Verbatim Transcript of Monthly Council Meeting

Washington State Energy Facility Site Evaluation Council

October 15, 2019

Corrected

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WASHINGTON STATE

ENERGY FACILITY SITE EVALUATION COUNCIL

MONTHLY COUNCIL MEETING

Verbatim Transcript of Proceedings

REPORTED BY: JORI L. MOORE, CCR, RPR

DATE: OCTOBER 15, 2019

A P P E A R A N C E S

Council Members:

Kathleen Drew, Chair
Stacey Brewster, Utilities & Transportation Commission
Dan Siemann, Department of Natural Resources (phone)

Assistant Attorney General:

John Thompson

Council Staff:

Sonia Bumpus
Ami Kidder
Kyle Overton
Joan Aitken
Amy Moon
Patty Betts

In Attendance:

Eric Melbardis, Kittitas Valley (phone)
Jennifer Diaz, Wild Horse (phone)
Chris Sherin, Grays Harbor Energy (phone)
Mary Ramos, Energy Northwest
Tammy Mastro, EFSEC
Debbie Barnes, Energy Northwest
Mark Sullivan, Security
Bill Shermin, Counsel for Environment
Kara Warner, Coulder Associates
Kelly Rae, Energy Northwest
Steven Williams, Emergency Management Division
Lynn Albin, Department of Health

RICHLAND, WASHINGTON: OCTOBER 15, 2019.

1:30 P.M.

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P R O C E E D I N G S

CHAIR DREW: Good afternoon. This is Kathleen Drew. Before -- chair of the Energy Facility Site Evaluation Council. Before I open the meeting, I'd like to have a couple of announcements. One is we don't have microphones in this room, so I would ask everybody to use your best voice to project so that those who have called in can hear what we're saying.

Secondly, with us is Debbie Barnes, and she is going to give us a safety briefing.

Ms. Barnes.

MS. BARNES: Hi. For any of those of you who are not familiar with our building, if -- in the event of any kind of emergency or building evacuation alarm, you can exit through these doors over here. Take a left and then a right. It's pretty obvious. You go past the restrooms, and there's a stairwell with an exterior entrance. Then you would go outside the building and gather to the left. There's a big gravel open parking lot where all of the Energy

Northwest people gather in the event of a building evacuation.

If there's any kind of first aid or other emergency, we have first aid supplies in the kitchen just immediately through the double doors, and there's an AED device on the second floor by the elevator, by the lobby elevator.

So if there's any other questions --

UNIDENTIFIED SPEAKER: Ms. Debbie.

MS. BARNES: Yes.

UNIDENTIFIED SPEAKER: I'll take responsibility for calling 911 or 222, if needed.

MS. BARNES: Thank you very much.

UNIDENTIFIED SPEAKER: You're welcome.

CHAIR DREW: Okay. Thank you, Ms. Barnes.

MS. BARNES: You're welcome. Thank you.

CHAIR DREW: So at this point, I'll call the meeting to order.

Ms. Mastro, will you call the roll?

MS. MASTRO: Department of Ecology.

CHAIR DREW: ~~Absent~~. Excused.

MS. MASTRO: Department of Fish and Wildlife.

CHAIR DREW: I believe he's --

MS. MASTRO: Chair Drew, can you hear me okay?

CHAIR DREW: I can hear you, and I believe

that Mr. Livingston is going to try to call in, but had a conflict of a meeting.

MS. MASTRO: Okay. Department of Natural Resources.

MR. SIEMANN: Dan Siemann is on the phone.

MS. MASTRO: Utilities and Transportation Commission.

MS. BREWSTER: Stacey Brewster here.

MS. MASTRO: Thank you, Chair.

CHAIR DREW: Since at this point we don't have a quorum, we will skip the minutes from the last meeting and add it to our business at our next meeting, but we do not have action plan for this meeting. And I do know that -- I believe that Mr. Siemann and Mr. Livingston will both join us on the tour tomorrow.

So at this point in time, I will ask, first of all, if there's anyone else on the phone who would like to introduce themselves.

MR. SHERMAN: It's Bill Sherman from the Attorney General's Office as counsel for the Environment.

MS. WARNER: This is Kara Warner with Golder Associates and a consultant for EFSEC.

And I just like to note that the announcement

from Ms. Barnes and the response from, I believe, one of the council members was quite difficult to hear on the phone, so, yeah, I appreciate the request to speak up.

CHAIR DREW: Thank you.

MS. DIAZ: Jennifer Diaz, Puget Sound Energy, Wild Horse Wind Facility.

CHAIR DREW: Okay. We're moving on now to our first item on the agenda, projects.

Kittitas Valley Wind Project, Mr. Melbardis.

MR. MELBARDIS: Good afternoon, Chair --

CHAIR DREW: There you are.

MR. MELBARDIS: Good afternoon, Chair Drew, EFSEC council. For the record, this is Eric Melbardis with EDP Renewables for the Kittitas Valley Wind Power Project.

For the period, we had nothing nonroutine to report.

CHAIR DREW: Okay. Thank you.

Moving on to the Wild Horse Wind Power Project, Ms. Diaz.

MS. DIAZ: Yes. Thank you, Chair Drew and council members and staff. For the record, this is Jennifer Diaz with Puget Sound Energy at the Wild Horse Wind Facility.

And I also have nothing nonroutine to report for the month of September.

CHAIR DREW: Okay. Thank you.

Chehalis Generation Facility, Mr. Miller -- Mr. Overton.

MR. OVERTON: This is Kyle Overton, EFSEC site specialist for Chehalis Facility.

Outside of the inspection that was conducted by a representative from the United States EPA for the wastewater program at Region 10, there was no nonroutine items to report. There was no major deficiency noted during that inspection, and a report is expected in the upcoming weeks.

CHAIR DREW: Thank you.

Desert Claim, Ms. Moon.

MS. MOON: Good afternoon, Council Chair Drew and council members. As Chair Drew said, I'm Amy Moon, and I will provide an update for the Desert Claim Project.

In September, EFSEC received the final cultural resources monitoring and mitigation plan for the Desert Claim Wind Power Project, and in addition, the U.S. Army Corps of Engineers issued a Nationwide Permit 14, also known as an NWP 14 or linear transportation projects. And EFSEC is issuing a

letter stating the project meets the requirements for Washington State for one water quality certification under Nationwide Permit 14, and that was -- we worked with the Department of Ecology on the water quality certification portion.

Do you have any questions?

CHAIR DREW: Are there any questions for Ms. Moon?

Thank you.

Grays Harbor Energy Center.

MR. SHERIN: Good afternoon, Chair Drew, council members. This is Chris Sherin, the plant manager from Grays Harbor Energy Center.

For the month of September, the only nonroutine items we have to report are we submitted our relative accuracy test audit results to EFSEC, and we also -- our annual inspection by the State Fire Marshal's Office was conducted in October of -- or, excuse me, it was scheduled for October.

CHAIR DREW: So that will be part of next month's report?

MR. SHERIN: Correct.

CHAIR DREW: Okay. Thank you.

WNP-1 and -4, Ms. Ramos in person.

MS. RAMOS: So good afternoon, Chair Drew,

council members and staff.

Can everybody hear me okay on the line?

Okay. Good afternoon, Chair Drew, council members and staff. My name is Mary Ramos. On behalf of the many Energy Northwest team members in attendance today, we welcome you to Richland. Thank you very much for your visit. We're looking forward to showing you around Columbia Generating Station and WNP-1 and -4 tomorrow. And with that, I will now provide the monthly update.

So for WNP-1 and -4, there are no updates to report for the month of September.

And for Columbia Generating Station, I have three updates. First is regarding our spill control plan. The Columbia spill control plan was revised and submitted to EFSEC, and the plan revision incorporates changes requested by EFSEC and satisfies requirements under our NPDES permit.

The next update is regarding our annual air report. Per EFSEC Order 873, Energy Northwest submitted the annual report covering diesel generator run-time and boiler fuel consumption.

And the last update I have for Columbia is regarding our fire inspection. Energy Northwest submitted additional information to EFSEC and the

Washington State Fire Marshal regarding the range hood ventilation. We're also working with Amy Moon to schedule the next fire inspection.

CHAIR DREW: Thank you very much.

MS. RAMOS: And with that, I'll turn it over to Kelly Rae who will provide an overview of Columbia.

CHAIR DREW: May I ask, Ms. Aitken?

MS. AITKEN: Yes.

CHAIR DREW: Would you please help by moving the telephone closer to those who are presenting? I think that would make it easier for people to hear. I'm not sure, I may actually need that --

MS. AITKEN: Okay.

CHAIR DREW: -- microphones.

So if we can adjust a little bit, then people online will be able to hear the presentations better.

I would also say that the presentations for those of you who are online are on our website, so you can follow along there as well. Okay.

MS. RAE: So thank you, Chair Drew and council members and staff. Thank you for the invitation for having us come and talk about Energy Northwest and Columbia Generating Station.

I am with Energy Northwest public affairs, and my name is Kelly Rae. I have been with the company about

five years, and I'm responsible for public relations and internal communications outreach. And I'm going to be giving you a high-level overview of a couple of topics that you were interested in, a little bit about Columbia's history, our current operations licensing, how we make electricity, our environmental permits, and our emergency preparedness program, and about our tour policy. So I will begin.

CHAIR DREW: May I pause for just a second? May I ask those on the phone, are you hearing this presentation clearly?

UNIDENTIFIED MALE SPEAKER: Yes.

CHAIR DREW: Thank you.

UNIDENTIFIED FEMALE: Yup.

UNIDENTIFIED MALE SPEAKER: Yes.

CHAIR DREW: Okay.

MS. RAE: Okay. So Energy Northwest is an independent joint action agency established by our state legislat~~or~~ure in 1957 to aggregate the needs of public power, both small and large, and we work together with our members, the 27 public power utilities that you see here, to develop at cost energy resources, and we serve more than 1.5 million rate ~~pairs~~payers.

So today Energy Northwest owns and operates

hydro, solar, nuclear, and wind facilities. We own and operate the White Bluffs Solar Station, which is about ten miles north of Richland, located next to Columbia Generating Station. We operate and own the Packwood Lake Hydroelectric Project, which is in Western Washington near Mount Rainier, on Packwood Lake, the Nine Canyon Wind Project, which is on the south hills of Kennewick, and the Columbia Generating Station, about ten miles north of Richland. And we also operate and maintain the Portland Hydroelectric Project and the Tieton Hydroelectric Project.

So today our generation projects all have a total capacity of about 1385 megawatts. And this diverse carbon-free electricity is both great for grid stability and reliability, but also good for our environment.

So a quick history on Columbia. So in the early '70s, we were constructing five nuclear facilities, three in Eastern Washington and two in Western Washington near Satsop. So as you might be aware, only one of those projects were completed. Project 1, which was next to Columbia, was mothballed in 1982, followed by Project 3 in Grays Harbor County a year later, and in 1983, a stop work was issued on Projects 4 and 5.

The story improves after that. We completed construction of Columbia Generating Station, or Project 2, and it came online in 1984, December, so we have been operating for 35 years.

The photo on this right is a photo from -- of former State Secretary of Transportation and Congressman Sid Morrison, who currently chairs our executive board. And our executive board was formed by the state legislature in the wake of the bond default to be the policy and the budget oversight arm of our agency. We have an 11-member executive board with three members selected by or appointed by the governor of Washington, and we have a 27-member board of directors with members selected from those member utilities.

So Columbia is a general electric boiling water reactor, as I said, operating for 35 years. The Nuclear Regulatory Commission issued a standard 40-year operating license in December of 1983. And as I mentioned, Columbia came online and began producing power in 1984. In 2010, we submitted Columbia's application to the NRC for a license renewal for an additional 20 years, and then in 2012, the NRC approved Columbia's license renewal, extending our operation from 2023 to 2043.

Now, the station's output is about 1207 megawatts electric, which is approximately 10 percent of the electricity used in Washington. It's the third largest generator of electricity in the state, just behind the Grand Coulee Dam and Chief Joseph Dam, and enough power to power the size of a city about the size of Seattle, a little of its metro area.

So it's a base-load energy. It's running 24/7, and since 2012, we performed at an average capacity factor of 92 percent, which means capacity factor is the amount of electric the power plant produces compared to its operational potential. And so for comparison, capacity factors for coal plants is approximately 55 percent, 40 to 50 percent for hydro, 30 for wind, and 25 for solar.

And so we shut down once every two years for a refueling and maintenance outage where we add new fuel and replace and upgrade equipment, and so our most recent outage was in May, and our next refueling and maintenance outage will be in 2021.

So these are Columbia's annual generation records. We're very proud of these megawatts. Our generation performance has improved following every refueling in the last ten years, and we have increased

our capacity with an additional 20 megawatts as a result of planned maintenance and upgrade work.

In 2018, Columbia Generating Station produced 9.7 million megawatt hours, which is more clean energy than we've ever produced before in our history, and then in fiscal year '19, which ended end of June, Columbia set a new generation record for refueling outage year with 8.8 million megawatt hours of electricity to the grid.

So here is how we make those millions of carbon-free megawatts. This is the basic steam cycle for a boiling water reactor. The nuclear energy comes from splitting uranium atoms in a reactor to heat water into steam to turn a turbine and generate electricity. It's about as simple as I can make it. So water is boiled in the reactor vessel producing steam, which is directed to four turbines, one high pressure and three low pressure, and then that steam is condensed back into water for reuse in the reactor. The power that that water and steam that turn the turbine in the generator produces, it's sent out to the grid and distributed by the Bonneville Power Administration.

On a separate loop, on the right hand side in green is the cooling water. We pump in water from the

Columbia River, and the water passes through our condenser tubes to cool the steam back into water, and then it goes out through our six cooling towers. So the plume that you can see off in the distance is water vapor or, as my kids call it, mom's work cloud.

Okay. So we begin with the fuel pellet, and I brought one here today. So Uranium-235 is an abundant metal. It's full of energy, and one pellet creates as much energy as one ton of coal, 149 gallons of oil, 17,000 cubic feet of natural gas, and we put about -- we put 405 -- we, but 405 pellets are put into a fuel rod. And that's what's shown here on the second from the left. There's 92 fuel rods that are put together to form a subassembly or a bundle. Four bundles are inserted into a fuel channel creating a fuel assembly, and there's 764 fuel assemblies in our reactor core. Each of those fuel assemblies is about 14 feet tall, and there's 28 million of these fuel pellets in our reactor. About four of these pellets could power an average home for an entire year.

So here's what our reactor vessel looks like, here's where the magic happens. Operates at about 1,000 pounds of pressure, 75 feet tall, surrounded by nine-inch thick steel walls. The water comes in through the bottom, and it goes up through the core.

The fuel is covered with water, which is, I mentioned, boiled to create steam with the nuclear chain reaction to create heat. The steam enters the moisture separator, which is shown in blue. And it's, at that point, about 10 percent steam and 90 percent water. And it goes -- as it goes through the moisture separator, it becomes 90 percent steam and 10 percent water. And then it enters the steam dryer, shown in green, where the steam continues, but the water is not able to continue that way. It drops down to be ~~recalculated~~ recirculated through the core. And when the steam exits the steam dryer, it's about 99 percent pure steam before it goes to the turbine.

And here's an image of our reactor building containment structure. The reactor core is shown in orange. Primary containment, which is that kind of ketchup bottle shape, is our dry well which is designed to protect and contain the reactor and the fuel, and when we're operating, no one enters this area.

Secondary containment is the building. It's designed to surround the primary containment and prevent radiological release. The top floor, in gray at the top, is the refueling floor and where our new fuel pool is, which I will talk about next.

Okay. So used nuclear fuel, always a popular topic. We safely store all of Columbia's used fuel on-site, either in our used fuel pool to the image on the right and in our aboveground storage, which is on the left.

So people often confuse Columbia with Hanford Nuclear Defense Waste. So if there's one thing to take away from today, which you could help me with, is that we're not Hanford. We lease land from the Department of Energy, but we're not involved in their environmental cleanup efforts, and our used fuel is vastly different. While they have millions of gallons of underground tank waste from weapons production, our used fuel remains in the same solid form than it was when it went into the reactor. There's no visible change. It remains solid.

So here's what we do with our used fuel. Every two years when we shut down, we take the oldest fuel out of the core, which is about two-thirds of it, that has been in the reactor for six years, and we move it underwater to our used fuel pool and put new fuel into the reactor --

CHAIR DREW: We'll take a few minute pause here while we get the line reconnected.

(A short recess was taken.)

CHAIR DREW: Please continue.

MS. RAE: Okay. So about every few years, we take the used fuel that's been in the used fuel pool and we put it into dry cask storage, and we do this safely underwater and load the fuel assemblies into the canister, and then we pump out the water and put the assemblies inside the steel and concrete overpacked canisters. And we put them on our engineered spent fuel installation pad, which is located adjacent to our facility. We currently have 36 casks on our dry storage pad.

So we're proud to have a diverse mix of carbon-free resources in our portfolio. And as I mentioned, nuclear is a clean energy, zero-carbon-emitting generator with the lowest carbon footprint of any base load or 24/7 resource. So all resources, even renewable, have a carbon footprint. There's carbon emissions associated with mining uranium for nuclear power, refueling for crude oil and natural gas, fabrication for solar panels, construction and transportation for any kind of operations. But nuclear's carbon footprint is as clean as wind, twice as clean as hydro, and four times cleaner than solar.

And so the next two slides are our licenses

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and permits associated with Energy Northwest operations. We're licensed or permitted by numerous federal state and local agencies as they relate to the environment. We have acquired a multitude of permits and licenses and applied for new permits as needed with operational changes. And we work with various agencies, including EFSEC, the Army Corps of Engineers, Washington Department of Natural Resources, and the Washington Department of Ecology, Washington Department of Health, and U.S. National Marine Fisheries Service.

Now, switching gears to emergency preparedness. Working in nuclear is unique, in that we have a regular job, our outage job and our emergency response job. The goal of our emergency preparedness program is to protect the health and safety of the public, and we do this by operating safely and preventing emergency events; identifying, classifying, and mitigating emergency events; notifying off-site agencies, which is Benton and Franklin Counties, Washington State emergency operations, and the Department of Energy emergency operations; and then recommending protective actions when needed.

The map here is our 10-mile emergency planning

zone around Columbia Generating Station. The planning zone ensures that emergency management officials can make prompt and effective decisions to protect the health and safety of the public. And for the people who reside in the planning zone, they're educated about how they will be told about an emergency and what to do, and we do this through our emergency calendar. I brought last year's, 2019, calendar. We're in the process of getting the 2021. So I'll share that with you. And in the unlikely event of an emergency, public notifications would be made via 34 county-activated sirens, tone alert radios, code red emergency telephone notification system.

And as I mentioned, we have emergency response job. So my day job is public relations. My ERO job, or emergency response organization, that's working in the joint information center as a media coordinator, and we practice this several times a year through intensive drills and training exercises. Our ERO consists of about 1,000 employees including licensed operators. Everyone has a role and performs their role, and there's four teams and an alternate team on rotation, and each ERO team drills at least annually, and we're also evaluated on our drills.

We staff five primary emergency centers and

have alternate locations as well, but most importantly, we practice and drill with our off-site agencies, so we have established working relationships and protocol to follow in the unlikely events of an emergency.

So in wrapping up, I want to tell you how you can learn more and stay connected with us. So the question I get frequently is do we offer tours, and Columbia is not open to the general public for visiting or for touring. This was a decision made after 9/11 for security control and because we are located on DOE land. Security doesn't allow access to visitors arriving unannounced. They would be turned away at the gate.

We do, on occasion, provide limited, prearranged tours for business-related purposes, legislative, and stakeholder groups. And we also have a terrific tour video that's on our YouTube page. It's about 30 minutes long. It's called "Powering Our Clean Energy Future," and I encourage you to take a look at it if you're interested.

We also have the REACH Museum Exhibit in Richland where you can learn about nuclear power and more about Energy Northwest for both in an indoor and an outdoor nuclear fountain display we have there .

And we participate in a few outreach activities as well. Just last week, I was at an event called the "Energy Experience," where we were there with about 400 middle school students, educating them about different forms of energy, careers in public power. And we did this event at the REACH Museum with several of other local utility groups, so it was pretty great.

And so on the next slide, I have my contact information, and if there's anything additional I could provide, I would be happy to do so.

CHAIR DREW: Thank you.

Are there any questions?

Thank you very much.

MS. KIDDER: Hello. For the record, my name is Ami Kidder. I am the siting and compliance manager for the Energy Facility Site Evaluation Council, and I just wanted to give those of you who are in the room who are maybe unfamiliar with EFSEC and our relationship with the facility an overview of what we do and what being a facility regulated by EFSEC entails.

So EFSEC was formed in 1970 by Senate Bill 49 to oversee thermal power plants. The agency was formulated to be a one-stop permitting agency for

facilities. Typically, when a facility is constructed, they would apply for different permits to construct and operate with different agencies throughout the state or with their local county or city, and EFSEC was created to be sort of an umbrella agency that would issue all the relevant permits for a facility through one agency and through one set of contact to streamline the process. But EFSEC works with several different other state agencies, which I'll get to a little bit more later. We are -- the council is also comprised of members of different agencies as spelled out in our statutes as -- and we work with both the state agencies and the local governments as applicable.

Within the EFSEC process, the facility submits -- creates and submits an application, goes through an adjudicative process for some facilities. An expedited process is available for facilities that qualify, and when SEPA was created a little bit later in the '70s, that became part of the EFSEC process as well. All of which culminates in a recommendation by the council to the governor for the final decision. And this final decision preempts all other state and local government decisions.

The council membership is comprised of, as I

mentioned before, different agencies throughout the state. The chair is appointed by the governor, and current chair is Kathleen Drew. We also have full-time appointees from the Department of Ecology, the Department of Fish and Wildlife, the Department of Commerce, the Department of Natural Resources, and the Utilities and Transportation Commission. And these are all Washington State agencies that are a part of this council, not to be confused with the federal counterparts.

When an application for a facility is being reviewed, there are additional seats on the council for local government as well as a port position, which is a nonvoting member. There are additional agencies which do not have a seat on the council full time, but could opt to have a member sit on the council during an application review, and the agencies -- the Department of Agriculture, the Department of Health, the Department of Transportation, and the Military Department can all choose to have a member on the council during an application review if they feel like it is applicable.

So the facilities that EFSEC oversees are energy plants, which is defined in our statute to include several different facilities. It includes any

nuclear power facility where the primary purpose is to produce and sell electricity. We also oversee several other types of facilities. Alternative energy, such as wind, solar, tidal, et cetera, may opt in. Though they are not required by statute to automatically come to us, they have the option to either site through the local jurisdiction or through EFSEC.

We also oversee nonhydro, nonnuclear thermal power plants greater than 350 megawatts. So facilities smaller than that, again, would go through the local agencies, but larger than that would come through EFSEC.

We also oversee the siting of transmission lines 115 kilovolts or greater, which may opt in. There are also stipulations in our statute where pipelines may be sited through us. These typically would need to be 15 miles or greater, or depending on the pipe size, a certain diameter pipe may fall within our jurisdiction.

And we, lastly, would oversee refineries and storage facilities of a certain size, though it depends on the type of fuel at the facility and the quantity, and it varies a little bit based on quantity and site, like I mentioned.

EFSEC oversees five operating facilities,

which we have heard from earlier today during our monthly updates, as well as three other facilities that are approved but not yet constructed. The Grays Harbor Energy Facility and the Chehalis are natural gas facilities.

We oversee two wind facilities, the Kittitas Valley Wind Power Project and the Wild Horse Wind Power Project. Both of those are located in Kittitas County. And, of course, the Columbia Generating Station located here.

And there are three facilities yet to be constructed, two wind facilities, Desert Claim in Kittitas County and Whistling Ridge, and the Columbia Solar Facility, which was our first solar facility to go through EFSEC, was approved, but is not yet constructed.

So in terms of EFSEC oversight Columbia Generating Station, we received the application for the facility in January 1991.

MS. MOON: '71.

MS. KIDDER: Oh, my gosh, '71, not '91.

Thank you, Ami.

And the application was processed, and a site clarification agreement was issued in 1972. There was a site certification amendment issued in September of

1975, and the facility finished construction and came online in 1984.

So regulatory oversight from EFSEC includes compliance monitoring and enforcement. EFSEC monitors projects that have been constructed and under construction for compliance with both their site certification agreement and any issue -- permits issued as a part of required regulations that we work with in coordination -- we coordinate with other local agency and state agencies to ensure all the requirements laid out in Washington regulations and federal regulations are being met.

Permits for the Columbia Generating Station include their national pollution -- pollutant discharge elimination system permit, which is currently the application for their renewal permit is being reviewed by EFSEC in coordination with Energy Northwest and Ecology. We oversee air emissions permits, as mentioned earlier. Order 873 regulates diesel-fired combustion turbine units emissions, and Order 874 regulates fugitive radionuclides from the evaporation ponds.

And there are several other permits that EFSEC issues or coordinates with the appropriate agencies to ensure compliance with. EFSEC also coordinates with

the NRC and other federal agencies such as the Army Corps of Engineers or the National Marine Fisheries Service as applicable.

To ensure compliance with regulations, Washington State agencies assist EFSEC in our review and inspection of the facility. We coordinate heavily with Department of Ecology, Department of Health, the Office of State Fire Marshal, Washington State Patrol, Department of Natural Resources, and the Military Department Emergency Management Division. And all of those agencies help EFSEC ensure regulatory compliance for this and other facilities.

So are there any questions?

CHAIR DREW: Are there any questions?

Thank you.

MS. KIDDER: Thank you.

And now I will turn it over to Steve Williams. Thank you.

MR. WILLIAMS: All right. Thank you.

Good afternoon. My name is Steven Williams. I'm with the Washington's Emergency Management Division. I am the radiological preparedness program manager for them, and today I'm going to talk a little bit about the off-site emergency preparedness in Washington State as it relates to the Columbia Generating

Station. And when I say "off site," I'm referring to state agencies and local jurisdictions that are potentially impacted.

First, a quick little lesson. Back in 1979, there was a little hiccup at Three Mile Island nuclear power plant that didn't go so well. Following that, some changes were made. One of which was that the present and transferred responsibility for assessing the ability of state and local jurisdictions surrounding nuclear power plants, to protect the public safety and health over to the newly formed federal emergency management agency.

Additionally, congress made some changes and improvements upon some of the public law that impacts the ability of nuclear power plants to operate, and they made some changes. After that, the Nuclear Regulatory Commission, which oversees nuclear power plants or, as we say, inside the fence line of nuclear power plant, got together with FEMA, who regulates outside the fence line. And they came up with a joint publication which provided some guidance to the state and local as well as the power plant operators on how to interpret and complete what congress has dictated within public law.

FEMA further came up with an additional document

called the "REP Program Manual." And when I say "REP," I mean radiological emergency preparedness. That's the program that is around the country around all commercial nuclear power plants. This document provides further guidance to state and local jurisdictions on how to do what they need to do to meet the requirements of the program.

The program has been around since 1980. We were first involved in 1983 in the planning with the state as well as the local jurisdictions so that we could be evaluated by FEMA before the power plant came online. The program is pretty stable. It's very mature. However, things do change over time. As an example, following the 9/11 terrorism attacks, they came out and said, No, you now have a requirement to do an exercise within your exercise cycle that addresses hostile-action-based scenarios.

We also have had additional requirements placed on us that refer to having a complete separate backup alert and notification system to keep the public informed and notified of what's going on.

Within state of Washington, there are three primary state agencies that are involved in the REP program: Emergency Management Division, my organization, we are the lead coordinating agency for

the state. We also operate the State Emergency Operations Center, and we interface with FEMA and other federal agencies for additional support should something happen and we need assistance; the Department of Health who, as our radiation subject matter expert, makes their independent assessments and makes their recommendations to the state and local of what should occur in order to protect the health of the public; and then the Department of Agriculture whose focus is on food safety as well as the agricultural economy of the State of Washington. This is particularly sensitive since five of the six top agriculture-producing counties in the state fall within 50 miles of the nuclear power plant's EPZ.

Within the state of Washington, we also have six counties that have elected to participate within the program, and they're listed here. And then we have two counties that are also within the 50-mile ingestion planning zone that elected not to participate within the program like Kitsap and Kittitas. The planning and assistance for those jurisdictions has been handled by State Emergency Management Division within our plan, and then we keep them notified as well as provide advice and assistance to them should something come that directly impacts

their jurisdiction.

The whole overall goal of the REP program is to protect the health and safety of the public. Rule Number 1, it always goes back to Rule Number 1. To do that, we follow requirements contained within the REP program manual. And if I could group those together into three pillars, I'd say that that would be planning, training, and exercising. The counties also have to follow these requirements, but they're split up a little bit different based upon the risk.

Benton and Franklin, which are the most at risk counties, are within the ten-mile emergency planning zone. They're most at risk. The other counties, to include the rest of Benton and Franklin Counties, have ingestion-related requirements and aren't as strenuous --

(A short recess was taken.)

MR. WILLIAMS: So to continue on, under planning, we all have a lot of very common requirements.

Okay. There we go. Put it back on.

Okay. We are all required to develop plans and procedures as well as any other enabling documents that help us respond and get assistance or resources that we don't have ourselves. These all must be

coordinated amongst all the jurisdictions as well as the state agencies.

If there is a change to someone's plan, my organization will do a courtesy review to make sure that it meets the program requirements from our opinion, and then that is, then, forwarded up to FEMA who takes the final review and approves that as to whether or not that plan has reasonable assurance that it can protect the public safety and health.

As far as the training goes, we are all required to do both initial and annual refresher training for all staff or organizations that have a role in helping us respond to and recover from an incident involving Columbia Generating Station. There are also training requirements for those that are responsible for the planning efforts, for example, the planners that write the plans and do the procedures, the trainers that write the lesson plans and conduct the training, and then the exercise coordinators who develop and conduct the exercises, as well as for those program leads, that there are some additional training for them as well. These are all documented within our respective plans.

As far as exercises go, we follow an eight-year exercise cycle. All of the exercise criteria

contained within the REP program manual must be demonstrated at least once in every eight-year cycle. However, most of that is conducted once every two years when we are federally evaluated by FEMA. There is an exercise requirement annually, but --

UNIDENTIFIED MALE SPEAKER: Are you still in?

MR. WILLIAMS: Yes, we're here.

So we are evaluated by FEMA once every two years, and they then review our performance, and if they note any deficiencies or findings, they will be documented as so. We then have to go through our corrective actions program, coordinate with FEMA. We file a resolution to that, we fix the problem, and then we have to re-demonstrate our solution at a next follow-on evaluated exercise.

We also conduct a few drills associated with these. One is the medical services drill, which focuses on the ability of local hospitals and ambulance companies to treat a contaminated injured patient. Our emergency worker assistance center drill, this focuses on the ability of the community to monitor and, if necessary, decontaminate evacuees as well as those emergency workers that have to perform missions in and out of the impacted area.

And then last, the State Department of Health gets

assessed on their state labs available --

UNIDENTIFIED MALE SPEAKER: I'm sorry. I don't know if anyone can hear me, but I can't hear anything.

UNIDENTIFIED MALE SPEAKER: I can hear you, but I'm not hearing anything either.

CHAIR DREW: Oh, we must -- okay. Thank you.

(A short recess was taken.)

CHAIR DREW: Sorry about that interruption. And we will continue with Mr. William's briefing.

MR. WILLIAMS: Thank you.

For those that were on and may not have seen, we are on the page that discusses -- oops, back on, there we go -- financial support. We have an interlocal agreement with EFSEC, we at emergency management. We then have subcontracts with the local jurisdictions that are within this program. The Department of Health and the Department of Agriculture have separate interlocal agreements with EFSEC for financial support on this. All of the work associated with this is based upon the requirements contained within the REP program manual as well as some administrative and program management activities. Unfortunately, all too often, communities are not -- emergency management is not real high on community's list of resource

priorities until something bad happens.

Of the program here that we have, there is a positive benefit to impacted communities. One, we establish and maintain relationships with each other. We coordinate our planning together. We train together and we exercise together. So anecdotally, what we have found, and this applies throughout the country, those jurisdictions, especially those that are rural in nature, have positive benefits from participating in the REP program. Energy Northwest has been a good neighbor for us ever since we started this back in 1983. They have been intimately involved and coordinating with us, sitting down with us, and being there when we needed them. We appreciate that, and we look forward to continuing that relationship with them.

Are there any questions?

CHAIR DREW: So I have a question, or perhaps a comment, but what I'm hearing you say is that the requirement stems from the federal requirements --

MR. WILLIAMS: Correct.

CHAIR DREW: -- to have the local communities involved and engaged in the emergency preparedness, and the outcome of that is not only are you prepared then for if anything were to happen at this facility,

but then the communities have greater experience through the exercises for any emergency in their community.

MR. WILLIAM: That is correct. In emergency management, we know regardless of what the initiating condition is for an emergency or disaster of the vast majority, what you do for one, you do it for the other, alert notification, mobilization, et cetera, et cetera. This forces us to do that and to make sure that we are, in fact, coordinated, working together, and it's -- as they say, when the incident occurs is not when you want to exchange business cards. So this has a very positive benefit over any community regardless of what the initiating condition is.

CHAIR DREW: Thank you.

MR. WILLIAMS: Yes, ma'am.

MS. ALBIN: Thank you, Chairman Drew and council, for inviting me here to talk about the compliance audit program.

Can everybody hear me okay?

Great.

If you have questions, we're going to have a minute at the end or you can interrupt me as we go along.

The Department of Health has provided technical

support to EFSEC and --

CHAIR DREW: Excuse me. Could you introduce yourself?

MS. ALBIN: Oh, I'm sorry. Yeah.

I'm Lynn Albin, and I work with the Department of Health, Office of Radiation Protection and a veteran of the office. I have worked for the State of Washington since 1980. I just confessed to them, my colleagues, that -- my birth date, so I could go ahead and say I work here almost 39 years, yes.

I am the lead worker or the lead for the compliance audit program, and I work with a team of people that includes other health physicists, epidemiologists, hydrogeologists, nuclear engineers, and radiation chemists. And the overall goal of our program is to assure the public health and the environment are protected. And we do that through our scope of work that is established to regulate and check the permitted emission from Columbia and to assure that we are prepared in the case of a radiological emergency.

So why do we care about emissions from Columbia Generating Station? When radiation interacts with matter, it can deposit its energy, all of it or part of it, along the path through which it goes. If we're

that path, then we're the ones that are getting the energy, and that energy is quantified as a dose. When there's radioactive particulates in air or in food, on the ground, that, too, can become incorporated, and so that contamination, then, can end up as a dose for us. And we certainly want to limit our dose because the dose -- radiation dose causes cell damage, can cause damage to DNA, and it has an increase chance for cancer. So we're -- our number one thing, our underlying premise is to protect the public health.

But as Steve talked about, there's also an economic health to the State of Washington. This is a little bit outdated and from -- in the year -- I think it's -- it's a little old, but the theory is the same, and it shows the agricultural value by county, and certainly, the counties that are surrounding Columbia Generating Station are the ones that are in the top 10 percent of market value for the State of Washington. And that becomes important because if anybody -- if there's some report of a release -- of a potential release, an accident, then that really gets everybody excited, and there's real concern from the public.

Even if there isn't a public health risk, there could be a huge consequence to the state's economy.

And after the Chernobyl accident in 1986, for instance, there are countries that would not import Washington agricultural products without having some kind of a certificate that stated that the food was free from contamination. And we still, to this day, are providing those certificates to some countries as a legacy of something that didn't even happen here.

We were told earlier, you know, we don't want to confuse Hanford and the Columbia Generating Station, and I don't want to, either, but for reference, this is the Columbia Station down here, and this is the Hanford site and the different operation sites. The color here is contaminated groundwater plumes, and that includes a contaminated groundwater plume underneath Energy Northwest, which is not related to this plant, but that's just something in the local fare here.

The compliance audit program has several roles. There's a radioactive air emissions component, radiological monitoring, and emergency plans and procedures. And together, all these plans work to provide an assessment of Columbia's operations.

And rules, rules, rules, we saw most of these earlier, but here are the rules that govern environmental regulatory compliance at Columbia

Generating Station. EFSEC's requirements are presented in resolutions and orders. The original site certification agreement was amended in 1975 to include an environmental monitoring. It's been amended a few times after that, and now, that program resides in Resolution 332.

As something comes up, an issue that needs to be dealt with, then we would go through a resolution or an order to deal with that order -- or deal with that problem. And one case would be -- an example would be when we found very low -- low-level contaminated sediments in the cooling towers. And we needed to develop a procedure to dispose of those, safely dispose of those sediments and to be able to account for the radioactivity. And we worked through that and came with a resolution. It's Number 299.

So within the compliance audit program, there are three roles. First one I talked about is radioactive air emissions, and they have, really, three focus areas: licensing, reviewing of emissions data, and also inspections and surveillance. We're going to talk about licensing in a second.

Ben Conroy is from that group. He's here today, and he and ~~Ami~~ Amy recently completed an inspection at Columbia where they walked down the separation ponds

and also inspected the major units, the reactor building, the turbine building, and rad waste building.

Washington State is unique, I think, in the country, that we regulate radioactive air missions along with the Nuclear Regulatory Commission. The state standard predates the federal standard, and they both have the same dose limits, but the state is a little bit more restrictive, in that it includes fugitive emissions. Fugitive emissions are both emissions which are not or cannot be monitored through a stack event or some other structure. An example of one of these units is the evaporation ponds, and I think maybe tomorrow, when you go on your tour, that area will be pointed out. And compliance to the air emissions regs are included in Order 874.

Okay. The next arm of the compliance is environmental monitoring. Environmental monitoring provides a method to measure radiation in the environment and determine if there's any radiological effect from plant operations. And our compliance audit functions -- overlooks what's being done -- not overlook, oversee what's being done at Columbia and make sure that the data is good and that the plant is not operating in a way that is effecting negative

effect -- effecting -- negatively effecting the environment. The environmental data is used to validate models for dose assessment during normal operations, and it becomes really necessary, important data if we're operating under environment -- or emergency condition, if that were to happen. The radiological monitoring role also conducts environmental sampling and investigation and provides laboratory support as needed.

So how do we provide an independent assessment of data? By looking at the same media over long periods of time, if possible, to evaluate for the accumulation of radionuclides in the environment. If there's some changes that's observed, it can trigger an investigation or can enable the plants to make the change before something becomes a problem.

With -- along with Columbia Generating Station, the state operates a split-sampling program. In 19- -- I mean, 2018, we split about 380 samples, environmental samples over this wide range of media. Columbia Generating Station collects the samples, takes their half to their own laboratory in-house. Our samples are analyzed by the state's radiation chemistry lab in Shoreline, Washington, and that laboratory has the capability to look for trace levels

of radionuclide that would be expected to be produced by a boiling water reactor. And when all the samples are analyzed, then the data is all reported, and the results are combined and compared.

Okay. Emergency Preparedness Program. You may have heard from Steve about one emergency preparedness program, and the state does have separate grant for emergency preparedness, that is for planning, for training, for drills, and for exercises. And that's separate of this function which reviews CGS plans and procedures and emergency action levels to make sure they're consistent with state plans, attends critiques, and probably, the biggest part is document review. We look at documents through the lens of public health, air emissions, and emergency preparedness.

We look at NRC information notices, regulatory summary, event notifications, section reports, and operating license amendments to name a few, and we provide feedback to the NRC when requested to do so. The state also maintains current copy of operation manuals, EFSEC's off-site dose calculation manual, and such documents that we keep in-house for reference as needed.

So these three roles, collectively, supports the

state and lawful operations of Columbia. And I think this is one of the values from this program, is that we provide an independent audit, and that allows us to be able to communicate to the public any findings that we have to local health jurisdiction, to agriculture, or to any other entities and interested parties who share what we have learned.

So that is the end of it. If you have questions, I can answer them, or here's my contact information. If you -- if something bubbles up later, you can give me a call. If I can't answer it, I know somebody on the team can.

CHAIR DREW: Thank you.

Thank you all for very informative presentations. I know I learned a lot and benefit from having this information since I have just been with the council a little bit under two years, so really appreciate that.

We, now, will move on to our Item Number 5 on the agenda, which is the second quarter cost allocation.

Ms. Bumpus.

MS. BUMPUS: Thank you, Chair Drew.

And good afternoon, council members.

So as we do every quarter, I'm going to report the cost allocations based off EFSEC's cost allocation plan that was approved by the council in

September 2004. These cost allocations are for the second quarter of fiscal year 2020, from October 1, 2019 through to December 30th, 2019.

For Kittitas Valley Wind Power Project, 11 percent; Wild Horse Wind Power Project, 11 percent; Columbia Generating Station, 24 percent; WNP-1, 4 percent; Whistling Ridge Energy Project, 4 percent; Grays Harbor 1 and 2, 17 percent; Chehalis Generation Project, 15 percent; Desert Claim Wind Power Project, 10 percent; and Grays Harbor Energy 3 and 4, 4 percent.

CHAIR DREW: Thank you.

And with that, this meeting is concluded and adjourned. Thank you.

(Adjourned at 2:41 p.m.)

C E R T I F I C A T E

STATE OF WASHINGTON)
) Ss.
COUNTY OF YAKIMA)

THIS IS TO CERTIFY that I, Jori L. Moore, Certified Court Reporter in and for the State of Washington, residing at Yakima, reported the within and foregoing testimony; said testimony being taken before me as a Certified Court Reporter on the date herein set forth; that the witness was first by me duly sworn; that said examination was taken by me in shorthand and thereafter under my supervision transcribed, and that same is a full, true and correct record of the testimony of said witness, including all questions, answers and objections, if any, of counsel, to the best of my ability.

I further certify that I am not a relative, employee, attorney, counsel of any of the parties; nor am I financially interested in the outcome of the cause.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal this 31st day of October, 2019.

_____
Jori L. Moore, RPR, CCR
CCR NO. 1993