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January 4, 2007

Ms. Shanna M. Vale
Conservation Law Foundation
62 Summer Street
Boston, MA 02110-1016

Re: Request for Advisory Opinion and Fail-safe Petition regarding Proposed Conditional Approval of Somerset Power Non-Major Comprehensive Plan Application and Amended Emissions Control Plan Draft Approval.

Dear Ms. Vale:

I am writing in response to your letters dated October 5, 2007, and November 16, 2007, which request that this office find that the above-referenced Somerset Power project is subject to Massachusetts Environmental Policy Act (MEPA) review because it exceeds certain review thresholds or meets the "fail-safe" provisions of the MEPA regulations.

Somerset Power proposes to modify its existing power generating facility by converting Unit 6/Boiler 8 from a conventional pulverized coal-fired boiler to a synthetic gas (syngas) fired boiler. Syngas will be produced by plasma gasification of coal and/or biomass feedstocks. The project will result in a substantial reduction in emissions of mercury (95%), sulfur dioxide (95%), and nitrogen oxide (60%), in addition to emissions of particulate matter, hydrochloric and sulfuric acid, ammonia, and ash. The project may result in the potential increase in emissions of carbon monoxide and volatile organic compounds, but such emissions would not be defined as significant under applicable air quality regulations. As discussed below, the project has the potential to increase carbon dioxide emissions if the plant runs without mitigation at a higher capacity factor than current operations.

Pursuant to the applicable regulations, I requested additional information from Somerset Power, LLC, the operators of Somerset Station. I received additional information from Somerset Power on October 29, 2007, December 10, 2007, December 31, 2007, and January 4, 2008.

Based on a review of the information provided by you, Somerset Power, the Massachusetts Department of Environmental Protection (MassDEP) Proposed Conditional Approval (Transmittal No. W101376; August 21, 2007), and consultation with MassDEP, I find that the proposal to convert Unit 6/Boiler 8 from a conventional pulverized coal-fired boiler to a synthetic gas (syngas) fire boiler does not meet applicable thresholds for MEPA review. I also find that MEPA review is not essential to avoid or minimize damage to the environment, and the proposed action therefore does not warrant fail-safe review. As detailed below, the project will result in significant reductions in key air pollutants and, taken together with a legally-binding commitment to mitigate fully any carbon dioxide emissions above current levels, will protect the environment to the fullest extent of the law. Indeed, this added commitment to cap carbon dioxide emissions provides environmental benefits above and beyond anything required by law or regulation.

MEPA Review Thresholds

The modifications require a Non-Major Comprehensive Plan Approval from MassDEP pursuant to 310 CMR 7.02. Your letter of October 5, 2007, cites two potentially applicable review thresholds at 301 CMR 11.03(8):

- (a) ENF and Mandatory EIR. Construction of a New major stationary source with federal potential emissions, after construction and the imposition of required controls, of: 250 tpy of any criteria air pollutant; 40 tpy of any hazardous air pollutant (HAP); or 100 tpy of any combination of HAPs [and]
- (b) ENF and Other MEPA Review if the Secretary So Requires.

2. Modification of an existing major stationary source resulting in a "significant net increase" in actual emissions, provided that the stationary source or facility is major for the pollutant, emission of which is increased by: 15 tpy of PM as PM10; 100 tpy of CO; 40 tpy of SO₂; 25 tpy of VOC or NO_x; 0.6 tpy of lead.

As an existing facility operating under valid MassDEP permits, MEPA review in this instance applies to net new impacts (301 CMR 11.02; "New"). Based on a review of information from Somerset Power and the MassDEP Proposed Conditional Approval, emissions associated with the proposed conversion of Unit 6/Boiler 8 do not meet or exceed threshold levels described in (a) and (b)2, above.

I acknowledge that your letter asserts that the project meets the threshold at (b)2, above, because Somerset Power's emissions calculations do not represent the combined values associated with emissions from Unit 6/Boiler 8 and the syngas flare. Materials from Somerset Power and MassDEP demonstrate that the cumulative level of volatile organic compounds (VOC) emissions will not exceed the threshold level of 25 tons per year. Last, your letter states that the figures provided by Somerset Power are speculative and too close to the threshold levels

to not require MEPA review. MassDEP has reviewed and validated the technical information used to derive the reported emission levels. No further MEPA review is required on these grounds.

In addition, your letter asserts that the proposed conversion constitutes a “repowering,” and therefore a new major stationary source pursuant to (a), above. The determination of whether the proposed project falls within the regulatory definition of repowering is within the jurisdiction of MassDEP. As defined by MassDEP, repowering means the replacement of an emission unit with a new unit that is less polluting and more efficient than the unit which is being replaced (310 CMR 7.00, Definitions).¹ MassDEP has determined that the proposed conversion does not constitute “repowering” under its air quality regulation, because Somerset Power is not replacing the existing emission unit, in this case the “boiler.” MassDEP has also determined, based on Somerset Power’s application, that the proposed conversion does not constitute repowering under 310 CMR 7.29(2), Emission Standards for Power Plants. Somerset Power’s proposal includes, and MassDEP’s proposed approvals require, emission limits that are more stringent than the applicable regulations.

Fail-safe Petition

Fail-safe review is narrowly defined in the MEPA regulations² to be applicable in those rare circumstances where an action subject to MEPA jurisdiction may cause damage to the environment and where further MEPA review “is essential to avoid or minimize Damage to the Environment...,” but for which action there are no applicable MEPA review thresholds or the action does not meet or exceed applicable review MEPA thresholds.

To summarize the salient part of your request, you state that fail-safe review is warranted because the Proposed Conditional Approval would authorize the emission of an additional approximately 81,000 tons per year (tpy) of carbon dioxide, above the baseline (2004/5 average) of 860,708 tpy. Since the MEPA office has determined that the statutory phrase “damage to the environment” includes the emission of greenhouse gases, these emissions have the potential to cause damage to the environment. Because the MEPA review thresholds do not address carbon dioxide, and because the potential damage to the environment could not have been foreseen when the MEPA regulations were promulgated in 1998, you assert that MEPA review under the fail-safe provisions is essential to avoid or minimize damage to the environment.

As described in Somerset Power’s letter of December 10, 2007, if Somerset were to maintain its operations at the current 80% net capacity factor (NCF), the proposed conversion of Unit 6/Boiler 8 will result in a decrease in carbon dioxide emissions of 4,382 tpy. This is reflected in the Proposed Conditional Approval in Tables 1, 2 and 3 as “Net Change” under the Projected Actual Annual Emissions at Present Capacity Factor. However, carbon dioxide

¹ Somerset Power Conditional Approval dated February 24, 2003. Section 8(7).

² In summary, 301 CMR 11.04 states that fail-safe review may be warranted where: 1) the project is subject to MEPA jurisdiction; 2) the project has the potential to cause damage to the environment which either could not have been foreseen prior to promulgation of the regulations or would be caused by circumstances that individually would not cause damage to the environment; 3) requiring further MEPA review is essential to avoid or minimize damage to the environment; and 4) requiring further MEPA review will not result in an undue hardship for the proponent.

emissions would increase by 81,251 tpy if Somerset Power were to increase its NCF by 10%. Without mitigation, this increase could be considered damage to the environment, thus potentially triggering fail-safe review.

Somerset Power has committed to mitigation measures that address this potential impact. In its letter of January 4, 2008, Somerset Power has agreed to cap its emission of carbon dioxide associated with the use of non-renewable fuels at the current level of 860,708 tons per year. Any increased emissions of carbon dioxide above that limit will be offset by using renewable energy sources such as biomass, or by implementing zero-carbon mitigation such as carbon sequestration. As a result of this commitment, there will be no net new carbon dioxide emissions associated with its operations under the Proposed Conditional Approval.

I ask that MassDEP include in its Conditional Approval a condition that reflects this commitment and makes it legally enforceable. I also expect that the permit condition will provide for adequate monitoring and the provision of timely information to MassDEP so that it can verify compliance. Among other things, I expect that MassDEP will include a condition requiring Somerset to provide advance notice if it expects to exceed the carbon dioxide emission limit and provide MassDEP the opportunity to review the specific mitigation measure proposed to ensure that it is both feasible and meets evolving regulatory standards.

On the condition that the commitments of Somerset Power in its letter of January 4, 2008, are included by MassDEP as legally enforceable conditions of the Conditional Approval, I find that in the absence of net new carbon dioxide emissions, MEPA review is not essential to avoid or minimize damage to the environment. Thus, the criteria for fail-safe review are not met here.

In conclusion, although I do not find that the Somerset Power proposal meets the criteria for MEPA review, I do note that the world is moving toward an era of greater constraints on carbon dioxide emissions, and Massachusetts is leading the way. We have in place in the 7.29 program the nation's first limit on CO₂ emissions from older, high-emitting power plants, and we are leading participants in the Regional Greenhouse Gas Initiative, the nation's first cap-and-trade program on CO₂ emissions from the power generation sector. Regulations like these, to which emissions from the Somerset Power plant remain subject, will lead to substantial technological change in the power generating industry. While no regulatory action taken today can fully anticipate events that have not yet taken place, I believe that the commitment to limit and offset carbon dioxide emissions from Somerset Power, while substantially reducing the emission of other pollutants associated with coal combustion, will protect the Massachusetts environment now and in the future.

Sincerely,



Ian A. Bowles