

## NORTH DAKOTA LEGISLATIVE MANAGEMENT

## Minutes of the

**ENERGY DEVELOPMENT AND TRANSMISSION COMMITTEE**

Tuesday, February 11, 2014  
Harvest Room, State Capitol  
Bismarck, North Dakota

Senator Rich Wardner, Chairman, called the meeting to order at 9:00 a.m.

**Members present:** Senators Rich Wardner, John Andrist, Kelly M. Armstrong, David Hogue, Philip M. Murphy, Connie Triplett; Representatives Chuck Damschen, Ben W. Hanson, Todd Porter, Mike Schatz, Peter F. Silbernagel

**Member absent:** Representative Tracy Boe

**Others present:** Senator Dwight Cook and Representative Marvin E. Nelson, members of the Legislative Management, were also in attendance.

See [Appendix A](#) for additional persons present.

**It was moved by Senator Murphy, seconded by Representative Silbernagel, and carried on a voice vote that the minutes of the October 31, 2013, meeting be approved as distributed.**

**FLARING**

Mr. Eric Dillé, Director of Government Relations, EOG Resources, Inc., and Mr. Chad Wocken, Senior Research Manager, Energy and Environmental Research Council, gave a presentation ([Appendix B](#)) on reducing flaring of natural gas in this state. Mr. Dillé said the presentation was previously made to the Industrial Commission. He said the presentation was a result of meetings of the North Dakota Petroleum Council Flaring Task Force. He said the goal is to have 85 percent capture within two years and 90 percent capture by 2020 with the potential for 95 percent capture. He said the reduction in flaring will be accomplished through expanded processing, building out capacity, operation efficiencies, and value-added North Dakota markets. He said flaring is 29 percent of state gas production, and 60 percent of flaring is from 216 well sites. He said the largest delay for connecting gas lines is securing landowner permission. He said to address this issue, the Industrial Commission will develop and manage a hotline for reporting surface owner issues related to pipelines. He said there is a right-of-way task force to address potential energy corridors, section line easements, and legislation to improve right-of-way access to reduce flaring. He suggested the following legislative actions:

- Incentivize rapid buildout capacity for gas infrastructure through property tax incentives, low-interest loans, and production tax credits for producers.
- Incentivize interstate value-added markets through technological innovation and infrastructure development fund.
- Support dense phase, high-pressure export pipelines to take gas to major markets without taking out the liquids.

Mr. Dillé said although changes may be necessary in the law, the North Dakota Pipeline Authority is already authorized to take up to 10 percent of firm capacity. He said this underwrites the buildout capacity.

Mr. Wocken reviewed a database that provides flared gas information. He said understanding the quantity, quality, and distribution of flares is critical to selecting effective remote-capture technology. He said 60 percent of the total flared gas is coming from locations flaring at a rate of 300 MCF per day or greater. He said 4 percent of total locations flare at a rate of 300 MCF per day or greater. He said historically 50 percent of flaring is occurring at locations with gas gathering and 50 percent at stranded locations. He said flaring where there is gas gathering is a result of a production exceeding expectations leading to a constrained gathering system. He reviewed potential technologies and successful remote capture projects. He said technologies exist that can be deployed to utilize flared gas, providing small incremental benefit to gas utilization. He said gas flaring is the result of many factors, and each technology can address different challenges and can improve gas capture under certain conditions.

In response to a question from Senator Andrist, Mr. Dillé said the task force did not look at propane. He said propane is a natural gas liquid. He said to produce more propane, there needs to be a propane plant at the end of a natural gas processing plant. He said natural gas going to local communities has been reviewed by utilities, and the economics probably do not work.

In response to a question from Senator Andrist, Mr. Wocken said natural gas liquids are not fractionated and sold separately that much in North Dakota. He said as demand increases, the fractionalization capacity could increase. He said there needs to be incentives for certain hydrocarbons for certain purposes.

In response to a question from Chairman Wardner, Mr. Wocken said it takes a substantial effort to provide for the distillation needed for fractionation.

In response to a question from Representative Hanson, Mr. Dillé said the national average for flaring is 1 percent but comparing that to North Dakota is not fair. He said the Eagle Ford play is three plays. He said it is a gas play, natural gas liquid play, and oil play. He said the flaring under the oil play is 15 percent. He said the average flaring in Texas is 1 percent. He said the reason for the reduced flaring is the nearby location of refining and processing plants that are underutilized. He said in North Dakota, there was no infrastructure when the Bakken play began, and all of it has to be built.

In response to a question from Representative Hanson, Mr. Wocken said of the 216 wells from June through November, only 12 flared at the 300 MCF per day rate for the five months.

In response to a question from Senator Triplett, Mr. Dillé said the company with the highest flaring number of wells has a gas plant.

In response to a question from Senator Triplett, Mr. Dillé said the drill schedule is dynamic. He said drill schedules change based on results. In addition, he said, markets and permitting affect the drill schedule.

In response to a question from Senator Triplett, Mr. Dillé said a dense phase, high-volume pipeline has no additional safety concerns over any other pipeline.

Chairman Wardner said consumers see gas being flared and high propane prices and may not understand the investment and processing needed to fractionate propane out of the gas stream.

In response to a question from Chairman Wardner, Mr. Wocken said the terminology for natural gas and natural gas liquids can be confusing. He said the specifications for the gas coming into a house is 90 percent plus methane. He said if this gas was mixed with liquids, the energy level would increase, and it would burn up the furnace. He said the gas coming out of the ground is 55 percent methane. He said this state needs more fractionation capacity. He said without processing, the gas coming out of the ground is not worth much. He said using natural gas in motor vehicles is difficult because the specifications for the engines are higher than what can be provided presently by gas processing. He said for natural gas to be used as fuel in an automobile, there needs to be special fractionation.

In response to a question from Representative Porter, Mr. Dillé said the task force recommended separate tracking and reporting for tribal and nontribal wells. He said 6 to 7 percent of the 29 percent of flaring is on the reservation. He said there is 70 percent flaring on some parts of the reservation. He said the state needs to work with the federal government and tribes to reduce this flaring.

## PIPELINES

Mr. Lynn Helms, Director, Department of Mineral Resources, gave a presentation ([Appendix C](#)) on underground gathering pipeline rules. He said the Industrial Commission has recently undertaken the largest rulemaking ever undertaken by the commission. He said the rules are expected to become effective Tuesday, April, 1, 2014, after approval by the Administrative Rules Committee. He said the rules provide for the regulation of newly constructed underground gathering pipelines. He said the rules provide that the pipelines must be made out of materials that resist external corrosion and corrosion from the transported fluids. He said the pipelines must minimize interference with agriculture, road and utility construction, the introduction of secondary stresses, and the possibility of damage. He said buried pipelines must be locatable through electric current, and trenches must be properly backfilled. He said a report on the pipeline with accurate geophysical information must be given to the Department of Mineral Resources. He said the information on an underground pipeline placed into service from August 1, 2011, to June 30, 2013, must be filed by Thursday, January 1, 2015. He said this is about 4,300 miles of pipeline. He said all new underground gathering pipeline must provide a report of self-certification and location within 180 days of placing the line into service. He said this is for pipelines from the edge of the well site to the transmission

pipeline or a processing plant. He said it is not for pipelines on the well site. He said the rules provide for basic abandonment and reclamation rules. He said the operator is required to leave the pipeline in a safe condition. He said the operator must disconnect and isolate the pipeline from any operating facilities or other pipelines. He said the pipeline must be cut off below the surface at pipeline level. He said the pipeline must be purged with freshwater, air, or inert gas to remove fluid contaminants. He said the cathodic protection must be removed. He said the ends must be plugged or capped by mechanical means or weld. He said there must be a self-certification and location provided upon the abandonment of a pipeline.

In response to a question from Chairman Wardner, Mr. Helms said the Public Service Commission (PSC) has jurisdiction over gas pipelines from when the pipeline enters the gas plant and from the plant to an interstate transmission line. He said the Industrial Commission has jurisdiction from the well pad to the flange at the gas plant. He said for oil, the PSC sites major transfer stations. He said the Industrial Commission jurisdiction ends at the end of the gathering pipelines.

Mr. Helms said the program is a self-certification program, which requires geographic information system (GIS) information and an affidavit within six months of completion. He said an operator is subject to a fine of \$12,500 per day, and a purposeful violation could be a felony. He said this will incentivize the use of competent contractors.

In response to a question from Chairman Wardner, Mr. Helms said the rules relate to all underground gathering pipelines, including freshwater and saltwater. He said the tenant or landowner has access to the data. He said the computer program allows for parcels to be clipped out of the system and be provided to the landowner or tenant.

In response to a question from Representative Nelson, Mr. Helms said state agencies are trying to become a one-stop shop but are far from being centrally located. He said the department is in the process of working with the North Dakota One-Call System.

In response to a question from Senator Triplett, Mr. Helms said enforcement will be done through spot checks as the pipeline is being constructed. He said the number one complaint received as to pipelines is improper backfill or reclamation of trenches. He said this results in difficulty in getting right-of-way from landowners. He said three new field inspectors will be hired to implement these rules.

In response to a question from Senator Triplett, Mr. Helms said removing the pipeline can be part of the right-of-way negotiation. He said removal can be more damaging than purging and leaving the pipeline in the ground.

In response to a question from Senator Triplett, Mr. Helms said responsibility for the pipeline is dictated by the right-of-way agreement, and the state is not involved.

In response to a question from Senator Andrist, Mr. Helms said the amount of saltwater coming out of the ground is about the same as the amount of oil. He said the percentage of saltwater spills is small but needs to be zero. He said two of the significant spills were new systems that were not properly installed. He said approximately half of the saltwater is disposed of through trucks and half through pipelines.

In response to a question from Senator Triplett, he said the GIS system needs to be accurate and precise. He said his department needs to know how far from where the operator says the pipeline is and where the pipeline could be. He said a One-Call locate was 50 feet off, and the pipeline was cut.

In response to a question from Representative Nelson, Mr. Helms said a meter is required on the pipeline if it is within one-quarter mile of surface water or a shallow aquifer. He said there is a strong policy of protecting surface water and shallow ground water.

Mr. Justin Kringstad, Director, North Dakota Pipeline Authority, gave a presentation ([Appendix D](#)) on transportation of crude oil and gas inside and out of the Bakken.

In response to a question from Senator Andrist, Mr. Kringstad said a gas processing plant can be changed to produce more of a particular gas, but the product needs to meet a specification.

In response to a question from Senator Andrist, Mr. Kringstad said the 18 percent of natural gas that is flared is at wells that are connected to pipelines. He said the pipelines are insufficient in these instances.

In response to a question from Senator Triplett, Mr. Kringstad said if the pipeline is not sized right, there may need to be compression or looping to handle all the gas from all the wells on the pipeline.

In response to a question from Representative Silbernagel, Mr. Kringstad said each state has a regulatory process, and the Sandpiper pipeline in Minnesota is in the beginning stages of that process.

In response to a question from Senator Triplett, Mr. Kringstad said his slides are based on assumptions that he generally provides in public presentations.

## TRANSPORTATION

Dr. Denver Tolliver, Director, Upper Great Plains Transportation Institute, gave a presentation ([Appendix E](#)) on the needs study of North Dakota roads and bridges. He said the final report will be done in July, and he will present the report to the committee.

In response to a question from Representative Porter, Dr. Tolliver said multiwell pad drilling was taken into consideration as to truckloads per well. He said the future of well drilling will be forecasted as well as possible. He said there are economies in the truck trips that result from multiwell pads.

In response to a question from Senator Murphy, Dr. Tolliver said with heavy traffic, cement has the lowest lifecycle cost. He said cement is expensive upfront but cheaper to maintain than asphalt.

Mr. Tim Horner, Program Director - Transportation Learning Network, Upper Great Plains Transportation Institute, answered questions for the committee. In response to a question from Representative Porter, he said typical construction requirements are more stringent than a zero to five smoothness rating. He said the zero to five smoothness scale is for planning purposes.

In response to a question from Senator Triplett, Dr. Tolliver said he will consider providing information on the cost of inspectors versus the cost of overweight loads to the highways.

In response to a question from Representative Nelson, Mr. Horner said there is not a study that quantifies the effect of rumble strips on the life of a road surface. He said if the rumble strips take on water, it can be addressed through engineering. He said rumble strips should not be a problem if the strips are not permeable.

## OILFIELD WASTE

Mr. Dave Glatt, Chief, Environmental Health Section, State Department of Health, gave a presentation ([Appendix F](#)) on the siting of landfills. He said the siting of landfills is based on the geological location, the design, and the operation of the landfill.

In response to a question from Senator Hogue, Mr. Glatt said there is an increasing amount and variety of waste. He said there are more accidents, and the accidents need to be cleaned up. He said there are more permits and review of permits by the department. He said as the oil play develops, the department will need to reevaluate whether there needs to be more staff.

In response to a question from Senator Triplett, Mr. Glatt said the Technologically Enhanced Naturally Occurring Radioactive Material (TENORM) Task Force is reviewing whether the present standard is appropriate. He said the task force is reviewing whether the generation, handling, and design pose a risk to the public health. He said the review will be done by summer.

In response to a question from Senator Hogue, Mr. Glatt said part-time employees could free up time of experienced personnel so the experienced personnel could focus on more important work.

In response to a question from Chairman Wardner, Mr. Glatt said the State Department of Health does not regulate oil pits on the well site. He said the department regulates regional special waste landfills.

Mr. Helms gave a presentation ([Appendix G](#)) on the permitting, regulation, and siting of oilfield waste pits. He said between 1951 and 1984, waste pits were unlined and were reclaimed by trenching and draining the liquids. He said between 1984 and 1994, the liquids were removed and the solids were buried. He said the pit was not trenched. He said the reserve pits were lined. He said between 1994 and 2012, the pits were lined and the liquids were removed prior to disposal and the cuttings stabilized, typically with fly ash and lime, and buried. He said the main issue was that it took over a year to dry. He said the number of open pits was growing. He said since 2012, the pits are lined and the cuttings are stabilized, encapsulated, and buried. He said the size is one-fifth the size of a previous reserve pit.

In response to a question from Chairman Wardner, Mr. Helms said the cuttings pit is usually on the well pad. He said the Bureau of Land Management allows 50 percent cuttings and 50 percent fill. He said his department requires all cuttings. He said 93 to 95 percent of cutting pits are on drill pads and 6 to 7 percent are on the spacing unit off the drill pad.

Mr. Cody Vanderbusch, Reclamation Specialist, Department of Mineral Resources, answered questions for the committee.

In response to a question from Chairman Wardner, Mr. Vanderbusch said the Ross pit was on the spacing unit and not on the drill pad. He said it has been reclaimed, and the cuttings have been removed to a special waste landfill.

In response to a question from Senator Triplett, Mr. Vanderbusch said the reason the pit was placed close to a wellhead was because the inspector did not have the proper information. He said presently, the inspectors receive wellhead protection maps. He said all old pits were reviewed for the same mistake, and no additional mistakes were found.

In response to a question from Senator Triplett, Mr. Helms said there are 3.8 wells on a pad on average, and these wells use one pit. He said 10 percent of the wells are next to Lake Sakakawea, and the operators truck the waste to special waste landfills.

In response to a question from Senator Triplett, Mr. Helms said two companies use completely closed loops. He said this is done when the companies are on the Fort Berthold Reservation and near the lake.

In response to a question from Senator Hogue, Mr. Helms said the fly ash used to stabilize the cuttings is approved and tested by the State Department of Health. He said some fly ash has a level of mercury that is too high. He said fly ash is not hazardous waste but is special waste. He said it is appropriate to be used if pretested for heavy metals.

In response to a question from Representative Damschen, Mr. Helms said the TENORM concern is from filter socks. He said the filter socks concentrate radioactive material in the flowback water.

## SPILLS

Mr. Glatt provided a presentation ([Appendix H](#)) on the environmental incident website, the Tesoro pipeline, and Casselton train derailment.

In response to a question from Senator Hogue, Mr. Glatt said the remediation on the Tesoro spill is in Phase 1. He said the remediation will take about two years and will require dirt down to at least 30 feet be removed. He said the soil will be dug out, cooked, and placed back in. He said the soil will need to be rejuvenated by microbes and nutrients. He said residual contamination will not migrate and will remediate naturally. He said the Burlington Northern spill will be remediated by digging up and disposing of the soil. He said the contaminated soil is approximately 9,000 cubic yards. He said this remediation should be done by the end of summer.

In response to a question from Senator Triplett, Mr. Glatt said the quantity of this spill is not as important as where the spill occurs and getting rid of the contamination.

In response to a question from Senator Triplett, Mr. Glatt said a gas pipeline exploded yesterday near Tioga. He said no one was hurt.

In response to a question from Senator Triplett, Mr. Glatt said his department has a lessons learned meeting after each major incident. He said partly as a result of these meetings, spills are posted on the web. He said the lessons learned are usually to respond to operational issues, but he will add how the incident could be avoided in the future.

In response to a question from Representative Nelson, Mr. Glatt said in assessing the Tesoro spill, the department found contamination from a previous pit. He said it was in the area of impact. He said it was an older pit with crude oil in it. He said the pit will be remediated.

In response to a question from Representative Damschen, Mr. Glatt said the reporting of incidents is not consistent among the states. He said this state requires that everything is reported and therefore has a high level of incidents. He said what and where are important factors in a spill. He said this state is a lot more open in showing spills than other states.

In response to a question from Senator Triplett, Mr. Glatt said the landowner is notified immediately of a spill. He said adjacent landowners are notified if in harms way. He said adjacent landowners may contact the department, and the department will meet with adjacent landowners.

In response to a question from Senator Triplett, Mr. Glatt said the department prepares for leaks in pipelines under Lake Sakakawea.

Chairman Wardner said the federal government does not have as many resources as in the past, and state agencies get blamed for what the federal government has jurisdiction over. He said this state has to do more. He said this may include the PSC taking jurisdiction over oil pipelines. He said this state needs to ensure the safety of pipelines.

In response to a question from Senator Cook, Mr. Glatt said the press is notified of a spill that impacts water or the public. He said if 150 barrels or more is spilled, the press is notified.

In response to a question from Representative Nelson, Mr. Glatt said if a person in the public finds a filter sock and reports it to the State Department of Health, the department will notify an oil company, and the oil companies will pick up the sock even if it is not that oil company's sock. He said this will be less of an issue if there are new standards.

Mr. Helms provided a presentation ([Appendix I](#)) on spill reporting rules and the illegal dumping remediation program.

In response to a question from Senator Andrist, Mr. Helms said the idea of having a hauler sign off when filling waste and dumping waste has been considered. He said the procedure is easy to cheat. He said in Pennsylvania, all waste haulers are licensed. He said there is GPS on the trucks. He said the GPS transmits the weight of the truck and the location of the truck. He said he may recommend legislation to license all saltwater haulers and to require GPS with location and weight information.

In response to a question from Senator Andrist, Mr. Helms said the saltwater hauling business is lucrative, and civil penalties are not that much of a deterrent. He said his department has pursued felony charges when a hauler has been caught in the act of illegal dumping. He said a felony conviction puts the business out of business.

In response to a question from Senator Triplett, Mr. Helms said the best entity for testing and monitoring pipelines under lakes and rivers is the PSC. He said companies do this at present.

Mr. Greg Wilz, Director, Division of Homeland Security, Department of Emergency Services, gave a presentation on a handout ([Appendix J](#)) on spill reporting and emergency management. He said the law passed last legislative session on making the Division of Homeland Security the central information dissemination point is working well. He said there is a sound process for notifying local emergency response.

In response to a question from Chairman Wardner, Mr. Wilz said after the train spill at Casselton, 12 minutes elapsed before there was a call to the State Emergency Operations Center. He said the center called the state reaction officer, and within 15 minutes, the reaction officer opened an emergency operation center. He said the response was nearly textbook. He said it was lucky that the spill was in an area with lots of resources to respond to the spill.

In response to a question from Senator Triplett, Mr. Wilz said there was a derailment in Griggs County a few years ago, and the state struggled to get a manifest from the railroad. He said there was no problem in this instance.

Committee Counsel provided a memorandum entitled [Pipeline Safety Regulation](#).

No further business appearing, Chairman Wardner adjourned the meeting at 3:17 p.m.

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Timothy J. Dawson  
Committee Counsel

ATTACH:10