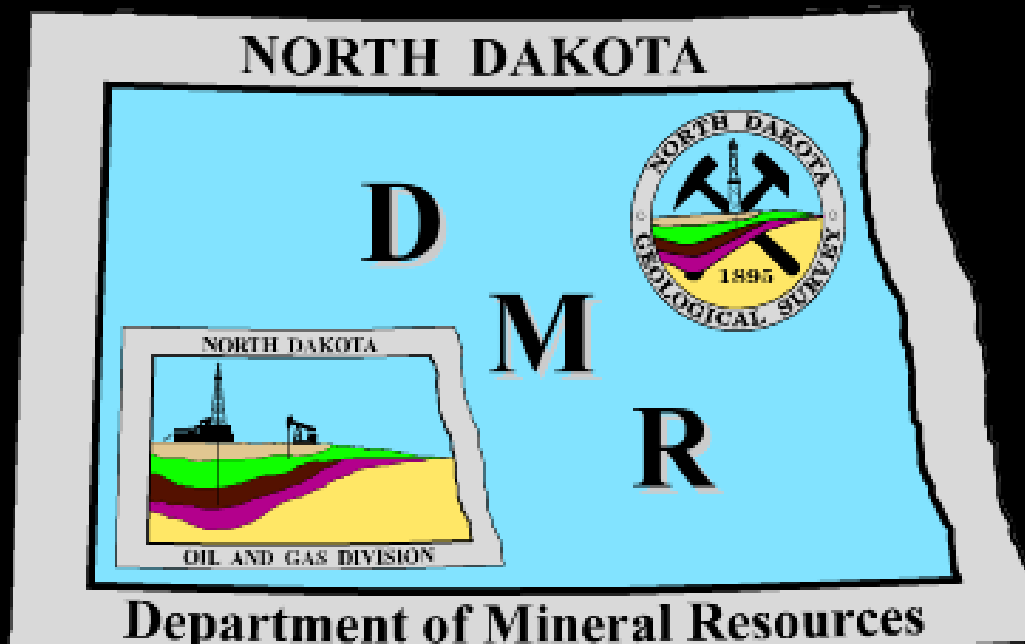


North Dakota Department of Mineral Resources



<http://www.oilgas.nd.gov>

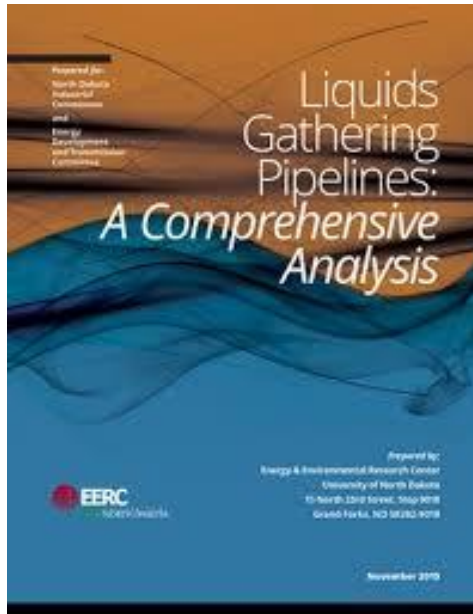
<http://www.state.nd.us/ndgs>

600 East Boulevard Ave. - Dept 405

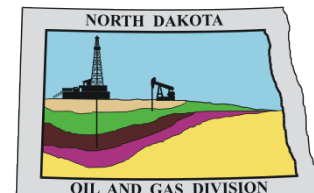
Bismarck, ND 58505-0840

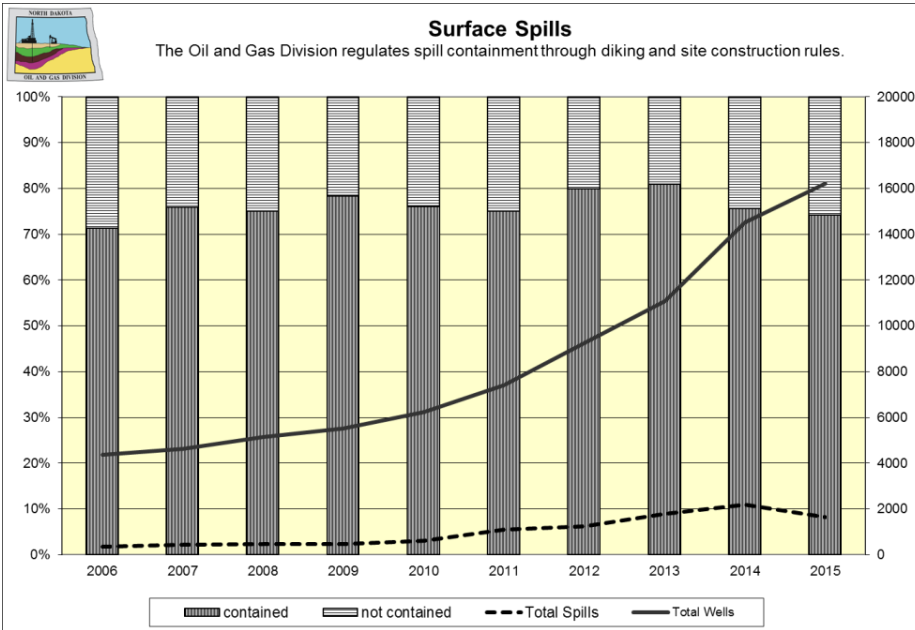
(701) 328-8020 (701) 328-8000

EERC Study – “Liquids Gathering Pipelines: A Comprehensive Analysis”



EERC Study Key Finding #3	The analysis of spill data highlights the need to examine how data is collected and compiled within the state system.
Resulting Recommendation	<ul style="list-style-type: none">• ND should streamline the ways spill data are reported, processed, and analyzed to facilitate data analysis.• DMR should collect and analyze data to <u>determine root causes of pipeline leaks</u>, then continually refine regulations that address root cause determinations.





Spills versus wells – Good

Spills versus volume – OK

Uncontained spills need work = proposed rules

25% pipeline

16% equipment failure

10% fire

9% root cause not reported

8% human error

7% valve-piping leak

6% treater leak

5% stuffing box

5% treater pop off

4% tank overflow

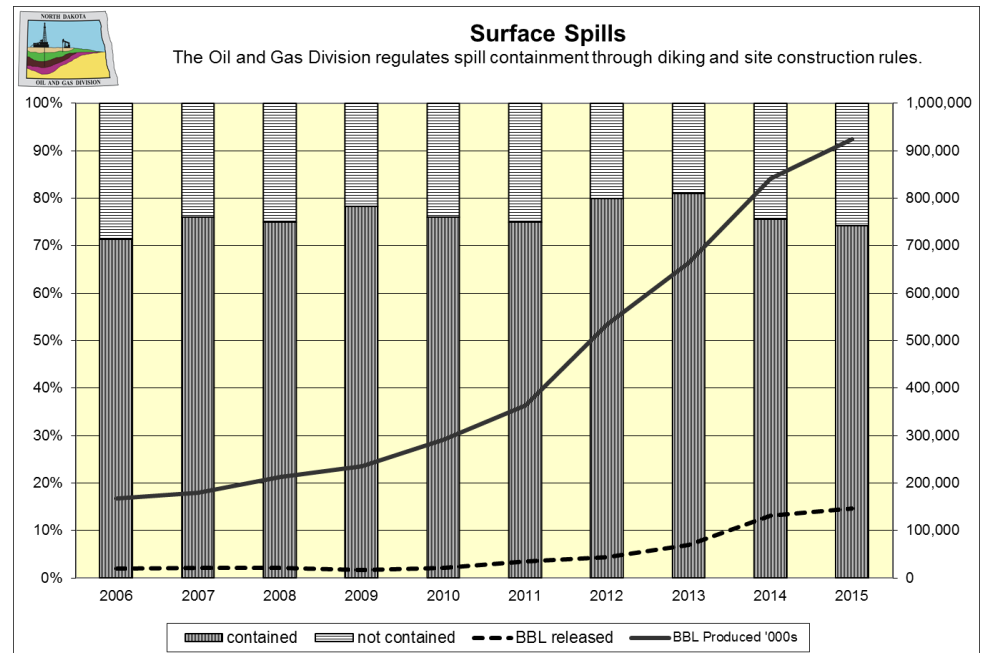
2% tank leak

1% blow out

1% vessel leak

½% pump leak

½% truck overflow



Proposed Rule Changes Comments Received

<p>Proposed NDAC 43-02-03-49 OIL PRODUCTION EQUIPMENT, DIKES, AND SEALS 43-02-03-51.3 TREATING PLANT CONSTRUCTION AND OPERATION REQUIREMENTS 43-02-03-53.3 SALTWATER HANDLING FACILITY CONSTRUCTION AND OPERATION REQUIREMENTS</p>	<p>A perimeter berm, at least one foot [30.48 centimeters] in height, shall be constructed of sufficiently impermeable material to provide emergency containment around all storage facilities and production sites and to divert surface drainage away from the site, unless waived by the director.</p>

Proposed Rule Changes Comments Received

NDPC Comments	<p>The Director already has the authority to require dikes and berms when deemed necessary. Conditional usage of dikes and berms has become common practice over the past several years and is supported by industry where appropriate. This process has been used wisely and effectively. The expanded requirements would greatly increase costs to operators, and at current prices would likely result in a large number of wells being plugged and abandoned. The cost of building a berm on each pad will range from \$12,000-30,000 per pad on new wells plus maintenance costs. Operators will also incur the additional expense of dealing with the storm-water captured on site, which may exceed \$35,000/year per company. We don't believe the intent was to apply to existing wells, and recommend the rules include language stating as such.</p> <p>NDPC believes the current policy of requiring berms only when necessary is effective, and statistics show the policy is working. As such, we suggest the requirement be struck. The Commission has expressed concerns that the rate of uncontained spills is increasing at a troubling rate, but data shows the containment rate only appears to have decreased one to two percent between 2014 and 2015, and no more than five percent since 2013. The containment rate has varied from about 70 to 80 percent in the last decade, even as wells and production have increased dramatically, and recent years are well within that range. In addition, of the approximately 25 percent of uncontained spills, 25 percent of those are attributed to pipeline leaks. It seems highly illogical to include pipeline leaks in containment statistics as a pipeline leak is most likely to occur offsite. Additionally, the statistics do not clearly indicate most of the spills would be contained by berms. Many of the spills being deemed uncontained are the result of things like vapor release or a blow out, where the uncontained fluid is carried offsite by the wind. It's clear to see that adding perimeter berms would not affect a majority of uncontained spills and only provide benefit to an incredibly small number of spills and leaks.</p>

Proposed Rule Changes Comments Received

NDPC Comments	<p>The cost to benefit ratio in this situation is incredibly disproportionate. In addition, the use of berms can cause a number of unintended consequences. Federal agencies typically don't use berms due to the unavoidable accumulation of runoff water from rain or snow. This accumulation can result in standing pools of water, which create safety risks of their own and are expensive to collect and dispose of. The use of perimeter berms can also limit an operator's ability to lessen its footprint and leave more land for agricultural or other uses by reclaiming unused portions of an active well pad. It is for these reasons that we request the requirements contained in this section be struck. NDPC believes the Commission is doing a good job determining when perimeter berms are truly necessary, but they may consider a requirement for berms around heater treaters when appropriate going forward. Again, we recommend striking this requirement. While we do not agree with the need for perimeter berms, we also strongly object to retroactively applying this rule to existing pads. NDPC also suggests striking the requirement of 'sufficiently impermeable material.' The remaining language already requires the berm to provide 'emergency containment', which implies some level of impermeability.</p>

