

TETON ORAL HISTORY PROGRAM

Ricks College
Idaho State Historical Society
History Department, Utah State University

TETON DAM DISASTER

Jay Calderwood

Interviewed by

Alyn B. Andrus

June 24, 1977

Project made possible by funds from the

W.K. Kellogg Foundation
Idaho State Legislature through the
Idaho State Historical Society and
National Endowment for the Humanities

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UTAH STATE UNIVERSITY & RICKS COLLEGE

HISTORY DEPARTMENTS

COMMUNITY IMPROVEMENT THROUGH LOCAL HISTORY

ORAL HISTORY PROGRAM

INTERVIEWER AGREEMENT

In view of the historical and scholarly value of this information contained in the interview with J. Calderwood, I, Alyn B. Andrus
 (name, please print) (interviewer, print)
 knowingly and voluntarily permit the Milton R. Merrill Library at Utah State University, the David O. McKay Library at Ricks College, and the Idaho State Historical Society at Boise, Idaho, the full rights and use of this information.

Alyn B. Andrus
 Interviewer's Signature

June 24, 1977
 Date

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INTERVIEWEE AGREEMENT

You have been interviewed in connection with a joint oral history program of the History Department, Utah State University, Ricks College, and the Idaho State Historical Society. The purpose of this oral history program is to gather and preserve information for historical and scholarly use.

A tape recording of your interview has been made by the interviewer. A verbatim typescript of the tape will be made and a final typed and edited transcripts, together with the tape will be made and a final will then be filed in the Milton R. Merrill Library Special Collections, David O. McKay Library at Ricks College, and the Idaho State Historical Society in Boise. This material will be made available according to each of the depositories' policies for research be scholars and by others for scholarly purposes. When the final transcript is completed, a personal copy will be sent to you.

* * * * *

In view of the historical and scholarly value of this information, I, Jay M Calderwood, do hereby assign full (please print full name) and all rights of this material to the Merrill Library at Utah State University, to the Library at Ricks College, and to the Idaho State Historical Society at Boise, Idaho, for scholarly purposes according to each of the institutions governing policies.

J Calderwood
Interviewee's Signature

June 24, 1977
Date

ORAL HISTORY

INTERVIEWEE: Jay Calderwood

INTERVIEWER: Alyn B. Andrus

DATE: June 24, 1977

TETON DAM DISASTER

A: Mr. Calderwood, would you please spell your name?

C: Jay Calderwood.

A: What is your birthdate and where were you born?

C: I was born August 31, 1936, in Idaho Falls, Idaho.

A: Where did you live when the Teton Dam broke and what is your current address?

C: I lived in Victor, Idaho, and that is my current address.

A: What do you do for a living?

C: I work on heavy construction.

A: Do you operate equipment?

C: No, I'm a general foreman, superintendent on earth work.

A: Would you mind naming some of the projects you recently worked on?

C: I worked on the Ririe Dam and I worked on the Teton Dam since it first started. I am working on the American Falls Dam now. I've also worked on several road jobs.

A: Would you describe what your job was in helping to build the Teton Dam?

C: I was a general excavation foreman. It was my responsibility to help the superintendents take care of all the earth work that was done on the Teton Dam.

A: The men who operated the equipment which brought the material to the dam, did they work under your supervision?

C: Yes, but only part of them. We had two shifts working on the dam, one of them filling the dam with earth and rock. Part of these worked under my supervision.

A: Where were you when the dam broke?

C: When the dam gave away, I just barely backed a cat out of the way.

A: You were at the site the day the dam failed?

C: Yes. I was home on Saturday. We don't generally work on Saturdays unless something special comes up. They called me about 10:30 and told me they would like me to come out, because the dam was leaking. I jumped in my pickup and drove out there. I arrived at the dam at about 11:30 in the morning. I came around the corner and could see water leaking about half up the dam, coming out the downstream face. I said to myself, "It looks bad! I don't think we can stop it!"

I drove over on the top of the dam. The excavation superintendent, John Bellegante, was there. They had two nines so I crawled onto one of the nines and started pushing riprap into a large whirlpool where the water had been sucked down into the hole. We started pushing this large riprap into this whirlpool hoping to plug the leak down below. We worked there for probably twenty minutes or so. It was quite frightening. We knew it was dangerous, but we kept pushing the rock hoping that it would stifle the leak. Finally, Mr. Bellegante said he felt the dam settle so he waved us back. There were two of us on the dozers. We backed up on top of the dam. We were backing across the dam and had the dozers in reverse when the dam fell through. It caved in right in front of us. While we were backing away, we kept thinking it was going to cave in behind us and take us with it. But it never did.

A: You were pushing riprap into the hole?

C: Into the whirlpool.

A: So that would be on the side of the dam where the reservoir was?

C: Correct, the upstream side. The water was within about 30 feet at the top.

A: How far down the dam were you with the machines?

C: About 30 feet off the top. We were pushing it right to the water's edge and then pushed it out into the whirlpool.

A: Would you explain what riprap is?

C: Riprap is a large three foot maximum rock that is placed upstream on the dam to prevent washing and erosion of the material that was there.

It was a protective cover to keep the water from washing away the dam.

A: This was the north side of the dam?

C: Yes, the upstream side where the lake is.

A: It was on the north side of the canyon?

C: Yes.

A: When you were told to back up and get away from the whirlpool because the dam was settling, which way did you back up your tractors?

C: We backed up and headed them south.

A: The tractors were not lost?

C: Not the two that we were operating. We lost two downstream earlier, working where the water was coming out.

A: Would you explain how large a nine is? I assume the nine is a caterpillar.

C: It's hard to explain how big a D-9 is. For most of us a D-9 is about the biggest crawler tractor they make in this area. They do make bigger ones, but they are used for mining purposes and you won't see them in this area. The dozer is about fifteen feet wide and five feet high.

A: How much would a D-9 weigh?

- C: Probably 75,000 pounds or more. It depends on the type of equipment added on, rippers and dozers.
- A: What size were the tractors working downstream that day?
- C: One was a D-8 and one was an International TD-15 which are smaller than the D-9.
- A: Were those tractors working about the same time that you were working with your tractors on the other side of the dam?
- A: They were working previously to when we got started. They had been working and were lost before I even got to the dam. That would have been prior to 11:30.
- A: The whirlpool must have been a good sized whirlpool.
- C: Yes, it was. You couldn't hear much because the sound of the dozers overwhelmed it. It was about thirty feet in circumference and had a funnel shape in the middle that was about six feet deep. It wasn't level across.
- A: Weren't you nervous?
- C: I'll say I was nervous. Every pass you would wonder if it would be the last one. When we got on the dam, it was already bad and water was gushing out quite fast. It was right below us and we knew we were working right on top of the leak. All kinds of things go through your mind when you are working like that.
- A: Where were you when the dam failed?
- C: I was probably about thirty feet from it going back as fast as I could. We barely got on top of the dam with our dozers and started back when the top fell in. The leak started in the dam and it kept getting bigger and bigger and then settled. I'm sure this is probably what John Bellegante meant when he felt it settle. That's when we started to move. We got on top and the dam started breaking away. The top fell clear in. It wasn't

too wide at that time. I was too frightened to remember, but it seemed like maybe thirty or forty feet across after the first cave-in. A few seconds later, it started to cave in more and got wider and wider. By the time we realized we were safe, the gap was probably a hundred feet wide.

A: As the dam collapsed, what did the water sound like?

C: When it collapsed right in front of us, we couldn't hear it because of the dozers. There was an awful lot of dust and where this dust came from I don't know. There seemed to be a big dust storm when the dam caved in. It was either dust or a water spray, I don't know which. I never paid that much attention, I was too frightened. There was a spray when the top fell in. As we backed up and shut off our dozers, we realized we were safe. Then there was this tremendous roar and a snapping, cracking sound.

A: What were your thoughts at the time the dam collapsed and the water went pouring through the gap?

C: We got so we could stand up without leaning on something for help. We watched it engulf the powerhouse. I couldn't believe it. I grew up with that dam and worked on it right from the beginning. You couldn't imagine a big project like that being washed away so rapidly when it took so much pain and effort to put it together. I just couldn't believe it. I could see water rushing down and mowing over trees and everything down in the canyon. You knew it was going to raise havoc in the valley. You just couldn't believe it. I still can't believe that it washed out.

We wondered if they got word out to everyone below. We talked about that several times. We wondered if everyone would have time to get to

safety. The water was not deep immediately, but within about thirty minutes the water was approximately eighty feet deep going down the canyon wall. Those big cottonwoods were falling like you were mowing a field of hay. It just leveled them off.

A: Before the dam began to fail, did you ever have any doubts about how stable it was?

C: No. I stood right there and saw it wash away and still couldn't believe it. I've heard guys joke about it, but no way did it ever enter my mind that it could be possible. When you work with something like that and help put it all together, you can't imagine it. I never dreamed that it would wash away.

A: Before you started this interview you mentioned that a few days before the dam failed, leaks were noticed downstream from the dam. Did these leaks cause you to feel like maybe a mistake had been made in building the dam and that maybe it wasn't as safe as it should be?

C: No way. I helped build that dam. I know there were no mistakes made. The leaks on this dam were something that all dams have. Some right now are leaking and have been for forty years. The water was clear downstream where a small stream was coming through the rocks. I did not think that it would weaken the dam.

A: You didn't hear anyone, who worked on the dam, express any concern about these leaks and the safety of the dam?

C: They talked about the leaks, sure. Everybody said it started leaking downstream. Anybody that worked on the dam or worked on any other earth project was not worried. In fact, I don't know of anybody that thought there would be any possibility that the dam was washing out. I don't know of anybody at all that would dream that it would wash away.

- A: You mentioned that there were two tractors. What was the name of the man who was operating the other one?
- C: It was Owen Daley. He was also working on the American Falls Dam, but he died about a month ago with a heart attack.
- A: Do you know the names of the men who were operating the two machines on the downstream side of the dam?
- C: I believe Owen was one of them and Jack McGraw was the other one.
- A: You mentioned that you have worked on the Ririe Dam. Do you feel that it is safe?
- C: Definitely, yes! There is no reason why it shouldn't be.
- A: Was the Ririe Dam built essentially the same way the Teton Dam was built?
- C: I'm not familiar with that because I worked on the preliminary construction of the Ririe Dam. When the Teton Dam was started I moved over there. They were built at almost the same time. They were built similar as far as my knowledge goes.
- A: Why do you think the dam failed?
- C: I've wondered about that many times. I don't know. I worked with it day after day, sweat and blood and tears and sleepless nights. You know you've done a good job and you try and think back, what may have caused it? I can't answer that. I really don't know. As far as I know, everything was done the best it could be done. That is something that I don't believe they will ever know.
- A: Do you feel that the materials were good that went into the construction of the dam?
- C: Yes. I can vouch that the material has been put in there correctly. The Bureau made sure that it was. For instance, the dirt that was in there. If there was proper moisture but didn't have the proper compaction, then you dug it out and did it right until it passed the compaction test.

The Bureau tested everything, pouring concrete, pouring grout, putting in rock or gravel, everything. It was tested many times to make sure that it was done right. Anybody that worked on the dam couldn't believe it washed away like that.

A: Did you have anyone in the valley that was flooded out?

C: There were several people that worked on the dam that got washed out.

My boss, excavation superintendent John Bellegante, got washed out.

His home had been washed away when he was up on the dam. My wife's folks in Roberts were flooded out.

A: You said that Mr. Bellegante was supervising the attempts to put riprap into the whirlpool and ordered you and Mr. Daley to back the D-9 cats back up the dam because he felt the dam settle. Do you know about how much the dam settled before he gave that order?

C: No. We couldn't feel it settle on a cat and on that rock. He mentioned later that he felt it settle about five feet. That's when he waved us back. He waved his arm and we knew we were in trouble. When he waved his arm we naturally knew to get out of there as fast as we could and that's all we did.

A: You were glad to put those things in reverse then?

C: Yes, you bet. We knew we were in extreme danger when we were there, but who was going to be a coward and be the first one to quit?

You like to do as much as you can. We knew if we didn't get it stopped what would happen.

A: As you backed the cats up the dam, could you see material sluffing off into the opening under the water?

C: No, we couldn't. There was about thirty feet to the top of the dam. We backed up. It was a pretty steep slope so it was in first gear and it was pretty slow. As soon as we got on top, I started straightening out our cats and backing up. That's when the dam fell in. It was a matter of seconds.

A: Do you think the Teton Dam should be rebuilt?

C: Yes. They should be doing something out there now. If we would have had a normal snow pack this year, it would have flooded a lot of those people again. That was the primary purpose of the dam. The condition of the canyon and river bottom are just awaiting another disaster by letting it stand there. Ever since we had that dam about twenty feet high, we've stopped floods in the spring. Four years in a row we stopped flooding because we had it high enough to stop the water. They are going to have to do something there. We need the water, the power, and not only that, the people down below need something to stop this flooding. I definitely know that it can be built safe.

A: Thank you, Mr. Calderwood.