NORTH AMERICAN COAL CORPORATION

FALKIRK MINE

December 18, 2015

Mr. David Glatt
Chief, Environmental Health Section
North Dakota Department of Health
918 East Divide Avenue
Bismarck, ND 58501-1947

Dear Mr. Glatt:

On behalf of The Falkirk Mining Company, a subsidiary of The North American Coal Corporation ("NACoal"), this letter is to provide comments and recommendations for the North Dakota Department of Health (NDDH), and other associated state agencies, to consider as they address the State of North Dakota's ("State") State Implementation Plan ("SIP") requirements under EPA's newly promulgated Clean Power Plan (CPP).[1] While the State Health Department alone has historically been charged with developing, submitting and implementing SIPs to EPA under the Clean Air Act, the new CPP is so far-reaching that other state agencies, primarily the North Dakota Public Service Commission ("NDPSC"), must have a very significant role in any SIP development and promulgation.

The Falkirk Mining Company owns and operates the Falkirk Mine near Underwood, North Dakota, and supplies 8 million tons of lignite coal to the nearby Coal Creek Station, owned and operated by Great River Energy. The Falkirk Mining Company supplies 100% of all fuel used for electrical generation there. Falkirk has a full-time employment of 417, along with at least 65 additional part-time, seasonal, and contract employees. Falkirk's total annual payroll is $59,800,000, which is part of an annual operating budget of $170,000,000. Recent research indicates that for every job existing at the mine, an additional 2.9 jobs are created in the general state economy.[2] Also, for every dollar generated by lignite mining in the state, about $2.20 of additional economic activity is created.[3] Therefore the Falkirk Mine currently has a positive direct plus indirect benefit of some 1880 jobs and $544,000,000 in economic activity in

---

[1] 80 Fed Reg 64662-64964. October 23, 2015

[2] Coon, R.C., D.A. Bangsund and N.M. Hodur. 2014. *North Dakota Lignite Energy Industry's Contribution to the State Economy for 2013 and Projected for 2014*. Publication AAE14002. Department of Agribusiness and Applied Economics, Agricultural Experiment Station, North Dakota State University, Fargo, ND. 7 pp.

[3] *Ibid*

North Dakota. Additionally, some $3,100,000 in coal severance tax is paid annually by Falkirk. A significant amount of these state taxes are returned to local counties, towns and school districts to support local infrastructure and government services critical to this part of the state.

Because of EPA's mandated North Dakota goal to reduce power plant CO_2 emissions in 2030 by 45% from 2012 levels, the amount of coal utilized at Coal Creek Station may be significantly reduced, potentially resulting in a substantial reduction in coal mined. This would have a significant detrimental impact on the company itself, on the thousands of associated jobs, and the millions of dollars in economic activity and tax revenues that would no longer be generated. For these reasons, The Falkirk Mining Company has a significant interest in actions related to the Clean Power Plan in general, and SIP development in particular.

According to EPA modeling, the CPP will cause the retirement of one of the electric generating units to which the Falkirk Mine sells coal, which in turn will cut mine production by more than 40 percent and cause a layoff of about 40 percent of the mine's work force.

We understand the proceedings associated with the development of a SIP are not docketed as a formal rulemaking would be; however, we urge that all submitted comments are part of a compiled administrative record[4], and that any comments submitted, including verbal comments made at public meetings, may be used at a later date in relation to administrative actions associated with the Clean Power Plan. This record of submitted comments may prove important in future EPA negotiations, EPA compliance oversight and enforcement actions, state litigation challenging the EPA, potential litigation by impacted entities in North Dakota, including NACoal, and even in electricity rate cases brought before the NDPSC by regulated utilities.

Summary of Comments

NACoal supports the State's strategy of preparing a SIP while at the same time vigorously pursuing legal challenges to the rule. The State should premise the SIP preparation with a position that the plan will not cause harm to North Dakota and its citizens, including consideration of potential job losses, electricity prices and power reliability. This will necessitate close coordination with other state agencies, such as the North Dakota Public Service Commission. The State should take advantage of opportunities in the final CPP to properly address remaining useful lives of power plants and to maximize advantages for North Dakota in any CO_2 credit trading regime, should that be the path it chooses. Special consideration should be given to vulnerable communities, such as those areas where the state's coal mines and power plants are located.

[4] Currently found at The North Dakota Department of Health Clean Power Plan web page at http://www.ndhealth.gov/aq/cleanpowerplan.aspx

Detailed comments are provided below.

I. North Dakota should continue SIP development while vigorously pursuing its legal challenges

At the present time we believe the State should continue along its two paths: 1) litigation vigorously challenging the legality of the Clean Power Plan and 2) concurrently moving forward with SIP development. We also support the State's cooperative efforts with our Congressional delegation on legislative remedies. While the "just-say-no" approach to SIP development may sound appealing, and some states may pursue it, we believe the consequences of losing a judicial challenge to the rule are great enough that the state would be remiss to not prepare for that possibility.

In that regard we do not believe EPA should be told the State unequivocally plans to submit a SIP. On the contrary, we believe the State should make clear to the EPA that it is considering all options and preparing for any eventuality in the outcome of litigation, and is in no way committed to completing a SIP. Over the next two years the State may actually find that refusal to submit a final SIP turns out to be the best option.

As litigation is currently ongoing, EPA may use any state progress on SIP development as support for an argument that North Dakota has apparently resigned itself to defeat in court and expects to be able to comply with the rule. The State has already announced that they are leaving all options open. We recommend that the State continues to makes it clear, in correspondence with the EPA and through public pronouncements, that all options will be explored, and that continuing progress on a SIP is mere contingency planning that does not affect the State's position or litigation regarding legality of the rule. We recommend the NDDH consult with the North Dakota Attorney General's office to assure that the SIP does not undermine EPA's Petition for Review and related arguments against the CPP.

II. SIP development must be based on the premise that it cannot result in harm to the State and its citizens

The Clean Power Plan was written by EPA in a manner to distance itself from the negative impacts of the rule. In many instances throughout the preamble and associated agency documents EPA points out that it is the states, not the EPA, that will impose requirements under the rule.[5] The State should not allow itself to be placed in a position of imposing

[5] For example, see the EPA Administrator's rationale for not conducting a formal analysis of the impact of the rule on small entities, including small businesses and cities, towns and counties with less than 50,000 population, under the Regulatory Flexibility Act, because she certified that "this action will not impose any requirements on small entities...after emission standards are promulgated, states establish emission standards on existing sources, and it is those requirements that could potentially impact small entities." (80 Fed Reg 64936). In essence, EPA chooses

burdensome impacts under the rule while allowing EPA to shoulder no responsibility for resulting damages. In preparing a SIP the State should firmly adhere to a premise of "do no harm." Its citizens demand and deserve no less.

If a state fails to submit a SIP or submits a SIP the EPA does not approve, then the EPA will impose a federal implementation plan ("FIP"). Much ado has been made about the dire consequences of FIP imposition on states, leading to the widely held notion that a FIP must be avoided at all costs. We believe this fear of a FIP is overstated[6], and could lead states to include unnecessarily burdensome and damaging compliance requirements in their SIPs that could not otherwise be included in a FIP, just to assure EPA approval. EPA understands this, and will encourage states to impose SIP measures that the agency knows it could not legally implement if a FIP was imposed instead.

For these reasons we strongly recommend that all actions associated with SIP development be measured first and foremost by the impact they would have on the State, as further described below. If reasoned analysis of proposed SIP requirements indicates they would be unnecessarily onerous, then the State should exclude them in the SIP, even if it means being threatened with disapproval by the EPA. As State Senator Jessica Unruh said, "But there would be only one thing worse than having plant shutdowns, mine closures, job losses and an unreliable electric grid imposed from Washington, and that's to have it imposed by our own state government."[7]

III. To protect the state's residents from the negative impacts of the CPP, the North Dakota Public Service Commission must play a key role in development and implementation of any SIP

Given its already full plate, the NDDH currently does not have adequate resources to address many of the requirements of the Clean Power Plan, including cost and reliability concerns, which are matters reserved to the State, not EPA. These fall under the purview of the North Dakota Public Service Commission (NDPSC)[8]. In stark contrast to EPA's claim of only nominal

---

the targets, loads the regulatory gun and points it, then orders states to pull the trigger, all the while saying it is the states, not the federal agency, that is responsible for the damage being caused.

[6] The proposed federal implementation plan and model trading rules (80 Fed Reg 64966-65116, October 23, 2015), as well as statements by EPA Associate Assistant Administrator & Senior Counsel Joseph Goffman at a joint NDDH/industry/EPA meeting in Bismarck on November 13, 2015 indicate that EPA's FIP would actually not be much dissimilar from an EPA-approved SIP in its effect on regulated entities.

[7] Testimony of ND State Senator Jessica Unruh (District 33) regarding development of a North Dakota State Implementation Plan under EPA's Clean Power Plan, presented before the North Dakota Department of Health public meeting held November 12, 2015, Beulah, ND.

[8] See NDCC 49-02-03: "The commission shall supervise the rates of all public utilities. It shall have the power, after notice and hearing, to originate, establish, modify, adjust, promulgate, and enforce tariffs, rates, joint rates, and charges of all public utilities" and NDCC 49-02-04, regarding the power of the NDPSC to regulate "practices, equipment, appliances, facilities, or service of any public utility, or the methods of manufacture, distribution, transmission, storage, or supply..."

price increases caused by the CPP,[9] a recent study indicates that North Dakota's electricity prices could actually increase from 43% to 62%.[10] Additionally, studies of the proposed rule, which was less stringent than the final rule, by the two system operators serving North Dakota, MISO[11] and the Southwest Power Pool (SPP) [12] indicate significant reliability concerns. These reliability concerns must also be addressed by the NDPSC and the Federal Energy Regulatory Commission.

As part of its statutorily-mandated duty to regulate electrical power rates, the NDPSC considers "capital costs and associated operating expenses incurred by a public utility to comply with federal environmental mandates on existing electricity generating stations."[13] Such costs under the CPP are forecasted to be very significant, and under state law can be passed on to North Dakota's electricity consumers.

Additionally, the NDPSC regulates siting of new utility infrastructure, including new power plants, wind turbines, transmission lines and pipelines.[14] A significant amount of this new construction may be necessary to comply with CO_2 emission reduction requirements under the CPP.

For these reasons the NDPSC must play a significant and important role in SIP development and implementation to assure that any SIP requirements can be achieved without significant price increases to power consumers or impacts to reliability. This could include NDPSC-sponsored analyses of projected general electricity price increases under any proposed SIP, and projections of rate increases by regulated utilities (i.e., investor-owned utilities or "IOUs") caused by any specific project requiring NDPSC approval. We recommend that the NDPSC determine an acceptable cap on of electrical price increase under the CPP, based on historical rate increases directly attributable to utility compliance with federally mandated environmental regulations, and that this cap be incorporated into a SIP as an "economic safety valve." To protect North Dakotans from significant impacts caused by the rule, the NDDH would not mandate compliance with emission goals if the projected electricity price increases caused by

---

[9]See 80 Fed Reg 64940: "We estimate a 1 to 2 percent change in retail electricity prices on average across the contiguous U.S. in 2025, and a 22 to 23 percent reduction in coal-fired electricity generation as a result of the rule."

[10]*Energy and Consumer Impacts of EPA's Clean Power Plan.* NERA Economic Consulting. November 7, 2015. Detailed state-by-state estimates are found at http://www.americaspower.org/nera.

[11] *Analysis of EPA's Proposal to Reduce CO2 Emissions from Existing Electric Generating Units.* MISO. November 2014. https://www.misoenergy.org/Library/Repository/Communication%20Material/EPA%20Regulations/AnalysisofEPAsProposaltoReduceCO2EmissionsfromExistingElectricGeneratingUnits.pdf

[12] *SPP's Reliability Impact Assessment of the EPA's Proposed Clean Power Plan.* Southwest Power Pool. October 8, 2014. http://www.spp.org/documents/23336/cpp%20reliability%20analysis%20results%20final%20version.pdf

[13] NDCC 49-05-04.2

[14] NDCC 49-02-01

compliance, as certified by the NDPSC, exceed this cap. The NDPSC may need additional resources to conduct these analyses, possibly requiring state legislative funding assistance.

IV. The State should obtain certification from MISO and the Southwest Power Pool that the proposed SIP will not negatively impact reliability

The Clean Power Plan requires that states consider grid reliability in SIP development.[15] MISO and the Southwest Power Pool are the two system operators and transmission authorities serving North Dakota. We recommend that they be consulted early in the SIP development process, and frequently during plan development, in an iterative manner, to assure significant input into the SIP. We also recommend the State requests these two system operators conduct an analysis of the final SIP, before submittal, and prepare a report certifying that the SIP will not harm reliability of their grids. While they cannot be forced to complete such a certification, at the least they should be able to provide an opinion about the plan's impact on reliability. No SIP should be submitted to EPA if either of these two entities cannot certify or opine that the plan would not negatively impact grid reliability.

V. The State should not submit a SIP that would result in lost jobs, or diminished quality of jobs, in North Dakota

We strongly disagree with Administration claims that the CPP will create tens of thousands of new jobs across the country,[16] "invest in revitalizing coal country" and train coal miners and power plant workers "for better-paying jobs and healthier jobs."[17] Unlike other environmental rules previously imposed on North Dakota's coal-fired power generation industry in the past, the Clean Power Plan can be expected to cause significant job losses and relocations. We recommend that a complete and thorough analysis of employment under any proposed SIP be conducted. NDDH's mandate does not include job loss analysis; we recommend this study be conducted by another qualified party in coordination with state entities responsible for employment and economic development in the state.

The study should evaluate the effect of any proposed SIP for, among other factors, 1) projected job impacts at existing coal-fired power plants and lignite mines, 2) projected new jobs created, including job quality (salaries, full-time vs part-time, temporary vs permanent, benefits, etc.) compared to existing jobs or jobs lost, and 3) projected dislocations of displaced employees, including impacts to local communities (declining taxes, lower property values, increased crime, etc.). In support of the premise that any submitted SIP should do no harm to the State, if this

---

[15] New 40 CFR §60.7545(a) (7): "Your plan submittal must include a demonstration that the reliability of the electrical grid has been considered in the development of your plan." See 80 Fed Reg 64946.

[16] *The Clean Power Plan: Myths and Facts*. The White House. August 3, 2015. https://www.whitehouse.gov/blog/2015/08/03/clean-power-plan-myths-and-facts

[17] *Remarks by the President in Announcing the Clean Power Plan.* The White House. August 3, 2015. https://www.whitehouse.gov/the-press-office/2015/08/03/remarks-president-announcing-clean-power-plan

study indicates the proposed SIP would have negative impacts to employment, then it should not be submitted.

VI. The State should not submit a SIP that would result in diminished state and local tax revenues

Again, in the spirit of submitting a SIP that does not harm the State, we recommend that an analysis of SIP impacts on state and local tax revenues be conducted, and that no SIP be submitted if negative results are indicated. Tax revenues include coal severance and coal conversion taxes, property taxes on mined land (temporarily in a higher tax bracket as industrial land use during mining prior to land reclamation), sales taxes on supplies, equipment and services, and fuel taxes. Additionally, if coal mining is reduced then this will result in reduced coal royalties paid to the state from State School Lands, and this must also be accounted for.

VII. The State should not accept EPA's flawed analysis of remaining useful life for affected power plants, but must conduct their own analysis based on actual projections by utilities and facility owners

The Clean Air Act allows states to consider the remaining useful life of power plants as they set about promulgating their standards[18]. However, in the CPP EPA is actually trying to obviate any real consideration of remaining useful life. EPA went to great lengths to justify its flawed analysis of remaining useful life by saying that Congress intended the language in the Clean Air Act only "to provide a mechanism for states to avoid the imposition of unreasonable retrofit costs on existing sources with relatively short remaining useful lives, a scenario that could result in stranded assets."[19] EPA went on to say that the useful life of any plant is the same as its book life, which they arbitrarily assumed would be 40 years, and that the useful life of any pollution control retrofit is 20 years.[20]

This is like saying that the useful life of your car or home ends with your last car or mortgage payment. This flawed analysis is used to support EPA's claim that compliance with the CPP can be achieved without premature retirement of power plants before the end of their useful lives, and that there will be no stranded assets caused by the rule.[21] In fact, nothing could be further from the truth.

---

[18] Clean Air Act 42 U.S.C. §7411 (d)(2)(B): "In promulgating a standard of performance under a plan prescribed under this paragraph, the Administrator shall take into consideration, among other factors, remaining useful lives of the sources in the category of sources to which such standard applies."

[19] 80 Fed Reg 64872

[20] *Ibid*

[21] *Ibid* "Although not a required component of the EPA's consideration of cost, this analysis shows that the CO_2 emission performance rates in the final guidelines can be met without the retirement of affected EGUs before the end of their book life, and without the retirement of affected EGUs before the end of the book life of capital-intensive pollution control retrofits installed on those EGUs. Thus, according to this analysis, the CO_2 emission performance rates and state CO_2 emission goals need not result in stranded assets."

Some existing power plants in North Dakota are nearing or have exceeded the 40-year "useful life" assumed by the EPA. For example the Coal Creek Station commenced operations in 1978. Although it is 37 years old, there is no indication that our customer plans to close it any time soon. In fact The Falkirk Mining Company has a long-term contract with our customer obligating it to supply lignite to plant until 2045, well beyond EPA's supposed "useful life."

We recommend that the SIP include a realistic and well-reasoned analysis and real consideration of remaining useful life as allowed by the Clean Air Act, to prevent premature closure of any plants. This analysis will necessitate discussions with the utility, the NDPSC, and possibly even the mining company that supplies lignite, demonstrating that the secured long-term fuel supply arrangements made with the customer support other statements regarding the expected remaining useful life of the plants.

Contrary to EPA's analysis, the State may find the CPP could result in premature closure of existing plants, well before the end of their remaining useful lives. Premature closure would result in stranded power generation assets. Additionally, unique to North Dakota's mine-mouth operations, premature plant closure would immediately result in premature mine closure as well. On the strength of long-term exclusive fuel supply contracts, significant investments have been made at the state's lignite mines to assure a long-term dependable fuel supply. For example, at the Falkirk Mine some $290,579,500 in capital investments have been made over the past 10 years to serve the long-term fuel supply requirements of our customer. All this investment would be lost as well if the Coal Creek Station were to close prematurely.

With significant input from utilities, which, unlike the EPA, know the real anticipated closure dates of their plants, and the NDPSC, we recommend that the NDDH consider determining a "date-certain" that lignite-fired power plants will potentially close. No SIP should be submitted that includes premature closure of affected power plants, based on the Health Department's, not the EPA's, analysis of remaining useful life.

VIII. The SIP should back-load emission reduction goals to the maximum extent possible

The EPA has provided a glide path, or series of steps, that require emission reductions from affected sources over the period 2022-2030. While only minimal flexibility is provided, the State should make every effort to mitigate significant early negative impacts by pushing the greatest degree of required emission reductions to the end of the compliance period. This will allow further maturation of new carbon capture and low-emission technologies that will more likely be implemented later rather than sooner[22]. Additionally, it will allow time for other market mechanisms to be utilized that may help mitigate significant negative impacts.

[22] A projected timeline for carbon capture and storage technology development, showing commercial deployment in the latter part of the 2020-2030 timeframe, is provided by the Department of Energy in their 2013 publication *Carbon Capture: Technology Capture Program*, available at

IX. The State should consider a hybrid mass-based/emission rate-based plan

There have been wide-ranging and in-depth discussions regarding the pros and cons of a mass-based or emission rate-based plan. Each has advantages and disadvantages. At this time we have no strong preference, but recommend that the State continue exploring these two options. A third option, discussed to a much lesser extent, is for a hybrid approach, whereby part of the State (either geographically, by ISO region, or by specific utility or REC) has a mass-based plan, while another part has an emission rate-based plan.

As you know, there are significant differences between geographic areas of the state and the power generating assets serving them. For example our customer Great River Energy is unique because its power plant fueled by Falkirk, the Coal Creek Station, North Dakota's largest coal-fired power plant, serves a load exclusively outside the state.

A deep read of the CPP, as well as discussions with EPA, indicates that a hybrid SIP, utilizing some blend of mass-based and emission rate-based plans, is not forbidden. This should be explored as an option.

X. The State should actively explore trading markets

The decision to develop a mass-based or emission rate-based plan (or possibly some hybrid) will depend mostly on availability and cost of tradeable allowances or emission rate credits ("ERC's"), and how many states are choosing which system to pursue. Because no nationwide trading system currently exists, all states are facing the same conundrum: having to wait until market clarity emerges for trading systems. Unfortunately every state is doing the same thing at the same time, waiting for other states to act first.

Many states appear to be leaning toward a mass-based system because it is less complex than an emission rate-based system. Additionally a mass-based system is not limited by EPA's refusal to approve new ERCs for newly constructed fossil fuel-fired plants subject to CAA new source performance standards under 111(b), rather than the Clean Power Plan under 111(d).

We recommend the State vigorously research potential approaches being taken by other states, to help flesh out a well-informed decision regarding which system (mass-based or emission rate-based) to use.

XI. If the State chooses a mass-based system, consider multiple methods to maximize allowance import into the State and minimize allowance export out of the State; consider incentives through allowance allocation that protect existing lignite-fired generation sources and promote development of new low- or zero-emission generation using lignite

https://www.netl.doe.gov/File%20Library/Research/Coal/carbon%20capture/Program-Plan-Carbon-Capture-2013.pdf

We expect that allowance allocation will be the most contentious issue faced by the State during the 2022-2030 implementation period (under a mass-based system). We recommend the State carefully consider allowance allocation to first and foremost protect the interests of North Dakotans. This means taking steps, under a trading-ready program contemplated by the NDDH, to maximize allowance imports from other states and minimize allowance exports to other states. Incentive strategies could include allocating allowances differentially to first support existing lignite-fired plants in-state.

To protect existing and future lignite-fired generation in North Dakota, the state should consider differentially allocating allowances to incentivize use of lignite as a boiler fuel, rather than other types of fuel which may cost more and be less dependable. The State should also consider incentivizing new low-emission lignite generation technologies through allowance set-asides for utilities that are proactively supporting lignite research and development, including pilot plant, demonstration plant and full-scale commercial plant development that has low emission rates of CO_2.

Careful consideration must be given to EPA's concerns about leakage under the CPP (increased generation from newly constructed sources regulated under CAA 111(b), but not regulated under the 111(d) Clean Power Plan). EPA encourages incentives through allowance allocation to develop new renewable generation, and to actually discourage new fossil fuel generation.[23] EPA could consider a North Dakota SIP with allowance allocations to incent protection of existing lignite sources, and development of new lignite generation, as contrary to the intent of the rule, and thus not approvable. However, just as EPA recognized Congress' set-aside of allowances under the acid rain provisions of the Clean Air Act "was desirable from a policy perspective"[24], so to should they recognize that allowance set-asides to protect the economy and welfare of North Dakotans, and also promote new low-emission technologies, are equally desirable from a policy perspective of the State of North Dakota.

XII. EPA's method to address leakage through a new source complement is inflexible and inadequate and should not be utilized; in the alternative the State could propose a substantially larger new source complement

EPA is concerned about leakage, as described above. EPA understands that, under a mass-based program, they cannot legally prevent utilities from building new fossil-fueled sources that are regulated under the new source performance standards (111(b)), and that these new fossil-fueled sources may replace power plants that are closed under the CPP (111(d)). This allows generators to comply with the CPP in a manner that may not actually decrease total overall CO_2 emissions. To reduce this potential the EPA has provided a "new source complement", or a more lenient CO_2 emission goal to account for demand growth. However, this new source complement can only be used if the state agrees to regulate new sources for CO_2 in the same

[23] 80 Fed Reg 64887
[24] 80 Fed Reg 64771

manner as existing sources. In other words, EPA will give a state a break on their CO_2 emission goals if the state agrees to roll new sources into the SIP. And that such regulation of new sources by a state be made "as a matter of state law."[25]

EPA's new source complement for North Dakota, less than 270,000 tons of CO_2, is grossly inadequate to account for expected new demand growth[26].

	Interim (2022-2029)	Final (2030 and beyond)
Annual emission goal (tons)	23,632,821	20,833,232
Annual emission goal (tons w/ new source complement)	23,878,144	21,099,677
Annual additional benefit from accepting new source complement (tons)	245,323	266,445

This additional annual CO_2 allowance would permit less than 50 MW of coal-fired generation, or roughly 100 MW of natural gas combined cycle generation. To obtain this small benefit would require the State to include all new sources into the SIP, under State law, subjecting them to 111(d) CPP requirements, rather than 111(b) new source performance standards. This is not a good deal and should be rejected by the State.

Alternatively, the State can provide their own projections for a new source complement based on projected power demand growth, following guidelines outlined by the EPA.[27] If the State chooses this route it should utilize a new source complement that would be an order of magnitude larger than EPA's projection, to realistically account for power demand growth.

XIII. The State should develop a demonstration that leakage is not likely to occur based on unique state characteristics or SIP design

The EPA's obsession with preventing leakage is partly a result of their limited legal options to prevent it under a mass-based system. As part of an approvable SIP states must "address" leakage. As described above this can be accomplished in a manner that severely limits the states' generation options, by rolling new sources into the SIP and ultimately coverage under 111(d).

EPA provides another option. We recommend that the State provide a narrative demonstration, supported by analysis, which discusses the unique nature of the power generation industry in North Dakota, and how this would help prevent leakage. This is the third method acceptable in

[25] 40 CFR § 60.5790(b)(5); also see discussion at 80 Fed Reg 64888

[26] Tables 3 and 4 to Subpart UUUU of Part 60. See 80 Fed Reg 64963

[27] 80 Fed Reg 64889: "States can, in the alternative, provide their own projections for a new source CO_2 emission complement to their mass-based CO_2 goals for affected EGUs. In the supporting documentation for the state plan submittal, the state must specify the new source budget, specify the analysis used to derive such a new source CO_2 emission complement, and demonstrate that under the state plan affected EGUs in the state will meet the state mass-based CO_2 goal for affected EGUs as a result of being regulated under the broader CO_2 emission cap that applied to both affected EGUs and new sources."

the regulation[28], and is detailed further in the preamble.[29] We suggest that the State take advantage of this opportunity and aggressively pursue this option.

XIV. The State should consider the use of carbon reduction strategies outside the power generation sector to generate tradeable allowances

The EPA has said that the CPP does not allow emission reduction projects outside the electric power sector to be used to directly meet emission goals for any affected power plant.[30] Notwithstanding this restriction, EPA is apparently allowing CO_2 emission reduction measures outside the electric power sector to be used to create tradeable allowances, which in turn could ultimately be used to help meet emission limits.[31]

These statements may appear contradictory: out-of-power-sector GHG emission reductions cannot be used to directly offset emission reduction obligations of any affected EGU (electrical generation unit), but they can be used to generate allowances that can be traded (and ultimately used to offset emission reduction obligations). We believe this contradiction is a result of EPA's very favorable opinion of RGGI (the Regional Greenhouse Gas Initiative) and California emission trading programs, both of which contain provisions allowing trading of a nominal number of carbon credits generated by actions outside the power sector. EPA touts both programs as national models. If these programs contain GHG offset credit generation opportunities, apparently EPA is grudgingly allowing other states to include these as well.

We recommend North Dakota take maximum advantage of this opportunity by providing allowances for certain significant GHG reduction activities within the state. One example is the

---

[28] 40 CFR § 60.5790(b) (5) (iii): "You may submit for the EPA's approval, an equivalent method which requires affected EGUs to meet the mass-based CO_2 emission goal. The EPA will evaluate the approvability of such an alternative method on a case by case basis."

[29] 80 Fed Reg 64887-64888: "The following options provide sufficient demonstration that potential emission leakage has been addressed in a mass based state plan... 3. Provide a demonstration in the state plan, supported by analysis, that emission leakage is unlikely to occur due to unique state characteristics or state plan design elements that address and mitigate the potential for emission leakage."

[30] 80 Fed Reg 64903: "Measures that reduce CO_2 emissions outside the electric power sector may not be counted toward meeting a CO_2 emission performance level for affected EGUs or a state CO_2 goal, under either a rate-based or mass-based approach, because all of the emission reduction measures included in the EPA's determination of the BSER reduce CO_2 emissions from affected EGUs. Examples of measures that may not be counted toward meeting a CO_2 emission performance level for affected EGUs or a state CO_2 goal include GHG offset projects representing emission reductions that occur in the forestry and agriculture sectors,[969] direct air capture, and crediting of CO_2 emission reductions that occur in the transportation sector as a result of vehicle electrification."

[31] 80 Fed Reg 64903 - Footnote to the above statement: "[969]We note, however, that the final emission guidelines allow state measures like emission budget trading programs to include out-of-sector GHG offsets. For example, both the California and RGGI programs allow for the use of allowances awarded to GHG offset projects to be used to meet a specified portion of an affected emission source's compliance obligation. Also see 80 Fed Reg 64891: "Programs might also include design elements that make allowances available in addition to the established emission budget. This includes project based offset allowances or credits from GHG emission reduction projects outside the covered sector...", 80 Fed Reg 64893: State plans may involve emission budget trading programs that include affected EGUs, applicable new fossil fuel-fired EGUs if a plan includes a new source CO2 emission complement, and other non-affected emission sources."

Great Plains Synfuels Plant, operated by Dakota Gasification Company, a subsidiary of Basin Electric Power Cooperative. Several million tons have of CO_2 been removed from their emissions and used for enhanced oil recovery.[32] In the future additional CO_2 may be removed and the State should consider awarding tradeable allowances for this emission reduction.

Another example of GHG reductions attributable to industrial activity, which may provide tradeable credits, is reduction in natural gas flaring in North Dakota.[33] New regulations and programs to reduce natural gas flaring will significantly reduce CO_2 emissions over time. A potential lucrative market for generating valuable tradeable credits may provide further incentive for oil well drillers and producers in the state to reduce flaring.

Finally, EPA has indicated they may countenance the concept of using wind capacity installed prior to 2013 in some manner to provide credits or allowances. In consideration of the large amount of wind generation capacity installed in North Dakota several years ago, the NDDH should explore this concept further with the EPA.

XV. The SIP should include automatic safety valves and triggers to avoid delays in SIP modification approvals or the threat of not receiving a needed revision approval

The CPP includes provisions for making revisions to the SIP.[34] They also address a "Reliability Safety Valve" to address short-term emergencies that call for temporary suspension of compliance.[35] Based on a history of difficulties associated with timeliness of SIP approvals, EPA's demonstrated reluctance to approve reasonable measures proposed by states, and the potential for other major disruptive events, besides immediate short-term reliability issues, we recommend the SIP should include numerous automatic triggers and safety valves.

The weak and inflexible "Reliability Safety Valve" must be expanded in the proposed SIP. It does not account for catastrophic events in North Dakota, such as tornadoes or severe winter storms. Additionally, without natural gas infrastructure in place, one cannot count on future reliability of natural gas as a fuel resource. Remember that just a few decades ago our own federal government passed a law banning the use of natural gas as a boiler fuel for new power plants, thus discouraging natural gas infrastructure development for power generation in the Northern Great Plains.[36]

---

[32] *The greatest CO_2 story ever told.* Dakota Gasification Company. http://www.dakotagas.com/CO2_Capture_and_Storage/index.html

[33] *North Dakota aims to reduce flaring.* US Energy Information Administration. October 20, 2014. https://www.eia.gov/todayinenergy/detail.cfm?id=18451

[34] 40 CFR § 60.5785

[35] 40 CFR § 60.5785(e)

[36] See PL 95-620, "Powerplant and Industrial Fuel Use Act of 1978", 42 USC 8301, which included as its Statement of Purposes (§ 102(b)) "to conserve natural gas and petroleum for uses, other than electric utility or other industrial or commercial generation of steam or electricity...to encourage and foster the greater use of coal and other alternate fuels in lieu of natural gas and petroleum, as a primary fuel source...to prohibit or, as appropriate, minimize the use of natural gas and petroleum as a primary energy source..."). This law helped encourage new

Other triggers may include a short-term excess allowance generation and allocation by the NDDH, in case of unexpectedly high allowance costs, or allowance unavailability.[37] This could supplement an electricity price cap trigger, as described above in Item III. An electricity price cap trigger should also be considered for North Dakota's rural electric cooperatives (REC's), which serve almost the entire state outside towns and cities.

The NDDH may consider an automatic "employment impact" trigger, whereby a projected plant or plant/mine closure, or significant generation or production decline, that would result in a specified number of job layoffs, triggers a suspension of the plant's compliance obligations. To affect such a trigger a credible certification must be provided that that job-eliminating event is caused by required compliance with the CPP.

Other automatic triggers or safety valves that protect the State and its citizens should be investigated and embedded in the SIP. EPA would have a difficult time disapproving these SIP provisions designed to protect North Dakotans from negative cost and employment impacts of the rule.

XVI. The SIP should maximize opportunities provided for compliance through combined heat and power

The Falkirk Mining Company provides lignite for power generation at the nearby Coal Creek Station, and recently started providing lignite used at the Spiritwood Station near Jamestown. NoDak Energy conducts lignite drying operations to improve coal quality for these facilities. Both of these facilities are owned by Great River Energy. Through a partnership with Midwest AgEnergy, GRE provides steam to Blue Flint Ethanol near Coal Creek Station and Dakota Spirit AgEnergy near the Spiritwood Station.[38] These are considered combined heat and power (CHP) operations, which are addressed in several parts of the CPP. CHP operations can be used to adjust emission rates of affected EGU's, although their use in a mass-based system may be limited[39] (thus providing an additional reason to consider a hybrid mass-based/emission rate-based system in the State).

---

coal-fired power plant development in the late 1970's and early 1980's. The Fuel Use Act was repealed in 1987, after all lignite-fired plants in North Dakota had been constructed, except the Spiritwood Station, and had been in operation for several years.

[37] EPA notes at 80 Fed Reg 64904 that "The RGGI program contains a cost containment allowance reserve that makes available additional allowances up to a certain amount, at specified allowance price triggers." Considering EPA's endorsement of this program, the State Health Department is urged to investigate this as a possible strategy that would likely be approved by the EPA.

[38] EPA notes at 80 Fed Reg 64904 that "The RGGI program contains a cost containment allowance reserve that makes available additional allowances up to a certain amount, at specified allowance price triggers." Considering EPA's endorsement of this program, the State Health Department is urged to investigate this as a possible strategy that would likely be approved by the EPA.

[39] EPA notes at 80 Fed Reg 64904 that "The RGGI program contains a cost containment allowance reserve that makes available additional allowances up to a certain amount, at specified allowance price triggers." Considering EPA's endorsement of this program, the State Health Department is urged to investigate this as a possible strategy that would likely be approved by the EPA.

We recommend that the State consult closely with our customer, Great River Energy, to explore opportunities provided for these CHP systems, and other potential CHP systems in the state.

XVII. The State should consider formally designating Mercer, Oliver and McLean Counties, including towns located in these counties, as "vulnerable communities under the Clean Power Plan"

EPA has expressed special concern about the CPP's effects on vulnerable communities.[40] EPA's definition of a "vulnerable community" includes "low-income, communities of color and indigenous populations,"[41] generally tied to populations inordinately impacted by environmental pollution and regulatory impacts associated with pollution controls. This is addressed through EPA's "environmental justice" programs generally and is addressed by EPA in the CPP specifically.[42]

In this case the NDDH should consider another new and less typical definition of "vulnerable communities" as those communities that are actually negatively impacted by the CPP itself. The CPP renders communities in North Dakota's "Coal Country" (Mercer, Oliver and McLean Counties), where most lignite mines and coal-fired plants are located, very vulnerable to job losses, reduced economic activity, declining tax revenues and public services, reduced property values, and other negative social and economic impacts proximately caused by the Clean Power Plan. A formal NDDH designation of these three counties, and their included towns, as uniquely vulnerable communities, could be important because of EPA's requirements to provide special consideration.

The NDDH has already reached out and engaged with these communities by holding one of their public meetings in Beulah, in the part of the state most affected by the rule in terms of probable economic and job loss impacts.[43] With an estimated 800 in attendance, this was by far the largest of the four meetings hosted by the NDDH, despite being held in the smallest town[44]. Every person that spoke expressed deep concerns about the CPP and its potential negative impact on local communities.

EPA expects states to explain how they identify vulnerable communities[45], such as by using EJSCREEN (an online tool with geospatial identifiers of emission sources combined with

---

[40] Throughout the final rule and preamble EPA referenced "vulnerable communities" 53 times in several different respects, but primarily related to assessing actions to assure protection to these communities under the CPP. See 80 Fed Reg 64662.

[41] *The Clean Power Plan Briefing for Communities.* Environmental Protection Agency. September 9, 2015. http://www3.epa.gov/airquality/cppcommunity/cppcommunities20150909.pdf

[42] See http://www.epa.gov/cleanpowerplan/clean-power-plan-community-page

[43] *Energetic Turnout – In Coal Country, Health Department looks for solutions to state power plan.* Bismarck Tribune. November 14, 2015.

[44] Other Health Department meetings were held in November 2015 in Williston, Bismarck and Fargo.

[45] Memorandum from Stephen D. Page, Director of the Office of Air Quality Planning and Standards, to EPA Regions 1-10 Regional Air Directors, regarding initial Clean Power Plan submittals under Section 111(d) of the Clean Air Act. October 22, 2015. p. 4. http://www3.epa.gov/airquality/cpptoolbox/cpp-initial-subm-memo.pdf

socioeconomic characteristics). The State could easily justify identifying Mercer, Oliver and McLean Counties as vulnerable communities, based on the potential inordinate impact the rule will create there. The location of the Fort Berthold Indian Reservation in Mercer and McLean Counties also bolsters this conclusion. EPA has defined vulnerable communities under this rule in the most expansive way possible, supporting this unique designation.[46] The agency would be hard-pressed to dispute the fact that coal miners and power plant workers in these three counties, as well as supporting businesses, and their families, are not vulnerable to significant negative impacts under this rule.

This formal designation could be very important as EPA states the CPP has been designed "to ensure that vulnerable communities are not disproportionately impacted by this rulemaking."[47] Additionally, EPA intends to follow-up with states during implementation of the CPP to assure that vulnerable communities are treated justly and do not inordinately suffer from the negative consequences of the plan.[48]

In the future special consideration may be afforded to designated vulnerable communities inordinately impacted under the CPP, whether through additional targeted regulatory relief, federal assistance or incentives for economic development, or through other measures that may be needed to mitigate the harmful effects of the rule.

XVIII. The State should conduct proximity analyses for all expected impacts under a proposed SIP

A proximity analysis is conducted to determine impacts from actions at several distances from impacted mines and power plants. As previously described, communities in Mercer, Oliver and McLean Counties are the most vulnerable to the rule because they are in the closest proximity to affected plants and mines. However, there are significant numbers of people that live outside of these counties who might also be impacted. For example of the 482 employees at the Falkirk Mine, 295 reside outside McLean County, where the mine is located. This equates to 61% of our employees living in neighboring counties. We believe that resident address ratios for our customer's employees are similar. Additionally, a large portion of total revenue spent at

---

[46] 80 Fed Reg 64915 "There are many rural power plants that are located near small communities with high percentages of low-income populations and lower percentages of communities of color. In urban areas, nearby communities tend to be both low income communities and communities of color. In light of this difference between rural and urban communities proximate to power plants and in order to adequately capture both the low income and minority aspects central to environmental justice considerations, we use the terms ''vulnerable'' or ''overburdened'' when referring to these communities. *Our intent is for these terms to be understood in an expansive sense* [*emphasis added*], in order to capture the full scope of communities, including indigenous communities most often located in rural areas, that are central to our environmental justice and community considerations.

[47] 80 Fed Reg 64919

[48] *Ibid* "Additionally, in order to continue to ensure that vulnerable communities are not disproportionately impacted by this rulemaking, the EPA will also be conducting its own assessment during the implementation phase. Furthermore, the EPA will continue to engage with communities and states throughout the implementation phase of this rulemaking to help ensure that vulnerable communities are not disproportionately impacted."

the Falkirk Mine for goods and services goes to suppliers and contractors outside McLean County. A significant amount of this money goes to these neighboring areas as well.

EPA supports this proximity analysis[49], which will be useful for determining the relative level of impact close to and far from regulated power plants and mines. It would also help to define the vulnerability of other communities further away from NDDH-designated vulnerable communities (Mercer, Oliver and McLean Counties).

XIX. The State should conduct an analysis of the impact of North Dakota's required CO_2 emission reductions on global temperatures

There is general consensus that the CPP will have little or no perceptible effect on global temperatures. The effect is so small that even the EPA would not calculate it. However, there have been statements made that America's overall CO_2 reduction would lower global temperatures 1/100th of a degree by the year 2100. The conversation has turned to EPA's true intention, to "show strong domestic action, which can actually trigger global action", according to EPA Administrator Gina McCarthy.[50]

Nonetheless, we believe it's extremely important that some official estimate be provided to the public from an agency responsible for implementing the CPP. If EPA refuses to do this, we recommend that the NDDH do it. A quantified temperature impact value, however small and imprecise, provided by a credible agency such as the NDDH, would be extremely helpful for the citizens of the state to put perspective on the costs and benefits of the rule, and allow better-informed input.

Such a task as quantifying the impact of CO_2 emissions on global temperature is being requested by federal agencies of coal mining companies now. For example, The Falkirk Mining Company has recently been asked to evaluate the impact of GHG emissions from coal combustion, with lignite provided by the Falkirk Mine, as part of a federal mine plan approval review by the Office of Surface Mining. This calculation does not require days, or even hours, of research. There are very simple models that can relate tons CO_2 emitted to degrees elevated. The North Dakota State Climate office at North Dakota State University is an excellent resource and may help with this project.[51] We expect such an exercise for North Dakota would show that

---

[49] 80 Fed Reg 64916: "EPA encourages states to conduct their own analyses of community considerations when developing their plans. Each state is uniquely knowledgeable about its own communities and well-positioned to consider the possible impacts of plans on vulnerable communities within its state. Conducting state-specific analyses would not only help states assess possible impacts of plan options, but it would also enhance a state's understanding of the means to engage these communities that would most effectively reach them and lead to valuable exchanges of information and concerns. A state analysis, together with the proximity analysis conducted by the EPA, would provide a solid foundation for engagement between a state and its communities."

[50] *Even the EPA says Obama carbon plan will only marginally affect climate change, Scott Walker says*. Politifact Wisconsin. September 21, 2015. http://www.politifact.com/wisconsin/statements/2015/sep/21/scott-walker/even-epa-says-obamas-power-plan-will-have-only-mar/

[51] According to its website at https://www.ndsu.edu/ndsco/, "The mission of the North Dakota State Climate Office is to advance the use of climate information for the economic and environmental benefit of North Dakota and the

the 12 million tons/year of reduction called for in the CPP will result in an extremely small and scientifically negligible calculated change in temperatures, while having an inordinate impact on North Dakota's citizens.

As imprecise as this value may be, the calculation can be qualified with necessary caveats. For the NDDH to go through this very brief exercise will cost very little staff time, but the value to the public will be tremendous.

XX. <u>The State Health Department should establish a schedule for further meetings with affected entities, especially vulnerable communities</u>

We appreciate the speed with which the State Health Department is addressing the Clean Power Plan, especially as related to public involvement. We encourage you to continue this effort. We recommend that you establish a schedule of meetings for 2016 as soon as possible, and especially encourage additional meetings with vulnerable communities and opportunities for input. For meetings to be held in Beulah, or other Coal Country towns, we ask that you invite EPA representatives to attend.

In summary, The Falkirk Mining Company is providing several comments and recommendations for your consideration regarding potential development of a State Implementation Plan under EPA's Clean Power Plan. Thank you for this opportunity to comment and we look forward to continued communications on this important topic in the near future.

If you have any questions please do not hesitate to contact me.

Sincerely,

Jay H. Kost, President

The Falkirk Mining Company

Cc:
North Dakota Governor Jack Dalrymple
North Dakota Attorney General Wayne Stenehjem
North Dakota Public Service Commissioner Julie Fedorchak
North Dakota Public Service Commissioner Randy Christmann
North Dakota Public Service Commissioner Brian Kalk

---

public safety of its citizens, through climate monitoring, research, education, and extension and information services," and "the State Climate Office is uniquely positioned to provide information needed for natural resources management and climate assessment...to other public and private educational institutions, corporations and government agencies throughout North Dakota and elsewhere."