EPA Environmental Appeals Board: Michigan Tire Derived Fuel PSD Permit Properly Granted

The United States Environmental Protection Agency (EPA) Environmental Appeals Board (EAB) has determined that the Michigan Department of Environmental Quality (MDEQ) properly granted an air quality permit to allow an electric co-generation facility to burn tire derived fuel (TDF) to supplement its coal and wood fuels.

Tondu Energy Company operates an electric co-generation facility in Filer City, Manistee County, Michigan. In response to an application to the MDEQ for a permit to use shredded tires as a supplemental fuel for its boilers, the MDEQ determined that the facility's projected emissions of fine particulate matter (PM10) would increase by more than 15 tons per year. This amount of additional PM10 results in permit applicants becoming subject to "Prevention of Significant Deterioration" (PSD) permit requirements under the Clean Air Act.

The PSD permit application requirements include, among other things, that applicants demonstrate that a proposed emissions increase will not cause the ambient air to exceed the maximum concentrations of certain air pollutants, including PM10.

After reviewing Tondu Energy's permit application and supporting air quality analysis, the MDEQ determined that the applicable ambient air quality standards would not be violated by the facility when it burns TDF. Therefore, the MDEQ determined that the permit to burn TDF would be issued.

But petitioners Dana Schindler and T. T. "Tex" Collins, Jr. disagreed, and appealed the MDEQ decision to the EAB for a review the MDEQ decision. Schindler and Collins complained to the EAB that the proposed MDEQ permit was improper for several reasons:

1. MDEQ failed to address evidence that emissions of particles less than 2.5 micrometers in size would be emitted from the facility and cause adverse health impacts;

2. MDEQ violated the Michigan Constitution because MDEQ did permit was not take into consideration the latest medical studies to render a decision that would protect the "public health and general welfare of the state";

3. The presence of other nearby industrial sources of pollutants and unique local weather conditions were not taken into account by the MDEQ;

4. MDEQ failed to take into account elevated rates of heart disease and stroke in the county;

5. MDEQ failed to address the petitioners' concerns that the facility would generate solid wastes from burning the shredded tires; and

6. MDEQ did not properly require the facility to use the best available control technology (BACT) to control its emissions.

Ultrafine Particles. Petitioner Schindler complained that the MDEQ ignored evidence that dust particles less than 2.5 micrometers in size have been shown in scientific studies to cause increased rates of illness and death and that the proposed permit would not provide adequate protection against such ultrafine dust particles. The EAB considered Ms. Schindler's argument to be, in essence, a complaint that the current ambient air quality standard for PM10 was inadequate.

But the EAB dismissed Schindler's argument because the existing PM10 standard was issued by EPA in the course of its normal rulemaking processes and was not subject to challenge in permit appeals. Therefore, Schindler could not challenge the MDEQ's application of the existing PM10 standard in the permit process.

State Law Claims. Schindler also complained that, because the Michigan Constitution provides that the "public health and general welfare of the state are hereby declared to be matters of primary public concern," the MDEQ should impose a moratorium on new permits that allow increased particulate emissions until the current standards "catch up with medical studies."

But the EAB replied that the purpose of the PSD permit process is to determine whether Tondu Energy's proposed facility would comply with the Clean Air Act, which does not address state law issues. Therefore, the EAB refused to consider Schindler's complaints under the Michigan Constitution.

Site Specific Health Impact Concerns. Issues 3 and 4 of Schindler's appeal dealt with the unique local meteorological and health conditions near the facility. According to Schindler, the presence of other heavy industries in the county and the frequent weather inversions, windless days, and other local conditions had already contributed to numerous local health problems. Ms. Schindler claimed that the proposed permit was erroneous because it did not consider these factors in deciding whether the permit should be granted.

The EAB observed, however, that Schindler did not specify which permit conditions were erroneous and needed to be changed to address her health concerns. The EAB surmised that Schindler was really complaining that the MDEQ did not adequately consider the local ambient air conditions when it considered whether PM10 emissions from the facility would exceed ambient air quality standards. Therefore, the EAB addressed that apparent concern.

According to the EAB, the MDEQ had required Tondu Energy to conduct an analysis of the impact of the proposed fuel change on ambient air quality, taking into account local meteorological conditions and topographical features. Tondu Energy had conducted air quality modeling of the facility's emissions to predict ambient air quality based on 5 years' meteorological data. The modeling took into account weather conditions similar to those experienced at Tondu Energy's facility. Therefore, the EAB concluded that Tondu Energy's analysis did, in fact, address Schindler's concerns.

The EAB noted, however, that EPA's approved air impact analysis protocols do not always require that permit applicants consider contributions to ambient air quality of other sources of emissions besides the applicants' facilities. EPA guidelines generally require detailed analyses of the sort demanded by Schindler, termed a "full impact analysis," when it is shown that the effect of a proposed project's emissions on ambient air is more than a specified threshold, called the "significant impact level" (SIL).

But Tondu Energy demonstrated that the facility's emissions would not increase the ambient concentrations of pollutants by more than the SIL. Therefore, the EAB concluded that a full impact analysis was not required.

Similarly, Schindler complained that the county already had elevated rates of heart disease and stroke, and that the proposed project would make matters worse. But the EAB considered this concern equivalent to her concern about the adequacy of the PM10 ambient air quality standard, and concluded that Schindler could not challenge this standard in the permit review process.

Solid Wastes from TDF. Schindler also complained that after the TDF was burned, there would be residual wastes, such as "oil contained in the body of the tires," that would have to be disposed of. According to Schindler, the permit should contain provisions to prevent improper disposal of the wastes.

But the EAB replied that the MDEQ adequately addressed the same complaint during the permit hearing. At that time, the MDEQ stated that Tondu Energy would be required to comply with the State's waste management regulations. In any event, remarked the EAB, solid waste issues are not subject to the EAB's review process because there are no solid waste provisions in the air quality rules that could be addressed in an air permit such as the one being contested.

Best Available Control Technology. Finally, Tex Collins complained that the MDEQ permit did not require Tondu Energy to install the best available control technology to control its emissions from the TDF burning. Under the PSD permit program, permit applicants must agree to install BACT. BACT pollution control technologies are those that will achieve the lowest possible emissions based on an analysis of the available technologies.

In its PSD permit application, Tondu Energy showed that its existing pollution control equipment constitutes BACT. Therefore, the MDEQ did not require Tondu Energy to install new pollution controls.

But Collins argued that Tondu Energy should have experimented with other types of pollution controls to determine whether there was a better technology. Collins asserted that Tondu Energy's existing dry scrubber/baghouse could be improved upon by adding a wet scrubber after the existing equipment.

The EAB concluded, however, that Collins did not show that MDEQ's conclusions were erroneous. He simply argued that there were better technologies than those approved by the MDEQ without providing any data to substantiate his claims. Thus, in the EAB's view, Collins did not meet his burden of showing that there was anything wrong with MDEQ's conclusions.

Because Schindler and Collins challenge to Tondu Energy's PSD permit did not adequately challenge the merits of the MDEQ's permit decision, but, rather, challenged the EPA air quality rules governing the permit criteria and provided no data to counter MDEQ's conclusions, the EAB refused to take further action regarding the permit.

***In re* Tondu Energy Company**, PSD Appeal Nos. 00-5, -7 (EAB Mar. 28, 2001)

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