

High-Level Radioactive Waste Advisory Council  
Minutes of the November 22, 2023 Meeting  
Virtual Meeting via Teams

The meeting was called to order by Chairman Roers at 1:04 pm.

Chairman Roers welcomed everyone to the meeting.  
He welcomed new Council member, Representative Jon Nelson (District 14)

Ed Murphy was asked to assist with the roll call.

Advisory Council attendees:

Representative Jon Nelson, District 14	Ron Henke, NDDOT Director
Representative Dan Ruby, District 38	Joshua Teigen, Dept of Commerce
Senator Dale Patten, District 39	Jeb Williams, ND Game and Fish
Senator Jim Roers, District 46	Kenneth Vein, City Government Rep
David Glatt, Dept. of Environmental Quality	Rebecca Leier, Agricultural Community Rep
Andrea Travnicek, Dept. of Water Resources	Ed Murphy, Geological Survey

Council members not in attendance: Dr. Nizar Wehbi, ND State Health Officer

Murphy noted that a quorum was present.

Murphy pointed out the legislative appointments of the committee and their terms. Murphy stated that the Council has found a new County Representative that came about due to the retirement of Dean Pearson. Jana Hennessy, Mountrail County Engineer, has agreed to serve on the committee and is currently going through the appointment process.

Additional people attending the meeting were: Featured Presenter Tim Nesheim (DMR NDGS), Featured Presenter Chris Bader (DWR), Featured Presenter Damon Grabow (DWR), John Paczkowski (DWR), David Stradinger (DEQ), Marina Gasser (DMR), and Abby Ebach.

The first order of business was to approve the November 22, 2022 meeting minutes. Senator Patten made a motion to approve the November 2022 minutes. Jeb Williams seconded the motion. The motion was unanimously carried out to approve the November 22, 2022 meeting minutes as written.

Ed Murphy reviewed the purpose and the duties of the Council as written in NDCC 38-23. He went over the role the Council would play in issuing a site suitability report and the timeline of events if a waste facility site were to be nominated/proposed in North Dakota.

The second order of business was a presentation from Featured Speaker, Tim Nesheim, Head of the Subsurface Section and Acting Core Library Manager for the North Dakota Geological Survey. The main

points of his “North Dakota Geology: Geologic History & Resource Review” presentation were: North Dakota tectonics; mineral test exploration; Williston Basin stratigraphy and the sedimentary rock layers; helium, geothermal, potash, lithium, and rare earth elements potential; North Dakota oil & gas production and produced water disposal areas; the surficial geology of North Dakota; coal mining and the coal-fired power plants; and a NDGS Core Library overview. Tim closed his presentation by reiterating that NDGS geologists are always gathering new information and data to improve upon their understanding of North Dakota’s history.

Questions and discussion to follow.

Joshua Teigen asked if North Dakota is at the point where the State should be looking for companies to come in and explore for resources such as lithium and potash. Nesheim stated that lithium exploration might be close, and helium is already being produced and the technology is in place in Saskatchewan, but our lithium and helium resources overlap with oil and gas fields.

Chairman Roers asked for more of an update on rare earth elements. Ed Murphy stated that the NDGS has taken over 2,000 coal samples in western North Dakota. The department has added a portable X-ray fluorescence machine so geologists can get an indication of rare earth concentrations while they are in the field. The team expects to triple the previous rare earth concentrations with their newest samples from November. NDGS will be doing a drilling program on trust lands in the Summer of 2024. They have narrowed the search area down to two, 20-foot-thick zones that could have some potential for mining. Currently, North Dakota and West Virginia are both in the running for a possible \$125m DOE grant towards the construction of a processing plant, to be awarded in the next 2-3 years.

The third order of business was a presentation on North Dakota’s water management from Chris Bader, North Dakota Department of Water Resources Water Appropriation Division. The main points of discussion were: an overview of the Department of Water Resources; the extent of North Dakota’s water resources; Missouri River specifics; identification of ND’s bedrock and glacial drift aquifers; maps of ground water sites/types, private contractors, watersheds, surface water monitoring sites, precipitation data sites, and permitted water intakes; along with an explanation of the DWR PRESENS (Pushing REmote SENSors) network, data, history, future and costs.

Questions and discussion to follow.

The fourth order of business was a presentation from Damon Grabow, Dam Safety Engineer, North Dakota Department of Water Resources Regulatory Division. The main points of his “ND Statewide Probable Maximum Precipitation (PMP)” presentation were: the definition of PMP; its background, updates, and uses; the PMP storm process, and the study area; historical precipitation, and cool season storm events that make up the datasets; an example map of probable maximum precipitation; and a snow water equivalent data map.

Questions and discussion to follow.

Ed Murphy expressed his excitement with the work that DWR is doing in their precipitation tracking efforts. He stated that this information would have been useful in NDGS projects during the 70s & 80s. Additionally, he asked if NDAWN (North Dakota Agricultural Weather Network) and PRESENS were connected. Bader said

they were not connected, but the data is compatible if someone wants to use both.

Andrea Travnicek, Director of DWR, noted that DWR is trying to make sure that their PRESENS information, NDAWN info, USGS stream gauges, core data, and any National Weather Service data have a centralized location during flood events in the Department of Emergency Services Watch Center. The PRESENS DWR system information is filling in some of the gaps in the NDAWN data across the state.

The fifth order of business was a presentation by David Glatt, Dept. of Environmental Quality. The main topic of his presentation was energy transformation. He noted that federal and state governments have major goals for a carbon-constrained future. DEQ is currently putting together a Climate Pollution Reduction Plan. What are our options in North Dakota for reliable, affordable energy, as a current fossil fuel state? He briefly touched on the Project Tundra facility as an alternative. He recapped a meeting he recently attended in Kemmerer, Wyoming with TerraPower. Wyoming is looking to build a nuclear power plant at a former coal-fired power plant site. What issues would North Dakota face in doing the same, and how it would impact our state?

Chairman Roers moved on to future meetings and topics. He pointed out that the Energy Development Transmission Committee will be meeting on December 18 and will feature Jeff Merrifield, the former Commissioner of the United States Nuclear Regulatory Commission. Merrifield will be speaking about advanced nuclear energy. The presentation will be recorded, and Roers anticipates that portions will be played at the next Council meeting.

Chairman Roers asked if anyone had any topics regarding nuclear challenges that the Council should investigate and report on at the next meeting.

Rebecca Leier stated that she would like David Glatt to give another update on the Wyoming plant at the next meeting. She also asked for a glossary of nuclear terms to be shared at the next meeting.

Chairman Roers asked Ed Murphy, Council Secretary, to review the terms of council member appointments in hopes that they are staggered, to maintain a balance of continuity and turnover.

Ed Murphy commended Tim Nesheim, Chris Bader, Damon Grabow, and David Glatt on their presentations. Chairman Roers agreed and thanked Ed Murphy for finding the speakers on such short notice due to unforeseen circumstances surrounding the formerly scheduled presentation.

Chairman Roers asked if anyone had any other discussion or comments regarding the meeting.

Chairman Roers asked for a motion to adjourn the meeting.

Senator Dale Patten moved to adjourn the meeting.

Joshua Tiegen moved to second the motion.

The motion was unanimously carried.

Chairman Roers adjourned the meeting at 3:01 pm.