- MG Okay, it's November 1, 1988, speaking with Mr. Everett Willard at the State Agriculture Department in Montpelier. Let's start with you stating your name and telling me who you are and where in Vermont you are from.
- EW My name is Everett Willard. I work with the Vermont Department of Agriculture. I was a farmer and lived in Derby, Vermont. That's up on the Canadian border. Milked cows and I sold the cows to become Master of the Vermont State Grange and after I sold the cows I found out I'd been allergic to hay dust so I never bought them back. And that's a bit of my history.
- MG How long had you been in farming?
- EW All my life until then.
- MG Was it a family farm?
- EW No. I had farmed with my father up until ten years prior to that and then I bought my own farm.
- MG Now we want to talk specifically about bulk tanks today. I assume and from what you said before, I gathered that as a farmer you were, you were active as a farmer at the time when the switch from milk cans to bulk tanks happened?
- EW I was producing milk from around 30 cows and obviously as most every other dairy man was at that time, my production was expanding and I was in the very fortunate position as compared to some other farmers in that I had boosted my production to the extent that the can cooler which I had to cool milk at that time was too small. And it wasn't able to accommodate the production that I had so I was going to have to buy a new milk cooler anyway and I obviously would have bought a new larger, probably a fifteen or twenty can milk cooler. And when the opportunity came along and it was an opportunity for me to put in a bulk tank, what it amounted to was I got my tank paid for. In other words, it didn't cost me anything because when they started using bulk tanks, they paid a premium on milk for the milk that was in bulk tanks. And the reason that they did this was, was the only way they ever would have got the bulk tanks established. And most of the advantage of the bulk tank at that time would have been for the purchaser of the milk. And they, it was kind of a long range deal. I'm sure that when they first started picking up milk with bulk tanks, it cost them more than it would have with the cans because there were already established milk routes where people were picking up milk in cans and then they had to send these bulk tanks

out to pick up milk from just a few producers and obviously that number grew and it probably wasn't very long that it was a financial drain, but it was for a little while. And in order to encourage people to put in the bulk tanks, they did pay a \$.25 per 100 premium for milk that went in the bulk tank. So that's how I happened to be one of the very first ones to put a bulk tank in.

- MG So it was the dairies then that it, you're saying that initiated bulk tanks in most cases?
- EW Yes.
- MG Tell me why they preferred that system? Let's try to explain this to somebody and you are explaining to somebody who really doesn't know anything about it.
- EW Well there were some advantages obviously and having the milk in larger quantities and doing away with that ten gallon can that milk had been transported in until the bulk tank came along. There were some efficiencies for the milk handlers, you call them dairies. At the time, my milk was going to H. B. Hood in Newport, Vermont. And there was obviously some savings to them in handling milk in these quantities.
- MG Was it at all an issue of sanitation? Did that have anything to do with it?
- EW Well yes, I expect it did. I'm not, I don't remember for sure if that was a big issue at the time. However, I know that the milk was better because it was cooled instantly. And what was happening with a lot of milk it was getting into these cans and they'd take it out and it would be, by the time they ran around and picked up milk by cans, it was quite awhile before it would get to the creamery. And some of it was warming up even though they did have regulations that the milk had to reach the creamery at a certain temperature or they wouldn't accept it. I'm sure the quality of milk improved with the bulk tank and that was something that was hard to sell to the farmers because we'd always been told not to mix hot milk and cold milk and here we were doing that in the bulk tank. bulk tanks, the milk was being cooled almost instantly.
- MG The hot milk being directly out of the cow and the cold milk, the milk that was already in .

- EW In the tank, yea, yea. But it was being agitated all the time it was being mixed and it, well in my case, that cooler would shut off half an hour after I was done milking, it would shut off and it had cooled the whole volume of milk back down to the minimum temperature which I've kind of forgotten what it was now.
- MG Whose regulations were these? You said that there were regulations first about milk when it was still in a ten gallon pails. Were these state or were these the handler's regulations? Can you give me a little background about that?
- They would be both. Probably, probably prompted by state regulations and not only Vermont State regulations, Boston regulations as well.
- MG Do you know when the state first started regulating dairy?
- EW No I don't. No. You could get that information from the Dairy Division. They had regulations as long as I could remember because milk inspectors used to come even when I was a kid, they used to come to our farm and inspect it. And that would go back, I'm 69 years old tomorrow as a matter of fact. So they've have regulations for a long time.
- MG Can you describe sort of picture, since this is for radio so people can get an image of what this is like, first of what gathering milk with the ten gallon cans was like, what the whole process was step by step?
- EW Well you would milk the cows and of course originally they were milked by hand, in milk pails and the milk would be carried to the milk house which was not always attached to the barn, sometimes there was a another little building right close to the barn. More often it was either part of the barn or attached to it. And there you would pour it through a strainer into the milk can and as soon as you got a milk can full, you would set that milk can down into the cooler which is water that was cooled down with, some of them had ice banks, I thought probably most of them had ice banks around the edge of the tank and that kept the temperature of the water down just above freezing and you would put it in there so it would be cooled as rapidly as possible. Put the strainer on another can and start over. And then when milking machines came along, the milking machines were pail type milkers that you sat on the floor beside the cow and you did basically the same thing. You might dump the milk from the milking machine pail into another pail to carry it to the milk house, but it was

basically the same operation as far as handling the milk is concerned. And people who didn't have electricity, not too long before that time, they would cut ice or somebody would cut the ice and they would pack it in sawdust and they would take that ice out and put it in this tank. Then some of them were nothing but a cement tub that they would put a hunk of ice in and cool the milk in that. Then prior to that time, there was a little, I'm not sure how much milk that got cooled right in the spring. fact, we were not a very big dairymen when I was growing up and we were able to get by without putting up ice longer than some people because we had a spring that was down over the bank that had a real stream of water running And you, in fact it came in so fast you couldn't into it. dip it dry in that we could cool milk down below 50 degrees by sinking the milk cans in that spring. And the milk truck drove right down there and picked it up and for, I don't know a couple of years anyway, we were able to cool the milk that way and then inspection regulations didn't allow that anymore and so we had to put up ice and cool it the way other people did.

- MG Do you remember about when the milking machines came in?
- EW Oh they came in gradually. They had milking machines back I expect before I was born. I don't know how successful they were, but when they really came into prominence was oh, during World War II when labor was short. And there was a lot of milking machines before then, but anybody that didn't have them at that time, most of the farmers that had very many cows to milk put them in. But I'm sure there was a lot of them prior to World War II.
- MG And again, when was the switch over to bulk tanks?
- EW Well, I bought my farm in 1953 and I think that was, I'm guessing now, but I would say probably around 1954 or '55.
- MG Now you described the ten gallon can process, what about the bulk tank process, how did that change things? How did it change the farm and the process of gathering milk?
- EW Well there was quite a change. Back when the milk was picked up in cans, it was picked up every day and a truck had to travel the back roads of Vermont to pick up that milk and all of those roads were not in the best of conditions. And sometimes it was a problem of trucks getting through mud and snow and so forth and of course that didn't go away when the bulk tank came because actually the trucks were probably heavier than the truck was with the milk cans. But they did pick up milk only

every other day with the bulk tank and there again was another savings. You could transport the milk cheaper than you could doing it every day. The bulk tank when they would come with the truck to pick it up, they just attached a hose to the bottom of the tank. They agitated the milk and then before they agitated it, they would take a reading because there was a calibration stick in one end Some of them were in the center. And those of the tank. had been calibrated by the Department of Agriculture and they'd take a reading to see how much milk was in there. And then they would start the agitator and mix up the milk so the cream would as you know would be on top and then that was pumped into the bulk tank. Then they would rinse out the bulk tank and the farmer had to wash it out. think the biggest problem as far as bulk tanks was concerned was really the cost of them plus, many farmers had to do some rebuilding of their milk house in order to accommodate the tank. And those two things made it expensive. A lot of farmers who were relatively small, especially the ones that were relatively small, sort of resented having to do this for economic reasons. few of them went out of business rather than put in the bulk tank when we'd reached the point where you had to have a bulk tank or you couldn't ship your milk. say you couldn't ship your milk, I mean because there was nobody to, to pick it up. Eventually after most everybody got bulk tanks, they wasn't going to run a truck off up on the back road somewhere to pick up two or three ten gallon tanks of milk and those farmers went out of business. shouldn't say it that way, they probably did something else, but they stopped milking cows or shipping milk And then the other thing that happened I think it also probably encouraged some farmers to get bigger who did have the bulk tank. I can point to myself. handicapped at a point because I couldn't put any more milk in that cooler and once I got the bulk tank, why I bought one big enough so that I could triple my production and still got it in the tank. And that's still going on You see people that got a bulk tank and they have to take it out and get a bigger one.

- MG So those farmers who were opposed, were opposed on economic, for economic reasons?
- EW I think primarily any opposition was economic.
- MG Was there opposition that you know of that had to do with this was changing the way of life or the way of farming or this represented some threat to those kinds of things?

- EW Not other than the fact that the economics of it was disrupting their farming.
- MG Now, I had understood that the whole movement toward bulk tanks came from dairies or milk handlers that were out of state? Is that, do you know anything about that? That it began with Massachusetts Milk Handlers?
- I would expect that was true. I've kind of forgotten now. There again, that would be another big savings in shipping that milk in bulk tanks and in many instances at least later, maybe at that time when it first started it didn't, but some of the tanks went right direct to Boston.
- MG Okay now as you were just describing it, the bulk tanks took over simply because that was the only way to store your milk because that was the only way it was picked up. But was there a time when that was actually regulated when it became required for farmers to have bulk tanks?
- I don't think it is even today as far as the regulation is concerned. I may be wrong on this if you want to check but I believe that Cabot Creamery still buys milk off from one or two producers in cans for some specific reason. I don't know exactly what that reason is. It's something involved in the cheese making. It might be interesting if you'd check with them. And that may not any longer be true, but it was a couple years ago because I knew one of the parties that shipped milk to them in cans.
- MG So then as far as you know there is no State regulation that you must use a bulk tank?
- EW As far as I know there isn't. You see that would have been one of the other criticisms as far as farmers were concerned in terms of everybody's milk was getting mixed together because when they come to pick up the milk, they, everybody's milk was pumped into the same bulk tank and it got mixed together. So if you had milk that didn't meet sanitary requirements or requirements as far as bacteria was concerned, it was mixed right in with somebody else's. And that's still true today and that's probably one of the liabilities of that system is that if a, you had some milk that had something in it that shouldn't be there, then you've got a whole tank load of it that's contaminated rather than just a bulk tank full of it. I think that it's not a big problem, but occasionally through the error on the part of a farmer there might be some antibiotic that was in the milk and that's just not allowed and that milk would have to be destroyed or used for some other purpose.

- MG So in your view was the bulk tank an asset to the farmer, an improvement to the farmer?
- EW In the long run, I guess you would say that it was. of us get sort of set in our ways and we hate to see things change and you hate to think that you're forced to get bigger, but if you want to carry that to its ultimate conclusion as far as thinking was concerned, if you want to go back to pre-World War II days, then the number of farmers that it took to feed this nation, if we hadn't been able to free up a lot of that agricultural help through modern improvements, we wouldn't have been able to had the people to work in all the defense plants to produce all the arms that was necessary to defeat Hitler and Japan. We would have probably been beat in World War II and the whole course of history would have been And I think you can attribute quite a lot of different. that to the fact that agriculture was on the move in this country and we didn't need all those people on the farms to feed the people and it freed them up so they could go to work in defense plants. And the same thing is going on today. Of course, probably there's a boundary there somewhere which you'd hate to see them cross. In other words, you'd hate to reach the point where all the food in the country was produced by one farm. But, and obviously, But, this revolution is still going on you never will. and it's certainly unfortunate for the ones that get forced out, but you can't stop progress even though you'd like to and sometimes it's questionable what's progress so. (LAUGH)
- MG What did it cost back then to put in a bulk tank? Approximately?
- EW Seems though the one I bought cost me about \$3,000. But...
- MG And what share of a farmer's annual income would that represent?
- EW Well that would vary like hang, because farmers incomes varied like the devil.
- MG Uh huh.
- Probably at that time, that would have been equivalent to a year's net income on some farms. But there again, I bought a tank that was bigger than I really needed at that time. I probably could have bought a cheaper one, but I was looking ahead so that cost could have been exaggerated

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in terms of somebody who was buying a tank that just replaced the capacity of their cooling system that they were then using.

MG How come you stopped farming?

Well, I got elected Master of the State Grange and I EW thought well, I'm going to do something I want to do for once in my life. So, I decided I'd sell my cows and I'd buy them back again after or some other cows back, after I got through term of office. I intended to just take it for two years. Well two years grew into four and as I said before, when I sold the cows, my nose stopped running and I stopped sneezing. But I used to come in from the barn every night and I'd sneeze for about an hour and it would be just clear water would run out of my nose and I'd didn't think too much about it, but just as soon as I sold those cows, that stopped until I went to move the hay out of the barn the next spring and it came back again. It was obvious that I was allergic to the hay dust and I just decided that life was too short to do anything that was going to injure your health so I didn't buy them back and I had a chance to go to work for the Department of Agriculture so I am still associated with agriculture which is the work that I like. Quite frankly, I would still rather be milking cows and working sixteen hours a day than doing anything else. There's something about it that if it weren't for that, we wouldn't have all these They aren't doing it for the money that's in it, but when I had a one man farm, probably worked more hours than the average farmer. About, it was almost like two jobs. You did your barn work and that took me three, four hours in the morning, three, four hours at night. I would say that was equivalent to one man's work. And then I went out and worked in the field for eight hours in the middle and that was a change. And I just really enjoyed I could see myself getting ahead and I could see stuff growing and I really enjoyed it but when it comes to doing something that's going to hurt your health. friend who had what appeared to a non-medical person as being similar affliction and he kept right on farming and he ended up with some respiratory condition whereby he has to keep a tank of oxygen in the house all the time. And you hear a lot of farmers that develop farmer's lung. the alternative to that probably is that I might have changed my farming methods some way and not used hay, but the particular farm that I had wasn't adaptable to, to silage.

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- EW Well I'm now the Manager of Vermont Farm Show and the Manager of the Vermont Building at Eastern States Exhibition. In between times I work with the Maple Industry.
- MG Is there anything else about bulk tanks that I ought to know?
- EW Well, yea, I think there is another factor that entered in. I think with the advent of the bulk tank and the bulk tanks getting bigger, they did put some pressure on town officials to improve the back roads of Vermont because those things are heavy and especially after the tanks got big enough so they were using semi-trailer type trucks to haul milk with and even the bridges on some of those roads had to be rebuilt to stand the loads.
- MG Did the milk handlers, the dairies contribute in any way to the cost of doing that?
- EW No.
- MG What about the farmers who were really on the back roads, the roads that were too small to sustain those trucks. Do you think that drove any farmers out of business, that they just became inaccessible?
- EW There may have been a few, but I'm not aware of any, but what the truck got up there.
- MG Okay, all that remains is for us to just sit quietly for about a minute while I record the sounds of this room, all this hissing and wheezing that the rooms doing.