

**BEFORE THE ADMINISTRATOR  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

In the Matter of the Proposed Operating Permit	)	
	)	
Issued by the	)	
	)	
Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Department for Environmental Protection, Division for Air Quality,	)	Permit No. V-02-001, Rev. 1
	)	
to	)	
	)	
Thoroughbred Generating Company, L.L.C.	)	
	)	
for Operation of the	)	
	)	
Thoroughbred Generating Station	)	
	)	

**PETITION FOR OBJECTION TO ISSUANCE OF OPERATING PERMIT FOR THOROUGHNBRED GENERATING STATION**

Pursuant to Section 505(b)(2) of the Clean Air Act<sup>1</sup> and the applicable federal and state regulations,<sup>2</sup> the undersigned organizations and individuals petition the Administrator of the U.S. Environmental Protection Agency (“the Administrator” or “EPA”) to object to the operating permit issued by the Kentucky Natural Resources and Environmental Protection Cabinet, Division for Air Quality (“the Cabinet” or “the Division”), for the proposed Thoroughbred Generating Station.<sup>3</sup>

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<sup>1</sup> 42 USC § 7661d(b)(2).

<sup>2</sup> 40 C.F.R. § 70.8(d); 401 K.A.R. 52:100 § 10(9).

<sup>3</sup> Permit No. V-02-001, Rev. 1 (published at <http://www.nr.state.ky.us/nrepc/dep/daq/prb/titlevc.htm#Muhlenberg>). The permit is attached as Exhibit 1 to this petition. The Cabinet’s Revised Preliminary Determination and Statement of Basis for the permit is attached as Exhibit 2. The Cabinet’s Responses to Public Comments on the draft permit is attached as Exhibit 3.

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## INTRODUCTION

The Administrator is required to object to the Thoroughbred permit because, as this petition demonstrates below, both the content of the permit and the proceedings that generated it fall short of (1) requirements found in the Clean Air Act, (2) requirements found in the federal operating permit regulations, and (3) requirements found in the Commonwealth of Kentucky's state implementation plan.<sup>4</sup> Since the Cabinet has already issued the permit, and because mere modifications to the permit's terms and conditions would not rectify the Cabinet's procedural errors, the petitioners request that the Administrator revoke the permit and notify the Cabinet that a final denial will issue unless all of the defects – both substantive and procedural – are remedied within ninety days of the revocation.<sup>5</sup>

The Cabinet provided the Administrator with a copy of the permit on October 11, 2002.<sup>6</sup> The Administrator did not object within forty-five days,<sup>7</sup> which the Act and the regulations set as the duration of the Administrator's review period.<sup>8</sup> No more than sixty days have passed since that period expired.<sup>9</sup> Moreover, each of the grounds for objection

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<sup>4</sup> See 42 USC § 7661d(b)(2) (“The Administrator shall issue an objection within such period if the petitioner demonstrates to the Administrator that the permit is not in compliance with the requirements of this chapter [the Clean Air Act], including the requirements of the applicable implementation plan.”); see also 40 CFR § 70.8(c)(1) (“The Administrator will object to the issuance of any proposed permit determined by the Administrator not to be in compliance with applicable requirements or requirements under this part.”); *id.* § 70.2 (defining “applicable requirement” to include “[a]ny standard or other requirement provided for in the applicable implementation plan approved or promulgated by EPA”). Accord In the Matter of Monroe Electric Generating Plant, Petition No. 6-99-2 (EPA Administrator 1999), at 2 (“The title V operating permits program is a vehicle for ensuring that existing air quality control requirements are appropriately applied to facility emission units in a single document and that compliance with these applicable requirements is assured. . . . Such applicable requirements include the requirement to obtain preconstruction permits that comply with applicable new source review requirements.”) (citation omitted).

<sup>5</sup> See 42 U.S.C. § 7661d(b)(3), (c); 40 C.F.R. § 70.8(d); 401 K.A.R. 52:100, Section 10(9)(c).

<sup>6</sup> See Exhibit 1 at 2 (identifying date of issuance).

<sup>7</sup> See <http://www.epa.gov/region4/air/permits/Kentucky.htm>.

<sup>8</sup> 42 USC § 7661d(b)(1); 40 CFR § 70.8(c)(1); 401 KAR 52:100 § 10(6)(a).

<sup>9</sup> See <http://www.epa.gov/region4/air/permits/Kentucky.htm>.

described herein either was raised with specificity during the public comment period provided by the Cabinet or arose after that period ended.<sup>10</sup> This petition thus meets the conditions set forth in Section 505(b)(2) of the Act and the parallel regulations.<sup>11</sup>

### **PETITIONERS**

The Natural Resources Defense Council (“NRDC”) is a non-profit membership organization devoted to protecting public health and the natural environment. For over thirty years, NRDC has pursued its mission in large part by working to ensure that the laws written to protect human health and the environment are fully implemented and strictly enforced. NRDC’s membership consists of more than 500,000 individuals, approximately 3,000 of whom live in Kentucky. Some part of the air pollution emitted by Thoroughbred would ultimately enter the lungs of NRDC members and their loved ones. Pollution emanating from Thoroughbred would also affect plants, animals, and visibility at Mammoth Cave National Park, which hundreds of NRDC members and their families visit every year. Finally, pollution from the plant would impact the natural environment in which millions of Americans, including NRDC members and their families, live.

The Sierra Club is a nonprofit public-benefit corporation organized and existing under the laws of California with more than 700,000 members in the United States and Canada and with one or more chapters in every state. In Kentucky, the Sierra Club members are organized as the Cumberland Chapter, with over 4,300 members across the Commonwealth. The Sierra Club's purposes include “to practice and to promote responsible use of the earth’s ecosystem and resources; to enlist and to educate humanity

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<sup>10</sup> See *infra*, “Grounds for Objection.”

to protect and to restore the quality of the natural and human environment, and to use all lawful means to carry out these objectives.” Cumberland Chapter activities include hiking, canoeing, caving, swimming, fishing, nature study, and advocacy for the improvement and protection of water quality and air quality across the state. The Chapter’s Mammoth Cave Group conducts regular outings and service trips in Mammoth Cave National Park.

Valley Watch is an Indiana corporation incorporated in 1981 as a non-profit organization whose purpose is “to protect public health and the environment in the lower Ohio Valley.”

The National Parks Conservation Association (“NPCA”) is America's only private nonprofit advocacy organization dedicated solely to protecting, preserving, and enhancing the National Park System. Founded in 1919, NPCA now has more than 300,000 members who care deeply about the well-being, including the air quality, of our national parks. Approximately 2,500 of those members reside in Kentucky. Pollution from the Thoroughbred facility would adversely impact visibility at Mammoth Cave National Park, one of the haziest parks in the country. In addition, emissions from Thoroughbred would impact plants and animals, including endangered species, at the park.

Kentucky Environmental Foundation is a Madison County, Kentucky-based organization concerned with protecting human health from toxic exposures associated with incineration and other combustion processes.

The Ohio Valley Environmental Coalition (“OVEC”) is an organization concerned about the proliferation of coal-fired power plants and the impact they have on

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<sup>11</sup> See 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d); 401 K.A.R. 52:100 § 10(9)(a).

the environment. The Huntington-Ashland area, where OVEC is based, suffers from very poor air quality due to the many power plants upwind along the Ohio River in Ohio and Kentucky. The incidence of asthma and lung cancer is very high in Huntington. In addition to protecting public health and the environment generally, OVEC's members want to protect national parks such as Mammoth Cave from air pollution.

Elizabeth Crowe and her daughter, Hannah, are residents of Berea, Kentucky. They are already exposed to unhealthy levels of air pollution caused by emissions from coal-fired power plants, and they believe it is their responsibility to prevent new such plants from making the air in Kentucky even dirtier.

## **GROUNDNS FOR OBJECTION**

### **I. Peabody Misled EPA and the Public on a Crucial Issue.**

Section 70.8 of the federal operating permit regulations provides in part that “[t]he Administrator will object to the issuance of any proposed permit determined by the Administrator not to be in compliance with applicable requirements or requirements under this part.”<sup>12</sup> “This part” includes Section 70.5(b), the first sentence of which reads, “Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.”<sup>13</sup> Section 70.8 also states, in part, that an EPA objection is called for when the permitting authority fails to “[s]ubmit any information necessary to review adequately the proposed permit.”<sup>14</sup>

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<sup>12</sup> 40 CFR § 70.8(c)(1).

<sup>13</sup> Id. § 70.5(b).

<sup>14</sup> Id. § 70.8(c)(3)(ii).

In reaching its permitting decision, the Cabinet relied on statements that the applicant (“Peabody”) had made in its application materials. Both the public and EPA relied on those same statements in reviewing the draft permit. By the time the Cabinet submitted the final permit to EPA for review – if not before – Peabody knew that a key statement that appeared repeatedly in its application materials omitted crucial facts. In the absence of those facts, the company’s oft-repeated statement was, in the least, misleading and, at most, incorrect. Nevertheless, Peabody never provided EPA with the relevant information necessary to prevent the company’s statement from misleading the agency. Whether or not Peabody ever conveyed the missing information to state officials, the Cabinet never provided it to the public. As a result, both EPA and the public were misled.

In its application materials, Peabody tried to justify its refusal to use lower sulfur coal or implement coal washing at Thoroughbred by repeatedly asserting that the plant would draw its coal from an adjacent mine that contained only high-sulfur coal and had no space for a coal washing operation. For example, in a draft response to public comments that Peabody provided to the Cabinet on May 9, 2002, the company wrote:

There would be no on-site location for disposal of coal washing byproducts. As a result, a disposal facility would have to be constructed off-site.<sup>15</sup>

Later in the same document, Peabody stated:

[T]his facility is proposed to be constructed near a mining facility and to burn coal from that facility. The use of low-sulfur coal at the applicant’s facility is not practical since the facility will be built near a mining facility. To buy and transport low-sulfur coal for use at the applicant would

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<sup>15</sup> Exhibit 4 at 5.

make the proposed plant uneconomical as demonstrated by the discussion above on coal washing.<sup>16</sup>

The same assertion appeared elsewhere in Peabody's application materials. In a separate document submitted to the Cabinet on May 9, the company stated that Thoroughbred "will be located within close proximity of the fuel supplier in order to minimize the energy and environmental impacts associated with fuel transportation and processing."<sup>17</sup> Later in the document, Peabody reiterated the point that "[t]he station will be located in close proximity to a mining facility to provide fuel directly from the source."<sup>18</sup> And just a few pages later:

[T]he TGS PC Boilers are being designed to fire raw coal from a nearby coal mine . . . . [T]he decision to use raw coal as opposed to washed or processed coal is the result of extensive evaluation of site limitations, costs, environmental risk and energy losses . . . ."<sup>19</sup>

In a May 24, 2002 letter sent to the Cabinet, Peabody's manager for the Thoroughbred project wrote, "As you are aware, Thoroughbred Generating Company is proposing to construct the Thoroughbred Generating Station (TGS) near a coal mine, which will provide the required fuel."<sup>20</sup> Later, in the letter, the manager specified, "The underground mine that will supply the coal to TGS is approximately 2 miles west of the main boiler stacks . . . ."<sup>21</sup>

Central to Peabody's rejection of lower-sulfur coal and coal washing, then, was the company's assertion that Thoroughbred would be fueled with coal from an adjacent mine. In his May 24 letter, Peabody's project manager wrote that "TGS could purchase

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<sup>16</sup> Id. at 8.  
<sup>17</sup> Exhibit 5 (excerpts) at 1.  
<sup>18</sup> Id.  
<sup>19</sup> Id. at 4.  
<sup>20</sup> Exhibit 6 at 1.

coal from another source, just not as economically.”<sup>22</sup> That statement did not disclose any existing plans by the company to stop fueling Thoroughbred with coal from the adjacent mine at any point in the plant’s operational life. Indeed, nothing in Peabody’s application materials gave any indication that the company planned to feed Thoroughbred coal from a different mine.

NRDC was surprised, then, to learn after the close of the public comment period that Peabody did in fact plan to stop fueling Thoroughbred with coal from the adjacent mine soon after the plant began operations. On November 7, 2002, NRDC received a document from the U.S. Fish and Wildlife Service in response to a request that NRDC had submitted to the U.S. Department of the Interior (“DOI”) under the Freedom of Information Act for documents related to Thoroughbred.<sup>23</sup> The document is a copy of a memorandum entitled “Meeting Report” and dated August 27, 2002. In the text of the memorandum, a Fish and Wildlife official describes a meeting that he and others had with Peabody employees on the morning of August 27 at the mine (called “Gibraltar”) that lies adjacent to the proposed Thoroughbred site. The last paragraph of the memorandum begins with the following passage:

During the drive across active mining operations, I asked the driver, a safety engineer for Peabody, what was the expected life span of the Gibraltar mine. He replied that the facility was only budgeted for the next 3-4 years. I then asked where the coal needed to operate the facility would come from. He replied that the coal needed to operate the proposed TGS would come from a new underground mine in the vicinity of Island, Kentucky.<sup>24</sup>

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<sup>21</sup>

Id.

<sup>22</sup>

Id. at 3.

<sup>23</sup>

Exhibit 7.

<sup>24</sup>

Id. at 2. The Fish and Wildlife Service official also noted that he had observed “a large unused coal washing facility” at the entrance to the Gibraltar mine. Id.

According to a Peabody spokesperson, Thoroughbred will not begin consuming coal until 2007 or 2008.<sup>25</sup> Peabody intends to send coal from the Gibraltar mine to other plants, at least until Thoroughbred begins operating at full capacity.<sup>26</sup> It is possible, then, that the Gibraltar mine would supply Thoroughbred for even less than three years. In any event, the statement by the Peabody safety engineer indicates that the Gibraltar mine will supply coal to Thoroughbred for no more than four years. Peabody asserted in its application materials that Thoroughbred would be supplied with coal from a mine lying no more than two miles distant from the plant.<sup>27</sup> At none of the places where Peabody repeated that assertion did the company disclose that the adjacent mine would supply Thoroughbred for, at most, a tenth of the plant's operational life, and that the new source of coal would not even be in the same county as the plant.<sup>28</sup> Whether or not Peabody shared those facts with the Cabinet, neither Peabody nor the Cabinet ever made them public.<sup>29</sup> As far as the petitioners are aware, EPA was ignorant of the facts until counsel for NRDC telephoned an official with the agency's regional office to describe the August 27 meeting report.

The facts withheld by Peabody were "relevant" and "necessary to review adequately the proposed permit."<sup>30</sup> First of all, if the adjacent mine will not be the source of Thoroughbred's coal for the overwhelming majority of the plant's operational life,

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<sup>25</sup> See "Groups Appeal Permit for Peabody," Owensboro Messenger-Inquirer, November 14, 2002 ("Sutton said the appeal is not expected to delay the schedule for the plant, which is now expected to start transmission in 2007 or 2008.").

<sup>26</sup> See Exhibit 6 at 3 ("The mine could, and will, sell coal to other buyers (at least initially).")

<sup>27</sup> Exhibit 6 at 1.

<sup>28</sup> Both the site of the proposed Thoroughbred plant and the Gibraltar mine are in Muhlenberg County, Kentucky. Island, Kentucky, which the Peabody safety engineer named as the planned second source of Thoroughbred's fuel, see Exhibit 7 at 2, is in McLean County.

<sup>29</sup> Until NRDC became aware of the August 27, 2002 memorandum, Petitioners had no way of knowing that Peabody's repeated assertion about the adjacent mine was misleading. The objection to

then the reasons Peabody has offered for not using lower sulfur coal, and for not implementing coal washing, actually provide no justification for the company's position.<sup>31</sup>

Peabody said that it could not use lower sulfur coal because the coal in the adjacent mine was high in sulfur, and because transporting the coal from somewhere else would be too expensive.<sup>32</sup> But if Thoroughbred would stop drawing coal from the adjacent mine after a short time, then what is the sulfur content of the coal in the mine that Peabody wants to use thereafter, and how far is that mine from the plant site? Are there any mines that are located a similar distance from Thoroughbred, but that contain lower sulfur coal? Peabody has provided no information to answer these questions, yet the answers are essential to any demonstration that Thoroughbred would implement the best available control technology ("BACT") for SO<sub>2</sub> and particulate matter ("PM").

Peabody said that it could not implement coal washing because there was not enough space for such an operation at the plant site or at the adjacent mine.<sup>33</sup> But if Thoroughbred would stop drawing coal from the adjacent mine after a short time, then is there space, or even an existing coal washing operation, at or near the mine that Peabody wants to use thereafter? Peabody has provided no information to answer this question, which is also essential to any demonstration that Thoroughbred would use BACT for SO<sub>2</sub>

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Peabody's withholding of crucial facts is thus a proper basis for this petition. See 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d); 401 K.A.R. 52:100 § 10(9)(a).

<sup>30</sup> 40 CFR § 70.5(b), (c)(3)(ii).

<sup>31</sup> If Peabody can somehow demonstrate that its safety engineer was in error, and that the adjacent mine will actually supply Thoroughbred for the majority of the plant's operational life, then Peabody still needs to explain why the mine and the plant should not be evaluated as a single source for PSD purposes. See EPA Comments of February 26, 2002 at 20-21; EPA Comments of July 18, 2002 at 3; IDEM Comments of August 23, 2002, Encl. 1 at 7; NRDC Comments of August 24, 2002 at 10-12; NPCA Comments of February 28, 2002 at 9.

<sup>32</sup> Exhibit 4 at 8.

<sup>33</sup> Id. at 5; Exhibit 5 at 4.

and PM.<sup>34</sup> Since Peabody has active permits for two coal washing facilities in Western Kentucky (one in Muhlenberg County, in fact),<sup>35</sup> hiding the truth about the Gibraltar mine may have been the company's only hope of evading the obligation to wash Thoroughbred's coal.

Another reason that the truth about the adjacent mine is "relevant" and "necessary to review adequately the proposed permit,"<sup>36</sup> is that, pursuant to Section D of the permit, Thoroughbred's 24-hour SO<sub>2</sub> emissions limit will be readjusted after two years of plant operation based on the actual 24-hour emissions limit achieved during those two years.<sup>37</sup> The inclusion of this reassessment in the permit was the price Peabody paid for DOI's agreement to withdraw the opposition that it had previously lodged based on the impact that Thoroughbred's emissions would have on visibility at Mammoth Cave National Park.<sup>38</sup> DOI wanted to ensure that if actual normal operations at Thoroughbred demonstrated that the plant could achieve a limit lower than 0.41 lb-SO<sub>2</sub>/mmBTU, the plant's limit would be lowered to that level.<sup>39</sup> At the time Peabody struck this bargain, though, it had reason to believe that Thoroughbred would begin drawing its coal from a different mine soon after the recalculation of its 24-hour SO<sub>2</sub> emissions limit. Peabody knew, then, that the new limit would likely be calculated on the basis of emissions that would not be representative of emissions over the vast majority of the plant's operational life. It is hard to imagine that DOI would have accepted the same price for its

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<sup>34</sup> Peabody also failed to disclose the presence of a "large unused coal washing facility" at the entrance to the adjacent mine. See Exhibit 7 at 2. The presence of that unused facility is further evidence, Peabody's assertions notwithstanding, that washing Thoroughbred's coal would be economically practicable.

<sup>35</sup> Exhibit 8.

<sup>36</sup> 40 CFR § 70.5(b), (c)(3)(ii).

<sup>37</sup> See Exhibit 1 at 35.

<sup>38</sup> See Exhibit 9.

<sup>39</sup> See id.

acquiescence had it known that Thoroughbred would stop drawing coal from the Gibraltar mine after less than four years of operation. Had the public commenters known the truth, several of them, including more than one of these petitioners, would have raised it in the context of their objection to Thoroughbred's impact on visibility at Mammoth Cave National Park. EPA might very well have acted differently as well.

The discussion above demonstrates that Peabody failed to submit relevant facts and failed to correct a misleading statement that appeared repeatedly in its application materials.<sup>40</sup> In so doing, Peabody also failed to demonstrate that Thoroughbred would use BACT and that the plant's emissions would not have an adverse impact on visibility in a Class I area. These failures constitute violations of the Clean Air Act, the federal regulations that implement the act, and the Commonwealth of Kentucky's state implementation plan.<sup>41</sup> As such, the violations trigger the Administrator's obligation to object to the permit.<sup>42</sup> The same discussion also shows that, as a result of Peabody's improper action, the Cabinet failed to provide EPA and the public with information necessary for an adequate review of the permit. The circumstances thus independently trigger the Administrator's duty to object to the permit.<sup>43</sup>

## **II. The Cabinet Failed to Provide Adequate Procedures for Public Notice and Participation.**

As noted above, Section 70.8(c)(1) of the federal operating permit regulations requires the Administrator to object to the issuance of any proposed permit that is not in compliance with the Clean Air Act, the pertinent federal regulations, or the applicable

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<sup>40</sup> See 40 CFR § 70.5(b).

<sup>41</sup> 42 USC § 7475(a)(4); 40 CFR §§ 51.300(a), 51.301; 401 KAR 51:017 §§ 1(2), 9(2).

<sup>42</sup> See 40 CFR § 70.8(c)(1).

<sup>43</sup> See *id.* § 70.8(c)(3)(ii).

state implementation plan.<sup>44</sup> Each of those sources of authority contains requirements concerning the notice and participation that must be afforded to the public in a permitting proceeding.<sup>45</sup> The Cabinet violated all of those requirements in the course of permitting the proposed Thoroughbred plant. In the process, the Cabinet failed to submit “information necessary to review adequately the proposed permit,” thereby creating additional grounds for an EPA objection.<sup>46</sup>

**A. The Cabinet Failed to Provide the Public With an Opportunity to Comment on Relevant Information Submitted by Peabody.<sup>47</sup>**

Federal regulations require the state permitting authority “to provide opportunity for public comment on information submitted by owners and operators.”<sup>48</sup> According to the regulations, “opportunity for public comment” includes, “as a minimum,”

[a]vailability for public inspection . . . of the information submitted by the owner or operator and of the State or local agency’s analysis of the effect on air quality.<sup>49</sup>

Pursuant to the federal regulations, Kentucky’s rules require the Cabinet to make available to the public, during the public comment period, all non-confidential

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<sup>44</sup> Id. § 70.8(c)(1); see also id. § 70.2 (defining “applicable requirement”).

<sup>45</sup> See 42 USC § 7470(5) (requiring that “any decision to permit increased air pollution . . . is made only . . . after adequate procedural opportunities for informed public participation in the decisionmaking process”); 40 CFR § 51.161(a) (requiring that the permitting authority provide an “opportunity for public comment on information submitted by owners and operators”); id. § 51.161(b)(1) (declaring that “opportunity for public comment” includes “[a]vailability for public inspection . . . of the information submitted by the owner or operator and of the State or local agency’s analysis of the effect on air quality”); id. § 70.7 (a)(1)(ii) (requiring that the permitting authority comply “with the requirements for public participation”); id. § 70.7(h) (requiring that the permitting authority provide “adequate procedures for public notice”); 401 KAR 52:100 § 5(11) (requiring that the Cabinet enable interested persons to obtain copies not only of the draft permit, but also of “[r]elevant supporting material . . . and . . . [o]ther materials available to that are relevant to the permit decision”); id. § 8(1) (requiring that the Cabinet make available to the public, during the public comment period, all non-confidential information contained in the permit application, the draft permit, and “[s]upporting materials”).

<sup>46</sup> 40 CFR § 70.8(c)(3)(i).

<sup>47</sup> NRDC raised this objection with specificity during the public comment period. See Exhibit 10 at 2-3.

<sup>48</sup> 40 CFR § 51.161(a).

information contained in the permit application, the draft permit, and “[s]upporting materials.”<sup>50</sup> Moreover, the state’s regulations require that the Cabinet enable interested persons to obtain copies not only of the draft permit, but also of “[r]elevant supporting material . . . and . . . [o]ther materials available to the cabinet that are relevant to the permit decision.”<sup>51</sup>

In the second-to-last paragraph of a letter he sent to NRDC on July 23, 2002, the director of the Division acknowledged that “there is still an unresolved question concerning the impact of the 24-hour SO<sub>2</sub> limit given in the Thoroughbred Generating Station draft permit . . . .”<sup>52</sup> In other words, the Division had not yet decided what Thoroughbred’s 24-hour SO<sub>2</sub> limit would be in the permit even though the public comment period had already commenced on the draft permit. The director wrote that he expected to receive more information on the subject from Peabody before the Division decided on a 24-hour SO<sub>2</sub> limit, and that the Division “agrees that the additional information on which that decision will be based should be made available to the public for their comments.”<sup>53</sup>

On August 4, NRDC responded to the director’s July 23 letter:

Needless to say, I am discouraged to learn that Peabody has once again waited until after the commencement of a short public comment period to submit crucial information. Because the deadline for public comment is August 24, I must once again ask that the Division provide me, on an expedited basis, with a copy of the documents submitted by Peabody. Please treat this as a request under the Open

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<sup>49</sup> Id. § 51.161(b)(1). These regulations are intended to help “assure that any decision to permit increased air pollution . . . is made only . . . after adequate procedural opportunities for informed public participation in the decisionmaking process.” 42 U.S.C. § 7470(5).

<sup>50</sup> 401 KAR 52:100 § 8(1).

<sup>51</sup> Id. § 5(11).

<sup>52</sup> Exhibit 11.

<sup>53</sup> Id.

Records Act for the information referenced in the second-to-last paragraph of your July 23 letter.<sup>54</sup>

On August 8, the director wrote back to say that

the short-term (24 hour) SO<sub>2</sub> limit has, in fact, been resolved to the Division's satisfaction. A limit of .41 lb/mmBTU has been shown by Peabody's engineers to be protective of both the Class II NAAQS and the Class I increment, and results in visibility impacts which are acceptable to the Division.<sup>55</sup>

Clearly, Peabody's engineers had "shown" the Division something to convince the agency that a limit of 0.41 lb/mmBTU was acceptable. But despite NRDC's request to receive that information prior to the close of the public comment period – despite the director's prior acknowledgment that the additional Peabody information "on which [the 24-hour SO<sub>2</sub> limit] decision will be based should be made available to the public for their comments," the director did not include the information provided by Peabody with his August 8 letter. In fact, the Division did not make that information available to the public until October 10, the day before the final permit issued.<sup>56</sup> The Cabinet thus failed "to provide opportunity for public comment on information submitted by owners and operators,"<sup>57</sup> and to make available during the comment period the "[r]elevant supporting

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<sup>54</sup> Exhibit 12.

<sup>55</sup> Exhibit 13.

<sup>56</sup> See Exhibit 14 (October 4, 2002 letter from NRDC to the Division reiterating NRDC's August 4 request for the information submitted by Peabody); Exhibit 15 (top) (October 10, 2002 email from NRDC to the Division acknowledging receipt of the requested document); Exhibit 16 (the requested document). When the Division finally provided the requested document to NRDC, it did so by forwarding to NRDC an August 8, 2002 email from Peabody that attaches the document. See Exhibit 15 (bottom). If that August 8 email represents the first time that the Division received this document from Peabody, then the director's letter to NRDC of that same day reveals that the Division could not have subjected the analysis of "Peabody's engineers" to any independent scrutiny whatsoever before determining that the document "resolved" the issue of "the short-term (24 hour) SO<sub>2</sub> limit . . . to the Division's satisfaction." Exhibit 13.

<sup>57</sup> 40 CFR § 51.161(a).

material” and “[o]ther materials available to the cabinet that are relevant to the permit decision.”<sup>58</sup>

As additional grounds for objection, the petitioners hereby incorporate by reference Section 4.2 of the comments that the Owensboro Building & Construction Trades Council submitted to the Cabinet on August 24, 2002.<sup>59</sup> The petitioners note that, in the Responses to Comments, the Cabinet admits the truth of the facts asserted in the Council’s comments.<sup>60</sup>

**B. The Cabinet Failed to Explain to the Public, at the Outset of the Comment Period, the Agency’s Decision to Reject the Federal Land Manager’s Adverse Impact Determination.**<sup>61</sup>

Kentucky’s regulations require the Cabinet to consider any analysis performed by a federal land manager (“FLM”) that shows that a proposed new stationary source may have an adverse impact on visibility in a Class I area.<sup>62</sup> If that analysis does not demonstrate to the satisfaction of the Cabinet that an adverse impact on visibility will result in the Class I area, then “the cabinet shall, in the public notice required in 401 KAR 52:100, either explain that decision or give notice as to where the explanation can be obtained.”<sup>63</sup> The Cabinet’s explanation must provide a rational basis for the agency’s decision; the explanation must not be arbitrary or capricious:

States do not have unfettered discretion to reject an FLM’s adverse impact determination. . . . If a state determines that an FLM has not satisfactorily demonstrated an adverse impact on [air quality related values] from the proposed facility, the state must provide a rational basis for such a

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<sup>58</sup> 401 KAR 52:100 §§ 5(11), 8(1).

<sup>59</sup> Exhibit 24 at 25-31.

<sup>60</sup> See Exhibit 3 at 19-20.

<sup>61</sup> NRDC raised this objection with specificity during the public comment period. See Exhibit 10 at 3-6.

<sup>62</sup> 401 KAR 51:017 § 15(3).

<sup>63</sup> Id.; see also 40 CFR § 51:307(a)(3); New Source Review Workshop Manual (October 1990), at E.23.

conclusion, given the FLMs' affirmative responsibility and expertise regarding the Class I areas within their jurisdiction. . . . Arbitrary and capricious rejections of adverse impact determinations are not sustainable.<sup>64</sup>

On February 14, 2002, the FLM for Mammoth Cave National Park informed the Cabinet of its determination that the emissions that the Cabinet was proposing to permit from Thoroughbred “would have an adverse impact on visibility . . . at Mammoth Cave National Park.”<sup>65</sup> In the public notice of the revised draft permit that the Cabinet published on June 19, 2002, the agency acknowledged the FLM's adverse impact determination while announcing that it did “not concur that Thoroughbred Generating would have an adverse impact on Mammoth Cave National Park.”<sup>66</sup> The public notice included only one sentence explaining the Cabinet's decision to reject the FLM's determination: “[M]odeling provided to [the FLM] and the Division demonstrated that there would be no impact greater than 10% on any day over a three year period, and only 2 days greater than 5% over that period.”<sup>67</sup>

The public notice did not indicate whether further explanation could be obtained anywhere else. The Statement of Basis for the revised draft permit did explain, however, that three modeling runs – using historical meteorological data from three different years – had shown that Thoroughbred would not cause more than a 10% change in visibility extinction at Mammoth Cave provided that the facility complied with the 30-day SO<sub>2</sub> emissions limit set forth in the revised draft permit.<sup>68</sup>

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<sup>64</sup> In the Matter of Hadson Power 14 – Buena Vista, 4 EAD 258, 276 (EAB October 5, 1992) (citations and internal quotation marks omitted).

<sup>65</sup> Exhibit 17.

<sup>66</sup> Exhibit 18.

<sup>67</sup> Id.

<sup>68</sup> Exhibit 2 at 32-33.

What both the public notice and the Statement of Basis failed to mention, however, was that the revised draft permit, unlike the original draft, set a 24-hour SO<sub>2</sub> limit in addition to a 30-day one. The public notice and Statement of Basis also failed to mention that, on June 17, 2002, an official at EPA Region 4 had informed the Division engineer responsible for the Thoroughbred permit that “Air Quality Related Values at the Class I area needed to be addressed for the increased emissions” that would result from a short-term SO<sub>2</sub> limit of 0.45 lb/mmBTU.<sup>69</sup>

The Division did not send the FLM a copy of the revised draft permit and the statement of basis until 4:51 pm on June 18.<sup>70</sup> Just after noon the next day, the FLM sent a response to the Division that included the following passage:

I also notice that on page 5 of the draft permit (paragraph d), KY has included a 24-hour SO<sub>2</sub> limit of 0.45 lbs/MMBtu. According to Peabody’s June 4 letter to John Lyons, this rate corresponds to 6699 lb SO<sub>2</sub>/hr from both units combined. This is nearly 3 times the 30-day average limit of 0.167 lb/MMBtu (2486 lb/hr). . . . Thoroughbred’s visibility modeling results that we discussed in my April 15 letter to Allan Elliott were based on the 30-day average SO<sub>2</sub> limit (0.167 lb/MMBtu; 2486 lb/hr). Given the short-term nature of visibility impacts (i.e., 24-hr), please provide us with an updated visibility impact analysis using the now proposed 24-hr average limit of 6699 lb/hr.<sup>71</sup>

The Division did not provide the FLM with the requested updated visibility impact analysis prior to publishing its public notice of the revised draft permit. In fact, the Division had already published the notice by the time the FLM responded to the Division’s last-minute transmittal of the revised draft.

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<sup>69</sup> Exhibit 19.

<sup>70</sup> See Exhibit 19.

<sup>71</sup> Id.

When the Division published the public notice, with its statement that “modeling provided to [the FLM] and the Division demonstrated that there would be no impact greater than 10% on any day over a three year period, and only 2 days greater than 5% over that period,” it knew that that modeling was based on a 30-day SO<sub>2</sub> limit. The Division also knew that it had not yet run the model using the 24-hour limit contained in the revised draft permit. Upon receiving the June 17 message from EPA Region 4, if not before, the Division knew that until the modeling was run using the new 24-hour limit, the agency could not legitimately assert that Thoroughbred’s emissions would cause no adverse visibility impact at Mammoth Cave National Park.

Had the Division shared the revised draft permit with the FLM at a reasonable juncture, rather than at the close of business on the eve of the draft’s publication, it would have learned prior to the draft’s publication that running the model using the 24-hour limit revealed an adverse visibility impact at the park. For all these reasons, the explanation provided in the public notice and the statement of basis failed to provide a rational basis for the Division’s decision that Thoroughbred’s emissions would not adversely affect visibility at Mammoth Cave. Because the Division knew that its explanation was deficient and disingenuous, the explanation must be deemed arbitrary and capricious.

It seems the Cabinet came to realize the invalidity of the Division’s explanation, for in its Responses to Public Comments, the agency tries a different tack. It now argues that “the Division was not required to address the FLM’s comments in the public notice,” because, “[w]hile the FLM submitted comments raising concerns about the potential impact of the proposed facility on Mammoth Cave National Park, those comments were

based on the applicant’s analysis and did not contain nor constitute a visibility analysis (i.e., a modeling report).”<sup>72</sup> Putting aside the fact that the Division conceded its obligation to provide an explanation by attempting one (albeit an arbitrary and capricious one) in the public notice,<sup>73</sup> the Cabinet’s new defense is unavailing. The clear message from the FLM on February 14, 2002, was that, even assuming the validity of Peabody’s meteorological inputs, a model run using those inputs yielded projected visibility impacts that were, in the FLM’s view, unacceptable.<sup>74</sup> No provision in Kentucky’s regulations or anywhere else authorizes the Division to ignore such a statement by the FLM. Indeed, the Cabinet does not even attempt to cite any authority to support its new defense.<sup>75</sup> It is thus impossible to avoid the conclusion that the Division’s actions violated the requirement in Kentucky’s regulations that the Cabinet explain to the public, at the outset of the comment period, the agency’s decision to reject an FLM’s adverse impact determination.<sup>76</sup>

**C. The Cabinet Failed to Consider and Respond to All Comments Received During the Public Comment Period.<sup>77</sup>**

Both federal and Kentucky regulations require that the Cabinet consider all written comments received during the public comment period.<sup>78</sup> Further, Kentucky’s

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<sup>72</sup> Exhibit 3 at 7.

<sup>73</sup> The Cabinet concedes its obligation in the Responses to Comments as well – just a few pages after it denies that the obligation applies. Specifically, in response to EPA’s comment that the public notice of the first version of the draft permit failed to mention visibility impacts, the Cabinet responds that “[t]his concern has been noted and addressed in the revised draft permit public notice.” Exhibit 3 at 17.

<sup>74</sup> See Exhibit 17.

<sup>75</sup> See *id.*

<sup>76</sup> See 401 KAR 51:017 § 15(3).

<sup>77</sup> Until the Cabinet published the Responses to Public Comments and the final Statement of Basis in October 2002, the petitioners had no way of knowing that the Cabinet had failed to consider and respond to many of the written comments submitted during the public comment period. That failure is thus a proper basis for this petition. See 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d); 401 K.A.R. 52:100 § 10(9)(a).

<sup>78</sup> 40 CFR § 51.166(q)(2)(vi); 401 KAR 52:100 § 2(3)(a).

regulations specifically require that the Cabinet respond to those comments.<sup>79</sup> In spite of these requirements, the Cabinet neither considered nor responded to many of the written comments that it received from EPA and others during the public comment period on the draft Thoroughbred permit. The commissioner of the Indiana Department of Environmental Management (“IDEM”) noted this lack of responsiveness in a November 12, 2002 letter to EPA Assistant Administrator Jeffrey Holmstead.<sup>80</sup> The following table substantiates her complaint by presenting a sample of the written comments to which the Cabinet failed to provide any response whatsoever, either in the Responses to Comments or in the Statement of Basis.

COMMENT	WHERE THE COMMENT WAS RAISED	RESPONSE <sup>81</sup>
<b>BACT</b>		
The Cabinet never required Peabody to consult information sources beyond the RBLC. What is more, the Cabinet permitted Peabody to disregard without adequate justification many of the sources that are included in the RBLC.	EPA 2/26/02 (Exhibit 20) at 6-8 IDEM 8/23/02 (Exhibit 21) Enclosure 1 at 1 IDEM 2/7/02 (Exhibit 22) Attachment B at 1-2 NPCA 2/28/02 (Exhibit 23) at 10	NONE
Requiring Peabody to perform a site-specific BACT analysis of lower sulfur coal and circulating fluidized bed technology would not amount to requiring Peabody to redefine the nature of its project.	EPA 2/26/02 (Exhibit 20) at 9 NRDC <u>et al.</u> 8/24/02 (Exhibit 10) at 13	NONE <sup>82</sup>
The Cabinet never required Peabody to demonstrate that drift eliminators achieving a 0.002% drift rate represent BACT for Thoroughbred’s cooling towers.	OBCTC 8/24/02 (Exhibit 24) at 17-18	NONE
<b>IMPACTS ANALYSIS</b>		
The Cabinet never required Peabody to analyze the air quality impacts of Thoroughbred’s emissions of fluorides, arsenic, and chromium compounds.	EPA 2/26/02 (Exhibit 20) at 12 IDEM 2/7/02 (Exhibit 22) Attachment A at 2 Valley Watch 8/22/02 (Exhibit 26) at 8	NONE

<sup>79</sup> 401 KAR 52:100 § 2(1)(b).

<sup>80</sup> Exhibit 20 at 2 (“[T]he response to comments document issued by Kentucky did not address numerous specific issues raised by IDEM and other commenters.”).

<sup>81</sup> See Exhibits 2 and 3.

<sup>82</sup> In the Responses to Comments, the Cabinet simply parrots Peabody’s “redefinition of the project” assertion without addressing the contrary authorities cited by the commenters or, for that matter, offering any explanation at all for its position. See Exhibit 3 at 14.

<b>BACT / IMPACTS ANALYSIS</b>		
The permit contains no BACT selection or emissions limit for emissions of condensable PM <sub>10</sub> , and the Cabinet never required Peabody to analyze the air quality impacts of Thoroughbred's condensable PM <sub>10</sub> emissions.	IDEM 8/23/02 (Exhibit 21) Enclosure 1 at 4 IDEM 2/7/02 (Exhibit 22) Attachment B at 3, 6 NRDC <u>et al.</u> 8/24/02 (Exhibit 10) at 12-13	NONE
<b>ENFORCEABILITY</b>		
The permit contains language that implies that the PSD requirements, including emissions limits, will expire in five years.	EPA 2/26/02 (Exhibit 20) at 21	NONE

**III. The Permit Conditions Fail to Provide for Compliance with the Law, and the Cabinet Failed to Provide the Legal and Factual Basis for Those Conditions.**

The Administrator must object to a permit, the conditions of which fail to provide for compliance with the Clean Air Act, the federal operating permit regulations, and the applicable state implementation plan.<sup>83</sup> The Administrator is also required to object if the permitting authority fails to “provide a statement that sets forth the legal and factual basis for the draft permit conditions.”<sup>84</sup> Several of the conditions set forth in the Thoroughbred permit fail to provide for compliance with the Act, the federal regulations, and the Kentucky state implementation plan. Moreover, the Cabinet has failed to set forth the legal and factual basis for those conditions.

**A. The Permit Conditions Fail to Adequately Safeguard Air Quality.**

<sup>83</sup> See 42 USC § 7661d(b)(2) (“The Administrator shall issue an objection within such period if the petitioner demonstrates to the Administrator that the permit is not in compliance with the requirements of this chapter [the Clean Air Act], including the requirements of the applicable implementation plan.”); see also 40 CFR § 70.8(c)(1) (“The Administrator will object to the issuance of any proposed permit determined by the Administrator not to be in compliance with applicable requirements or requirements under this part.”); id. § 70.2 (defining “applicable requirement” to include “[a]ny standard or other requirement provided for in the applicable implementation plan approved or promulgated by EPA”); id. § 70.7(a)(1)(iv) (permit may be issued only if its conditions “provide for compliance with all applicable requirements and the requirements of this part”).

<sup>84</sup> 401 KAR 52:100 § 10(2). See also 40 CFR § 70.7(a)(5) (“The permitting authority shall provide a statement that sets forth the legal and factual basis for the draft permit conditions.”); authorities cited supra at n.83.

The Clean Air Act declares that before an applicant may receive a permit for a new major source of air pollution, it must demonstrate

that emissions from construction or operation of such facility will not cause, or contribute to, air pollution in excess of any (A) maximum allowable increase or maximum allowable concentration for any pollutant in any area to which this part [of the Act] applies more than one time per year, (B) national ambient air quality standard in any air quality control region, or (C) any other applicable emission standard or standard of performance under [the Act].<sup>85</sup>

The provisions of Kentucky's state implementation plan echo this requirement.<sup>86</sup> As shown below, Peabody never made the required demonstration that Thoroughbred's emissions would not cause air pollution in excess of a maximum allowable increase or a national ambient air quality standard. As a result, the emissions limits in the permit fail to ensure against an unlawful degradation of air quality.

### **1. Fluorides, Arsenic, and Chromium Compounds**

The table above notes that Valley Watch, IDEM, and EPA commented on the lack of any required control measures or emissions limits for fluorides, arsenic, and chromium compounds in the draft permit, and on the lack of any demonstration – in the draft Statement of Basis or even Peabody's application materials – that Thoroughbred's emissions of those hazardous air pollutants ("HAPs") would not adversely impact air quality.<sup>87</sup> The petitioners hereby incorporate those comments by reference. Since the Cabinet did nothing to address, or even rebut, EPA's comments, the Administrator must conclude that the permit's conditions fail to ensure that Thoroughbred's emissions of the three HAPs would not adversely impact air quality.

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<sup>85</sup> 42 USC § 7475(a)(3).

<sup>86</sup> 401 KAR 51:017 § 10.

## 2. Increment Consumption

Valley Watch, NPCA, and EPA commented on the failure of both Peabody and the Cabinet to include in the increment analyses all of the sources that should be considered increment consumers.<sup>88</sup> The petitioners hereby incorporate those comments by reference.

The Cabinet's response is to assert that "Peabody responded on dated [*sic*] March 10, 2002, confirming the accuracy of the PSD emissions inventory."<sup>89</sup> In that March 10 response, Peabody wrote that

[M]any, if not all, sources suggested for inclusion in comments by [NPCA] are subject to PSD enforcement for alleged failure to obtain PSD permits. Such sources presumably would not be included in the PSD impact analyses.<sup>90</sup>

On the contrary, such sources must be counted as increment consuming. For example, EPA has held that Tennessee Valley Authority's Paradise plant, which sits about twelve miles away from the Thoroughbred site, underwent major modifications in 1985 when its cyclones, furnace walls, and plant floor were replaced.<sup>91</sup> Consequently, the Paradise plant consumes SO<sub>2</sub> and PM increment under the provisions of Kentucky's state implementation plan.<sup>92</sup> Since both Peabody and the Cabinet fail to count Paradise and the other plants identified in NPCA's comments as increment consumers, the permit fails to demonstrate that Thoroughbred would not cause or contribute to air pollution in

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<sup>87</sup> See Exhibit 20 at 12; Exhibit 22, Attachment A at 2; Exhibit 26 at 8.

<sup>88</sup> See Exhibit 20 at 13-14; Exhibit 23 at 79; Exhibit 26 at 7.

<sup>89</sup> Exhibit 3 at 12.

<sup>90</sup> Exhibit 27 (excerpt) at 30 n.8.

<sup>91</sup> See Final Order on Reconsideration in In re Tennessee Valley Authority (EPA Administrator September 15, 2000).

<sup>92</sup> See 401 KAR 51:017 § 1(5)(c)(i), (14), (24)(a).

violation of an applicable maximum allowable increase over the baseline concentration in the surrounding area.<sup>93</sup>

### 3. FLAG Guidelines

Valley Watch, NRDC, and NPCA commented on the failure, on the part of both Peabody and the Cabinet, to demonstrate that Thoroughbred's emissions would not adversely affect visibility at Mammoth Cave National Park, a Class I area. More specifically, each of those organizations commented on the failure of Peabody and the Cabinet to perform the visibility impact analysis consistently with the guidelines set forth in the report<sup>94</sup> of the Federal Land Managers' Air Quality Related Values Work Group ("FLAG").<sup>95</sup> The petitioners hereby incorporate those comments by reference.

The Cabinet's response is to assert that "[t]he FLM has determined that [Thoroughbred] began the permitting process prior to the new FLAG guidance implementation in April of 2001, therefore those guidelines are not applicable."<sup>96</sup> But the applicability of the FLAG report does not hinge on when Peabody submitted the first permit application materials. It hinges, rather, on when the Thoroughbred application became administratively complete.<sup>97</sup> The Thoroughbred application did not become complete until after the April 1, 2001 trigger date.

Kentucky's permitting rules state that, in the context of a permit application, "complete" means "that the application contains information necessary for processing the

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<sup>93</sup> See 42 USC § 7475(a)(3)(A); 40 CFR § 51.166(k)(2); 401 KAR 51:017 § 10(2).

<sup>94</sup> See 66 Fed. Reg. 382 (January 31, 2001).

<sup>95</sup> See Exhibit 26 at 8; Exhibit 10 at 7-9; Exhibit 28 at 3.

<sup>96</sup> Exhibit 3 at 11.

<sup>97</sup> "The FLMs expect new and complete permit applications and modeling protocols submitted after April 1, 2001, to follow the recommendations and guidance provided in the FLAG report." 66 Fed. Reg. 382.

application.”<sup>98</sup> The rules then identify the information that is “necessary to perform an analysis or make a determination required” under the permitting regulations.<sup>99</sup> The necessary information that the applicant “shall submit” includes “[a] detailed description of the system of continuous emission reduction planned for the source or modification, emission estimates, and other information necessary to determine that best available control technology will be applied.”<sup>100</sup>

Peabody submitted its original permit application for Thoroughbred on March 1, 2001.<sup>101</sup> That application did not, however, include a “detailed description of the system of continuous emission reduction.”<sup>102</sup> The continued absence of this description led EPA Region 4 to comment, as late at February 26, 2002, that “Region 4 still considers the application to be incomplete.”<sup>103</sup>

Peabody’s March 1 application also failed to include all of the “information necessary to determine that best available control technology will be applied.”<sup>104</sup> First of all, the application included no description of any method that Peabody would use to limit emissions from Thoroughbred’s diesel-fired emergency generator.<sup>105</sup> Secondly, Peabody expressly declined in its application to select a control technology for SO<sub>2</sub>, stating that “delaying the selection of the final control technology to a time closer to actual installation will allow greater flexibility and ensure [that] the most economical, relevant and efficient control technology is utilized.”<sup>106</sup> Finally, Peabody’s application

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<sup>98</sup> 401 KAR 51:017 § 1(13).

<sup>99</sup> Id. § 13(1).

<sup>100</sup> Id. § 13(1)(c) (emphasis added).

<sup>101</sup> Exhibit 29 (excerpts).

<sup>102</sup> 401 KAR 51:017 § 13(1)(c).

<sup>103</sup> Exhibit 20 at 1. See also Exhibit 28 at 17.

<sup>104</sup> 401 KAR 51:017 § 13(1)(c).

<sup>105</sup> See Exhibit 10 at 8.

<sup>106</sup> See id.

failed to analyze electrostatic precipitation (“ESP”) as an available control technology for PM emissions. The application asserted explicitly that ESP did “not need to be considered further in the particulate matter BACT analysis . . . .”<sup>107</sup>

On October 26, 2001, Peabody submitted to the Cabinet what it termed a “Revised” permit application.<sup>108</sup> Rather than simply revise information that was contained in the original application, however, the October 26 submission added necessary information that had been wholly absent from the first submission. First of all, the October 26 submission added a BACT analysis for Thoroughbred’s diesel-fired emergency generator.<sup>109</sup> Secondly, it selected a control technology – wet electrostatic precipitation (“WESP”) – for SO<sub>2</sub>.<sup>110</sup> Finally, the October 26 submission added an analysis of ESP as a technology for controlling PM emissions.<sup>111</sup>

In sum, the October 26 submission added to the application previously absent “information necessary to determine that best available control technology will be applied.”<sup>112</sup> Therefore, the application was not “complete” prior to that date.<sup>113</sup> Because Peabody did not submit a complete permit application for Thoroughbred until after April 1, 2001, the application is subject to the recommendations and guidance provided in the FLAG report.<sup>114</sup>

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<sup>107</sup> See id.

<sup>108</sup> See id.

<sup>109</sup> See id.

<sup>110</sup> See id.

<sup>111</sup> See id.

<sup>112</sup> 401 KAR 51:017 § 13(1)(c).

<sup>113</sup> See id. § 1(13). The Division thus acted prematurely and contrary to the law when, on April 24, 2001, it sent a letter to Peabody stating that “[t]he Division has deemed your comprehensive PSD/Title V application to be complete.” Attachment 18. The letter informed Peabody that “you are required to supplement or correct your application upon discovery of missing or incorrect information.” Id. Apparently, the Division had not yet bothered to review the application to determine whether any necessary information was, in fact, missing. Had it done so, the Division would have learned that the application was still incomplete.

<sup>114</sup> See Exhibit 10 at 9.

Despite the fact that Thoroughbred is subject to the FLAG guidance, neither Peabody nor the Cabinet has followed the recommendations and guidance contained in the report. Most conspicuously, neither Peabody nor the Cabinet has modeled the percentage difference in visibility extinction between, on the one hand, conditions at Mammoth Cave once Thoroughbred starts operating, and, on the other hand, *natural* (as opposed to the current, abysmal) conditions at the park.<sup>115</sup> Furthermore, if the Cabinet recognized the applicability of the FLAG report, it would have to acknowledge that the modeled change in visibility extinction at the 24-hour SO<sub>2</sub> limit of 0.41 lb/mmBTU reveals that the limit fails to protect visibility at Mammoth Cave National Park.<sup>116</sup>

#### **4. Continuous Preconstruction Monitoring**

Valley Watch, NRDC, NPCA, and Stephen Loeschner all commented on the Cabinet's failure to require continuous preconstruction monitoring for criteria air pollutants.<sup>117</sup> Petitioners hereby incorporate those comments by reference.

The Cabinet's response to these comments was simply, "The Division concurred with the applicant's request to use the TVA data for SO<sub>2</sub>, which was the only pollutant with emissions above SMV, in a letter dated September 22, 2000."<sup>118</sup> This response fails to address the commenters' demonstration that the TVA Paradise monitor is not an adequate substitute for continuous preconstruction monitoring of SO<sub>2</sub>, and that such monitoring is also required in this case for ozone.<sup>119</sup> The Cabinet has thus failed to rebut the commenters' showing that, because of the lack of continuous preconstruction monitoring, there has been no demonstration that Thoroughbred's emissions would not

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<sup>115</sup> See id.

<sup>116</sup> See id.

<sup>117</sup> See Exhibit 23 at 11; Exhibit 26 at 2-4; Exhibit 28 at 16-17; Exhibit 30 at 3-5; Exhibit 31 at 3-4.

<sup>118</sup> Exhibit 3 at 2.

cause air pollution in excess of a maximum allowable increase or a national ambient air quality standard.

**B. The Permit Conditions Fail to Require BACT.**

Section 165(a)(4) of the Clean Air Act provides that “[n]o major emitting facility on which construction is commenced after August 7, 1977, may be constructed in any area to which this part applies unless . . . the facility is subject to the best available control technology for each pollutant subject to regulation under this chapter emitted from, or which results from, such facility.”<sup>120</sup> In line with this federal provision, Kentucky’s regulations declare that “[a] new major stationary source shall apply best available control technology for each pollutant subject to regulation under 42 USC 7401 to 7671q (Clean Air Act), that it will have the potential to emit in significant amounts.”<sup>121</sup> As shown below, the Cabinet acquiesced in Peabody’s control selections without first requiring adequate BACT analyses. As a result, the conditions of the permit fail to provide for compliance with the Clean Air Act, the federal operating permit regulations, and Kentucky’s state implementation plan.

**1. Information Sources**

The table above notes that NPCA, IDEM, and EPA commented on the Cabinet’s failure to require Peabody to consult information sources beyond the RACT/BACT/LAER Clearinghouse (“RBLC”), and on the Cabinet’s decision to allow Peabody, without adequate justification, to disregard many of the sources that are included in the RBLC.<sup>122</sup> The petitioners hereby incorporate those comments by

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<sup>119</sup> Exhibit 23 at 11; Exhibit 26 at 2-4; Exhibit 28 at 16-17; Exhibit 30 at 3-5; Exhibit 31 at 3-4.

<sup>120</sup> 42 USC § 7475(a)(4).

<sup>121</sup> 401 KAR 51:017 § 9(2).

<sup>122</sup> Exhibit 20 at 6-8; Exhibit 21, Enclosure 1 at 1; Exhibit 22, Attachment B at 1-2; Exhibit 23 at 10.

reference. Since the Cabinet did not address, or even rebut, EPA's comments, the Administrator must conclude that the permit fails to ensure that Thoroughbred will use BACT and that the Cabinet has failed to set forth the legal and factual basis for the permit conditions.

## **2. Cooling Towers**

The table also notes that the Owensboro Building & Construction Trades Council commented on the failure of Peabody and the Cabinet to demonstrate that drift eliminators achieving a 0.002% drift rate represent BACT for Thoroughbred's cooling towers.<sup>123</sup> The petitioners hereby incorporate those comments by reference.

Once again, the Cabinet failed to remedy the identified problem or even respond to the comments. It follows that the permit conditions fail to ensure that the cooling towers will implement BACT, and that the Cabinet has failed to set forth the legal and factual basis for the permit conditions.

## **3. Lower Sulfur Coal and Circulating Fluidized Bed Combustion**

At least six organizations commented on the failure of Peabody and the Cabinet to demonstrate that an SO<sub>2</sub> control configuration that excluded lower sulfur coal and a NO<sub>x</sub> control suite that excluded circulating fluidized bed combustion ("CFB") could qualify as BACT for those pollutants.<sup>124</sup> The petitioners hereby incorporate those comments by reference.

The Cabinet responds to the extensive comments on lower sulfur coal by stating that requiring Thoroughbred to burn lower sulfur coal would amount to imposing a

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<sup>123</sup> Exhibit 24 at 17-18.

<sup>124</sup> See Exhibit 10 at 13-14; Exhibit 21, Enclosure 1 at 1; Exhibit 22, Attachment B at 1; Exhibit 23 at 9-10; Exhibit 24 at 9-10; Exhibit 26 at 6-10; Exhibit 28 at 6-12, 14-15; Exhibit 30 at 6-10; Exhibit 32 at 1-2; Exhibit 33 at 1-2.

“fundamentally different design” on Peabody.<sup>125</sup> The Cabinet’s response to the comments on CFB is essentially the same; it declares that “BACT is being determined for a pulverized coal combustion process,” and that “the Division does not concur that the scope of PSD was intended to apply to the selection of technology.”<sup>126</sup>

This “redefining the source” argument is no more effective now that it was when Peabody began making it several months ago. Neither the EPA nor any court has ever held or even intimated, that it would be inappropriate to require that the BACT analysis for a coal-fired power plant include the option of burning different types of coal or the option of using types of coal combustion processes.<sup>127</sup>

The Cabinet’s argument thus fails to justify the rejection of lower sulfur coal and CFB for the Thoroughbred project. As discussed in Section I of this petition, supra, Peabody’s failure to disclose relevant facts about the future of the adjacent mine has also precluded an adequate BACT demonstration. Moreover, in failing to rebut the commenters’ arguments as to why selecting lower sulfur coal or CFB would not amount to “redefining the source,” the Cabinet has failed to set forth the legal and factual basis for the permit conditions.

#### **4. Coal Washing**

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<sup>125</sup> Exhibit 3 at 15.

<sup>126</sup> Id. at 14.

<sup>127</sup> In fact, the EAB has noted that “EPA regulations define major stationary sources by their product or purpose (e.g., ‘steel mill,’ ‘municipal incinerator,’ ‘taconite ore processing plant,’ etc.), not by fuel choice.” In the Matter of Hibbing Taconite Company, PSD Appeal No. 87-3 (EAB July 19, 1989), at 12.

At least eight organizations commented on the failure of Peabody and the Cabinet to demonstrate that an SO<sub>2</sub> control suite that excluded coal washing could qualify as BACT.<sup>128</sup> The petitioners hereby incorporate those comments by reference.

The Cabinet responds by simply citing the materials that Peabody submitted to the agency earlier.<sup>129</sup> Those are the very materials, however, that were rebutted in detail in several of the public comments.<sup>130</sup> Simply re-citing them is not responsive to the arguments that the commenters have presented as to why the Peabody submissions are unavailing. Thus, the Cabinet has failed to justify the rejection of coal washing, and to set forth the legal and factual basis for the permit conditions. Again, Peabody's failure to disclose relevant facts about the future of the adjacent mine has also precluded an adequate BACT demonstration.

**C. The Permit Conditions Fail to Require BACT for, and Prevent Adverse Air Quality Impacts From, Condensable PM<sub>10</sub> Emissions.**

As the table above notes, both IDEM and NRDC commented on the lack of any BACT demonstration or emissions limits for condensable PM<sub>10</sub> in the draft permit, and on the lack of any demonstration – in the draft Statement of Basis or even Peabody's application materials – that Thoroughbred's condensable PM<sub>10</sub> emissions would not adversely impact air quality.<sup>131</sup> The petitioners hereby incorporate those comments by reference.

EPA has recognized that “condensable [*sic*] emissions are also PM<sub>10</sub>, and that emissions that contribute to ambient PM<sub>10</sub> concentrations are the sum of in-stack PM<sub>10</sub>

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<sup>128</sup> See Exhibit 10 at 14-16; Exhibit 20 at 8-9; Exhibit 21, Enclosure 1 at 2; Exhibit 22, Attachment B at 1; Exhibit 23 at 3; Exhibit 24 at 9-10; Exhibit 26 at 4; Exhibit 28 at 6-9, 12-14; Exhibit 30 at 6-10; Exhibit 32 at 1-2; Exhibit 34 at 1-6; Exhibit 35 at 2.

<sup>129</sup> Exhibit 3 at 14.

<sup>130</sup> See, e.g.

and condensable emissions.”<sup>132</sup> Similarly, EPA’s Office of Air Quality Planning and Standards has stated unequivocally that “[s]ince CPM is considered PM-10 and, when emitted, can contribute to ambient PM-10 levels, applicants for PSD permits must address CPM if the proposed emission unit is a potential CPM emitter.”<sup>133</sup> In light of studies showing that condensables can account for as much as 75% of the PM<sub>10</sub> emitted from a coal-fired boiler,<sup>134</sup> Thoroughbred is clearly a “potential CMP emitter.” EPA has repeatedly required permitting authorities to include condensable PM<sub>10</sub> limits and testing methods in permits.<sup>135</sup> The agency also insists that condensable PM<sub>10</sub> be considered in the applicant’s BACT analysis, and in the permitting authority’s review of that analysis.<sup>136</sup>

Not only did the Cabinet fail to require Peabody to take account of condensable PM<sub>10</sub>, it also failed to respond to IDEM’s and NRDC’s comments. In sum, the permit’s conditions fail to require BACT for, and prevent adverse air quality impacts from, Thoroughbred’s PM<sub>10</sub> emissions.

#### **D. The Permit Conditions Do Not Require MACT.**

Finally, the Responses to Comments fails to justify the rejection of a baghouse with carbon injection as maximum achievable control technology for mercury emissions.

EPA, IDEM, and several other commenters argued persuasively in their written

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<sup>131</sup> See Exhibit 10 at 12-13; Exhibit 21, Enclosure 1 at 4; Exhibit 22, Attachment B at 3, 6.

<sup>132</sup> 55 Fed. Reg. 12426 (March 17, 1990). See also 55 Fed. Reg. 14246 (April 17, 1990) (“emissions that contribute to ambient PM<sub>10</sub> concentrations are the sum of in-stack [non-condensable] PM<sub>10</sub> . . . and condensable emissions.”); 55 Fed. Reg. 41546 (October 12, 1990) (“condensable particulate matter (CPM) emissions form very fine particles in the PM<sub>10</sub> size range and are considered PM<sub>10</sub> emissions”); 56 Fed. Reg. 65433 (December 17, 1991) (same).

<sup>133</sup> Exhibit 25 at 9.

<sup>134</sup> See, e.g., Louis A. Corio and John Sherwell, “In-Stack Condensible Particulate Matter Measurements and Issues,” *Air & Waste Management Association*, Vol. 50 (February 2000).

<sup>135</sup> See, e.g., *In re: AES Puerto Rico L.P.*, PSD Appeal Nos. 98-29, 98-30, 98-31 (EAB, May 27, 1999), at 31-34.

comments that the presence of that configuration at existing facilities rendered the conditions of this permit unlawful.<sup>137</sup> The Cabinet has failed to rebut those arguments.

### CONCLUSION

For the foregoing reasons, the petitioners request that the Administrator object to the operating permit that the Cabinet issued for the Thoroughbred Generating Station. Further, the petitioners request that the Administrator revoke the permit and notify the Cabinet that a final denial will issue unless all of the defects, both substantive and procedural, are remedied within ninety days of the revocation.

Respectfully submitted,

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David McIntosh  
Attorney  
Natural Resources Defense Council  
1200 New York Avenue, NW  
Suite 400  
Washington, DC 20005  
(202) 289-2426

On behalf of Petitioner Natural  
Resources Defense Council

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Lane Boldman  
Chair  
Sierra Club Cumberland Chapter  
259 West Short Street  
Lexington, KY 40507  
(606) 255-7946

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<sup>136</sup> See, e.g., In re: Steel Dynamics, Inc., PSD Appeal Nos. 994, 995 (EAB, June 22, 2000), at 25-31.  
<sup>137</sup> See Exhibit 20 at 2-4; Exhibit 21, Enclosure 1 at 3-4; Exhibit 22, Attachment B at 2-3.

On behalf of Petitioner Sierra Club

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John Blair  
President  
Valley Watch  
800 Adams Avenue  
Evansville, IN 47713  
(812) 464-5663

On behalf of Petitioner Valley Watch

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Jill Stephens  
Program Coordinator  
National Parks Conservation  
Association  
1300 19<sup>th</sup> Street, NW  
Suite 300  
Washington, DC 20036  
(202) 861-5699

On behalf of Petitioner National  
Parks Conservation  
Association

---

Craig Williams  
Director  
Kentucky Environmental Foundation  
PO Box 467  
Berea, KY 40403  
(859) 986-7565

On behalf of Petitioner Kentucky  
Environmental Foundation

---

Dave Cooper  
Organizer  
Ohio Valley Environmental  
Coalition  
PO Box 6753  
Huntington, WV 25772  
(304) 522-0246

On behalf of Petitioner Ohio Valley  
Environmental Coalition

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Elizabeth and Hannah Crowe  
507 Center Street  
Berea, KY 40403  
(859) 985-0641

On behalf of themselves

Dated: January 24, 2003