why you would be discussing the question?

Mr. LATZ. Indeed it was nongermane to the meeting.

Mr. DINGELL. It was not? Well, let me ask you this question then. Let us not address the question of whether this matter was germane to the meeting but let us address instead, does this not indicate that you were on notice that there were some problems with regard to double joint welds?

Mr. LATZ. Mr. Chairman, I just walked you through my conduct following April 5 when you said we were "put on notice" and we did react to it indeed and I want to say—

Mr. DINGELL. With regard to the double joint welds?

Mr. LATZ. Yes, sir.

Mr. DINGELL. How?

Mr. LATZ. By eliciting the report Alyeska gave us June 14 which you presently possess.

Mr. DINGELL. Did you make any personal inquiries?

Mr. LATZ. Did I personally?

Mr. DINGELL. Or any of your people up there in Alaska. Were there any instructions to your people as to the irregularities at Fairbanks? Did you make any inquiries?

Mr. LATZ. Mr. Chairman, may I ask—it is quite possible I have missed something.

Mr. DINGELL. I don't think it is possible you missed anything. Let me repeat the question so that you have it clearly before you.

At the time you will agree that the paragraphs referred to indicate that you were on notice that there may have been irregularities with regard to double joint welds. Am I correct in that or incorrect?

Mr. LATZ. I accept that.

Mr. DINGELL. All right.

Mr. LATZ. I do not accept the characterization of this letter.

Mr. DINGELL. You spoke then, or somebody spoke, to Mr. Patton. Did anybody speak to the welders in the yard? Were there any discussions with the welders in the yard by you or any of your subordinates or by General Rollins or any of his subordinates?

Mr. LATZ. The allusion to being "put on notice," Mr. Chairman, I am not quite sure what that means. We took cognizance of all that was available to us. I think we sought that which was not available to us.

Mr. DINGELL. You were sufficiently concerned that you visited Patton. Were you sufficiently concerned that you visited the people in the yard?

Mr. LATZ. The disparity of your statement is inaccurate. I did not visit with Mr. Patton about this.

Mr. DINGELL. Here is the memo and it says, "Mr. Patton said it is not the case with double joint welds." Now somebody is quoting Mr. Patton.

Mr. LATZ. I just testified that I attended that meeting and indicated that that topic at that meeting was nongermane.

Mr. DINGELL. Let us consider that the question of these double joint welds is germane to something, and I am not sure whether you appreciate this with the same degree of concern that I do or not, but let me then ask. Somebody was apparently sufficiently concerned about this they spoke to Mr. Patton.

Mr. LATZ. Mr. Patton was in this meeting.

Mr. DINGELL. Did anybody make any further inquiry beyond discussing the matter with Mr. Patton at the meeting or was the matter permitted to drop at that point?

Mr. LATZ. The matter was not dropped.

Mr. DINGELL. What other inquiries were made with regard to the double joint welds?

Mr. LATZ. We were aware of the depositions being taken.

Mr. BROWN. Apparently it came into the meeting that there was heresay information based on the *Ketchbaw* suit that there were also

problems in the double jointing. The memo does not say what those problems are. Then whoever wrote this memo goes on to say, "Mr. Patton said it is not the case with double joint welds." Apparently there was a difference of opinion in that meeting as to whether there was a problem, is that correct?

Mr. LATZ. That may well have been, Mr. Brown, and as I indicated that was not the purpose of the meeting. We were indeed then aware of the depositions being taken in the *Ketchbaw* litigation.

Mr. DINGELL. Was there any inquiry made with regard to whether or not there were irregularities with regard to the double joint welds?

Mr. LATZ. Not at that meeting. I have already testified there were after that.

Mr. DINGELL. Let me ask you this question then. Was there any inquiry made elsewhere at any other time with regard to the irregularity or regularity of the double joint welds?

Mr. FRIZZELL. I can answer that, Mr. Chairman. At what point indeed there were. We knew depositions were being taken in the *Ketchbaw* suits. The allegation of rumors was in connection with that. Your star witness last Friday on the basis of these allegations was the one whose testimony was about to be deposed. We got a copy of that and he said there were no falsifications of double joint welds in Fairbanks. You said, "Did you go to the field?" We talked to the head radio-grapher; we got his sworn testimony.

Mr. DINGELL. Did you make any other inquiries?

Mr. FRIZZELL. Once he said there were no falsifications. Yes; Mr. Rollins went back to Alyeska and said, "Assure me that there is no trouble with double joints; give me an audit."

Mr. DINGELL. It was not you folks that were deposing this matter.

Mr. FRIZZELL. Lawsuit.

Mr. DINGELL. The Chair is going to recognize counsel for the purpose of questions.

Mr. BARRETT. The meeting took place on April 5. At that time Alyeska had just completed an extensive audit in which it found falsification of X-rays on the field welds, is that not correct?

Mr. LATZ. That is absolutely not correct. I have just testified they were in the process of completing. There were several weeks to get it to a conclusion.

Mr. FRIZZELL. We got the Alyeska audit in May.

Mr. BARRETT. Everybody was aware of the falsification issue?

Mr. LATZ. Aware of allegations of falsification.

Mr. BARRETT. In other words, the Peter Kelley incident in September you had not investigated, you sat around all through that.

Mr. LATZ. That is not an accurate statement.

Mr. BARRETT. I am trying to find out. Is it your statement?

Mr. DINGELL. Had you investigated Peter Kelley's allegations prior to the time that the litigation was filed?

Mr. FRIZZELL. That is when it was filed, in September 1975, Mr. Chairman.

Mr. BARRETT. I think at this point in April it was pretty common knowledge that there was a falsification problem on the girth welds; Alyeska had issued a press release in October talking about it. The field weld investigation had been pretty completed; whether it was

actually completed a month later, it was known at that time you had problems with field welds and you had discussed the problem of fingerprinting with respect to the field welds. The fingerprinting method was used as a method for establishing whether or not falsification had occurred with respect to the girth welds, is that correct?

Mr. FRIZZELL. No, it is not.

Mr. BARRETT. Mr. Rollins is nodding his head yes.

Mr. FRIZZELL. I will speak for the Department if you don't mind, Mr. Barrett.

Mr. DINGELL. Try to get two out of three.

Mr. FRIZZELL. We knew what the facts were.

Mr. BARRETT. At this time you are discussing, nevertheless, fingerprinting.

Mr. FRIZZELL. They didn't even start their audit of one of the sections until January of 1976.

Mr. BARRETT. We are discussing fingerprinting.

Mr. FRIZZELL. You didn't understand all five sections of the pipeline. This was April. We got the first copy of the Alyeska report. It was not done until May of 1976.

Mr. BARRETT. At this time in April of 1976 there was a common knowledge that there had been a falsification of X-rays on the line, is that not correct, Mr. Rollins?

Mr. ROLLINS. The rumors were there and Alyeska in this meeting of April 5 reported at that time there were strong indications that there has been falsification.

Mr. BARRETT. They had issued a press release in early October discussing this. They had the September 26 report a copy of which was given to you ultimately in which it discusses the falsification. Are you saying you didn't know about falsification?

Mr. FRIZZELL. I thought the Chair's ruling was we were not going to talk about field girth welds, we were only going to talk about double jointing.

Mr. DINGELL. Let's ask the question. You have all this notice about the possibility of falsification with regard to girth welds in the field. Didn't that put you on notice that maybe you ought to take a look at the question of yard welds also?

Mr. FRIZZELL. Who do you direct the question to?

Mr. DINGELL. I understand you were speaking for the Department, Mr. Frizzell.

Mr. FRIZZELL. We did address our attention to double joint welds in Fairbanks.

Mr. DINGELL. Tell us what you did.

Mr. FRIZZELL. Well, we participated in the lawsuit where the chief radiographer in the double-jointed yard was going to have his deposition taken.

Mr. DINGELL. Did you make any investigation beyond that?

Mr. FRIZZELL. We found out that his testimony under oath was that no, there was not any problem. Despite the rumors we didn't feel that. We went to Alyeska and we said we still hear there is a problem of double jointing welds in Fairbanks; let us know if any got out without an X-ray.

We have gone to the FBI. The FBI said, "It is not within our jurisdiction." I didn't accept that. I called a friend of mine over in

the Department of Justice here and said: "Get on the U.S. Attorney, get on the FBI. We need an expert investigation on this matter because we don't possess it." At Interior we don't have subpoena powers.

Mr. DINGELL. Did you have your office up there in Alaska make any inquiry of the parties who might be involved in these matters involving the yards?

Mr. FRIZZELL. Mr. mysterious witness Y, your chief witness, we approached him. We saw his testimony under oath.

Mr. DINGELL. When did you do that?

Mr. FRIZZELL. Well, I tried to tell you a moment ago we got his deposition which was taken April 16 and by the time the reporter transcribed it we received it on June 12.

Mr. DINGELL. Did any of your people go to the yard to discuss these matters with other radiographers?

Mr. FRIZZELL. This was the head guy in the yard right there.

Mr. DINGELL. Did you go to others?

Mr. FRIZZELL. There were only two others.

Mr. DINGELL. Did you go to them?

Mr. FRIZZELL. I don't know.

Mr. DINGELL. The answer to the question is "No," General?

General ROLLINS. We went to none of the other two radiographers.

Mr. DINGELL. General, you were before this subcommittee at a time earlier and you will recall that at the time you were here Mr. Barrett asked you some questions which went as follows:

Mr. BARRETT. Do you know whether or not any other people who were involved in the falsification of X-rays, as testified to by Mr. Kelley this morning, are presently employed by Peabody Miller?

Mr. ROLLINS. I heard Mr. Kelley announce there was one gentleman, and I intend to pursue that vigorously on my return home.

Mr. BARRETT. This was your first knowledge of this fact?

Mr. ROLLINS. Yes.

Mr. DINGELL. Are any other persons employed either by Alyeska or Bechtel, or by any other person or firm, who are doing quality control work, or radiography work?

Mr. ROLLINS. Mr. Chairman, I do not know. I only heard what Mr. Kelley said in this morning's testimony.

Mr. DINGELL. Does it strike you that it is a question of any importance?

Mr. ROLLINS. It certainly does, sir.

Then on the next page, here is the testimony here.

Mr. DINGELL. Would you inquire into it for us, please?

Mr. ROLLINS. I intend to the minute I get back to Alaska, sir.

Mr. DINGELL. We would appreciate it.

Did you make any inquiry into this matter?

General ROLLINS. Yes, sir, I did.

Mr. DINGELL. Would you tell us what you did and what you found?

General ROLLINS. Mr. Kelley mentioned one specific name in his testimony.

Mr. FRIZZELL. This is on double joint welds, I assume.

Mr. DINGELL. No.

Mr. BARRETT. This is on Mr. Rollins' testimony about what he did.

Mr. FRIZZELL. We are back to field girth welds.

Mr. BARRETT. Mr. Rollins testified under oath that the minute he got back to Alaska he was going to check into the question.

Now when you go back to Alaska, Mr. Rollins, did you interview Mr. Kelley?

General ROLLINS. I did not interview Mr. Kelley.

Mr. BARRETT. You have never interviewed Mr. Kelley?

General ROLLINS. I have not interviewed Mr. Kelley.

Mr. BARRETT. Did you interview anyone Mr. Kelley named who could have been involved in the X-ray falsification?

General ROLLINS. I did not interview anyone. I asked my regional solicitor to please review the testimony, extract the names and do some checking for me in the record.

Mr. BARRETT. Did he do so?

General ROLLINS. He did so.

Mr. DINGELL. What did he do?

General ROLLINS. He found the one name mentioned by Mr. Kelley in his testimony, the name of a Mr. Richard Lee Ferris, as of this date which was the date that I had the report that when he checked on the 10th of September 1976 Mr. Richard Lee Ferris was at that time employed in the quality control system of Alyeska working for Peabody-Miller. That was the only name mentioned by Mr. Kelley still on the job or still connected with the job as far as Kelley's testimony. As I state, Mr. Ferris was then employed.

As you question me, Mr. Chairman, there was another infamous list attached to another document that was discussed at the hearings in which there was a list of names and there were names as follows on that other list: Ridenhour, Kelley—I believe this is another Kelley other than Peter Kelley—Bonnie, Bridges, Carter, Von Lake, Doggert, Kilmer, and Bob Miller

On the 10th of September we had response to my solicitor's inquiry that of these other names only one was connected with the quality control effort of the project and this was Ms. Ursula Bonnie who was an employee of Peabody-Miller. The other seven names—excluding Bob Miller—were positively not in a quality control capacity with Alyeska on the 10th of September.

Mr. BARRETT. So your testimony was on June 21 and you made the inquiry on September 10.

General ROLLINS. I got the report on the 10th of September.

Mr. BARRETT. When did you make the inquiry?

General ROLLINS. My solicitor made the inquiry and actually according to his memo that he wrote to me he made the inquiry about the 8th of September.

Mr. BARRETT. So he made the inquiry about the 8th of September?

General ROLLINS. Yes, sir.

Mr. BARRETT. Then 2 months after you swore to this committee that you intended to get into it the minute you got back, you finally make an inquiry?

General ROLLINS. Yes; those are the dates. Part of the problem in the slippage of time was our inability to get hold of a transcript of the hearings in Alaska.

Mr. BARRETT. But you had access to the September 26 report in which the names were mentioned, is that not correct?

General ROLLINS. Excuse me. I misunderstood you.

Mr. BARRETT. There were a number of names you just read off. You are referring to a September 26 memo?

General ROLLINS. No.

Mr. BARRETT. The infamous document you referred to?

General ROLLINS. This infamous document I am talking to is the attachment to the House document written by Alyeska in the earliest days of the suspected—

Mr. BARRETT. So you had the names when you went back to Alaska following your testimony on the 21st?

General ROLLINS. I had part of the testimony, I did not have the Kelley testimony.

Mr. FRIZZELL. Mr. Chairman, I have two more points I want to cover in my opening statement and they will be very brief.

In regard to double jointed welds—

Mr. DINGELL. You are recognized.

Mr. FRIZZELL. Thank you, sir.

On page 10 of your staff's memorandum and repeated again here earlier today by Mr. Olive, the union organizer, in his testimony it is stated that in early 1976—this here again goes to Alyeska getting Don Olive who described the falsification scheme to Waldrup who was in charge of labor relations. In the ensuing month and a half he has not heard from Waldrup again. None of the X-rays in the double joint yards were examined by Alyeska as a result of this warning. Now I wonder what would have happened, Mr. Chairman, had we got in contact with Mr. Waldrup.

Mr. BARRETT. To state that is false?

Mr. FRIZZELL. Yes, the statement that nobody has heard from Waldrup after Mr. Olive contacted him.

Mr. DINGELL. What are the facts?

Mr. FRIZZELL. The facts are as follows: On Wednesday, November 10, 1976, Mr. Olive testified Mr. Waldrup at his office asked if he could meet with him at that meeting to discuss upcoming arbitration as well as other pending grievances. He agreed to meet. They met at 5 p.m. in the lobby of the Captain Cook Hotel and thereafter they went to Mr. Olive's room.

We were talking about some of the technicalities in the X-raying process when Olive mentioned that he knew some pipe had been installed without being X-rayed. He said one of his members told him several sections of the double jointed pipe had left the Fairbanks pipe yard without being X-rayed. I asked where the pipe had been installed and he said he didn't know.

I asked if there was any way to track where the pipe might be now. He said no.

I asked whether it was possible the pipe was not installed and he said he didn't know.

I asked for the name of the individual who informed Alyeska and Olive refused to tell me. He did say if he was ever asked he would share the information through an unofficial inquiry.

I told Olive he did not give me enough information to make even a cursory inquiry—no names, no dates, no places, nothing except a general accusation.

In labor relations we daily hear accusations, scuttlebutt and rumors of unfounded abuses. Most involve hearsay on top of hearsay without enough detail to make an investigation.

That is why Mr. Waldrup didn't follow through with anything because he got no information from Mr. Olive.

Now the last point I want to cover, Mr. Chairman, is this. We have had some fun here today about an audit, of an audit, of an audit and the allegation is repeated not in substance but on page 4 of your staff's memorandum to you of December 7. It says in a little more damaging

indictment made here that the Arthur Andersen audit, requested by the Department of Interior, found Alyeska's audit unacceptable. That is true, I would not accept it. This problem is still unresolved and the program established by the Department of Interior to solve the problem is far behind schedule.

Now I have here the steps that I have taken since July 19 of this year when I for the first time provided a copy of the Arthur Andersen review to this committee on the same date that I received it, the same afternoon, and the chronology of events that have transpired is about 30 in number on two pages and here are the substantiating documents.

What has happened? Has Interior been sitting on its hands?

Well, we received the Arthur Andersen report, not an audit, on reviewing "Alyeska's Quality Assurance of August 1975" on July 19.

Mr. DINGELL. Can you summarize that briefly? What did they say?

Mr. FRIZZELL. They said briefly, "Alyeska's records are not in an auditable shape to where we can perform an audit for you, Mr. Frizzell."

Mr. BROWN. We are on a somewhat delicate point. I wonder whether that material or some portion of it can go into the record.

Mr. FRIZZELL. I would love to put it in the record and I am going to proffer it for the record, Mr. Brown.

Mr. DINGELL. We will receive it and have the staff review it and we will see to it that the conclusion of the portions you review as relevant are included in the record.

Mr. FRIZZELL. I won't belabor the point with this but let me summarize briefly this way. Alyeska on their own did attempt to undergo an audit of their own welding program for 1975 and it came to us in May of this year for the first time. I immediately took affirmative steps at that time to try to insure that the same things that had happened, in the 1975 welding season, would not happen in the 1976 season, such things as requiring, first of all, that no pipe gets covered in the ground, not one section, until a certification is made under oath that a positive, a good X-ray has been made of that weld.

Second, I required that a duplicate radiograph—since we have had some missing ones—be supplied to my authorized officer in Anchorage so if some got lost we would have a copy. Then at the suggestion of Arthur Andersen:

It was fine, Mr. Frizzell, what you did but you ought to close the loop. You ought to in addition require a copy of each radiograph and a certification that a good, positive X-ray has been taken. You ought to close the loop and make sure that the radiograph you get corresponds with the weld number.

So then I laid on Alyeska the requirement and they had to send up 27 additional men. The pipeline was closed for 2 days for the first time in the history of the pipeline. I said I want some type of unique identifying symbol on the inside and outside so that one or two or three radiographers—out of 30,000 employees—who know the quality control program will necessarily discover fraud. I want to make sure it does not happen in the 1976 season.

Then I went back to Arthur Andersen. I said, "Get together with Alyeska, you are having problems on what form the audit will take." Alyeska told me they are willing to get their auditors to sit down at this meeting with us and it will be Arthur Andersen and Peat, and

Marwick there, so that we can discuss among those who know what accounting and audits amount to, what are acceptable procedures by which this audit can be made, what records are they going to have to get in order, what service, so forth. We did that.

Then after we arrived at acceptable procedures, because in the first instance when I hired Arthur Andersen, on the spot, last May when I got Alyeska's audit and I did it very frankly on a sole source basis because I could not wait to go out and pay for the low bidder so I paid Arthur Andersen, but, the second time around because of the laws passed by the Congress which I believe in and adhere to I didn't want to go sole source so I had to go through the time consuming method of putting out for bids this final review of Alyeska's audit.

Do you know what I found? I thought I would get the top bids of four or five top accounting firms, including Arthur Andersen because they had a lot of time in this. They in a cautious review of all of their offices over the United States found some office in Pennsylvania that represented one subcontractor, or somebody involved with the Alyeska pipeline, and they refused to bid. I didn't get top bids of seven or eight and I had to settle on a sole bidder.

Now we are underway and we could not complete the review of Alyeska's audit until January because their records are not in order for this sole source bidder of mine to be able to review. We are going to have the audit reviewed. There has only been one audit, Alyeska's and we are going to review it and it will be completed before any oil goes through the pipeline and if it is not good, corrective actions will be required of Alyeska.

Mr. DINGELL. The important fact is that you do have some difference of view between Alyeska, Arthur Andersen, Peat, Marwick and the most recent audit of the audit of the audits that have been commenced on this.

Mr. FRIZZELL. I thought we disposed of the audit of the audits. There is one audit.

Mr. DINGELL. One audit and then the reviews.

Mr. FRIZZELL. That is right.

Mr. DINGELL. And you do have some differences.

Mr. FRIZZELL. Yes; we did have some differences. We met here, we met in Los Angeles, but we resolved it.

Mr. DINGELL. Let's talk now about matters of weekly reports.

Mr. LATZ, you received weekly reports from General Rollins, the AOR in Alaska, with regard to the status of pipeline construction?

Mr. LATZ. Yes; I do.

Mr. DINGELL. What did you do with this weekly report?

Mr. LATZ. I read them, I review them very thoroughly.

Mr. DINGELL. And then what?

Mr. LATZ. I keep the Under Secretary informed of their contents.

Mr. DINGELL. Did anyone else in the Interior Department receive this, Mr. Frizzell or Mr. Kleppe?

Mr. LATZ. At the direct instruction of the Under Secretary they are submitted to all the Assistant Secretaries and the Solicitor.

Mr. DINGELL. The copy of the APO report?

Mr. LATZ. Yes.

Mr. DINGELL. Did you rewrite it and resubmit it or did you just forward it on?

Mr. LATZ. I summarized it in part. The Under Secretary has since instructed me to send it in toto and I so do.

Mr. DINGELL. Now in the weekly report of September 12 General Rollins wrote to you as follows, I think.

A QC audit had found possible radiographic testing by Ketchbaw. This information surfaced that evening by local press as a result of the suit filed by a disgruntled employee against Ketchbaw industry.

Now did you send this report to Mr. Frizzell or Mr. Kleppe?

Mr. LATZ. I don't recall. Would you tell me the year, Mr. Chairman. You said September. Would you tell me the year?

Mr. DINGELL. That was September 12, 1975. Did you forward that one?

Mr. LATZ. At that time we did not have an Under Secretary. I don't know that specific date but I do believe Mr. Frizzell, our Solicitor, was Acting Secretary. The date of that memo was September what?

Mr. DINGELL. September 12.

Mr. LATZ. That is within 1 day of a meeting with the presidents of the other companies of Trans Alaska called and presided over by the Acting Secretary, Mr. Frizzell, at which we discussed all aspects outstanding in the pipeline.

Mr. DINGELL. Well, did you send it forward or not?

Mr. FRIZZELL. I exhorted Alyeska owner companies, not Alyeska. I called the heads of the company in and said, "Get the quality control in shape."

Mr. DINGELL. That I applaud but was that sent forward?

Mr. LATZ. To whom?

Mr. DINGELL. Anyone in Interior.

Mr. LATZ. Not to my knowledge.

Mr. DINGELL. Can you tell me why?

Mr. LATZ. I cannot say for certain.

Mr. DINGELL. You indicated to the staff that this was a matter of idiosyncrasy.

Mr. LATZ. Is that a quotation, Mr. Chairman?

Mr. DINGELL. The word "idiosyncrasy" was used by you in connection with this particular discussion with the committee staff.

Mr. LATZ. I could possibly recall their use of that word or asking me if that was an idiosyncrasy of mine.

Mr. DINGELL. What did you say?

Mr. LATZ. We had no Secretary, we had no Under Secretary. Mr. Frizzell as Acting Secretary was extremely busy, nonetheless he manifested a keen interest in the Trans Alaska pipeline. September 12, 1975, the issue, the seriousness, the import of welding problems was not apparent and it is not apparent in the memo which you possess.

Mr. DINGELL. Well, did you forward this information to your superiors in response to the September 12 memo?

Mr. LATZ. The Office of Secretary and Under Secretary, both offices were vacant.

Mr. BARRETT. You testified, however, that your report went to Assistant Secretaries as well.

Mr. LATZ. Since, the Under Secretary so directed me to send those weekly reports in toto to the Secretary and Solicitor.

Mr. DINGELL. Let me ask you this question. In November 1975 Mr. Kleppe in an interview with Newsweek magazine indicated that he was unaware of the falsification or the faking of X-rays on the pipeline.

Mr. LATZ. You are quoting and characterizing Secretary Kleppe. If I might do the same thing, was he alluding to allegations of falsifications?

Mr. DINGELL. I just said he was unaware of the falsification and the faking of X-rays on the pipeline.

Mr. LATZ. I don't speak for the Secretary.

Mr. DINGELL. At any time, between September and November, did you make any information regarding this matter available either to Mr. Frizzell or to Mr. Kleppe?

Mr. LATZ. I don't recall.

Mr. DINGELL. Isn't this a matter of sufficient importance that you should have let them know about this?

Mr. LATZ. Mr. Chairman, are you recalling the perspective of the time? What was known at that time?

Mr. DINGELL. Well, can you tell me why the Secretary was not aware of a problem of this magnitude?

Mr. LATZ. Because I judged at that time it not to be a problem of magnitude sufficient for the Secretary's attention.

Mr. DINGELL. You have got a chance to rethink that, I guess.

Mr. LATZ. I am not too sure, Mr. Chairman, that if I were sitting back in November 1975 that I would feel any differently today.

Mr. DINGELL. It is regarded rather widely as a matter of some seriousness at this time, is it not?

Mr. LATZ. Today?

Mr. DINGELL. Yes.

Mr. LATZ. Not in November 1975.

Mr. FRIZZELL. The subcommittee I don't believe got involved until June of this year, Mr. Chairman.

Mr. DINGELL. What?

Mr. FRIZZELL. The subcommittee I don't believe got involved until June of this year.

Mr. DINGELL. Well, the subcommittee has been rather occupied, as you recall, on a large spectrum of assorted matters, sir.

Mr. LATZ. Did you ever hear of any potential problems of double X-rays at the yards?

Mr. LATZ. Only those we have discussed today.

Mr. DINGELL. When did you hear of those, if you please?

Mr. LATZ. I can't say accurately, Mr. Chairman.

Mr. DINGELL. Did you ever discuss with the subcommittee staff that you did not know of any information indicating problems of the double joint welds?

Mr. LATZ. Did I ever do what, Mr. Chairman?

Mr. DINGELL. Did you ever discuss with the subcommittee staff that you did not know of any information indicating there were any problems with the X-rays of double joint weld?

Mr. LATZ. I don't recall.

Mr. DINGELL. Is it still your feeling that there is no problem with regard to X-ray of double joint welds?

Mr. LATZ. Mr. Chairman, I have seen nothing, including the proceedings of last Friday or this morning, that indicates to me any substantive knowledge of difficulty with or defects in the welds from the double jointing operation.

Mr. FRIZZELL. That is not to say, Mr. Chairman, we are not concerned with the allegations of falsification of 60 radiographs and we intend to pursue that wholeheartedly.

Mr. DINGELL. Well, I am very pleased to hear that because I think that is a very serious matter. I am not satisfied with whether the welds are good or not.

Mr. FRIZZELL. I am not either. If they were falsified, that needs to be pursued even if the welds are good, which I think they are.

Mr. DINGELL. I am not prepared to tell you whether they are good or bad.

Mr. FRIZZELL. We will find out.

Mr. DINGELL. This is something that has to be looked into.

Mr. FRIZZELL. I thought I had covered that in my opening statement and I assure you that will be done.

Mr. DINGELL. Yes.

I yield to the gentleman from Ohio.

Mr. BROWN. You have a transcript in which somebody you referred to as witness Y, which I referred to in my reading of last week's testimony as the second witness, says two different things. In that deposition he says there were no problems with the X-rays in that there were no falsifications.

Mr. FRIZZELL. There is a conflict between the sworn testimony and the deposition.

Mr. BROWN. If I understand, and I think I do, that is the same witness which I referred to as the second witness. We have sworn testimony before the subcommittee last week that there was falsification. However, that witness also is the person who signed off on the—

Mr. FRIZZELL. Daily worksheets.

Mr. BROWN. So we have a problem here because we have a witness that has testified to two different things and whose name is also on those daily worksheets which are the assurance that the 60 welds were OK when they went out in the field. Now we got into the question in our hearing last Friday about 13 unrepaired welds which got into the field, which you say 8 came from the Fairbanks yard and 5 came from the Valdez yard. I understand that you followed through on those and they have been tracked down and have been repaired. I guess the crux of our problem is those 60 welds for which we have worksheets saying they are good welds but bad radiographs, isn't that it?

Mr. FRIZZELL. Yes; but to help reinforce the efficacy of that witness' name on those worksheets—there are two other names on each worksheet, not just his—and he did indicate, and that is the process, those he makes immediately before any Bechtel quality control man comes back to him and says, "Look, we have a bad quality radiograph." So they are more apt to be accurate because they would be a day or two late.

Mr. BROWN. What is the status of the other two persons whose names are on the worksheets assuring that those welds are adequate

welds? You don't have to identify them by name but I just want to know what their status is.

General ROLLINS. One is a welding inspector and the other is a radiographer contractor and then code interpretation. Well, that is the code for the weld and it has an initial. So there are three others.

Mr. BROWN. There are three others besides that one person?

General ROLLINS. Yes.

Mr. BROWN. I don't know if this is an appropriate question for you but would it be your conclusion that Alyeska which had subcontracted with Bechtel for Bechtel to do the quality control work and then Bechtel who had in turn subcontracted with Superintendence, Inc., to provide the radiographers to be part of that quality control process could recover the cost or would perhaps be in a legal position to recover the costs of any failure of either Superintendence or Bechtel to perform their contractual duties in this instance?

Mr. FRIZZELL. Mr. Brown, I have learned one thing in my 20-year law practice—you don't want to speak for some other client that you don't represent. The lawyer for Alyeska is here and he should answer, Mr. O'Connell.

Mr. BROWN. I am not a lawyer, I wanted a free legal opinion.

Mr. FRIZZELL. Well, it would be worth about what you are paying for it if I were to answer.

Mr. BROWN. Thank you very much.

Mr. DINGELL. Let me ask you this question, Mr. Latz. I have here a series of reports titled "Weekly Report to John Latz, Technical Assistant to the Under Secretary, DIO, Washington, D.C." Then up on top appears the words "Not Sent." I guess you put that there.

Mr. LATZ. I may have. May I see it to identify my marking?

Mr. DINGELL. I will make the whole pile available here.

On September 22, "Got weekly report to John Latz." Again occurs the words "Not Sent."

Same thing with regard to September 26, "Not Sent."

October 6, 1975, "Not Sent."

Was it your policy not to send or was it your policy to write "Not Sent" on the tops of these weekly reports?

Mr. LATZ. No, Mr. Chairman. I have indicated that we were without a Secretary and Under Secretary most of that time. Under Secretary Whittaker resigned May 1, 1975, and Under Secretary Frizzell was sworn in the latter part of November 1975.

Mr. DINGELL. He was serving as Secretary during that period because he was Acting Secretary.

Mr. LATZ. Acting Secretary for a period.

Mr. DINGELL. You have one in here that says—I don't have it here and I don't think it is really important but I am curious. This was the first time that you kept these reports and you did not send them forward because then you didn't have a Secretary or didn't have an Under Secretary?

Mr. LATZ. I certainly did not consciously withhold them from the Secretary or the Under Secretary—to not send them with the intent of withholding information.

Mr. DINGELL. All right.

The Chair recognizes Mr. Barrett.

Mr. BARRETT. Mr. Rollins, has there been a problem with the 1976 welding program? In other words, have any welds been permanently installed without being X-rayed or without receiving proper X-rays first? That is, welds made in 1976.

General ROLLINS. Our reports are that the 1976 welding program there has been carried out generally in accordance with Alyeska's quality control and welding approval program this year. There were two or three welds in one river crossing that I can't remember the details now, I would have to provide them for the record. But in one river crossing, the Koyukuk interestingly, three of those welds were welds accepted in the recent decision of Mr. Barnum.

Mr. BARRETT. The Koyukuk welds were made in 1975, weren't they?

General ROLLINS. No; it is my understanding they were made in early 1976. I will have to provide you the details on that.

Mr. BARRETT. Now have any welds other than these in the Koyukuk River been permanently installed during 1976 without X-ray or without receiving proper X-rays first?

General ROLLINS. None that I know of.

Mr. BARRETT. Have any welds been permanently installed without the proper OK P30 paperwork being done?

General ROLLINS. Yes; there was one instance as I remember where the paperwork had been done and the man did not actually paint it, we found out. We talked to Alyeska about it. We verified that the documentation had been done but the man had not painted it for some reason or another and we granted an exception.

Mr. BARRETT. Do you know where Moose Creek is?

General ROLLINS. I believe Moose Creek is north in section 3.

Mr. BARRETT. Was there an incident about 3 or 4 weeks ago in which it was necessary to go back and to take new X-rays of welds that had been permanently installed on VSM's? The welds had been made during March or April of 1976?

General ROLLINS. Mr. Barrett, I do not know of the incident of Moose Creek of going back and retaking X-rays. Was that a 1976 program you are saying?

Mr. BARRETT. A 1976 program.

General ROLLINS. I am not personally familiar with it.

Mr. BARRETT. Is this the sort of thing that as head of the office there you should know?

General ROLLINS. Possibly I should but I am not omniscient, unfortunately.

Mr. BARRETT. When we talk about fingerprinting, Mr. Rollins, this is a device or a method for determining whether or not an X-ray may have been falsified?

General ROLLINS. Alyeska devised that. I am told by my radiography experts and Alyeska's that this is the first use of the fingerprinting techniques on a large project. It was developed to come up with a specific identifier for each film of each joint by using a technique of locating the longitudinal weld seams and the start point and the stop point, and the point of it is to come up with an identifying matrix that can be fed into a computer. So when you have a card and these identifying procedures for 40,000 welds you can go to a computer and find any that match up.

Mr. BARRETT. Well, what you are saying is it is a method that was perfected in this instance by Ayleska to determine whether or not—

General ROLLINS. If there were, they were looking for duplicate welds. It is a system to determine if you have duplication of film.

Mr. BARRETT. So when you are talking about fingerprinting X-rays you are talking about problems with falsification.

General ROLLINS. Possible falsification which I am no attorney. Falsification to me means a deliberate intent to do something, and people do make mistakes.

Mr. BARRETT. We are talking about possible duplication of X-rays in any case.

General ROLLINS. Yes.

Mr. BARRETT. So on April 5 we are talking about the question whether automatic welds could be fingerprinted. Somebody is raising the question whether or not there are duplicate welds on the double joints. I mean you don't talk about fingerprinting unless there is a problem of identifying duplicate welds.

General ROLLINS. That is one use of the tool and I don't remember the specific details. The problems with fingerprinting in machine welding, it is not as easily used a tool even if it can be used as it would be for stick welded joints.

Mr. BARRETT. Thank you.

Mr. BROWN. On that point, what we are dealing with here is apparently repaired welds, not new welds in the first instance which would be machine welds. Now can you fingerprint a repaired weld without reference to the tape which could be slipped around? Can that be done?

General ROLLINS. I am not familiar enough as an amateur student of radiography science to answer that.

Mr. BROWN. Who can give us that answer? Could you direct us to some persons who could give us that technical answer?

General ROLLINS. Well, we have a man in the room.

Mr. BROWN. Is it the Coast Guard?

General ROLLINS. Yes; the Coast Guard could do it or any person who is a radiographic engineer, and we have Ayleska's radiographic engineer with us in the room today.

Mr. BROWN. You also have a representative of the Coast Guard.

General ROLLINS. And a representative of the Coast Guard.

Mr. BARRETT. When we are talking about fingerprinting in the context of the double joint welds, the April 5 meeting, the problems in the double joints when we are talking about fingerprinting, we are at least on notice that we suspect there may have been falsification or duplication.

General ROLLINS. Mr. Barrett, I don't like your choice of words. As an old soldier, I would say we are beginning to be alerted to a possible problem at that time, that we did not know there was a problem, this was an alert. Again, trying to be prudent, Mr. Patton who was a participant in our meeting mentioned that the double joint welding was not possibly as adaptable to fingerprinting as the stick welded joints. I think he was putting us on an alert that it was not just a routine repeat of the proposition.

Mr. BARRETT. So what you are saying is that because you didn't know how you could fingerprint, you didn't make any—

General ROLLINS. No, sir, that is not what I said. What I said was when that information came out I would remind you, as I said earlier today. I then asked Alyeska, "Please go back and look at your records and write me a letter," which they did.

Mr. BARRETT. And the letter said, "We counted up the films"?

General ROLLINS. That is right.

Mr. BARRETT. And we tested the quality of the film, the interpretation of the film quality. It does not say they tested to see if there was duplication.

General ROLLINS. I took Alyeska's word. Mr. Westerheid, depending upon Bechtel, one of the largest engineering firms in the United States, ran the QC program. I took their word for it.

Mr. BARRETT. You relied on Bechtel's QC?

General ROLLINS. Bechtel is a professional organization, I am a professional engineer, we are professional people and our name is our bond and our reputation goes with our license to practice engineering.

Mr. BARRETT. You relied upon Bechtel's QC program in the field until a problem arose, is that not correct? I mean you relied upon Bechtel in the field weld problem and found that—

General ROLLINS. They had problems with it. As far as I am concerned they did not have the same degree of problems, no more than just a few problems in the double joint yard.

Mr. BARRETT. Well, you are agreed that Bechtel quality control apparently didn't catch what they should have caught in the field weld.

General ROLLINS. That is correct.

Mr. BARRETT. And you were aware of this some time ago, April or earlier?

General ROLLINS. That is correct.

Mr. BARRETT. If Bechtel broke down on the field weld, why could they not have broken down on this?

General ROLLINS. They probably could have but I determined in my best judgment in this instance that this was a valid report and I was satisfied at the time that prudent steps had been taken to check the X-rays and to audit the X-ray quality, the X-ray numbers to verify that the 100-percent radiography requirement was being met for the double joint weld.

Mr. BARRETT. Now assuming that the testimony which has been presented to the subcommittee is accurate that there are some falsified X-rays in the files, what do you propose to do about determining whether or not there is such falsification?

General ROLLINS. When I have a little time to be able to get back and talk to my people and talk to Alyeska, when I am dismissed from here today and discussing with my superior, Mr. Frizzell, I intend to get on the phone. Alaska is already alerted. We are going to work and come up with a system so that we, as Mr. Frizzell stated, will pursue vigorously the elimination of any doubt about the possibility of 60 welds. Now the procedures we used, frankly none of us have reason through our procedure that we feel will do the job as of now.

Mr. FRIZZELL. Mr. Barrett, in that connection, Mr. E. L. Patton, who is the chairman of the board of Alyeska is here today and would like the opportunity—and I think we would all like to hear what Alyeska plans to do about the 60 falsified radiographs and their procedures.

Mr. BROWN. Excuse me. Is that the same Patton referred to in the memo here?

Mr. FRIZZELL. Yes, who hosted the meeting.

Mr. BROWN. Who responded to the hearsay and said it is not a problem because it is done differently and the quality control is a different process and so forth?

Mr. FRIZZELL. The same person, Mr. Brown. He is willing and able and would desire to put this—

Mr. BROWN. So up to a point you had the hearsay in Mr. Patton's comment, you had the comment by the guy who was the man checking the welds and signed these papers who said there was no problem and you had Alyeska's report on the quality control which said there was no problem.

Mr. FRIZZELL. Mr. Patton would like to make a statement for the subcommittee.

Mr. DINGELL. We are going to hear from Mr. Patton as quickly as we can. We will probably hear from him today. In the meantime I want to dispose of the business that is before us in regard to your testimony.

Mr. FRIZZELL. Surely.

That is the end of my opening statement.

Mr. DINGELL. Gentlemen, I believe that concludes the questions for you. We thank you for your testimony.

Mr. FRIZZELL. Thank you.

Mr. GARNER. Hugh Garner, Deputy Solicitor for Interior.

Mr. DINGELL. In what capacity do you want to appear before us?

Mr. GARNER. It is not an appearance but merely to make a comment with respect to the chairman's opening statement.

Mr. DINGELL. I have to swear you if you are going to testify today.

Mr. GARNER. Not necessarily.

Mr. DINGELL. I am not sure I am interested in any further comments on my opening statement or not but I guess as long as we are running the hearing you might as well go ahead and say what you have on your mind.

Mr. GARNER. This might be a little irregular.

Mr. DINGELL. Why don't you sit down at the witness table. Are you going to make a statement or comment?

Mr. GARNER. A very brief comment.

Mr. DINGELL. You are recognized for a brief comment. Don't irritate the Chair too much.

Mr. GARNER. As the chairman knows, I was an observer at the executive session on Friday and as Mr. Barrett knows I interviewed the witnesses who appeared that day that evening.

Mr. DINGELL. The staff made them available to you.

Mr. GARNER. That is right.

Mr. FRIZZELL. At 5:30 when they were to catch a 6:30 plane.

Mr. DINGELL. No. As a matter of fact, they were available to you earlier and you chose not to take advantage of it.

Mr. FRIZZELL. I want to set that straight for the record.

Mr. DINGELL. I just set it straight.

Mr. FRIZZELL. I called you first and your secretary said you were on personal business and unavailable. I called Mr. Barrett and he said, "I guess I could make them available to you from the hotel." I said

that would be hard since I don't know their names and he said, "They will show up at five thirty." They had a 6:30 plane.

Mr. DINGELL. There were no obstacles placed in your way with regard to discussing these matters with them.

Mr. BARRETT. That is right.

Mr. DINGELL. I think you ought to know that. If you had been informed to the contrary, you were very much in error.

Mr. FRIZZELL. I talked to your chief counsel.

Mr. DINGELL. I am telling you what the facts were. They were there, your solicitor was there or any of the folks you had available to you.

Mr. FRIZZELL. I cannot be responsible for their inaction. I tried to talk to them in the early afternoon and they were not available.

Mr. DINGELL. All right. Go ahead, sir.

Mr. GARNER. I think—

Mr. BARRETT. The witnesses were there, we did have them available for both DOT and Interior if they had wanted to ask them any questions at the time. Nobody did. They went back and tried to contact us and Mr. Frizzell tried to contact Mr. Dingell and thereafter tried to contact me, and in fact I answered Mr. Frizzell's first call to me.

Mr. FRIZZELL. That is right, and they were not available until 5:30; isn't that true?

Mr. BARRETT. That is right, and then your people were not interested and they went off somewhere.

I would like to make one additional point. Mr. Frizzell, did you disclose the whereabouts of those witnesses to any reporter?

Mr. FRIZZELL. I didn't talk to any reporter, period, and I have not yet on this matter because I didn't have any answers because I didn't know what was going on until today.

Mr. BARRETT. Did you talk to Mr. Jim Bishop about the location of the witnesses?

Mr. FRIZZELL. No; I did not.

Mr. GARNER. May I address that because I am the only individual in the Department of the Interior to my knowledge who knows the full identity, addresses, and telephone numbers of those witnesses which I took in your presence and with their approval and agreement, but this has nothing to do with my comment.

Mr. DINGELL. I suggest you proceed with your comment. We seem to be getting far afield. Go ahead.

Mr. GARNER. I am saying to you, sir, that the statement that you read into the record this morning, it was a fast reading. Copies were given to the press and I was a little slow getting a copy myself to scan. I would say that there are statements in that report, there are comments in the report which do not comport to my recollection. I would like to have the privilege of making a comparison of that statement with my own notes and a possible reference to the transcript—obviously the transcript does exist because Mr. Brown has been quoting from it—and possibly make a suggestion of clarification.

Mr. DINGELL. You make that kind of submission and we will be happy to receive it.

Mr. GARNER. I thank you, sir.

Mr. DINGELL. Mr. Patton, you come a long way. We will hear you now.

We have been swearing everybody else, I guess we might as well swear you.

Do each of you swear to tell the truth, the whole truth and nothing but the truth, so help you God?

Mr. PATTON. I do.

Mr. WORMELI. I do.

**TESTIMONY OF EDWARD L. PATTON, CHAIRMAN OF THE BOARD, ALYESKA PIPELINE SERVICE CO., AND JOHN WORMELI, SENIOR WELDING ENGINEER**

Mr. PATTON. Mr. Chairman, my name is E. L. Patton. I am Chairman of Alyeska.

The gentleman on my left is John Wormeli, our senior welding engineer and also the man who was 100-percent involved in the Fairbanks double jointly operation at its inception.

Obviously Alyeska is very interested in what has transpired Friday and what has gone on today. We of course have been denied access to any direct record of the testimony of Friday but we have some hearsay testimony from Interior and of course what happened this morning.

Now there have been several references to the record of the double jointing yard. I again would like to correct some errors in the record here. The radiographic contractor was not a contractor of Bechtel, he was under direct contract to Alyeska. The radiographer had his people there at the end of the assembly line. Bechtel had their people strung along the assembly line. There were five quality control inspectors per shift in that building.

Mr. BROWN. Does that mean that the Bechtel man could really not have fired the Superintendence people?

Mr. PATTON. That is my understanding, Mr. Brown.

Mr. BROWN. I am sorry. I didn't mean to interrupt your testimony.

Mr. PATTON. We think that that operation was well covered quality control wise because it was all in one place. The assembly line stayed in one position in the shop as contrasted with what happens on a pipeline when the assembly line moves and the pipe stays in one place. In addition to the five Bechtel quality control people, Alyeska had one quality assurance man full time and for the early weeks of the operation the State and Federal government and Alyeska had welding engineers in there almost full time. It was only when the operation shook down to a fine running deal that we moved the welding engineers out of there.

Now we made two audits in 1975, in May and I think June 1975, one by quality assurance and one by quality control. These were film counts with some look at quality of the film but were not made with the purpose of discerning falsification. Of course falsification had not been heard of at that time, not at least in this project. These audits disclosed no difficulty beyond the famous 13 welds that we have heard about today, 8 in Fairbanks and 5 in Valdez.

I would like to point out that we have these master records filled out by your witness Y and I am not under any obligation to keep secret the identity of witness Y because we have known who he is all along—his name is Richard Farris. He filled out the reports at the end of the

assembly line. These reports were collected by Bechtel the next day and we have a copy of those reports because they were also used for billing Alyeska for the work of the radiographic contractor. Therefore, there is no way that Mr. Farris could go back retroactively and alter those records to take care of any shenanigans that he apparently now admits to. These reports were used to pay the contractor.

We are currently engaged in document reconciliation from weld No. 1 through weld No. 14,000 whatever it is. Each time a weld is indicated as having been rejected and having therefore acquired the suffix R, that weld will be tracked all the way through until it is either cut out and disappears or Mr. Farris indicates that he has an acceptable radiograph for it. We will then take a look at all of the radiographs of the welds that had any repair activity done on them and we will attempt to make a judgment as to whether that repair film matches the original film. It is not going to be an easy job but obviously it has to be done.

Now we had come up this morning or a few minutes ago the problem of fingerprinting machine welds versus that of a manual weld and I would like Mr. Wormeli to talk just a few minutes about that.

John.

Mr. WORMELI. Thank you.

The fingerprinting operation which we have all heard discussions on today is considerably different with the double jointed welds versus the shielded metal arc welds which were called field welds. Automatic submerged arc welding which was done on the double jointers, there are either three or four passes. The last pass on the outside is ground off so we eliminate what we call in the field weld the tie-in area or the button.

However, there does remain a ground area. It does not impinge on the base material but there is a ground area which may be discernible on the radiograph. On the inside, however, we put a man on the inside of the pipe which is the last weld pass that is made on the pipe. There will be a button, if you will, that will remain. So those are two discernible features which would be able to be identified on a radiograph along with the two longitudinal seams. The fingerprinting of double jointing welds is possible using different characteristics because we are talking about a welding procedure which is totally different in its characteristics.

Mr. BROWN. Is it possible that in the repair necessary on only a portion of that machine weld radiograph neither that inside button nor the seam weld or anything else would show up?

Mr. WORMELI. Yes; that is totally possible. It would be between these areas I have just discussed and the 17-inch film may not cover any other distinguishable feature about that weld and at that time you could only go by an exact overlay, the weld pass pattern, if you will, to determine whether or not you are on the right weld.

Mr. BROWN. What about variations within the consistency of the weld itself?

Mr. WORMELI. The density of the radiographs are controlled fairly closely. However, I would not want to use a density requirement as a first resort. Maybe as a last resort but certainly I would not use density as a main criteria of saying yes, this is the weld in question.

Mr. BROWN. But you think you could make an overlay? If you did not have those benchmarks, could you use an overlay?

Mr. WORMELI. It is totally possible to do that as each repair has some different individual characteristic about it—the weld pass, the width of the weld in relation to where it ties back into the automatic submerged arc weld. It is possible to distinguish that without the other characters that I named.

Mr. PATTON. John has said that this is possible. It is not nearly as simple as fingerprinting manual welds.

Now to get down to Mr. Dirk, who is the accused in this particular case—

Mr. DINGELL. Mr. Patton, nobody is accused in this particular case. We are trying to find out what the facts are.

Mr. PATTON. He is the one we have been told the witnesses named as being the planner of the scheme. Now Mr. Dirk was not in a line position with Bechtel. His position with Bechtel was a level 3 radiographer and he did the qualification test on the people that Bechtel and the various radiographic contractors brought to the project. He had no line responsibility in the shop. Neither Bechtel nor Mr. Dirk himself was in a position to fire Farris.

Local 2 would have raised assured hell if Farris had been fired on some charge such as has come up here. In keeping with some of the other witnesses today, I am somewhat disturbed by the tone of this staff report and the staff letter; for instance, characterizing one of Alyeska's several labor relations specialists as a high Alyeska official.

I would also like to set the record straight that John Waldrip is continuing to work for Alyeska and is in no danger of being discharged for his failure to report this casual conversation with Don Olive to either me or one of his superiors. I can testify that in labor relations work rumors and hearsay are the order of the day, not the exception.

We will try to answer any questions you might have, Mr. Chairman.

Mr. BARRETT. At this point, Mr. Wormeli, what you are saying is fingerprinting may be possible, you don't know, but in addition to fingerprinting you will be doing an overlay to determine whether or not to monitor the  $x$  number of original rejects there may have been falsification of.

Mr. WORMELI. Fingerprinting is possible of submerged dark welding. You have less characters to work with, less individual characteristics of the weld, but it is possible to fingerprint double jointed welds.

Mr. BARRETT. That process is going on now.

Mr. WORMELI. No; to my knowledge it is not going on now.

Mr. BARRETT. Mr. Patton, can you testify what is being done at this point or is it just a matter of getting the records straight or what?

Mr. PATTON. In reference to what?

Mr. BARRETT. When you testified with respect to getting the original certifications of the daily sheets and so on by some examination of the X-rays going on at this point.

Mr. PATTON. We are going to close the loop on the available paper trail first and during this time the people with the necessary technical qualifications will be looking at what can be done on this so-called fingerprinting because if it has to be programmed and put on machines again in order to make the comparison of the large number of films,

this program will take some time. This does not come at the right season of the year. We have already started demobilizing a large number of people on the pipeline portion of the project and a large number of others are either on or hoping to go on their first vacation in a couple of years so I am not promising instantaneous response to this but it will be done.

Mr. BARRETT. I understand it is your statement that Bechtel was not in a position to fire a particular witness but isn't it a fact that the Bechtel man was the one who certified Mr. Farris as an acceptable level 2?

Mr. PATTON. Mr. Dirk's responsibility was to certify radiographers who came on the job or interpreters who came on the job after Mr. Dirk was there. Now Mr. Farris happened to be there before Mr. Dirk.

Mr. BARRETT. Could he have made life miserable enough to require him to be recertified?

Mr. PATTON. Well, he could but Mr. Dirk happened to tell me in the last 24 hours that he regards Mr. Farris as a technically very-qualified interpreter. He didn't say anything about his morals though.

Mr. BARRETT. Well, you know Mr. Farris from the situation on the field weld problem; is that not correct?

Mr. PATTON. You mean would I know him personally?

Mr. BARRETT. No; I mean you know about his involvement.

Mr. PATTON. I read the transcript, yes. We asked the questions in the transcript. That was our lawyer asking the questions about double jointing in the transcript, not the defendant's lawyer.

Mr. BARRETT. You are talking about the deposition to which Mr. Frizzell referred?

Mr. PATTON. The deposition in the so-called *Ketchbaw* case. That was our counsel asking those questions about double jointing.

Mr. BARRETT. But you are aware of an allegation that Mr. Farris was involved in the duplication of X-rays on the main line?

Mr. PATTON. I am aware that he makes statements in there that he thought hanky-panky was going on but he disclaimed any active part in the planning of it or, you know, he was looking the other way rather than taking an active part in it.

Mr. BARRETT. He was listed in the September 26 report?

Mr. PATTON. September 26?

Mr. BARRETT. September 26, 1975.

Mr. PATTON. I would have to go back and look at that report.

Mr. BARRETT. Well, at that time he had not been interviewed by Alyeska; the only interview was in the *Ketchbaw* suit?

Mr. PATTON. Our counsel interviewed him prior to the deposition and interviewed him again in October of this year. Now those two interviews I mention have not gotten down to sworn statements yet.

Mr. BARRETT. It is also your testimony that there were two audits done in 1975, in May and June, the first being in quality control and the second being in quality assurance with respect to the double joints.

Mr. PATTON. I think the order was the reverse of your dates. I think the quality assurance audit was in May of the work that had been done up to that time and the quality control audit was a closeout operation, closeout type audit, and it was that closeout audit which disclosed the fact that we were missing eight X-rays of the Fairbanks production.

Mr. BARRETT. And at that point you were not looking for falsification.

Mr. PATTON. No; we were not.

Mr. BARRETT. So it is quite possible that that would have slipped by your quality control and quality assurance audits.

Mr. PATTON. Well, it is quite possible, yes. If you have ever read a financial audit report, the first page is almost a full list of qualifications as to what the audit can find and what it will not find, and one of the statements that the Arthur Andersens of the world make is that if enough people collude, anything can be falsified. I think you found that recently in some rather high levels.

Mr. BARRETT. Well, it is your testimony today that Alyeska is undertaking action to identify the problem, if there is a problem, with falsified films. Will Alyeska be reporting back to the subcommittee?

Mr. PATTON. We will report back to the agencies that monitor our work and we will copy that to you.

Mr. BARRETT. To the Departments of the Interior and Transportation?

Mr. PATTON. Right.

If I might make one gratuitous statement here, Mr. Chairman. This is a free enterprise project and I am sure that not only Alyeska but the owners could do with fewer statements by unqualified people suggesting an infinite delay or even 1 year's delay in the completion of this project. I think that that type of statement by people who have never done a lick of work on the pipeline is an injustice to the investors in the pipeline. I am not just talking about the owner companies of the pipeline, I am talking about the people in the street that put up their money either for shares of stock or bonds on the pipeline. I think we can do with a lot less of that type loose talk.

Mr. BROWN. Do you want to spell that out a little bit more? Are you suggesting, Mr. Patton, that such things have an impact on the capacity of the investors to borrow money for the pipeline or to pay off the cost of the pipeline? Do you have people work there? I am not sure I know what you mean.

Mr. PATTON. I am not a financial expert, Mr. Brown, but based on the telephone calls that I got last night up until about 9 o'clock the answer to your question is yes.

Mr. BROWN. Which part?

Mr. PATTON. The question about whether it makes it more difficult to raise the money or it increases the reluctance of investors to put up the money, the answer to both of those is yes.

Mr. BROWN. Is that process still ongoing?

Mr. PATTON. Yes; it is and it will be ongoing. There will be no positive cash flow from this project even after oil starts until we get the rate up to quite a high level. The other thing is I think you can go back and look at the stock market during the period of hearings on his project and the wedding last summer and see what happened on the stock market to the owners.

Mr. BROWN. I really don't know what did happen. Would you tell us?

Mr. PATTON. It went down.

Mr. BARRETT. I think we ought to make it clear the problem with borrowing money is because of the disclosure—

Mr. DINGELL. I think we are getting far afield. It is not the concern of this subcommittee who is borrowing or not borrowing or anything of that sort. Mr. Patton has been heard because he has very direct and broad interest in this matter and he was present in the room.

The hard fact of the matter is that the subcommittee has received, I think, substantial allegations under oath with regard to falsification of X-rays. The Chair was concerned and the Chair is still concerned. This brings up the question of quality control. It brings in the question of whether or not the rules laid down by Interior and the statutes of the United States, are being properly complied with and so forth. It also raises questions as to the integrity of the process wherein the Government is reviewing or supervising the construction of the pipeline.

I believe the Chair has properly seen to it that these matters have been gone into by the subcommittee and I suspect that we all have a chance to sit down and to judge what has been found, what the facts are, whether there are corrective actions necessary and what those corrective actions might in fact be. One of the corrective actions that I can think of—you have indicated you are going to take, Mr. Patton—is to see to it that your company goes into these things and to see to it that you do have acceptable welds and the facts are laid to rest as to whether or not you have satisfactory welds with regard to these double joint welds.

That is one of the goals of the Chair. That is one of the reasons that we are convened today, to inquire into these matters.

Do you have any further comments to make?

Mr. PATTON. No, sir.

Mr. DINGELL. I guess as long as we are together in the room that I ought to observe that the Chair will maintain a continuing interest into the welfare of persons who testify before this subcommittee, including those four gentlemen who testified before us on Friday last. I would assume that no action will be taken against them by reason of their testimony here. Am I correct in that matter, Mr. Patton?

Mr. PATTON. Are you talking about Mr. Farris?

Mr. DINGELL. I am talking about any of the four witnesses who appeared here before us Friday last.

Mr. PATTON. We don't usually discharge people unless they have been guilty of active misconduct in the form of fighting, being drunk or being convicted of a crime. If the FBI comes up with something on these people, I can guarantee you that Alyeska will not offer any defense for them.

Mr. DINGELL. Well, of course the question here is as to their testimony as opposed to being convicted of crimes or something of that sort. I am sure you understand the subtlety of the difference.

Mr. PATTON. Intent to defraud somebody is, I guess, still a crime, is it not?

Mr. DINGELL. Is Mr. Dirk available for us to have our staff talk to him?

Mr. PATTON. Mr. who?

Mr. DINGELL. Mr. Dirk.

Mr. PATTON. Mr. Dirk is in the city; yes.

Mr. DINGELL. He is in the city? We would like to have our staff talk to him to ascertain what the facts are there as part of the continuing inquiry of this subcommittee into this matter.

I will have Mr. Barrett or Mr. Stockton or one of our staff be in touch with you or whomever you designate for purposes of seeing that Mr. Dirk does cooperate.

Mr. PATTON. Mr. Dirk no longer works for Bechtel, he now works for a contractor on the North Slope, and I cannot control his movements. If you want to talk with him, I think you would have to arrange it very quickly.

Mr. DINGELL. We shall try to do so.

Anything else?

Mr. BARRETT. No.

Mr. DINGELL. Anything else, Mr. Brown?

Mr. BROWN. No.

Mr. DINGELL. Gentlemen, thank you.

If there is no further business to come before the subcommittee, the subcommittee will stand adjourned.

[Whereupon, at 2:25 p.m., the subcommittee adjourned.]



