

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF SOUTH DAKOTA**

**IN THE MATTER OF THE APPLICATION OF NAVIGATOR HEARTLAND GREENWAY,  
LLC FOR A PERMIT UNDER THE SOUTH DAKOTA ENERGY CONVERSION AND  
TRANSMISSION FACILITIES ACT TO CONSTRUCT THE HEARTLAND GREENWAY  
PIPELINE IN SOUTH DAKOTA**

**DOCKET NO. HP22-002**

**Direct Testimony of DANR Spills  
On Behalf of the Staff of the South Dakota Public Utilities Commission  
May 25, 2023**

1 **Q. State your full name.**

2 A. Jaclyn McGuire

3 **Q. State your employer.**

4 A. South Dakota Department of Agriculture and Natural Resources (DANR)

5 **Q. Explain the specific program for which you work.**

6 A. I work in the Inspection, Compliance, and Remediation Program.

7 **Q. State what you do for this program.**

8 A. I am an Environmental Scientist II and team member for the Spills Cleanup Team in  
9 the Inspection, Compliance, and Remediation Program. I oversee the enforcement of  
10 South Dakota's laws and rules related to spill and release reporting, assessment, and  
11 cleanup of regulated substance releases. I am the state designated representative to  
12 the Region VIII Regional Response Team with responsibilities to coordinate with  
13 Federal agencies in the event of a hazardous material incident or disaster that  
14 threatens human health or the environment. I also coordinate with the Office of  
15 Emergency Management and other state agencies in the event of a disaster. A copy  
16 of my CV is attached as 'Exhibit\_JM-1'.

17 **Q. Explain the range of activities and duties your program covers and what you  
18 specifically do for the program.**

19 A. The Inspection, Compliance, and Remediation Program covers a wide range of  
20 activities including the regulation of underground and aboveground storage tanks; the  
21 regulation of industrial hemp; the regulation of pesticides, animal feed and remedy;  
22 fertilizer labeling, storage, and use; the state's Emergency Planning and Community  
23 Right to Know Act (EPCRA) program; the State's Brownfields program and the  
24 state's spill cleanup program. I work in the Spills Cleanup Team. When a release

25 occurs, I evaluate information about the release to identify and name a responsible  
26 person. I direct environmental contractors and the responsible person to perform  
27 emergency response activities, assessment, and cleanup activities associated with  
28 spills, releases, and un-permitted discharges. I am responsible for the evaluation of  
29 information and data on spills and releases to ensure that the cleanup meets state  
30 requirements.

31 **Q. On whose behalf was this testimony prepared?**

32 A. This testimony was prepared on behalf of the Staff of the South Dakota Public  
33 Utilities Commission (Staff).

34 **Q. Are there any state environmental laws and rules that would apply to a release  
35 from a carbon dioxide pipeline?**

36 A. Yes, SDCL ch. 34A-12, Regulated Substance Discharges, and ARSD art. 74:34,  
37 Regulated Substance Discharges, would apply. Depending on the location of the  
38 release, SDCL ch. 34A-2 Water Pollution Control, ARSD art. 74:51 Surface Water  
39 Quality, ARSD art. 74:52 Surface Water Discharge Permits, and/or ARSD art. 74:54  
40 Groundwater Quality may also apply.

41 **Q. Which of those laws or rules do you personally work with?**

42 A. All of the above. In the event of water pollution, I also work with staff in the  
43 department's Water Quality Program.

44 **Q. Would DANR be involved in the event of a release from the carbon dioxide  
45 pipeline? Please explain.**

46 A. Yes, carbon dioxide is considered a regulated substance under SDCL 34A-12-1(8),  
47 constituting as a solid waste as defined by SDCL 34A-6-1.3(17). Any release of a  
48 regulated substance falls under the authority of DANR.

49 **Q. Are there any thresholds for remediation of carbon dioxide from soil,**  
50 **groundwater, or water? Please explain.**

51 A. DANR does not have specific thresholds for carbon dioxide. The State does have  
52 standards for other parameters in groundwater such as pH, heavy metals, total  
53 dissolved solids, dissolved oxygen, and more. These parameters are detailed in the  
54 State's groundwater quality standards. See ARSD art. 74:54, Groundwater Quality.  
55 DANR also has drinking water standards and surface water quality standards that  
56 must be met. See ARSD ch. 74:04:12 and ARSD art. 74:51, respectively. In addition  
57 to those standards, typically cleanup is conducted to meet federal guidance.

58 **Q. What kind of remediation activities are conducted in response to a carbon**  
59 **dioxide release into soil?**

60 A. The remediation activities depend on the soil type, previous conditions of the soil,  
61 and the amount of carbon dioxide released. Remediation activities could include  
62 tilling the soil to release trapped carbon dioxide or applying a lime additive or sodium  
63 bicarbonate to increase the pH in the soil. Remediation is also risk-based and  
64 dependent on the presence of nearby receptors.

65 **Q. What kind of remediation activities are conducted in response to a carbon**  
66 **dioxide release into groundwater?**

67 A. The remediation activities would be risk-based and would depend on the presence of  
68 nearby receptors. Contaminated groundwater can be treated to adjust the pH or may  
69 be filtered to remove contaminants.

70 **Q. What kind of remediation activities are conducted in response to a carbon**  
71 **dioxide release into surface water?**

72 A. The remediation activities would depend upon the attainable beneficial uses of the  
73 water. Contaminated water can be treated to adjust the pH and aerators can be  
74 installed to increase oxygen inputs into the system.

75 **Q. What are the leak size requirements for a reportable spill or release from a**  
76 **carbon dioxide pipeline?**

77 A. According to SDCL 34A-12-9, any discharge of a regulated substance must be  
78 reported to DANR immediately, regardless of quantity.

79 **Q. Are there requirements for reporting a suspected discharge from a carbon**  
80 **dioxide pipeline?**

81 A. Yes. Suspected discharges must be reported to DANR within 24 hours after the  
82 discharge is suspected when certain conditions exist. See ARSD § 74:34:01:05.

83 **Q. Are you aware of any carbon dioxide releases that cannot be remediated and/or**  
84 **had long-term environmental impacts?**

85 A. No.

86 **Q. Who is obligated to remediate a release from a carbon dioxide pipeline?**

87 A. The responsible person for the release is obligated to perform remediation. If the  
88 person responsible for the discharge cannot be determined, the owner of the  
89 property or the operator of the tank at the time of the discharge is designated as the  
90 responsible person under SDCL 34A-12-16. In typical pipeline releases, the owner of  
91 the pipeline is responsible for the remediation of the release. However, if a landowner  
92 causes a release from the pipeline, they could be considered the responsible person  
93 under SDCL 34A-12-1(10).

94 **Q. Is there the potential for carbon dioxide to enter wells? If yes, what types of**  
95 **remediation methods would be used to remove carbon dioxide from impacted**  
96 **wells?**

97 A. Yes. The greater water quality concern following a carbon dioxide release is the  
98 possible lowering of the pH of the water and the potential for mobilization of heavy  
99 metals or other contaminants already present. Remediation activities may be based  
100 instead on treating the pH or removing other contaminants instead of removing  
101 carbon dioxide, which is highly soluble in water. Options include treating the  
102 groundwater to adjust the pH or filtering the well water to remove contaminants.

103 **Q. What if you can't achieve remediation of a well?**

104 A. If remediation is not feasible, the responsible person may be required to supply the  
105 well owner/user with an alternate source of drinking water. The well can be plugged  
106 and a new well can be drilled in a different location, deeper in a different formation.  
107 Or the responsible person can get the well user on a rural or city water supply.

108 **Q. What is the extent of landowner involvement in remediation?**

109 A. This depends on the specific situation. Some landowners choose to be involved in  
110 the cleanup, but most allow the department to work with the responsible person to  
111 get the cleanup work performed to state standards. If requested by the landowner,  
112 the department may copy the landowner on all written correspondence with the  
113 responsible person. If the landowner wishes to be involved with the cleanup,  
114 meetings may be held to address the concerns of landowners or other interested  
115 parties. DANR will provide copies of all public documents to the landowner if the  
116 landowner wishes to receive them.

117 **Q. Does DANR have the resources to deal with a release from a carbon dioxide**  
118 **pipeline such as the one Navigator proposes?**

119 A. Yes. DANR has the resources necessary to oversee the assessment and clean up  
120 for a carbon dioxide release from the Navigator pipeline, should one occur and  
121 require a cleanup. DANR manages the State's regulated substance response fund  
122 with sufficient resources to initiate corrective actions if a release occurs and the  
123 pipeline company is unable or unwilling to perform the required response activities.

124 **Q. Does Navigator's proposed carbon dioxide pipeline place any additional**  
125 **burden on your program?**

126 A. Navigator's proposed carbon dioxide pipeline does not place any additional burden  
127 on the Inspection, Compliance, and Remediation Program.

128 **Q. Please explain the State's Regulated Substance Response Fund that may be**  
129 **available to help fund a remediation project if the responsible person is unable**  
130 **or unwilling to perform the work.**

131 A. An explanation of the South Dakota Regulated Response Fund is attached as  
132 'Exhibit\_JM-2'.

133 **Q. Do you have any other information you believe the Commission and the public**  
134 **will find useful?**

135 A. The Inspection, Compliance, and Remediation Program has extensive staff  
136 experience overseeing the assessment and remediation of a variety of spill incidents  
137 in soil, surface water, and groundwater mediums.

138 **Q. Does this conclude your testimony?**

139 A. Yes.

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