TONY GUZMAN

Salt Lake City, Utah

An Interview by

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Nuclear Technology in the American West Oral History Project

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THIS IS SAMANTHA SENDA-COOK INTERVIEWING TONY GUZMAN ON NOVEMBER 2, 2007 AT 68 S. MAIN, SUITE 400, SALT LAKE CITY, UT.

SS: So, this is an interview; it's November 2, 2007. I'm interviewing Tony Guzman. Tony, could you say your full name and spell it for me?

TG: Sure, my name is Tony Guzman. T-O-N-Y, G-U-Z-M-A-N.

SS: And I've been pronouncing it wrong the whole time.

TG: That's okay.

SS: I'm sorry.

TG: It's common; everybody does it.

SS: Oh, okay. And can you tell me your current residence?

TG: Salt Lake City [Utah]. You want my address?

SS: Sure, same thing.

TG: Sure, yeah, 281 East 1700 South Salt Lake [City], Utah 84115.

SS: Okay, how long have you lived at your current residence?

TG: Seven months?

SS: All right. And what is your current occupation?

TG: I have two jobs actually. One is; I work for the Salt Lake City School District as a volunteer coordinator, and my second is with a nonprofit organization called Dharma Tech that offers technology support for other nonprofits.

SS: Okay. So, I'll pause there to check [the recording].

SS: So I'm going to start the interview off by getting some background information, hopefully some nice easy questions to answer.

TG: Yeah, nice.

SS: And then we'll move into some of the nuclear issues.

TG: Sure.

SS: So I'd like to get…establish what your relationship is with that and then get some of your perspectives.

TG: Sounds good.

SS: All right so, background information. Can you tell me where you were born, what your birthday is?

TG: Sure, my birthday just happened actually. It's October 29th, 1980. So I'm 27 now, which is crazy. I was born and raised in San Francisco, California. I lived there until I was 24 and then I moved to Las Vegas, [Nevada] where I lived for almost three years, about two and a half years, and then I recently moved to Salt Lake City [Utah] just in March of this year. So that's a little bit about my background.

SS: So, you lived most of your time in San Francisco.

TG: Exactly, yeah.

SS: Okay. Can you tell me what your family life was like, your parents, siblings?

TG: Sure, yeah definitely. I'm one of three siblings. I have a older sister and a younger brother. My parents are still together after 30 years, which is crazy. It was a great childhood. My parents, and I'll get to this probably later, were long-time activists and very active politically back in the 60s, the cliché. And they raised us, you know, very politically aware and to be involved in what's happening, and I think I transferred that sort of knowledge, or at least context, into my educational career when I studied history at San Francisco State University, and then later when I graduated in 2004 to my work, my career, specifically organizing and political advocacy, which is my fundamental

passion. So, overall it was a great childhood. I played baseball, I loved it. So, can't complain.

SS: So did your parents move to San Francisco?

TG: My mother was born and raised there. I actually grew up in the house that she grew up in when she was a child. My father is Mexican; he was born and raised in Mexico. He lived there until he was about, oh gosh, I think about 17 or 18, then he moved to LA for many years and anyway—so eventually he met my mom and so he's lived in San Fran for over 35 years.

SS: Great. So would you be able to identify some major events growing up, things that stick out in your mind as influential on you today?

TG: Wow. Big events? Wow. You know, I think there's a lot of small events. I'll get to one event that is sort of a negative, that I think inspires me because it's such a terrible thing. But, like I said my parents, as a background, always went to like protests and marches and rallies. Which, you know, when you're a kid is a really weird experience, but that becomes normal to you when you get that political activism, that gene in your body I guess. So, I think that was something I've always grown up with and it's transferred over into my education and my professional career.

But on a more personal front, I think my parents were at every baseball game I had, always supportive of what I did in school, outside of school what have you, and same with any decision I made. When I decided to move to Las Vegas [Nevada], you know, and out of the home, you know, they were totally supportive and knew that I could make good decisions. So, I think just having that support, you know, literally in my whole life to this day has been an awesome thing to have, something I cherish and I can't

like pinpoint moments where, at least off the top of my head, where I can say that that's been really helpful or like life changing, but that's just always been there.

In terms of a negative one, a negative something that's been really powerful and inspiring I guess is my cousin who was just like a couple months younger than me passed away about three… 2003, so four years ago. And he was very active, he played basketball, he was just, you know, normal 23 year old, very healthy. He had a tumor on his adrenal gland and in his sleep one night his adrenal gland burst causing his heart to explode. And the reason that was so impactful and something I think about often, is he lived in a somewhat lower income apartment complex in San Francisco—or actually just outside. And come to find out, I didn't know that at the time, until much later, I met a woman at a conference a few years after he passed away who incredibly enough lived in that exact same complex and lived, you know, in that area all her life and had, her children had birth defects and major health issues. She became very active and found out that people in her neighborhood were having similar problems and she's an African American woman. My cousin was also African American. And, you know, it's a very poor neighborhood. And she actually worked with Erin Brockovich, because the reason was that they built this apartment complex, lower income place, right on top of an old toxic dump basically which was right next to a PG&E [Pacific Gas and Electric] plant, which was the same in Erin Brockovich down in Southern California, same, similar circumstances, but they didn't make a movie about this woman [laugh]. Anyway, I mean, it was an incredible moment because I think I realized the connection between environmental toxins and environmental waste, it wasn't nuclear obviously, but the negligence and the abuse by corporate entities and their, you know, and the lack of

knowledge out there and lack of education and the fact that it seems to always disproportionately affect lower income people, people of color. You know, I had already been in the movement when I started, when I met this woman and just hearing that from her was such a close thing, and knowing that my cousin…I mean there's no way of connecting the dots like saying he died because of this, but he had a tumor, who knows how it happened. He lived in that exact area, same complex where many other examples occurred. So anyway, that was a major event that happened in my life that impacts me today, still.

SS: Would you say that [was] sort of confirmation for the work that you do today?

TG: Absolutely, definitely, without question. I think, like I said, I was already sort of involved and had a long background, my parents involved and all that. But yeah it was just definitely confirmation.

SS: Great. What would you say are the major ethical influences in your life growing up and perhaps carry over to today?

TG: Ethical influences? Wow. I thought we were going to ease into this. [laughs]

SS: Sorry, birthplace, that was the easy question.

TG: Nice, not my favorite color or anything? [Sigh] ethical influences? I guess just the values and ethics of being honest, you know? Of being very…and…respectful to, you know, people that deserve respect. So it could be your elders, it could be people of importance in your community. So…man, I'm not thinking of a real answer, but I think just matters of respect, of, you know, the whole cliché of 'treat people how you want to be treated.' I don't know if you asked this, but if it has a play into my current career or anything. But you know, I think with environmental policy or nuclear policy, there's

this—I think, fundamentally a lack of respect on the part of either government or, you know, corporate institutions with the public. You know, they think that you have to have a Ph.D. in nuclear, you know, physics or whatever to be able to respond or have a complaint. And I think that's about a lack of respect, a lack of equality. It's injust. You have to be able to have this, you know, eminent role to be able to contend a very dangerous issue. And so that's I think the principal of, you know, who decides of being involved, you know, in your civic process and policy. It's about respect, it's about fairness and, you know, independent free will, choice. It's a really weird answer, but I hope that answers it.

SS: I think that does.

TG: Okay.

SS: Who are some of your role models, maybe that taught you those things?

TG: Yeah, I mean, definitely my parents. That was definitely true growing up. Like, I've had great teachers in school, from elementary through high school, that were—and college—that were very eye opening in terms of how they presented a world view, you know, that not everybody, I think, is exposed to and I was lucky *to* be exposed to it. You know that—this idea that the world isn't as you…It's more complicated I guess than people, when they look at TV or anything… And so those are…Anybody that has thought about the world differently and has been able to like, question the way the world is, question authority, whatever, has been a role model to me. And it could be somebody you meet on the street or it could be somebody of importance like a political leader. So…

SS: All right. That concludes my questions for the background information section. [laughs] So let's get into establishing your relationship with nuclear waste issues. I did a

little bit of background information or research about you. And I learned that you're quite involved with a number of different organizations. Last year you went to a couple of different conferences. How did you first get involved with nuclear issues and could you tell me what maybe current organizations you're associated with?

TG: Definitely. I first got involved in the summer of 2004. I had just moved to Las Vegas [Nevada] with no knowledge at all of any nuclear issues. I moved to Las Vegas [Nevada] for personal reasons. My girlfriend at the time was living there and it was the summer of 2004 so it was the election season, you know, George Bush and John Kerry. It was very heated, as everybody knows. And in Nevada when I just moved there, one of the biggest issues, still to this day, let alone environmental issues, but just political issues is the Yucca Mountain project. And so I move there and all of the sudden I'm seeing, you know—I'm reading newspapers—I'm seeing articles about Yucca Mountain, I'm seeing all this news about it, about how George Bush stands on it, about John Kerry. It is clearly a big issue and I literally had no idea what that was. And out of mere curiosity as a historian, a history major, and just wanting to know more about it I did some research, you know, online, nothing major. And the more I learned, I mean literally, I was just appalled but just amazed at what…the history behind the project is and, you know, all the science or lack thereof that goes with the project. So there's just so much, and I just literally just delved deeper and deeper into it. And one of the names, one organization that kept coming up when I was doing research was this organization based in Nevada, in Las Vegas called Citizen Alert.[1] And, you know, I went to their website, looked into them and found out they had been around since the beginning, for…1975, when the

[1] Citizen Alert is Nevada Grassroots organization that provides education, advocacy, and empowerment to citizens in matters of environmental justice and environmental harms. Citizen Alert, P. O. Box 17173, Las Vegas, NV, 89114-7173, www.citizenaltert.org.

project was first thought of. And so I emailed the director one day, and literally this was just a month and a half after I moved to Vegas [Nevada], and I said "I want to volunteer I want to get involved if I can, you know, I just moved here." And she wrote me right back and we met for lunch one day and she said you know, "we can use the help." And so anyway, [the] long story is, eventually I volunteered for a couple of months [and] they eventually offered me a part time job then eventually a full time job, which was awesome. So I worked for them total for about maybe two years? A little over two years. They had some financial issues so I had to move on. But I worked primarily as a grassroots organizer; the outreach director was my title.

And then I moved to a different organization in Nevada that called the Nevada Conservation League which was not as much anti-nuclear but just more in general environment issues. [I] worked there for about nine months or so, also as an outreach director/organizer, and then in March of 2007 [I] moved to Salt Lake [Utah]. And there's a couple of organizations I'm involved with locally here then also nationally. Nationally there's an organization that is called Think Outside the Bomb[2], which is a national youth network with a purpose of getting young people involved in the anti-nuclear movement, mainly on the weapons side, but also definitely on the environmental and waste side of things. I am—this is really not a formal title, but I'm on the steering committee on young people trying to get this thing off the ground. There's people like in…everywhere from [Washington] DC to California and New Mexico involved. And, you know, we put this thing together because we realized, as young people and as people involved in this movement, that there are no young people involved. Like we go to conferences or events

[2] Think Outside the Bomb is a network of organizations and people working towards building a new generation of leaders for a nuclear free world. Contact: Steve Stormoen, PMB 121, 1187 Coast Village Road, Suite 1, Santa Barbara, CA 93108, http://www.thinkoutsidethebomb.org/.

and everybody has gray hair and the average age is like 65 or whatever. And, you know, we feel like that's wrong first of all because young people need to be involved in these issues. And they are so critical to what's happening in Iraq or Iran right now, to just our daily environment, health, etcetera. But there's this total gap or lack of young people involved. So in a nutshell, Think Outside the Bomb is an attempt to right that and to get young people involved on campus. I can go more into that later, but a couple other organizations that are more local: one is called The Utah Campaign to Abolish Nuclear Weapons, UCAN.[3] And it just started, actually, I think, four or five months ago. And it's a group of Utah—Utahans that are worried about nuclear weapons issues and [are] passionate about nuclear abolition and disarmament and we've come together over the last several months and try to raise awareness about these issues. There is really not another organization working specifically on nuclear weapons in Utah. There…the other organization that I'm involved with that *does* work on nuclear issues certainly is HEAL Utah, The Healthy Environment Alliance of Utah.[4] My girlfriend actually is the director of HEAL, Vanessa Pierce. And so my relationship with them is more just as a volunteer, and I have background in the issues so I'm more like a super volunteer I guess. So I help them as much as I possibly can, and they deal with mostly nuclear waste and the health effects of nuclear weapons testing potentially, but not specifically from an abolition/disarmament perspective. So yeah, those are some of the organizations I'm involved with. [laugh]

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[3] The Utah Campaign to Abolish Nuclear Weapons (UCAN) is a collection of concerned citizens in Utah working towards public awareness, discussion, and civic action toward a nuclear free world. http://www.utahcan.org/AboutUs.htm.

[4] The Healthy Environment Alliance of Utah (HEAL Utah) formed in 2001 as a alliance of citizens and organizations to work towards a healthy environment in Utah, specifically fighting against nuclear and toxic waste dumping. HEAL Utah, 68 S Main Street, Suite 400, Salt Lake City, UT 84101, http://www.healutah.org/.

SS: How long have you been involved? Since 2004 you said?

TG: Pretty much yeah, the summer, yeah…2004.

SS: All right, I think you got at all my questions on that list, just in that summary.

TG: Oh wow.

SS: That was great.

TG: Sweet.

SS: So perceptions of nuclear waste issues. How would you describe your role in the current debate over nuclear waste? So, some things to think about, like what is the problem with nuclear waste from your perspective? What are some potential solutions and where do you fit in this situation?

TG: Okay, [sigh] I might have to come back to you for every part of the question.

SS: Yeah, no that's fine. [laugh]

TG: Read me the first one again actually I'm sorry. [laugh]

SS: Oh, yeah, it was: how would you describe you role in the current debate over nuclear waste?

TG: Yeah, so earlier I mentioned that I feel like there's this significant fundamental problem in the nuclear waste debate. The problem is that the way that it's set up now is you literally almost have to have a PhD in nuclear physics, engineering, what have you, to be able to truly effectively participate. And on top of that, the way our government and our policy making is structured, the burden of proof essentially is on the individual, the public, to prove, quote unquote, that some thing, some policy, some Yucca Mountain, what have you is going to be harmful. And I feel that it is fundamentally unjust and I feel like it should be the exact opposite. The burden of proof should be on the institution,

whether it be a government agency or a corporate body. If they want to do something, they have to prove that it won't be harmful as opposed to the public. So there's this fundamental problem and literally, not just nuclear, it has to do with every environment policy, how it limits public engagement, public involvement. It limits sound science; it limits everything. It limits democracy, to be honest, because people can't be involved and truly informed about how decisions are made. And if you look at the history of the nuclear waste—nuclear age of the last 60 years, there have been significant, absolutely tragic examples of government/corporate negligence causing, you know, unimaginable harm to individuals and public health because of this exact problem, this exact lack of informed debate, informed consent, etcetera.

And I guess to get to the question of where I see myself, is trying to right this wrong, trying to put some sense of public involvement into the decision making process, like getting people involved, getting people active into the decision making process and trying to shift the burden of proof, again away from the public onto those institutions that want to harm us, literally. And in order to do that, my philosophy is, you have to get them politically involved, active in the community, [and] engaged in these issues to build power. Because essentially what we're dealing with is these major institutions whether public or private that have incredible power, financial, political, whatever power, and that's unjust, and so we need people to get involved to right that wrong, essentially to right that unbalance. And, you know, my role…I don't think it's noble or anything, it's just an attempt to get people involved. My background in these issues allows me to, you know, I don't have a PhD in these science[s] or whatever, but I have some knowledge of these issues and so I can speak the layperson's language and communicate with them,

hopefully effectively to do so. So, that's in a nutshell where I think my role would be—or is.

SS: So the problem…you seem to identify the problem as having to do with framing these issues and how we talk about it in a debate.

TG: Yep.

SS: What would you say are some potential solutions to that problem?

TG: To framing?

SS: To framing…so you identify the problem as framing, but obviously you seem to have problems with nuclear waste in general.

TG: Right

SS: And the production of it.

TG: Right

SS: The purposes of nuclear weapons and nuclear energy. So what would be some potential solutions to maybe those framing issues and then to the production of nuclear energy and consequently nuclear waste?

TG: Okay. I think I'm not exactly clear on the question, because are you asking, like, how to better frame these issues like how they should be framed or just actually what the issues are and what are the solutions to the issues and the problems?

SS: Okay. So you've already said that getting people involved will, you know, be a better thing, what does that do for us, as…I guess as informed citizens?

TG: Right…Sure. What that does, I think, is…Because there is this problem where how the issues are framed and how it limits public involvement. Literally just by being involved you see there are so many examples of where bad policies or bad decisions or

bad ideas haven't stopped. And so the purpose I guess of why you get people involved in these issues, and why you aim to build political power is you change the dynamic, you change the way decisions are made fundamentally. And I think there's a difference between doing that, building power and all that, between sort of lifestyle changes where people say… people to other people, 'oh you just got to change your light bulb and you'll save energy.' And so those are important, but I think the efforts to do more lifestyle changes where 'all you have to do is just recycle,' those don't address the fundamental problems. And so the solution is literally just based on how people get involved politically in their area, in their community, or wherever, whether locally or nationally. And sometimes by that simple act of voting, sending a letter to your congressman or a letter to the editor, or showing up at a public hearing and then submitting comments, those build power over time. It's not easy, it's not immediate, but it does build power so that when decisions are made, they have to listen to the people. It sounds like a cliché. They have to listen to the citizens that *are* informed. And, you know, somebody told me a long time ago that the role of the non-profit, you know, non-profit organization, is to do what government doesn't do. And I think that's in a lot of ways true because we have to be the one to be educating the public. We're not in it to make a profit, obviously as the name implies, and so we have to be the one to educate people on these issues, to get them involved, show them how to get involved, train them on how to get involved maybe. And it's not to simplify the issue, but even those simple acts can do a lot. So, I hope that answered it.

SS: What is the public's perception currently, or how do people view nuclear issues right now?

TG: Not well [laugh], at least according to in my opinion. The way that the public views nuclear issues… Let me just say this, I think that the government has been very successful, the same with corporate entities, very very successful at framing nuclear issues as, and this goes for environmental issues as well, as, you know, not a big deal: 'don't worry about it, trust us because we have degrees, we have the titles, we have the positions of power.' And so what that has led to [is] many years that the public, on one level being very trusting of authority, but on the other level when they're skeptical they're almost to the point where they feel like any problem is gonna cause them to die or something. You know, this extreme where…and I understand why this happens, they don't trust their government so they start to worry in the extreme that anything they're doing is evil and corrupt. Now it might be, but…so there's this lack of context and a lack of sort of how things are working and so you have these extremes of a lack of knowledge. And so just a couple examples… The nuclear power industry for example has been incredibly successful over the last several years as framing nuclear power as a solution to global warming and they've done that, again very well, with millions of dollars put into PR campaigns and all that. And the people are starting to buy it. It's not good, but…and not true in any way. I mean even if you look at internal documents of the industry, they know it's total BS, but they've been successful. If you ask the average person, they're probably in favor of nuclear power, or at least if you frame it as global warming solution. And same with nuclear weapons. If you look at…if you ask the common person, 'why did we end WWII' for example, or 'was the bombing of Hiroshima and Nagasaki a good thing?' they would say, 'yeah a lot of people died but at least it ended the war, it saved millions of lives.' And you look back historically and you see that the government, a day

after it happened instituted a major ad campaign to sell to the public that killing a quarter of a million people saved lives. And so it was an orchestrated thing and they were successful because that's how most people think of that specific event. So there's a lot of work to be done, definitely.

SS: All right. Who has been or will be affected by nuclear waste disposal?

TG: So, in general if you look at …like I sort of touched on earlier, nuclear waste disposal has absolutely disproportionately affected lower income people, Native American people, indigenous people, I mean across the board. One example, or a couple of examples: one is the Yucca Mountain project. The land that, not only Yucca Mountain, but the Nevada Test Site where they tested nuclear weapons for many years is sovereign native land of the West Shoshone people that was taken away from them many years ago, and it's a non-issue.[5] I mean even Nevadans who were against the project don't even consider the impact it would have on their [the Western Shoshone's] spiritual/cultural beliefs, of, you know, dumping the most toxic waste, you know, imaginable on their sacred land. So that's one example. There's attempts to dump nuclear waste here in Utah on the Goshute Valley, the Skull Valley Goshute Reservation in the west desert. And again, they were so impoverished, so the idea was, 'oh they're so poor and they already have a lot of waste there anyway so might as well just dump it there because maybe, you know, they could maybe make money off of it,' which is a terrible way to think about the issues.

But I wanted to give that—mention that, but beyond that, the idea that we are creating waste that is deadly for hundreds of thousands of years, in some cases millions of years, and dumping it on future generations that will have to deal with it, and then

[5] The Western Shoshone lay claim to the land under the 1863 Treaty of Ruby Valley.

continuously creating more when we don't even have a solution to what we already have is…I mean I don't even know the right word, is a terrible idea, it's unjust to future generations, you know, our children, whatever. And yet we keep creating it, keep making more of it. And so, you know, I don't know if there's anybody that isn't affected by nuclear waste and nuclear policy, especially if you look at the weapons side, when you look at our government, how we use nuclear weapons in our military, how many weapons exist in the world and how dangerous a situation we're in with the use of nuclear weapons, and what a nuclear war would mean [laugh] for the world.

So I mean it's a simple thing to say everybody's affected, but disproportionately it's people that have the least ability to stop it. And it's true for all Utahans. I mean, we don't have one nuclear power plant in Utah but we are targeted as a dumping ground. The same goes for Nevada. It was chosen not for scientific reasons at Yucca Mountain, it was chosen because it was the weakest state politically. And so 49 other states can say 'oh let's dump it in a desert in Nevada' and really Nevada had nothing it could do. It could not stop that. So, yeah, that's my [laugh] (_____???)

SS: Do perceptions of land come into play when choosing a place to dispose of waste?

TG: Perceptions of land? Like how we think of the land?

SS: Um hum.

TG: Definitely. People think of…I mean one thing I heard a lot in Nevada—and even though the state of Nevada is overwhelmingly opposed to the Yucca Mountain project, public opinion as well as political leaders, like 75 to 80 percent of people are opposed to it, I mean across political lines, Republican, Democrat, whatever. But you still hear a lot of people saying "oh you know it's out in the desert," you know, "who cares, it's the

desert." Which, you know, it is, obviously, it's a huge desert and there's a lot of space. So the perception is, the land is expendable. You can dump whatever deadly stuff out there and we'll keep going on. Absolutely, I think public perception of the land played a huge part in it because they think it is expendable they think… You know, not to pick on the east coast or anything, but the majority of the nuclear power plants are east of the Mississippi, over 75%. And a large part of the thinking is they have all this nuclear waste piling up and they want to dump it in Nevada, away from where they are. Now mind you they have higher population density and all that, but there's this mind set that 'oh just dump it out there, you know, it's okay, it's not going to impact anybody,' without thinking of things like 'how are you going to get it there?' transportation issues. How do you get the waste from A to B? You have to put it on our roads, our railways, which impacts, you know, a lot of area [laugh]. So, you know, I don't think it's a matter of we have to frame it as 'protect the land' or 'love the land,' you know, like this very cliché view of environmentalists that we're perceived as tree huggers, whatever. I don't think that's the answer. We don't have to say "cherish mother earth." What we need to do is say "if we had a system, a political system, a democratic system that worked, was healthy, then we wouldn't have these problems in the first place." People would be informed; we would know the alternatives to nuclear power, for example. One of the best quotes I've ever heard about like environmental policy is: "there's a direct correlation between our civic health our civic democratic health and our environmental health." If our democratic systems, our functions are not working, people are not voting people are not engaged, if the debate is so limited and skewed, our environmental health will be impacted. It's just a direct correlation. So all that plays into it.

SS: In what ways are people affected? You said generally lower income people and, Native Americans [are] disproportionately affected by this. How do we see this surfacing?

TG: It ranges everything from health impacts, without question, to economic impacts. You know, nuclear power, just going back to that one, that example, is incredibly expensive so, you know, the nuclear industry has been the most heavily subsidized industry by far, more than oil, more than coal, more than gas, anything. So our tax dollars are going to this, again to…if we had that informed debate that wouldn't be happening, you know. And so it ranges everything from public health impacts to economic impacts, you know, and there's total connection. If we put that money that we're subsidizing nuclear power industry into renewable energy and much cleaner energy we would avoid a lot of these problems, but the nuclear industry lobby is really powerful and they attract all that money, they demand and they get it because they support certain people with campaigns, political campaigns, what have you. So, the health impacts are real, it impacts our water supplies, our general health and safety. It impacts our economy, all of it.

SS: And so you would say it impacts our economy negatively.

TG: Yes, definitely.

SS: Because we're putting money into it?

TG: We're putting…we're wasting money I would say [laugh].

SS: Okay.

TG: Into the money pit that we've been doing for 50 years, hundreds of billions of dollars, literally, and so it impacts it negatively. We're burdened with nuclear waste for generations, which means we've got to put more money into securing that waste and

keeping it safe if possible…yeah, absolutely. And that money, if that went into other energy supplies, other smarter alternatives, you create jobs because you put money into where the market is, where there is so much potential for growth. You create jobs in the west, you know, where there is so much renewable energy potential, for example. So there's definitely a negative impact, absolutely.

SS: So you obviously have some ethical concerns about this.

TG: Yeah [laugh].

SS: How do you think the people that are proponents of nuclear energy, and then by implication nuclear waste, how do you think they, I guess, consider these ethical choices? Or do you think they do at all?

TG: Right. I think they do. I don't want to…and I definitely don't want to sit here and say that they're wrong and I'm right. I mean I don't think it's that simple. I think, you know, they…I don't know, maybe this is not a good example but like the Hiroshima example. I mean, there's people that truly believe morally and ethically that it was a great thing that we bombed Hiroshima and Nagasaki, because they truly believe, and I'm not calling them liars or bad people, they're great people; and I met some people like this. They truly believe that it saved lives. And that to them is an ethical value, a true real thing and they believe it in their heart and soul. And I don't think I have the right to tell them they are wrong or immoral or unethical. They just have a different perspective. Not necessarily right or wrong. I mean I disagree from a historical perspective if you look at what happened, and all the evidence that shows to the contrary. But they do have that ethical frame of mind that, you know, doing things like taking all the waste from a 103

nuclear reactors that exist currently and then consolidating it into one place in Nevada, they think that's a good thing. And you know on the face of it, it is a good thing.

I mean, I am for a sound geological repository that puts the waste in one place, but it goes without saying the Yucca Mountain is the worst possible place for many reasons I could get into if you want. But I can agree with that, that true belief that saving future generations by consolidating waste is a good idea and I absolutely agree with that, if it's done correctly. If there's informed debate [and] consent by those that would be impacted like Nevadans, like the Western Shoshone, whomever. And of course if you stop making it, because you're then not really solving the problem, you're just moving the problem around. So there is definitely a divide between how one side views the issues with the other, and it's not so simple as we're right and they're wrong, it's a matter of, and I keep going back to this: if we had a real healthy functioning democracy, where there's informed debate, both side are heard, evidence is presented, then we would make right decisions, I think. We're not in that situation. We have a very unbalanced power structure and bad decisions are made daily, you know?

SS: So you said Yucca Mountain was bad for many reasons that you could get into. Could you name a few?

TG: Sure. So, from a scientific perspective…let me just give you a little bit of background, really quickly of how Yucca Mountain was chosen.

SS: Okay.

TG: Yucca Mountain was chosen not for scientific reasons. It was chosen because, like I mentioned earlier, the land was already owned by the federal government, or at least used by the federal government. So they already had the land. Nevada was a weak political

state. They were considering a couple of different options, one site in Texas, one site in Washington state and then one, Yucca Mountain in Nevada. And because of political reasons, Yucca Mountain was exclusively chosen over these other sites. And a perfect example is, in 1986, this is even before they chose those two sites, and considered those additional sites in Texas and Washington, they were considering a site actually in Maine and the reason was, Maine has a lot of granite rock that they were thinking that would be a good place to isolate the waste for many years because of the type of rock and the composition of the rock. And many concerned citizens of the northeast New England area arranged a visit with then president Bush, [George] Bush Sr. So clearly, they're not your average….no he was not the President then he was the vice president, excuse me, [Ronald] Reagan was president. So clearly they weren't your average citizens to arrange a meeting with your vice president. They were very influential people., and they met with the Vice President, Bush Sr. then. And literally two weeks after this meeting happened, all other facilities that were being considered were taken off the table and Yucca Mountain was the only site that was going to be considered, and the only site that was going to be considered and could be compared to. So from a science perspective, when you single out one site and you say 'this is the only site we are going to consider,' that's the only one you are comparing it to. So you're not saying 'let's create common criteria and find the best site that meets those safe criteria,' you're saying 'this is the site, let's make that site work.'

And if you look at the last 20 years or so that's exactly what's happened, they've changed the rules when it [has] been shown that the nuclear waste containers that would hold the waste *are* going to leak, it's not a matter of if, but when. They changed the rules

so that it allows that to happen. They changed the radiation standards of how much radiation Nevadans could be exposed to over time. When they realized there would be high doses they changed the number to make it fit. I mean, I'm not even making it up, this is real, this is what they actually did. There is many other examples. And so, and Yucca Mountain, itself even without them changing all the rules, is a terrible site because you have a combination of a very wet environment, even though it's the desert on the surface, there is water underneath, and it's going to be about a thousand feet under the surface, the facility. So you have a wet environment that's somewhat humid but still dry, you have metal containers, and you have air which creates rust and corrosion. So the metal containers would leak, it's just a matter of when. It's one of the most highly active seismic earthquake zones in the country, so you have a mountain that is constantly moving. In fact the Western Shoshone call that mountain, Yucca Mountain, Snake Mountain. In fact, the literal translation is "snake moving westward" because they know, they've lived there for thousands of years and they know the mountain actually moves westward. And they've documented this, geologists. Because it's always moving you have a very safe, excuse me, a very unsafe environment to put nuclear waste. This is known, the documents are there. The DOE, the Department of Energy, who manages the project, like I've said, continuously changes the rules to make Yucca fit from a political perspective. Because they want it to happen to, in large part, to appease these other states that want the waste out of their back yard. And so they've found the spot, and they'll do whatever it takes to make it work. And that's what they've done.

SS: So we have this nuclear waste. Have you seen examples of plans of disposing of this nuclear waste that you think are, I don't want to say good, but maybe like better than what you have seen? So can you tell me about those?

TG: Yeah absolutely. The first thing though without question is you have to stop making it. We literally we have, you know, this pile of waste all over the country and we don't have a solution yet. Nobody does in the entire world. Any country that has nuclear power has not figured it out, what to do with the waste yet. So we have a problem we don't know the solution. Let's not add to the problem by making more. Especially when you look at it from an energy policy perspective, we have real viable alternatives *now*, you know, 20-year-old technology to meet our energy needs and phase out power, nuclear power. And so I think that's…You have to preface by saying you have to stop making it. It's uneconomical, nuclear power is; it's unsafe, it leads to proliferation of nuclear weapons, I could go on and on. So that's number one.

Number two, the first step once you presumably phase out nuclear power, is you try to make this waste safe onsite, where it is. So there are ways to do that. Right now the waste is sitting at nuclear power plants across the country in pools of water, literally. And they're about 40 feet deep, huge Olympic-size pools and they're there cooled if…and they have to constantly be cooled with water pumps and air fans to keep the waste cool, it's millions of degrees hot. If those pumps fail or if there is a major failure or if there was a terrorist attack or even just an accidental failure, attack or something on the facility, the water would, you know, escape and then you would have a major fire of the nuclear waste. Anyway, that's the worst case scenario, but it's plausible. So what you need to do right away immediately, and it can be done easily, is take that waste out of the pools of

water and put them into what are called dry cask containers. As the name implies, they're just concrete and steel containers that are dry air cooled, not by water and need constant pumping and filtering and what not. And you put them onsite at the facility, and there's ample evidence that shows that that method is safe for about a hundred years, where it's above ground where you can monitor it and you can look at what's happening. If it did leak, you would know right away because it's accessible and there, but it easily can be done for a hundred years, that hundred years buys you time.

And the scientific consensus around the world is that you *do* need a geologic repository, meaning a facility that is underground that is…can isolate the waste for as long as physically possible. Because anywhere you put it, it will leak, that's just the way it works. Especially considering the waste is radioactive for hundreds of thousands of years beyond even our imaginable time frame. So that hundred years that you put the waste onsite safely, buys you time to look at facilities, whether this country or elsewhere, that meet standard criteria. The first step once you have bought yourself those hundred years is establish criteria. In fact, that criteria is out there. You don't put it in an earthquake active zone. You don't put it in a very oxidizing, rust-causing environment and there's many more. You create public involvement and informed consent. You take it out of the hands of the Department of Energy, which (a) creates nuclear waste through the weapons complex and (b) promotes nuclear power. So you have this conflict of interest between the agency that is trying to solve the waste problem and they're actually creating it and enabling it. So you take it out of the hands of the DOE or any institution that's making it and have a true public involvement of all the people involved. So those criteria have been known for years it just that it's never been done in this country *ever*.

And it's not going to be easy to do that, by any means. But, you know, that's the model the other countries are using. Sweden has a good model that uses a lot of these criteria. You know, they make it voluntary as opposed to forcing it on a community like Nevada. It's a, you know, it not just [a] forced thing, they create the standards first then look for sites that might meet the standards. So, it can be done, but there is no perfect magical answer. The reason is of what we're dealing with. We're dealing with something that is deadly and radioactive for hundreds of thousands of years, beyond what we can even imagine, beyond more than human history. So we're dealing with something incredibly dangerous and hard to manage. So we've got to stop making it and right away figure out how to do this. That's never been done in this country, *ever*, period.

SS: So who's responsible for this situation?

TG: Wow [laugh]. I think…that's such a good question and I wish I knew like the one answer [laugh]. I think it's again—I mean you can say it's the system, the way the political system works, whatever. After WWII ended, and I think I mentioned that after we bombed Hiroshima with nuclear weapons, there was… the United States government realized that it needed and wanted nuclear weapons to be a major part of our military, you know, our quote unquote defense. And so it realized [that] it couldn't do that unless it 'pacified the atom.' So for example, Eisenhower, President Eisenhower created this program called Atoms for Peace where it was literally just a marketing ad campaign, paid for by the taxpayer, to sell nuclear energy as safe. And so when people would think of nuclear power they wouldn't think of the bomb or very dangerous applications of nuclear, they would think 'oh it provides us with electricity, it's safe, it great.' And so they were pushing nuclear power while they're developing many new and more dangerous nuclear

weapons as a way to make the atom friendly and safe. And it's just classic 50s, 1950s propaganda, they had, you know, videos like, you know, they taught our kids to like duck and cover and you'll be safe from nuclear weapons and the atom is your friend, you know.

So I mean I think that's part of the cause of it, and the nuclear industry utility companies realized they were offering total subsidies, you know, tax incentives, they could make money off of going nuclear, building nuclear power plants, which is what they did. And so they built nuclear power plants, many of them knowing that it was paid for by taxpayers. Any financial risk would be burdened by taxpayers. If there was a major accident, a catastrophic Chernobyl-type accident, paid for taxpayers. So they said 'why not? I can make money off this, let's do it.' I mean that's pretty much how it happened and that's a large part of why we're in this boat today. And in that decision making process or in that chain of events, the nuclear waste problem that they knew existed, I mean they we weren't that dumb, they just didn't bother to worry about it. They said, 'Oh we'll figure it out, don't worry we need to sell the atom; we need to make money off nuclear power.' And so they pushed the problem down the road for at least 25 to 30 years. Until then they finally started to realize, 'oh shit,' excuse me, nuclear waste is piling up at reactors and they want it out of their back yard and they want it somewhere else. So, in comes Yucca Mountain, so, yeah [laugh]

SS: Would you say that there taking responsibility for this, so you've got…it seems like you're pointing specifically to the government as the primary person or entity and then also nuclear industry as well.

TG: Right.

SS: Would you say that they are taking responsibility?

TG: No, I wouldn't say that. I think that's what they *say* they are. That's their framing of the issue, is the government is taking responsibility of finding a repository. I think if look you at how they're doing that, clearly they're not taking responsibility because again they're promoting more nuclear power generation. So meaning they don't really want to solve the problem, they want to just make it go away in a sense. And again just how they're doing it…They've caused the problem, which has burdened the taxpayers and everyday Americans and then this quote unquote solution in being responsible is also doing that. So really what it is is *another* giveaway to the nuclear industry, because the Yucca Mountain size facility would cost upwards of a hundred billion dollars. And so is the nuclear industry, which profits off of making electricity, are they going to pay anything? No it's just the taxpayer. And so to me, the way I think of responsibility is if you do something, if you make a mess, like if your mom tells you 'you mess up your room you have to clean it.' And the industry is making a mess, enabled by the government, the Department of Energy specifically, and the DOE is cleaning it for them, as opposed to the people are actually making the mess and profiting off of it, handsomely I might add…so [laugh].

SS: Anything else you'd like to add that we haven't covered?

TG: I can't think of anything right now…yeah, I can't think of anything.

SS: Okay. Who would you recommend we need to call to interview [laugh]?

TG: Definitely. I think Vanessa Pierce of HEAL. I don't know, she's probably already on your list. Are you looking at just people in Utah or….

SS: We're actually looking at people in Utah, Nevada and Idaho.

TG: I can send you a list of people in Nevada that you definitely could be interested in talking to. Idaho, I have some contacts there as well. There's a group called the Snake River Alliance that watchdogs the Idaho National Lab, which is a major nuclear energy and nuclear weapons research laboratory, a federal laboratory, a lot of them have their own problems up there, big ones, a lot of it dealing with nuclear waste. So yeah I could forward you that information. Yeah, so, I can give you some names.

SS: Super, well thank you *so* much. This has been very helpful.

END OF INTERVIEW