ABBY JOHNSON'S

INTERVIEW WITH BOB LOUX

EUREKA COUNTY, NEVADA

YUCCA MOUNTAIN LESSONS LEARNED PROJECT

held in

CARSON CITY, NEVADA

August 31, 2011

(8:57 a.m. - Begin Tape A.)

MS. CLANCY: It is August 31, 2011, and we are in Carson City for this video project, and doing the interview today is Abby Johnson.

MS. JOHNSON: My name is Abby Johnson. I'm the Nuclear Waste Advisor for Eureka County, Nevada. And, this is part of the Lessons Learned Video Project for our Yucca Mountain work. Today, we're interviewing Bob Loux, the former executive director of the State's Agency for Nuclear Projects. And, our setting today is the old Supreme Court Chambers in the Capitol Building.

(8:58 a.m. - End Tape A.)

(9:00 a.m. - Begin Tape A-1.)

MS. JOHNSON: Bob, could you tell us how you came to Nevada, what your background is, and how you came to become the executive director of the Agency for Nuclear Projects?

MR. LOUX: Well, it's a long story, but I'll try to be brief as I can. We moved, my family, my dad, and parents moved to Boulder City in 1962 from Albuquerque where my dad worked at Sandia National Laboratories. And, he was a DOE employee at that point in time, it wasn't called DOE then, it was ERGA, or AEC, I guess at the time. And, we moved, he began working in Las Vegas in connection with the Nevada Test Site, and, so, we moved to Boulder City, and that's where I

grew up and went to high school, graduated. Then, I came to UNR and actually played football on a scholarship there for a couple of years.

But, eventually, I got a degree, and one of the first jobs I got was working for the Community Services Agency of Washoe County, which was a poverty program. And, my job was principally involved with weatherizing senior citizen, low income people's homes. We built also solar greenhouses. And, through that, kind of got involved in energy policy a little bit, including the federal funding for all these activities.

And, in the mid seventies, the Nevada Legislature created the Nevada Department of Energy, a state agency, and I was one of the first three people they hired to run and manage and set up conservation programs, alternative energy programs, all again with mostly federal money.

Well, the Agency closed down in 1981 because of the principally the Reagan budget cuts really cut off a lot of funding for all of these activities we were involved with, and the Legislature then eliminated the Agency. But, during that period of time, I was working for the director, Noel Clark. Noel had been serving as the governor's sort of Nuclear Policy Advisor since the early seventies, including such issues as the Beatty Low Level Waste Dump, some of the Nevada Test Site issues, and some of the more devious DOE

proposals to site kind of various kinds of nuclear waste storage facilities at the Nevada Test Site. And, so, I had done all of the sort of staff work with Noel. I flew with him and went on trips together, and I did most of the analysis.

He retired and went to work in 1979 for the Federal Energy, the Regulatory Commission. Let me back up. It was the Interstate Commerce Commission. And, at that point in time, then Governor List began asking about some of these issues related to Beatty and closure of the Beatty facility for low level waste, and since I was the only one that had any historical or any knowledge about this whatsoever, they began to rely on me and ask me more and more to get involved in these things.

And, during that same period of time, Congress, beginning in ’78 or ’79, began debating and contemplating putting together what eventually became the Nuclear Waste Policy Act of ’82, and I spent a great deal of time lobbying on the issue for the State of Nevada, talking to our representatives and others in Congress.

In 1981 and ’82, Governor List was defeated by Dick Bryan, the attorney general, and one of my first meetings with the Governor Elect was in this office, and he had asked me what was going on with the Nuclear Waste Policy Act, and I explained that we were a prime target, that there was money

available to set up oversight offices, and he told me, essentially directed me, to go ahead and pursue all of those things, and to begin thinking about creating an office in the State to begin monitoring, collecting the money, and beginning all the oversight activities and other things that are well established in the Act, which we did.

And, so, that was in place. I worked as a contractor to the Governor's office for a couple years. And, then, he created, through an executive order, an office within his office, it was the Nuclear Waste Project Office, which was later codified by the Nevada Legislature in 1985, which named it the Agency for Nuclear Projects, and created a Commission to oversee the office.

It was well known that Dick Bryan was fairly opposed to the whole concept, and one of the things that the Legislature did to try to keep essentially the office and him under control was to create this Commission. But, they made the formula such that the Governor had many more picks than the Legislature, and Jim Gibson at the time was the Majority Leader of the Nevada Senate, was concerned that this was going to become an anti-nuclear kind of thing, and since his company was doing a lot of work at the Nevada Test Site, Pacific Engineering, he sought to sort of try to limit control of what the agency did via this Commission, but it actually didn't work out that way. They gave the governor

three outright picks, plus the cities and the counties and the Legislature then got two additional picks to make it up seven. And, it really wasn't then the kind of Commission that I think he and some of the other members of the Nevada Senate wanted it to be at that point in time.

So, that's essentially--and, then, I was appointed Executive Director in 1985 by Dick Bryan.

MS. JOHNSON: And, when did you leave that position?

MR. LOUX: When did I leave it?

MS. JOHNSON: Yes.

MR. LOUX: I left it in January of 2009.

MS. JOHNSON: Wow, that's a long time.

MR. LOUX: Yes, I had been working essentially on the project since '78 or '79 anyway, so, yes.

MS. JOHNSON: A follow-up question. Were you involved in 1975 when the Federal Government approached the Nevada Legislature about starting to look at Yucca Mountain as a potential site?

MR. LOUX: I didn't really begin working for the State until 1976. I was aware of that, and I had several conversations with Dick Bryan about that vote. It was AJR-15, as I recall. Which was viewed by many as an invitation for them to look at Nevada for a possible repository site.

The sub-text to all that that really didn't get any

play was it was all, we were doing that as an inducement to sort of try to get the Solar Energy Research Institute that eventually went to Golden, Colorado. And, so, the resolution was designed to say if we would consider this, you will site, to the Department of Energy and the Federal Government, you will site the Solar Energy Research facility in Nevada, which of course they never did, and it went to Golden, Colorado. But, the tenor of the resolution is often bantered around by pro-nuclear people as seeing that the State originally invited DOE and the Federal Government in to look at Nevada.

MS. JOHNSON: I didn't know that, and that's fascinating because here we are a generation and a half or two generations later, and we're kind of in the same position with trying to attract functional solar to the State.

MR. LOUX: Well, it's part of, you know, it's part of the fabric of the Nevada story, as I like to call it, that there has been this sort of continual exploitation, if you would, of Nevada for various Federal Government purposes, depending on what they are, and each time, Nevada, meaning the leaders of the State, sort of began to accept the inevitability of these things happening, and, therefore, let's try to minimize the damage or get something out of it. But, in every instance, of course, the Nevada was thwarted in almost all of those things.

And, one of the, I think the lessons of the whole

nuclear Yucca Mountain Project, in my mind, is that you don't have to take what the Federal Government wants to dish out. You can stand up and fight city hall, if you will. And, even if you don't necessarily win, you and the public, citizens in general, I think acquire and garner much more respect and self-respect, maybe even if you don't win. But, it's possible to win, as I think the Yucca Mountain saga demonstrates pretty aptly.

MS. JOHNSON: Let's move on to the next question.

(9:09 a.m. - End Tape A-1.)

(9:00 a.m. - Begin Tape A-2.)

MS. JOHNSON: --Nuclear Waste Office. How did the State develop its position and maintain that position over time? Can you talk about that, please?

MR. LOUX: Yes. The development was somewhat evolutionary. I mean, there was sort of a natural feeling of opposition to these kinds of proposals from the Federal Government, and particularly this one, because of the potential far reaching impacts it would have on tourism, on gaming perhaps, and other parts of the State's economy.

Governor Bryan was opposed to the facility. He often reflected about his marches out as a school kid out to the Test Site to witness the bombs and the lying and misrepresentation by the government officials then about the harmful effects of radiation, and of fall-out, and all of

those kinds of things naturally led him to be very skeptical of the Federal Government, and also of things nuclear. But, many other State legislators and others in Southern Nevada felt the same way. The Hayes, Karen Hayes, and some of the early other leaders in the Nevada Senate and Assembly mostly were from Las Vegas, and had the same experience, and naturally, some of their families were workers at the Test Site and were exposed and died. Some of them were just in the area and suffered ill health effects. So, there was a natural feeling of being opposed to any of these sorts of things nuclear.

Keep in mind that after 1979, the whole nation changed their attitude about things nuclear as a result of Three Mile Island, and further then reinforced later by the Chernoble experience. So, there was a movement away from the seventies, early seventies when nuclear power was flourishing, and the last power plant was ’74, as I recall, to beginning to be very skeptical and doubtful. And, of course, as I mentioned, those other events really cauterized it.

But, it became clear in the beginning, the implementation of the Act, even though the governor and a lot of people were opposed, there was a feeling of let’s kind of see where this is going to go first, even though it was clear to many people, including me and others, that Nevada was

front and center in this war, and to see how they were going to actually implement the law. And, as Governor Bryan often said, you know, a governor would be hard to oppose something if in fact you had this regular, very transparent, scientific process where your state was compared fairly against everybody else, and in the end, you were the guy, I mean, I'd still be opposed, but, you know, what are you going to do.

But, I think that the way that the Department of Energy implemented the law, and the way they designed first of all the siting guideline regulations, that regulations dictate how sites would be evaluated, and then the very evaluation process itself, how they narrowed the sites down, what criteria they used, I think led everyone to believe that this was a very rigged process at this point in time. There were several meetings in Las Vegas, the Nevada Commission on Nuclear Projects chaired by Grant Sawyer brought in, for example, the director of the program, Ben Rushi (phonetic) at the time, who misrepresented what they were doing, which deliberately did not tell the truth to them, and, you know, shortly, weeks after the meeting was over, it all came out that he actually was lying to them at the time. So, it was all this, and many in Congress were feeling the same.

As you might recall, there was a big move in Congress in '85, '86 from many states to, well, we need to really start this process over because DOE had screwed it up,

and in Congressional hearings, DOE kept claiming they lost the data that would show how they arrived at certain scientific decisions. And, of course, all of this ultimately led to the Nuclear Waste Policy Amendment Act in 1987.

And, so, through '85 to '87, I think more and more citizens and more and more leaders in Nevada were getting more and more concerned and opposed. But, when the Nuclear Waste Policy Amendments Act passed, commonly known and dubbed so by Dick Bryan, the "Screw Nevada" bill, just outright selected Nevada without any scientific criteria, without any other things, the gloves were off at that point. Everyone knew the game, and at that point, it was clear what the Federal Government wanted to do.

Dick Bryan, just prior to that, had basically kind of called me in and we talked for quite a while about the need that if this goes forward, and it was appearing it was going to, that he wanted me to take the oversight money and essentially do everything and anything that was possible to defeat this and oppose it in no uncertain terms.

And, as you know also, during that period of time the Nevada Legislature, through resolution after resolution, made it clear that number one, that Nevada was adamantly opposed to this, and they went so far in 1989, of course, to pass a law that made it illegal to dispose of this waste in Nevada. So, the policy was really set by the governor and

the legislature, and the citizens of the State, were increasing numbers of public meetings that DOE had were very loud and very rambunctious and very adamant about what they wanted done, or not done, as the case may be.

So, the direction to me, and to the folks we work with, was fairly clear, just do what you can to stop this. And, we developed a very comprehensive and I think sophisticated strategy that involved not only trying to acquire and defeat DOE in the scientific arena, but also in the public relations arena, also in the political arena on Capitol Hill, as well as in Nevada, and also legal strategy, and we were determined, as directed by the governor, to be as aggressive as possible in all those areas, and we developed a real four pronged strategy at that point in time to implement all of those. We knew DOE had much more money, much more power behind them, and we knew that we could leave no stone unturned. We couldn't afford to make a mistake, and we had to use every bit of the resources we had to counter them.

One of the deliberate strategies we had was to try and get out in front of them on the issue, to try and develop issues associated with some of the science issues at Yucca Mountain, and force DOE to respond to us, so that we'd take a bunch of their time away from them developing their own plans and their own methods to have to try to deal with us and counter us. And, I think we did that reasonably well. We

sued the Department of Energy some, over the years, probably 20 or 30 times at least. We invoked public relations strategies, both in the State and outside the State. We even took some of our federal oversight money and began providing funds to other states along certain corridors, transportation corridors leading to Nevada, to try and enlist their population and their elected leaders in the same fight that Nevada was engaged in.

So, we were very deliberate, very conscious of the kind of strategy we needed to do. We know that we really, in a sense, could leave no stone unturned, and that we needed to be aggressive and essentially give them no quarter, take no persons, and challenged every possible thing that they were doing to the best of our ability.

MS. JOHNSON: And, one of the four prongs was the legal strategy.

MR. LOUX: Yes.

MS. JOHNSON: Can you talk a little bit about that effort, and involving the AG and also the licensing process ultimately?

MR. LOUX: Ultimately. The strategy we put together was done in concern, not only with the Governor, the Legislature, but certainly the Attorney General. And, the Attorney General’s office realized fairly early that they didn’t have anyone on board who had the kind of expertise

that we needed to have in this particular arena, that knew a lot about some of the federal regulations, that knew--were fairly adept at interpreting the Nuclear Waste Policy Act, and we early on, hired a team of contract lawyers out of Olympia, Washington who guided us in many instances about how far could we push the envelope in the use of money, for example. Even though the plain language of the law was "X" could we do "Y" and what would be the legal justification. And, so, we used them in that regard.

As you might recall also, DOE at that point in time was very interested in having what they called consultation and cooperation agreements with Nevada, and some of the other states. And, we began looking at the terms of those things, and we realized that if DOE wouldn't even follow the Nuclear Waste Policy Act legally, then how we could expect that they would honor any sort of an agreement that we made with them. Plus, there's been a history of DOE having agreements with, say, 14 or 15 other primarily western states about the clean-ups of the nuclear facilities that DOE had in those states, and DOE violated every one of those agreements with every state, Idaho and many, Washington and many others. And, so, we early on determined, and the Governor concurred, that it made no sense to try and reach any sort of accommodation with them in any sort of agreement, that they would never honor it, especially since they wouldn't even honor the plain

language of the law.

As we moved down the road, we continued to use some of our attorneys, but it became pretty clear late in the process, when it began looking like DOE might attempt to submit a license to the Nuclear Regulatory Commission for a license to build Yucca Mountain, that we really needed a team of lawyers, number one, that were very familiar with the Nuclear Regulatory Commission itself, the rules, regulations, archaic sorts of things that they did, but also experts in the NEPA, National Environmental Policy Act implications of the project, and we hired, we sent out a solicitation for law firms to consider working for Nevada, and we had a number of them apply, big firms, large firms, some medium firms, and some smaller firms.

And, we evaluated the criteria and qualifications of that, and ultimately, I was the one responsible for the decision, and I picked Joe Eagan (phonetic), who had submitted an application and put together a team, sort of a boutique, if you would, of various people, including Marty Mulch (phonetic), who had been former general counsel of the Nuclear Regulatory Commission, and Joe and his partner, Charlie Kilpatrick, had been involved in license of nuclear facilities in Texas and other places.

And, so, I selected Joe Eagan and his firm to come on board, and they were--they're still on board with the

State as of today, and they helped us with a great deal of the legal strategy in particular, but other strategies, including some of the public relations things that we're involved with. And, I can tell you that they were invaluable, that they were probably the best suited that we could find for the task, and I think everyone would agree at this point in time that they really were worth their weight in gold in terms of the services they provided to the State.

MS. JOHNSON: You mentioned the consultation and cooperation agreements--I'm not sure I'm saying that right.

MR. LOUX: Uh-huh.

MS. JOHNSON: Is that the same thing as implied consent?

MR. LOUX: Well, it's part of the whole equation, if you would. A lot of the pro-nuclear people, some of which were in Nevada, small pockets of business guys in the north principally, but the nuclear industry came into Nevada, as well as other states, and set up little groups of--organizing people of pro-nuclear persuasion, and they called themselves like the Study Committee. And, then, in turn, tried to make it seem as if there was a pocket of people that were involved scientifically and others that really thought this was a good deal. And, one of their principal strategies was try to convince Nevadans that in fact the project was inevitable, there was nothing you could do about it, and that the only

way that Nevada could gain any face here was by signing some sort of agreement with the Federal Government in exchange for so-called benefits, which some of that talk even continues today.

In 1988, I asked the Attorney General's office for an opinion of what would be the implication if the State for its opposition, its legal work, its scientific work, all of those kinds of things, if in fact Nevada began to entertain the idea of signing some sort of agreement with the Federal Government. And, in September 1988, the Attorney General's office produced a legal opinion, which indicated and stated pretty blatantly that in fact by negotiating, the act of negotiation, the act of showing a willingness to negotiate, was legally implying your consent for the project, that once you had done that, then it put in jeopardy your ability to enforce health and safety regulations, to carry out meaningful oversight, could in fact defeat any sort of legal challenge you had in the courts.

And we were instructed by what we saw in the State of New Mexico, which as a matter of background, they were selected in the early seventies for what was called the Waste Isolation Pilot Project, a disposal facility for intermediate level waste. And early on, the Department of Energy promised the State just about anything they wanted, that the project would generate millions of dollars for the State, that all

the shipments to the facility would be via rail, that the State would have hundreds of millions of dollars a year in highway money, they could turn off the project whenever they wanted, an absolute veto over it. And, the State of New Mexico agreed and signed up to it.

But, some months later, as DOE violated some of the terms of the agreement, the State went to court and tried to get this enforced, and the courts had said that, State, you implied your consent for the project by, in essence, negotiating and agreeing to these things, and the fact that the Federal Government doesn't live up to it doesn't alleviate your responsibility, that you've implied your consent for the project.

And, so, it didn't take a genius to see that what was going to happen here, that if you even though about or even negotiated in any sense of the word, that you in fact implied your consent for the project and you were basically screwed, you couldn't even enforce health and safety regulations, or other things. So, early on, this opinion was the basis of many discussions with legislators, with business leaders, and others who tried to, in fact, say that the opinion was not credible, but there was certainly a lot of legal basis for it, and the State adhered to that notion and still does today.

MS. JOHNSON: Let's move on to the next question.

MR. LOUX: Very good.

(9:16 a.m. - End Tape A-2.)

(9:00 a.m. - Begin Tape A-3.)

(Nothing on this tape.)

(9:00 a.m. - End Tape A-3.)

(9:01 a.m. - Begin Tape A-4.)

MS. JOHNSON: Bob, over the length of the Yucca Mountain project, the rules of the game changed a lot, didn't they? Can you talk about that, and why they changed, and how that worked at the federal level?

MR. LOUX: Yes. I mean, the regulations, the federal regulations involved with trying to site a repository, even at Yucca Mountain or anywhere, were sort of complex and intertwined among three or four federal agencies. You know, the Department of Energy had their own regulations about how you would site a facility, and some of the things that would disqualify a site from moving on in the process. The EPA was in charge of setting forth health and safety regulations that a site would have to meet, and the NRC had their own regulations about how they would go about reviewing and possibly licensing a repository. All three of them worked hand and glove together. These were not done as independent as you might think. For example, you've got an applicant who's doing "X" and then you have a regulatory body that's evaluating it. They were all doing this together.

And, as many of them told us many times, this is the Federal Government working as one unit against the State of Nevada. That's what's going on here.

And, so, DOE had, for example, siting regulations that we knew in several instances the Yucca Mountain site could never meet and would be disqualified. And, we continued to demonstrate that the DOE, in letter after letter from the Governor with large packages of technical information, that showed it wouldn't meet a certain qualifying or disqualifying condition.

And, to cut to the chase, so to speak, the Department of Energy changed these regulations during the course of the Yucca Mountain process, at least three different times, to eliminate certain disqualifying aspects that would kick Yucca Mountain out of the process. And, they eliminated each one of those systematically. And, of course, the last one had to do with ground water travel time at the site, that basically DOE threw all that out and said really, we don't really need any specific disqualifying conditions. We'll just proceed.

EPA had four different sets of regulations that were continually thrown out by the courts. They developed some in 1978 that were thrown out by the court in 1981 as violating the Safe Drinking Water Act. Then in 1986 and '87, the State of Nevada proved--demonstrated pretty aptly that in

fact the site would not meet EPA's radiation release standards. These are standards that said here's all the radioactive elements of nuclear waste, and we set a limit on how much of that could be released into the environment over the life of the project, and we proved, for example, that Carbon 14, radioactive gas, would be produced in large quantities, and violate the standard by many, many fold. In fact, the EPA staff agreed that it would lead to ten or more thousand premature cancer deaths worldwide.

And, so, Congress stepped in at that point and directed EPA to write a new release standard, or a new standard that specifically didn't contain any of these release limits for individual elements, but told them if you can demonstrate through modeling, computer modeling that the overall site would meet certain regulations, then that would be good. And, EPA developed those, and the court, once again, threw them out in the early nineties as not being consistent with other federal law.

Then, they hired the National Academy of Sciences to guide them on a new set of standards. And, so, the Academy guided them. EPA put a draft forward, but it wasn't consistent with the Academy recommendations one more time, and they were thrown out of court.

So, then, they developed the four sets of standards that had to do with certain amount of exposure to individuals

over time, and those standards included some of the more bizarre aspects of measuring radiation doses in high altitudes that demonstrated that in fact if you lived in Denver, Colorado it would be the same as living at the site at Yucca Mountain and, therefore, it should be qualified. All of those things were eventually thrown out by the courts.

One of the meetings, though, that I remember distinctly is going into EPA and saying why don't you just extend, for example, the same standard that you had early on in the process, because they wanted a bifurcated standard, saying that early on in the process, the standard should be "X," but later on after it's been built and begins to decay, the standard should be "Y." And, you would think that early on in the process, you would have a more lenient standard because there really were no releases, and later on, you would have a more stringent standard when the most harm to the public would be, but, no, EPA had the more stringent standard up front to qualify the site, and then tried to make it more lenient later on as the site decayed and ground water was released from the site that had radiation in it, the standard was much lower.

And, we asked them why they didn't just have the lower standard throughout, and they just said listen, that would disqualify Yucca Mountain, and we've been directed by the Administration to produce no standard that would have any

chance of eliminating Yucca Mountain.

And, the NRC, the same way. They had three sets of regulations. Two of them were thrown out by the courts. One, they changed themselves at the eleventh hour to make sure Yucca Mountain would qualify to be recommended to the President. And, so, you had this changing regulatory environment. It's like the football game with the kickers kick the ball, and the other team is moving the goal post back and forth to try and make sure it goes through no matter where the ball goes. And, that's what's going on in Yucca Mountain, and led to this wholesale lack of confidence in the process, this wholesale opposition that the State of Nevada had, because it was a continuation of this, the game is rigged, they want to do anything and everything possible to make it happen. And, obviously, they don't even have--they don't even put a pretense of trying to be objective any longer.

And, of course, that was really justified, a lot of it, the State's action was well, if they don't have any pretense about it, then we're not going to have any pretense about it, and we were again very vocal and adamant in our opposition without any hesitation whatsoever. But, the changing regulatory environment I think in the end was too much for many in Congress, many in other places to swallow, because it became very transparent then what the game was,

that they didn't care about the health and safety of Nevadans whatsoever. They were willing to gamble that away simply to do the bidding of the nuclear industry, and get this waste away from their sites.

MS. JOHNSON: One of the things that's come up recently with the Blue Ribbon Commission on America's nuclear future is the fact that there's a proposed different standard for Yucca Mountain than for the Waste Isolation Pilot Project in New Mexico, and from a just logical explain it to the public standpoint, that's very difficult to do, why there would be two different standards for facilities that are very similar.

MR. LOUX: It's inconsistency in all of this that's really thwarted the project in the final analysis, their strive to try and justify the very, very uniquely bad scientific conditions at Yucca Mountain, trying to justify those in the context of these regulations, and suggesting it wasn't really as bad as it seemed, but the same time holding up other sites and other projects to a higher standard than Yucca Mountain would have to meet, when the long-term effects and the longevity of the Yucca Mountain project surpassed any of these other projects by millions of years, it just made no sense logically, or otherwise. Of course, those are some of the issues that Nevada sued the Federal Agencies over.

MS. JOHNSON: We've heard from other people we've

talked to about problems with the site, but I want to ask you the same question. Basically, what's wrong with Yucca Mountain?

MR. LOUX: Well, the principal thing that's wrong with Yucca Mountain is water. Although it appears dry, the rocks inside Yucca Mountain over years have accumulated massive quantities of water in their pores and fractures. There's a highly fractured, porous environment underground. The rocks absorb all this. And, the Department of Energy readily acknowledges that nuclear waste inside Yucca Mountain, the principal way it would get out is by water in the mountain dissolving waste and waste packages, and getting in the ground water system and getting out to where people live very quickly.

DOE agreed with the State that once nuclear waste left the canisters, it would show up in drinking water wells some 20 miles away in 50 years or less. So, how do you keep the nuclear waste in the canisters?

Well, DOE and the State did studies on the corrosive aspects of the water in Yucca Mountain, and whether or not that water would corrode these canisters, and then the waste, and get out. The State's experts concluded that because of the high mineral content, fluoride, arsenic, mercury, lead that were all in the Yucca Mountain water, that it would dissolve these containers very quickly. Ultimately,

DOE agreed, it said it would dissolve them in probably 100 years or less. And, we know once it got out, then it gets out the accessible environment in 50 years. Well, that's not a very good performance record for any sort of repository.

So, now, the Department of Energy was how do we keep water away from the containers? Well, they wanted to build and install this whole series of titanium tents over all the nuclear waste containers inside the mountain, thinking that the tents would stop the dripping of water on the containers. And, of course, when the heat comes out of the nuclear waste, it decays it, puts out a lot of heat, and even concentrates more of the water on where the heat is, and redirects it there. So, they had this elaborate scheme of $8 billion plus of titanium tents they want to install in there. But, DOE said categorically they didn't want to install them from the get-go, they would install them some 300 or 400 years in the future. And, when asked why, they said well, because it's too expensive, no one is going to agree to an $8 to $10 billion add-on to a project that's already probably in excess of $100 billion.

Well, the State scientists once again, because of the fluoride in the water, showed, and the NRC staff has agreed on occasion, that the titanium tents would be very susceptible to fluoride and probably dissolve within 60 years in Yucca Mountain.

DOE still tried to maintain it that that wouldn't occur through a whole series of tests that they thought were credible, which we didn't think they were, and many others didn't either.

So, it's water is the principal problem at Yucca Mountain. It's a uniquely bad environment because it sits above the water table. Every other country in the world has their repository plan where you immerse the containers in the water table. And, when you're in the water table and in the water, it's virtually free of oxygen and will not promote rust and corrosion. But, if you're above the water table where you have water, a highly humid environment, 100 percent humidity, and temperatures in hundreds of degrees, you set up little factories of rust and corrosion. I mean, you have all the oxygen getting to it with the water, and it promotes corrosion almost immediately. No other country in the world has proposed building it above the water table but us.

But, that's the principal scientific problem with Yucca Mountain is it's a poor site because of that. It's also a poor site because of the seismic earthquake activity, not that it will necessarily disrupt the containers, although possible, but it will change the hydrologic environment, change where water flows within Yucca Mountain and make it very unpredictable to figure out where the water would go, how it would impact the canisters, and then how it would get

out.

But, I think everyone agrees that once material left the containers, it would show up in drinking water wells very soon, and the question is how long the containers would last, and I think the State has effectively demonstrated that the whole series of these sophisticated engineering fixes really do nothing to slow down the rate of corrosion and leaching of the material in the environment, although DOE apparently still tries to stick to the story.

But, that's the primary issue with Yucca Mountain, that it will get out. It's only a matter of time. None of these facilities are designed that they're intact forever. They're all designed to slow leak facilities. Yucca Mountain just happens to be a very fast leak facility.

MS. JOHNSON: Let's move on to the next question.

MR. LOUX: Very good.

(9:14 a.m. - End Tape A-4.)

(9:02 a.m. - Begin Tape A-5.)

MS. JOHNSON: Bob, we're doing this interview in the old Nevada Supreme Court Chambers. It's a very impressive room. I know you were here for cabinet meetings and it's been used for a lot of serious occasions, which makes me think about the State relationship with local governments. The State is the boss, but not all the time the counties have followed along with the State's direction.

Could you talk about that for a little bit?

MR. LOUX: Yes. I mean, I think the Nuclear Waste Policy Act, and especially the Amendments Act that set up a program of oversight for other counties in Nevada and elsewhere to be involved, is one that has a basis in history. The State early on when it began getting money in 1982 almost immediately began making some of its oversight money available to Clark County, Nye County, and Lincoln County.

There was two reasons for doing that. Number one is that these counties were the ones that potentially could be the most affected vis-à-vis transportation, socioeconomic issues, and of course Nye County, the site itself. Once again, the State looked to the State of New Mexico, and examined how the WIPP project really came to be in the State, when the State was adamantly opposed to the project. And, as it turns out, the State attempted to run roughshod over some of those Southern New Mexico counties, and in doing so, many of those counties, in particular Carlsbad area, began their own independent negotiations and discussions, not only with the Department of Energy, but also with certain members of Congress to suggest that the State ought to stay out of this, that the local governments, albeit very economically depressed in many instances, wanted these projects as a matter of jobs and other sorts of interest.

The State, my office in particular, felt it was

important to involve these counties from the get-go, not only as I mentioned because they're affected, but because we also didn't want to see them all of a sudden because we're ignoring them and shutting them out and having to go to the Department of Energy and seek their own redress.

And, we had a very good working relationship with those counties in particular up until 1987 or so, and the ballgame in many ways changed at that point in time. The law was lobbied by many Nevada counties to set up their own oversight program, as I mentioned, which they did receive money to do, but it also set up a dynamic between the State and local governments of some conflict, which I suspect we all knew was inevitable at some point in time, but by providing counties money early on, that we would avoid that for some period of time. And, I think that we did.

It wasn't that we didn't want the counties doing their own thing per se, but under the Nuclear Waste Policy Act, for example, it's only the Governor and/or possibly the Legislature who has the authority under the Nuclear Waste Policy Act to be able to interact, to sign agreements, negotiate with the Federal Government, and the fact that the State wouldn't do that irked many of the local governments. But, ultimately, it's really the State, in most states like Nevada, the counties in particular are legally political subdivisions of the State, and, therefore, they really are

not capable overtly of securing deals or making arrangements of DOE that in fact the State didn't want to happen, not legally binding in any way. But, nonetheless, many of the counties in Nevada, three or four in particular, really worked hard to use their oversight money to accommodate DOE's interests. They hired ex-DOE employees as contractors, and they set about trying to set the stage for some negotiation, and used their funds for economic development purposes as opposed to looking at the impacts the project might have per se on the county.

Now, I think they would argue, and perhaps rightly so, that economic development was part of the impact. We would view the impacts as a negative thing. They would view the impact could be positive if they played it right. And, ultimately, many of the--some political leaders in Nevada cited, and more recently though, with some of these counties, and again suggesting that the only way out of this was to sign some written agreement for benefits for Yucca Mountain occurring.

And, as you might recall, in 1991, the nuclear industry employed, through contract, a couple public relations firms in Las Vegas, in addition to a guy who was a lobbyist for the Nevada university system at Allison to produce a document called The Nevada Initiative. And, it was a very militaristic sounding document about neutralizing the

opposition, mainly me and Dick Bryan, the Las Vegan Sun, and establishing each heads of support. But, their primary thrust was we need to create the sense that the project is inevitable because if the State doesn't cave, doesn't sign an agreement, it will never go forward. The opposition is too great. The State has too many legal tools. There's too many other things the State can do. So, we need to get the State to acquiesce.

And, many of the counties bought onto this whole notion of inevitability, and through ex-DOE employees, nuclear industry representatives, and others who were throughout Nevada at the time, they began to promote this idea of inevitability and, therefore, you can't do anything about it.

But, the undercurrent of that is if you don't negotiate, they don't have a project. But, many people didn't see beyond that. They only saw the inevitability part. And, I think the exposure of that document which led--excuse me--the document led to an eight or nine month public relations effort that the industry spent $8 or $9 million in Nevada, with TV ads about how safe it was, everything else, actually backfired, that in fact through their measurements and our measurements, the public was more opposed after seeing these ads than they were not. And, the reason was is that why are they doing these ads and all this stuff to tell

us how safe it is? There must be something wrong with it. I mean, what are they hiding?

And, it was clear that then the industry--and together with some of the counties, were realizing that in fact people were more opposed after this initiative and seeing all these ads than they were beforehand. And, it's not only just Nevada, it's happened in other places where the nuclear industry wanted to gain a foothold and try to create new projects, reactors and the other, and they tried to create this sense of inevitability. And, it's that kind of philosophy that many of the local governments bought into, in particular Nye County and Lincoln County, that it's inevitable, so we must sue for peace and get what we can out of it. And, of course, that led to many strained relationships between the State and some of these counties over time.

MS. JOHNSON: Let's move on to the next question.

MR. LOUX: Very good.

(9:10 a.m. - End Tape A-5.)

(9:52 a.m. - Begin Tape A-6.)

MS. JOHNSON: Bob, the Yucca Mountain Project went on for many, many years. You must have had to work with many people at the Congressional level, at the Federal level, and even at the State level who were new to the topic, and needed to understand the State's position and what the State's

concerns were. Can you talk about that experience?

MR. LOUX: Yes. That was primarily my role in all of this, is, you know, I hired and employed people that would do their specific jobs, science or whatever, legal whatever, and my job was essentially to run the political interference so they could do their jobs. I wasn't a scientist, as many know, and so I didn't pretend to be per se. But, my job was to make sure that we could continue to do all of these things, and part of that process was keeping not only the Congressional delegation, but new State leaders continually informed as to what was going on on the project to continue to keep them on board, so to speak.

And, so, you're right, we had a change, we had six governors that over time had been involved in Yucca Mountain, and each one, and each in a unique different way, I spent time bringing them up to speed and informing them of what was going on, and many of them kind of had some tangential knowledge. It's been in the media a lot. They see and hear about it, but they really didn't know what was really going on per se. So, I spent a great deal of time in particular with governors. I remember when Dick Bryan was going to run for the Senate mid-term of his term, and Bob Miller was the Lieutenant Governor that I spent many hours with Bob Miller kind of bringing him up to speed, and the pitfalls to watch out for from various parties, whether it was Senator Johnson

sending his staff in to try and convince him that everything we were saying was nonsense, stuff like that that we kind of tried to pave the way. We did that with many, many Legislators.

But, I went to Washington probably at least four times a year with no other goal in mind than sitting down with each member of the delegating, bringing them up to date on what was going on, and especially with the newer ones, explaining the history of the project and what went on. And, so, that was some of my ongoing responsibility, was to go to meet with them pretty continually, not only to find out what we were doing, but to learn from them what initiatives the nuclear industry or various members of Congress are attempting to make about the project. So, it was really a very valuable exercise for me, and I think for them as well, to make sure that new people came, and it was important to keep everyone on board. We really wanted to have this look and in actuality be a unified approach to the whole thing.

And, they were, I must say, that every governor and all the members of Congress were more than courteous to me. They were very respectful. They treated me very, very well. I was very fortunate to have those relationships, and I valued them. I think back on some of them, that they were all very productive. But, it was part of the ongoing process of not only educating them about where we are, but providing

the history and making some forecasts about the thing in the future to be looking out for.

MS. JOHNSON: Well, over time, our Congressional delegation went from being three or four members of the Congressional delegation total to more members and more power. Did that contribute to the--well, obviously, it has contributed to where we are with Yucca Mountain now, but it sounds like your efforts to keep the delegation informed helped that, too.

MR. LOUX: Well, we used a variety of techniques. Not only was I briefing them on an ongoing basis about these things, but we provided them with public opinion polling to make sure they knew how the citizens and the State felt about these things, that they were aware of what we were finding vis-à-vis social and economic impacts, and that they knew some, at least, of the science, what was wrong with Yucca Mountain, kind of side, but clearly, I mean, and you've hit the nail on the head with Senator Reid, the Senate seat of the majority leader of the United States Senate, a place that, you know, it's been a long time since Nevadan had that level of seniority, I mean, contributed greatly to being able to keep these things going and keep the Congress at bay. He and Dick Bryan ultimately did a wonderful job in doing that.

Early on, there was a couple strays in the delegation that wanted to entertain the idea and, you know,

would talk to the Legislature, for example, in the late eighties and indicate that maybe we ought to consider doing it. But, all of a sudden, the public started sending them letters and was, you know, outraged at their behavior, and most all of them kind of turned around and got on board. But, early on, there was a few that thought well, maybe this isn't so bad and maybe we could get something out of it. But, by the nineties, and certainly in the two thousands, none of that occurred anymore. I mean, people realized what the game was, and realized how devious the Federal Government really was and how untrustworthy they were and they really couldn't be counted on to make good on any of these things, plus, the public, and really more than anything else, it was the public of this State, the citizens who every measure possible, through every avenue possible, made clear to the elected leaders and my office of what they really felt about the project and what they wanted done. I mean, they were very adamant that they wanted anything and everything done to make sure this didn't happen.

And, so, the elected leaders, and by implication, our office was instructed in that regard by what they really wanted. But, the delegation felt that as well, certainly.

MS. JOHNSON: The media certainly contributed to, there's a sort of a symbiotic relationship between the media and their concern about the issue, and the public being upset

about the issue. How did you work with the media? Talk a little bit about some of the successes that you had in getting the message across by using the media.

MR. LOUX: Well, I think it's important to realize that in the mid to late eighties, through most of the nineties, most media people ranked Yucca Mountain as the number one story in Nevada year after year, ahead of education, taxes and the like, and so it was the product of not only the Department of Energy activities vis-à-vis public meetings and the like, but also, you know, this was, at least at one point in time, probably the most important issue to the State of Nevada.

We enjoyed a very cordial, for the most part, relationship with the media. The media, by and large, was very skeptical of the Federal Government, very skeptical of the kinds of things DOE is saying and doing. DOE probably was its worst enemy in this regard. They had a very poor strategy in dealing with media and the public in general. I mean, they had this attitude that permeated even from back from the AEC days that listen, we're the Federal Government, we're the nuclear experts, we know better, don't bother your pretty little heads with all this information, you don't really need to know that. All you need to know is you can trust us and we'll do the right thing.

And, time and time again, they set themselves up to

be the all knowing experts at everything, and when it appeared that they didn't know, it made them even look worse in the public's mind. And, if they would have come across as saying hey, we're going to work on this together, let's try to figure some of these problems out together, we don't have all the answers, they would have been better served.

But, they, in turn, viewed that as being well, it's weakness, it shows we don't know, they're not going to trust us, and just the opposite is true. And, I think the media picks up on all of that kind of nuance about how they have this disregard for the public, and disregard for even my office and other people within the State, of just being trouble makers, and that kind of thing. So, the media often turned to us to interpret essentially what DOE was trying to say or communicate. But, we enjoyed a great deal of comity with them.

We also used paid media. We, at one time or another, spent 8, $9 million on very large national public relation initiatives to try and persuade the public and other states and Congress about what was going on in this regard. So, we used a combination of paid media and free media, meaning press releases and the like, but more often than not it was the media who came to us that wanted to know what was really going on. So, we viewed ourselves, and I think they did too, as the source of information to kind of cut through

a lot of the bureaucratic and other technical nonsense and give them the straight scoop. And, I don't think that we ever really--ever misled deliberately or otherwise the media, or anyone else. We realized right away that they were an effective part of our strategy in trying to communicate with the public, and keep other people informed about what was going on.

MS. JOHNSON: Let's move on to the next question.

(10:01 a.m. - End of Tape A-6.)

(9:07 a.m. - Begin Tape B.)

MS. CLANCY: Starting Tape 2 of this interview, and rolling.

MS. JOHNSON: Bob, the resources of the Federal Government to push the Yucca Mountain project vastly exceeded those of the State of Nevada, including obtaining a lot of scientists to work on the project. Can you talk about how the State was able to get its own scientific team together, and the challenges that that presented?

MR. LOUX: Well, yes, I'd be happy to. One of the first persons I hired was a scientist, a geologist who had worked previously for private industry on nuclear power projects in Southern California, and other places. And, together with him and some people we were consulting with at the University of Nevada Reno and Las Vegas, we kind of put together a program of scientific inquiry with the necessary

quality assurance elements with it as well.

And, originally, we were thinking about simply reviewing DOE's data and making certain conclusions about it. But, we realized early on that we really wanted to do our own independent work. DOE first thwarted us with funding and suggested that we were not, under the law, capable of doing our own independent scientific work, that if DOE would give us a rock in the field, we could analyze it, but we couldn't pick up our own rock and analyze it ourselves. And, we sued DOE over that, and actually won. The court that's tantamount to the fox watching the chicken coop. So, we won that right.

Early on, though, we were working with a variety of scientists, primarily in the University of Nevada system. They were here locally. Many of them were familiar with the Nevada geology and other aspects of the Southern Nevada environment. And, that went along fine for a while, and with some agreement with DOE, this was when they had the first director, Don Veech (phonetic), we had at least an informal arrangement that the University of Nevada system would be essentially a resource to the State of Nevada, and that the Department of Energy had the rest of the universe to deal with.

When Carl Groots (phonetic) came into office, one of the things he did early on was offer the University system much more money to do some more work for them than for us.

And, let me just tell you the gist of this is is that why you can't have the same scientists, let alone the same institution per se work on both sides of the issue that we all envisioned later on there would be expert witnesses' testimony before the Nuclear Regulatory Commission, and if your guy was giving witness testimony and he had also worked for DOE, then it would impugn his credibility, and DOE knew that. But, they started now offering the university system more money, and we had to look a lot harder at various areas of the country for scientific expertise, simply because we couldn't use them any longer because they were now working for DOE, not wholesale, but a great many of them.

And, in fact, DOE used funding to universities as much of a public relations mechanism to generate enthusiasm for the project among the university system by their--there by other people in the community. So, we had to look long and hard, and actually found very credible people not only in the United States doing work on corrosion, for example, other kinds of things, but we actually went outside the country. We employed scientists from China. We employed scientists from the UK, and other European countries, who weren't under the influence of the Department of Energy and the nuclear industry, as well as the Nuclear Regulatory Commission, to do a lot of our work, simply because we were forced to go there, there was not a lot of other expertise that was not already

purchased or bought.

Many scientists told us that they signed contracts with DOE and never performed an ounce of work, that DOE signed the contracts with them, paid them a minimal amount, simply to keep them from being available to the State of Nevada. So, it was an ongoing struggle, part of the whirl with DOE, if you would, about acquiring scientists.

And, then, of course, as we employed some of these scientists, DOE went out of their way to find other people that would critique them, criticize them. We got criticism from pulling people outside the country, that somehow that was un-American or something of that nature. But, by and large, I think the scientists that Nevada hired, both locally and internationally, proved to be a great asset, and really did the State tremendous service, and developed a very strong scientific program against Yucca Mountain that I think is intact today.

MS. JOHNSON: Let's move on to the next question.

(9:12 a.m. - End Tape B.)

(9:11 a.m. - Begin Tape B-1.)

MS. JOHNSON: Bob, I know you must have gone to take the tour at Yucca Mountain many times, and because of your overall responsibilities with the Agency for Nuclear Projects, you're familiar with the Nevada Test Site as well. I'm looking at a front page of the Las Vegas New Times from

August 10, 1995, which has cartoon illustration of the view platform at Sedan Crater. And, of course, that brings up the whole memory of nuclear testing in Nevada, and the connections between what went on at the Test Site for nuclear testing and Yucca Mountain. So, could you tell us about your experiences and observations from taking the Yucca Mountain tour, from observing what goes on at the Nevada Test Site, especially the evidence of testing, and any conclusions that you can draw or connections that you make between those?

MR. LOUX: Well, you know, I'm looking, there's a connection vis-à-vis the same federal agency is involved in both of these activities. And, I think that the Federal Government initially tried to weave the Test Site activities and the large support initially that the Southern Nevada community gave to the Test Site activities vis-à-vis employment. At one point in time, the Test Site workers were like 25 percent of the Southern Nevada work force. Tried to parlay that in essentially support for Yucca Mountain, these same kinds of things.

And, early on, I think it was effective that a lot of, as we talked earlier, some of the delegation members were hugely supportive of what was going on at the Nevada Test Site, most of them still are, and then were trying to make, well, it's just the same guys doing this. But, as things went on, Yucca Mountain became much more controversial, and

the Department of Energy itself made great strides to separate the Nevada Test Site activities, the other things they do out there, from Yucca Mountain, that many of the guys working the Nevada Operations Office for the Nevada Test Site would say those Yucca Mountain guys are giving us a bad name because they're impinging our credibility, and everything else. So, they did make an effort to sever them, and somewhat successfully because later on, I think the State and other people viewed them as separately as well.

I was on tours with governors where we would tour some of the ignition facilities underground--this was long after the weapons testing was over, and some of the other things that they were doing on the assembly facility, dismantling weapons, and putting them back together, and things. But, the test site itself early on proved it to be at least somewhat of an impact on the project from the trust perspective because we all know, we've talked about earlier of all the shots going off and people in Southern Nevada being told this is not to worry, you can just get a broom and sweep these pesky particles off of you, and there will be no harm to anybody. But, we all found out later they, for example, would send some of their families to Southern California during the days of the shots, so obviously, they were worries, and we know later, that these pesky particles created huge, huge health impacts for hundreds of thousands

of not only workers, but individuals not only in the west, but throughout the country. So, it was a real credibility problem itself.

But, the tours themselves, DOE wanted to set the tours up as a public relations tour primarily, a tactic. They would invite even school kids, first, second, third graders and march them at the Yucca Mountain, to tour the cave, talk to the scientists, blah, blah, blah, to try and again in support for the project all the way along. And, of course, the media they would invite out, and the nuclear industry would use the site itself, they would conduct their own tours out there, take members of Congress, members from their own states to show what a fantastic job they were doing out there, and all of this stuff that was going on. Keep in mind at most, Yucca Mountain at this point in time, and even for the last ten years, has been nothing but a five mile loop tunnel through a mountain with various alcoves for tests.

Many people like to tell you Yucca Mountain is built already. We should just--you know, none of that is true. But, the tours were instructive in the sense that DOE put out their best scientists out there to try and convince people that they really had it all covered, everything was going on, and you could tell that people were on the tour with you were one of two persuasions. And, this included media people. That either they've really got it together,

they really know everything that's going on, or alternatively, they're going so far overboard to make it seem like they have it wired, that in fact they don't and it's really a bad project.

And, so, the reactions from people going out there was interesting in the sense that when I was with them, people from the media were particularly skeptical. And, in fact, the DOE would talk about all these phenomenal things going on, and you could see from their eyes that they weren't really buying it. However, members of the public, in particular, would be very fascinated with all of this stuff, and DOE would capitalize on that by trying to make things like we have it all wired, you don't have to worry, everything is fine. And, so, there was a real dichotomy, depending on the type of people that were out there, and what they actually believed that DOE was saying, or that they didn't.

But, the tours became a big promotional tour for--a tactic for DOE in the industry, and they used the site in that regard a lot, until later on when funding began to get cut and they no longer had it. But, DOE still likes to promote this idea that they have it all wired out there, and we would have many of our people, Judy and Steve Frishman in particular, go along on a lot of these tours, we insert them and ask like the National Conference of State Legislators

couldn't our guys go along, and DOE was much more careful when our guys were on this tour, and they would try to say things that weren't true, and Steve, or other people would, in essence, counter them and demonstrate what they were saying wasn't true.

And, so, later on, the tours probably didn't have quite the impact that they used to have. But, it was a tremendous resource for DOE, both the Test Site and the Yucca Mountain site, and it's a huge area and a lot of activities going on out there, and I think the State leaders made a distinction between Yucca Mountain and the rest of the Test Site, what was going on out there.

This is all after, of course, above ground weapons testing occurred, and even much later than when below ground testing, but there were other fascinating activities at the Nevada Test Site that many people thought were very interesting.

MS. JOHNSON: Did you think that by seeing what was going on in the tunnel, that it was possible to draw conclusions about how safe the repository would be?

MR. LOUX: Well, I think DOE was certainly trying to use the tunnel and some of these scientific experiments as the tool to do that. Part of their effort was curtailed when they brought in heaters to simulate the heat out and put nuclear waste in some of these tunnels. And, in one

instance, they brought in this waste and had a long-term heater test. And, of course, they had all the rocks and everything else situated with monitoring and other scientific equipment. And, after about six months, or so, all the equipment stopped working and they went back in the tunnel to find out what was wrong, and lo and behold, there's six or eight inches of water standing on the floor in the tunnel in there, and it had happened just as State and other scientists had said, is the heat will actually draw the water in from all of these rocks and pores that it contains, concentrate water in there.

DOE tried to make it seem as if it was just accumulation from normal activities, but the scientific analysis that the water itself shows it came from the rocks, had the chemical signature of what the rocks were doing. But after that, it was kind of--DOE was a little less promotional in some of these things because it really wasn't working out for them. The tests basically didn't work, and actually ran contrary to the objectives they wanted to use the tours for.

MS. JOHNSON: You touched on this a little bit in your last response, but I get this question a lot. People from other places who say well, if your Congressional delegation supports the Nevada Test Site, why are you against Yucca Mountain? Can you give the answer to that?

MR. LOUX: Well, it's kind of a long answer, but as

I think I touched on earlier, there's a long history in Southern Nevada from 1951 on when the Test Site was created of being an area of fascination, of scientific exploration. I think many Nevadans during the cold war and thereafter viewed that they were doing their patriotic duty in defending the nation against the Soviet Union, or wherever the culprit happened to be, and, therefore, and during some of these tests and during some fallout and some of those things was part of the program.

I mean, I think even some of the people that worked out there viewed themselves as being much more important when they had security clearances and couldn't talk about what they were doing out there to their neighbors and friends, and it enhanced their stature in the community as being an important scientist and the like, and I think Nevadans by and large were happy to do their duty for the county, even at some cost and expense, but being sort of luckiest for the nuclear industry, which Yucca Mountain was all about, was a whole different picture to them. It had a whole different flavor. It was not national defense. It wasn't protecting our country. It was trying to help out an industry that many viewed were poisoning Americans all over the country. So, I think it was viewed differently from that perspective, if not others.

MS. JOHNSON: Thank you. Let's move on to the next

question.

(9:21 a.m. - End Tape B-1.)

(No Tape B-2.)

(9:14 a.m. - Begin Tape B-3.)

MS. JOHNSON: Bob, there's a New York Times magazine article that was done in 1994 by Kye Erickson called "Out of Sight, Out of Our Minds" that argued that rushing to bury nuclear waste doesn't take the problem off future Americans' hands, because it would still be a problem. And, that leads to some of the work that the Blue Ribbon Commission on America's Nuclear Future has been doing, the Commission that was commissioned by Secretary Chu and President Obama to take a hard look at where do we go from here if Yucca Mountain isn't the answer.

And, one of the things that the Blue Ribbon Commission has been focusing on and hearing from in public testimony is the trust issue. It seems like that when you come right down to it, there's scientific issues and technical issues and management issues, but then there is this huge issue of trust, how can we trust the Federal Government to do the right thing. How do we believe anybody upon this?

So, I would like your reflections on how the trust issue is connected to Yucca Mountain, and also where do we go from here?

MR. LOUX: Well, good questions. The trust issue and public confidence in the process has been one of the biggest issues that the whole effort to find a disposal facility has been predicated on. Indeed, in the Nuclear Waste Policy Act in 1982, if you look at the Preamble on the front of that, it basically says the public trust and confidence is critical, or else this project will never go forward, despite scientific information, despite all of that, if the public isn't buying it, then it's not going to work no matter what.

And, over the years, all of these efforts to site Yucca Mountain, as we've talked about, to misrepresenting scientific information, to continually changing the regulations, all of these things have eroded the public trust all the way along. And, I think the framers of the Act originally put that in there because they knew that the public in fact could turn to their local governments, local governments and state governments just have too many tools at their disposal to thwart a Federal effort like this, assuming that they want to, whether it be lawsuits, whether it be other activities, to either defeat it or delay it to the point where it's no longer viable.

And, Yucca Mountain, the whole Yucca Mountain experience is the poster child for lack of trust and confidence, from every activity they had done from the get-

go, all the way through to where we are now, and it has been the primary reason why the project has never gone forward because of this trust, and it's never been accomplished by the Department of Energy whatsoever.

Now, there have been attempts, for example, to find through a nuclear waste negotiator, other locations, Indian tribes, disadvantaged people who the Federal Government seems to want to exploit, economically disadvantaged communities with these kinds of projects in the hopes of jobs and other things, regardless of the possible health consequences to the population. So, I think the Board and the Commission is right to focus on these issues, because without the public trust, without the public confidence, no project is ever going to go forward, no matter what they do.

And, I think from my own mind, that leads to the notion that the only way you're going to proceed, and indeed every other country in the world is proceeding in this way, no other country but the United States is trying to force a facility on a community that doesn't want it. Nobody is doing that. Every other country in the world has recognized that the public and local governments, state governments, have to be on board for the process to begin with, and if that requires making concessions, if that requires making adjustments, if that requires giving them an absolute veto that they can opt out of the project at any time, I think

that's what it takes.

And, that's what the Kye Erickson article is a little bit about, is why are we rushing to do this. And, these processes of trying to find not necessarily a volunteer per se, but a cooperative state, local government, community is the only way these facilities are ever going to be built in the future. And, the Federal Government and the nuclear industry are so authoritarian and so driven from authority that they believe the only way you can do these things is force someone to do it. Even Bennett Johnson, the architect of the "Screw Nevada" bill has most recently admitted that was the biggest mistake the country ever made. If the process had been followed where you had multiple sites, they had compared and contrasted and the best one emerged, then at least you'd begin to develop confidence in a process.

But, when you go through the process that Yucca Mountain has done, where you try to force feed this site on one state, you manipulate the data, you manipulate the regulations, it's a recipe for disaster. And, I believe in this country, there are going to have to be many generations go by before people forget, or don't quite remember exactly what transpired here before any effort in this country is going to be successful, because the whole process has been so distasteful and so uncomfortable and so lacking in public trust and confidence that it will permeate any effort to site

a repository, any facilities in the future. Can you imagine communities across the country saying look what they tried to do to Nevada, we're not going for that. I mean, no one is going to buy this stuff.

But, only through a long-term process of cooperation, with volunteers, people who are willing to say let's look at it, but we can opt out at any time without the heavy handed authoritarian process that's been followed, I think is the only way, if we're ever going to be successful in dealing with this, and it may be that it never happens. And, I would think that's a big deal because I think that waste can be stored at nuclear power plants in dry storage for 2, 3, 400 years as safe as a repository. The NRC has said that, in dry storage. There is no reason to look for any central facility at this point in time.

The only reason we'd do it would be for the nuclear industry itself, who believes that they cannot build another nuclear reactor in this country until the waste problem is "solved," and by solve, they mean a repository. And, if they're holding that hope that they will never build a plant again until there's a repository, then I would venture a guess there's not going to be a plant in this country for many, many, many, many decades, although recent events in Japan and other places I think have doomed the nuclear industry for the next 20 to 30, 40 years anyway. But,

there's not going to be a problem with waste, because waste can be stored safely at the reactor sites. And if people say well, it's not safe there, let's have another place, well, waste has to be stored at reactor sites when it comes out of the reactor for a minimum of ten years anyway, so we're always going to have waste as long as these reactors operate, and you're always going to have waste at the site, even if you had another facility, or not.

So, I think it's important in this country to take the time and effort to try and do what they can to get this episode at least off the table, but not forget about it because it has important lessons for the future about how we might site facilities that we might need down the road. And, certainly public confidence and public trust and confidence is the paramount piece to this, and Yucca Mountain again is the poster child of what not to do in this regard.

MS. JOHNSON: Thank you very much.

MR. LOUX: Thank you.

MS. JOHNSON: Let me just ask a question from off the camera here. It's not officially part of the interview. But, we'll be using this material for its entirety on DVDs for researchers, the public, in oral history, that kind of thing, but also to extract some clips for the web. So, would that be okay with you?

MR. LOUX: Sure. Absolutely.

MS. JOHNSON: Okay, thank you.

MR. LOUX: Use it any way you like.

(9:22 - End Tape B-3.)

(Whereupon, the interview was concluded.)

TRANSCRIBER'S CERTIFICATE

I hereby certify that the foregoing has been transcribed by me to the best of my ability, and constitutes a true and accurate transcript of the mechanically recorded proceedings in the above matter.

Dated at Aurora, Colorado, this 11th day of September, 2011.

s/s Mary Chevalier

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