

STATE OF SOUTH DAKOTA

BEFORE THE WATER MANAGEMENT BOARD

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IN THE MATTER OF THE WATER  
PERMIT APPLICATION NOS. 2685-2  
2686-2 POWERTECH (USA) INC.

and

IN THE MATTER OF THE 2012  
GROUNDWATER DISCHARGE PLAN  
APPLICATION SUBMITTED BY POWERTECH  
(USA), INC.

**Joint Memorandum Brief  
of the Black Hills Wild  
Horse Sanctuary, Susan  
Watt, Dayton Hyde and  
the Clean Water Alliance  
on Jurisdictional  
Questions requested by  
the Board**

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Black Hills Wild Horse Sanctuary, Susan Watt & Dayton Hyde  
(collectively, “Wild Horse”), and the Clean Water Alliance (CWA)  
through their respective counsel, respectfully submit this *Brief on  
Jurisdictional Questions Requested by the Board*.

**Issue 1: What effect, if any, does SDCL 34A-2-126 have on the  
Water Management Board’s [“the Board”] jurisdiction and  
authority in considering Powertech’s water permit  
applications, and it’s application for it’s groundwater discharge  
plan and related permits; generally and specifically as it relates  
to determinations concerning beneficial use and public interest  
under SDCL 46-2A-9, and the application of the financial  
assurance provisions in SDCL 34A-10-2.1 through 2.4 and  
ARSD chapter 74:07:01.**

Section 34A-2-126 (“the tolling statute”) provides:

The legal force and effect of the *underground injection  
control Class III rules promulgated under subdivision 34A-*

2-93(15) are tolled until the department obtains primary enforcement authority for underground injection control Class III wells from the United States Environmental Protection Agency. The *in situ leach mining rules promulgated under subdivision 45-6B-81(10)* as they relate to uranium are tolled until the department obtains agreement state status from the United States Nuclear Regulatory Commission.<sup>1</sup>

By its plain and unambiguous language, the rules that are tolled by this statute are:

- ARSD Chap. 74:55:01 – Underground Injection Control—Class III Wells; and
- ARSD Chap. 74:29:11 – In Situ Leach Mining.

Consequently, the tolling statute does not have any direct effect on the Board’s determinations concerning beneficial use and public interest (§46-2A-9) or financial assurances (Chap. 34A-10).

However, as discussed in the next section, the tolling of this Board’s statutory and regulatory authority over Class III wells, as well as this Board’s duty to protect the water resources of our State<sup>2</sup>

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<sup>1</sup> SDCL §34A-2-126 (emphasis added).

<sup>2</sup> See, SDCL §§1-40-27 (grounds for permit rejection), 34A-2-1 (“Whereas the pollution of the waters of this state constitutes a menace to public health and welfare...”), 34A-2-22 (“Reduction of existing water quality by discharge of waste prohibited”), 34A-2-104 (“public policy of this state to conserve the groundwaters of the state and to protect, maintain and improve the quality thereof for present and future beneficial uses through the prevention of pollution, correction of groundwater pollution problems and close control of

warrant delaying any determination of “beneficial use”, public interest, and/or financial assurances. Further proceedings should be stayed until the federal agencies, which have been left by SDCL §34A-2-126 with primacy responsibilities over proposed ISL operations involving one of our major drinking and domestic aquifers, have made their determinations and expressed the details of the reasoning therefore. Only then would this Board be in a position to fully evaluate the respective determinations of whether the granting of the two water appropriation applications and the land disposal application would be the most beneficial use of our water, are truly in the public interest, and whether Powertech has sufficient financial assets to reclaim this most precious resource from the contamination that may result from this proposed ISL project.

**Issue 2: What effect, if any, do the NRC and EPA proceedings, permits, and licenses regarding Powertech’s ISR mining operations for the Dewey-Burdock project have on the Water**

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limited degradation perimeters permitted for necessary economic or social development”), 34A-2-107 (“Standards used in prioritizing groundwater prevention efforts--Other factors for consideration...the degree of hazard to public health and welfare, the dependence of local citizens upon groundwater supplies, and the vulnerability of groundwater supplies to contamination”), 34A-3A-1(“declared to be the public policy of the state to achieve and maintain safe drinking water for the public which will protect human health and safety.....”).

**Management Board's jurisdiction and authority in considering Powertech's water permit applications, and their application for a groundwater discharge plan and related permits; generally and specifically as it relates to the determinations regarding beneficial use and public interest under SDCL 46-2A-9, and the application of the financial assurance provisions in SDCL 34A-10-2.1 through 2.4 and ARSD chapter 74:07:01.**

This question was recently addressed by the Board of Minerals and Environment ("BME") in connection with Powertech's Large Scale Mine permit. In that proceeding, the BME recognized that Powertech has permit applications pending before various federal agencies and that the "[f]ailure of any of those other agencies or boards to grant their licenses, permits, or other approvals may render a predetermination of the BME on the permit moot or potentially in conflict." Consequently, the BME stayed its proceedings on the Large Scale Mine permit pending resolution of certain federal permit applications.

Here, most of the issues before this Board will be significantly impacted and shaped by how the EPA and NRC rule on Powertech's various federal permit applications. This Board should, therefore, stay these proceedings pending rulings from all federal agencies on all of Powertech's federal applications. Only then will the Board be able to determine if the federal permits adequately protect water

resources and whether the granting of the water appropriation permits would be the most beneficial use of the water and in the public interest.

### **General Impact of NRC & EPA Proceedings**

#### **1. UIC Class III Well Permit – EPA**

Powertech has applied for a UIC Class III well permit with the EPA. Due to SDCL §34A-2-126, Powertech has not applied for a Class III permit from this Board. If Powertech obtains a UIC Class III well permit from the EPA, then it would not be required to obtain an “approved groundwater discharge plan under [ARSD 74:54:02]” from this Board.<sup>3</sup> However, due to this Board’s remaining responsibilities to protect ground water resources, this Board should not expend further resources on Powertech’s groundwater discharge application until the EPA has ruled on the UIC Class III well permit application. If the EPA grants the permit, only then would this Board be able to know and review the determination of the EPA, its basis for granting the permit, and the permit conditions. This would enable the Board to determine whether the

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<sup>3</sup> ARSD 74:54:02:04(9).

issuance of the water appropriation permits being sought constitute the most beneficial use of that water and be in the public interest.

## **2. UIC Class V Well Permit Application - EPA**

Powertech has applied for a Class V well permit from the EPA concerning disposal of waste. In this application, Powertech seeks permission to dispose of “non-hazardous” waste by deep disposal well, by means of 4 to 8 deep disposal wells into the Minnelusa and/or Deadwood formations.”<sup>4</sup> While Powertech believes that all liquid waste will be disposed via the Class V wells, it is not established that there is “sufficient capacity” to hold and contain such waste.

The EPA’s ruling on Powertech’s Class V well application will have a substantial impact on this Board’s decisions related to Powertech’s groundwater discharge plan and related permits. Powertech has indicated its preferred mine waste disposal method is though the use of deep disposal wells. However, if the Class V permit is granted by the EPA, the Board will still have to determine whether such an included alternative in Powertech’s groundwater

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<sup>4</sup> Attachment K to Powertech Revised Class III UIC Application.

discharge plan protects ground water resources as well as whether it is a beneficial use and in the public interest.<sup>5</sup> If the EPA rejects Powertech's Class V well application, Powertech will then need to identify a land application disposal method which this Board will rule upon in connection with the groundwater discharge plan and related permits.

If the EPA approves Powertech's Class V well application *and* finds that the deep disposal wells will allow for sufficient capacity, the remaining issues before the Board will perhaps be narrowed but still must be determined.

If the EPA approves Powertech's Class V well application *but* finds that there is not sufficient capacity to dispose of all liquid waste through the deep disposal wells, this Board will need to determine whether to permit the disposal of such waste, as well as which land application disposal method is necessary. In addition, it will need to rule on Powertech's proposed groundwater discharge plan.

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<sup>5</sup> It is respectfully submitted that the Board will also have to decide whether Powertech's pursuit of a Class V disposal well is really an impermissible (ARSD 74:55:02:02) Class I disposal well (ARSD 74:55:02:01) with only a promise to comply with permit conditions which would prohibit the injection of wastes which could pollute the Minnelusa or Deadwood aquifers (ARSD 74:55:02:03).

## **Beneficial Use and Public Interest under SDCL 46-2A-9**

SDCL § 46-2A-9 provides:

A permit to appropriate water may be issued only if there is reasonable probability that there is unappropriated water available for the applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest.

The federal government has, to a great degree, preempted the States' ability to regulate nuclear materials, and our state has not taken the steps to become an agreement state. Additionally, Powertech drafted legislation, further minimizing the State's role in monitoring and regulating the operation and reclamation of ISL mines. In South Dakota's case, this Board retains the right to determine whether the issuance of water appropriation permits needed for the first ISL operation in South Dakota is in the public interest, regardless of what other federal agencies determine.

However, in terms of regulating the use and appropriation of water, the federal government has left much power to the states:

The federal government has extensive power to legislate in the area of environmental protection. Although the federal government has exercised this authority, it has also reserved important roles for the states. Most federal pollution control statutes require federal agencies to establish basic nationwide standards. These statutes



allow states to establish their own programs for the implementation and enforcement of those standards. States are regularly allowed to implement more demanding standards than the federal minimums. In addition, *state laws which do not directly interfere with the operation of federal programs are valid.*<sup>6</sup>

None of Powertech's federal applications seek, or implicate, water appropriation rights. There is, therefore, no conflict between federal law and state law and preemption is not implicated. The Board must apply the directives contained in Section 46-2A-9.

Notably, the amount of water to appropriated, and the impacted locations and formations, will depend in large part upon the EPA's ruling on Powertech's Class III and Class V UIC well permits. Accordingly, this Board should not rule on the water appropriation applications until the EPA has ruled on the UIC well permits.

### **Financial Assurance Provisions in SDCL 34A-10-2.1 through 2.4 and ARSD Chapter 74:07:01**

#### **1. This Board May Require a Bond as a Condition of any Water Appropriation Permit**

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<sup>6</sup> John H. Davidson, *South Dakota Groundwater Protection Law*, 40 S.D. LAW REV. 1, 5-6 (1995) (emphasis added). "If the state programs meet minimum federal requirements, the federal agency approves the program and the states have 'primacy' in the area. However, the federal agency often retains a veto power over state programs." *Id.* at n.18.

Under SDCL § 34A-10-2.1,

Any person making application to the Water Management Board or the Board of Minerals and Environment for a permit, a license, or an extension, amendment, or renewal of an existing permit or license, which authorizes activity that *could result in a significant risk of pollution, contamination, or degradation of the environment* and that is not covered by a performance or damage bond or other financial assurance instrument, may be required, as a condition of the permit, to provide financial assurance guaranteeing the performance of corrective actions to contain, mitigate, and remediate all pollution, contamination, or degradation which may be caused by the activity. (Emphasis added)

There should be little question from the evidence received to date that Powertech, and apparently the DENR staff, encourage issuance of permits which would not require Powertech to return water quality to baseline levels, but instead to elevated levels. Due to the toxicity and carcinogenic nature of the heavy metals to be released into solution in the aquifer during the mining process and apparently not having to be completely removed from the water, there is a significant risk of pollution, contamination, or degradation, for which a substantial damage bond should be required. Powertech, with an echo from the DENR staff, wants the determination of the amount of the bond to be set at the cost to reclaim this water

resource should Powertech, or any new owner, fail to comply with permit conditions attempting to inhibit or limit water quality degradation, to the federal agencies.

The issue of bonding or financial assurance for Powertech's proposed ISL mine and processing plants is referenced in its Large Scale Mine Permit Application (LSMPA), in section 6.7. In making its "Financial Assurance Estimate," Powertech agrees to generally comply with "NRC license conditions and with ARSD 74:29:02:08" which require it to "maintain financial assurance instruments to cover the cost of reclamation including the costs of ground water restoration; well plugging and abandonment; decommissioning, dismantling and disposal of all buildings and other facilities; reclamation and revegetation of affected areas; and post-closure monitoring." LSMPA §6.7.1. It commits to "supplying a financial assurance mechanism in the form and in an amount approved by NRC, DENR, EPA and BLM prior to the commencement of operations." *Ibid.*

Any amounts recommended or approved by the federal agencies for total costs through post-closure monitoring were not provided in any of the permit applications or plans submitted by

Powertech to the DENR. Thus, the DENR in general and this Board in particular, are not in a position to determine the adequacy of the amount of the bonds to be required to ensure total reclamation until such bonds have been established by the federal agencies and financial assurance provided by Powertech.

Instead, Powertech submitted a “financial assurance estimate” in Appendix 6.7-A based on “the Dewey-Burdock Project being in operation for one full year prior to a third party taking over reclamation of the facility.” LSMPA, §6.7.1, p. 6-26. “The by-year costs are based on year 1 being the pre-operational construction phase, year 2 the full year of ISRA operations, and year 3 the beginning of financial assurance-funded reclamation activities.”

*Ibid.* While the numbers in Appendix 6.7-A are based upon simultaneous development of initial well fields in both the Dewey and Burdock areas. Powertech also wants this Board to approve its ability to have the option to choose to pursue an “alternative development scenario” involving initial development of well fields in the Dewey or Burdock areas, rather than simultaneous, it plans to submit a “revised financial assurance estimate...**likely** prior to LSM permit issuance” (Emphasis added). No such revised plan has yet

been provided to this Board. Estimated total reclamation costs submitted in the 2012 LSMPA estimate would not be based on current costs but on estimated “costs as of 2009.” *Ibid.*

According to LSMPA, Appendix 6.7-A, Powertech estimates no restoration and reclamation costs through the “Project Year 1,” \$1 million through year 2, and \$1.4 million through year 3, if the “Deep Well Disposal Option” is approved by this Board. There are no cost estimates provided for any “groundwater sweep with Madison injection.” Estimated total cost for restoration and reclamation was under \$8 million. LSMPA, Appendix Figure 6.7A-2. Should the “Land Application Option” only be approved, Powertech similarly estimated no bonding needed for the first year, \$1 million for the second, and \$1.2 million the third year. No cost estimates were provided for “RO treatment with permeate injection.” The total estimated costs for restoration and reclamation was \$9.1 million. LSMPA, Appendix, Figure 6.7A-3. Curiously, amongst the assumptions made in these estimations is that the “[d]esign flow rate of production composite would be “4000 gpm” as presented to the NRC, rather than the 8,000 gpm submitted to the DENR [LSMPA 5.3.3.5.3.1], and “195” production wells [LSMPA, Appendix

Figure 6.7-A-5], rather than a total of “578” production wells in the “Dewey Portion of the Project Area” [Figure 2-7] and “892” production wells [Figure 2-8] in the “Burdock Portion of the Project Area” referenced in Powertech’s Inyan Kara Water Right Permit Application (Application No. 2686-2).

Powertech then states it “will revise” the “financial assurance cost estimates” submitted in its LSMPA “after the NRC license” and the LSM permits are issued, “based on NRC, DENR, EPA, and BLM approval of the methodologies for cost estimate calculations.”

LSMPA §6.7, p. 6-27.

A review of the Inyan Kara Water Right Permit Application (Application No. 2686-2), the Madison Water Right Permit Application (Application No. 2685-2) and the Ground Water Discharge Plan (Application No. GWD 1-13) reveals that they do not contain references to estimated bonding nor financial assurance needs for total reclamation.

Additionally, under ARSD 74:07:01:02,

In the discretion of the board pursuant to SDCL 34A-10-2.1, the board may require, as a condition of a permit, that the owner or operator of a proposed or existing facility which produces, stores, or disposes of wastewater or associated solids to post financial assurance to

contain, mitigate, and remediate any impact provided the board finds that such financial assurance is necessary:

- (1) To meet the *public interest requirement* of SDCL 46-2A-9 *for approval of a permit or right to appropriate water[.]*

Powertech has applied for certain water appropriation permits. Specifically, Powertech seeks to appropriate water from the Inyan Kara formation and the Madison formation. The appropriated water will then be used to dissolve and mobilize uranium (and other heavy metals), which contains nuclear properties. The uranium, and other metals, will then be put through a leaching process. The liquid waste will be disposed of via a UIC well and/or land application via a groundwater discharge plan.

This Board has the authority and duty to responsibly determine whether it is in the public interest to issue this permit under these circumstances.

### **1. Federal Proceedings Have No Effect Because No Federal Agency is Addressing a Water Appropriation Permit Application**

SDCL § 34A-10-2.1 provides that a bond may be required only if the permitted activity is not subject to another bond or financial assurance requirement. As discussed above, there are no water appropriation permits pending before any other state or federal

agency. As such, this Board is free to require a bond as a condition of any grant of a water appropriation permit.

## **2. This Board Should Impose a Bond if it Grants Powertech's Water Appropriation Permit(s)**

Throughout these proceedings, Wild Horse and the CWA, have maintained that the activity associated with the requested water appropriation is one that “could result in a significant risk of pollution, contamination, or degradation of the environment”<sup>7</sup> that will result in an “unlawful impairment of existing rights”<sup>8</sup> and is not “beneficial” or in the public interest.”

If the Board finds that Powertech's proposed activities:

- present a significant risk of “pollution, contamination, or degradation of the environment,” *or*
- will unlawfully impair existing water rights, *or*
- may present a threat to the public interest,

then the Board should require Powertech to post a bond as a condition of any water appropriation permit it grants, as authorized by SDCL §34A-10-2.1 and ARSD 74:07:01:02.

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<sup>7</sup> SDCL § 34A-10-2.1.

<sup>8</sup> There are certain domestic wells using water from the Inyan Kara for domestic and livestock use.



**Issue 3: What effect, if any, does the fact the NRC and EPA permits and licenses for Powertech’s Dewey-Burdock project are still pending have on the determination of whether Powertech’s Application for a Ground Water Discharge Plan and related permits are procedurally complete as provided in ARSD 74:54:02:01 (20) and 74:54:02:06?**

Under South Dakota’s administrative scheme, the following must exist before this Board can approve a groundwater discharge plan:

- (1) The application for a groundwater discharge plan is procedurally complete;
- (2) The ambient groundwater quality will not be degraded or a water quality variance permit can be issued to degrade the ambient water quality to the standards of §§ 74:54:01:04 and 74:54:01:05; and
- (3) The implementation of the proposed monitoring plan is adequate for compliance monitoring to ensure beneficial uses will not be impaired and there will be no hazard to human health.<sup>9</sup>

As to the first requirement, ARSD 74:54:02:01(20) defines “procedurally complete” as an application that contains everything required by ARSD 74:54:02:06.

Powertech has not met several of the requirements contained in ARSD 74:54:02:06 because many of those factors are dependent upon the EPA’s ruling on the Class V UIC well permit applications.

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<sup>9</sup> ARSD 74:54:02:09.

As a threshold matter, if the EPA grants the Class V UIC well permit application, Powertech may still need this Board to approve a land application method for liquid waste disposal. This Board will, however, still need to examine the EPA's reasoning and basis therefore to determine whether issuance of the permit is in compliance with state protection requirements.

If, however, the EPA denies the Class V application, or grants it but finds there is not sufficient capacity to dispose of all liquid waste in the DDW, this Board will be required to rule on a land application method, which will substantially change Powertech's groundwater discharge plan.

The following requirements contained in 74:54:02:06 are unknown, and will remain unknown until the EPA has issued its determination:

- **Section 6:** "The type, source, and chemical, physical, radiological, and toxic characteristics of the effluent or leachate to be discharged; *the average and maximum daily amount of effluent or leachate discharged (gpd), the discharge rate (gpm), and the expected concentrations of any contaminant (mg/L) listed in § 74:54:01:04 in each discharge or combination of discharges.* If more than one discharge point is used, information for each point must be given individually." This factor is unknown. For example, if the EPA grants the Class V well permit application, but finds there is not sufficient

capacity to dispose of all liquid waste, this factor will be substantially impacted.

- **Section 10:** “Plans and specifications relating to construction, modification, or operation of discharge systems.” This factor will also vary, depending on the EPA’s ruling.
- **Section 11:** “Description of the groundwater most likely to be affected by the discharge, including water quality information of the receiving groundwater prior to discharge, a description of the aquifer in which the groundwater occurs, the depth to the groundwater, the saturated thickness, flow direction, porosity, hydraulic conductivity, and flow system characteristics.” This will also vary, depending on the EPA’s ruling.

**Issue 4: Are the well construction standards under ARSD chapter 74:02:04 applicable to the Class III Wells given the provisions in SDCL 34A-2-126 and the references to these provisions in ARSD chapter 74:55:01?**

Yes.

As it concerns Class III Wells, and by its plain language, the tolling statute only tolls those rules and regulations enacted *pursuant to* SDCL § 34A-2-93(15).

Well construction standards are contained in ARSD 74:02:04:20 *et. seq.* Specifically, “[s]ections 74:02:04:20 to 74:02:04:76, inclusive, apply to all wells constructed, rehabilitated, or rebuilt after July 16, 1992.”<sup>10</sup> The enabling statutes for these

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<sup>10</sup> ARSD 74:02:04:22.

rules are in SDCL §§ 46-2-5, 46-6-6, 46-6-6.1, 46-6-9, 46-6-20, and 46-6-27.<sup>11</sup>

Because the well construction standards were not “promulgated under subdivision 34A-2-93(15),” they are not within the purview of SDCL §34A-2-126 and are not tolled.

**Conclusion:**

In summary, the Board is respectfully requested to defer its decision herein and continue these proceedings until such time as Powertech has successfully obtained its Source and Byproduct Material License from the NRC and its Underground Injection Control Class III and Class V permits from the EPA. If any of those applications are denied then these proceedings are rendered moot. If the applications are approved it will certainly clarify the issues remaining before the Board.

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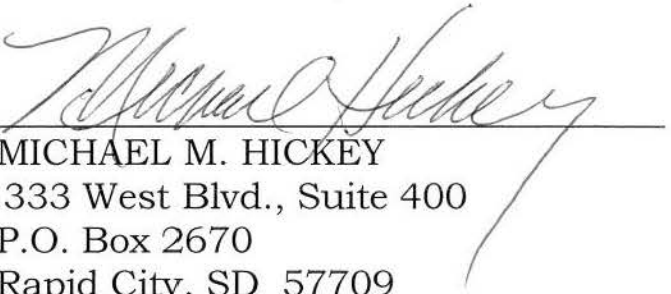
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<sup>11</sup> See *id* (identifying enabling statutes).

Dated this 20<sup>th</sup> day of November, 2013.

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