



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
AIR AND RADIATION

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Dear Mr. Siegfried:

This letter represents EPA's formal determination of applicability under 40 CFR 72.6(c) of the Acid Rain Program for Lansing boilers 1 and 2 in Iowa, which are owned and operated by Alliant Gas & Electric–Interstate Power Company (“Alliant-IPC”). EPA makes this determination in response to your petition of November 20, 1998, requesting a determination.

According to the descriptions in your letter and supporting information, the Lansing facility consists of 4 boilers (numbers 1, 2, 3, and 4) that commenced commercial operation in 1948, 1949, 1957, and 1977, respectively. Each unit burns coal to produce steam used to serve turbines which produce electricity for sale. Boiler 4 serves only steam turbine 4, which has a nameplate capacity of 274.5 MW and is an affected unit under 40 CFR 72.6(a)(2). Boilers 1, 2, and 3 share a common steam header piping system for steam turbines 1, 2, and 3, which have nameplate capacities of 15 MW, 12 MW, and 37.5 MW, respectively. All 3 boilers were able to serve any of the steam turbines, including the 37.5 MW steam turbine 3, until October 1996, when a check valve was installed in the steam header manifold to prevent any steam produced by boiler 1 or 2 from serving steam turbine 3. Boiler 3 is an affected unit under 40 CFR 72.6(a)(2).

Alliant-IPC contends that boilers 1 and 2 are not affected units, even though they were connected to a steam header that, prior to 1996, allowed them to provide steam to a 37.5 MW turbine (steam turbine 3). Alliant-IPC states that, prior to installation of the valve, both boilers were “operationally paired” and “operated in tandem” with steam turbines 1 and 2, which have nameplate capacities of 15 and 12 MW respectively. According to Alliant-IPC, “operationally paired” and “operated in tandem” means: (1) turbine 1 is located directly across from boiler 1, and turbine 2 is located directly across from boiler 2; and (2) in general, when steam turbine 1 was on-

line, boiler 1 was operated to provide steam for steam turbine 1, and when steam turbine 2 was on-line, boiler 2 was operated to provide steam for steam turbine 2. Boiler 3 provided steam for steam turbine 3 and sometimes (e.g., for start-up) for steam turbines 1 and 2. Alliant-IPC claims that data submitted to EPA in Exhibit 1, which lists steam produced by boilers 1, 2, and 3, and steam utilized by steam turbines 1, 2, and 3 for calendar years 1986 through 1997, buttresses the argument that EPA should treat the steam produced by boilers 1 and 2 as serving only steam turbines 1 and 2 respectively and not steam turbine 3. Alliant-IPC also maintains that, in assessing whether or not these boilers are subject to the Acid Rain Program, EPA should also consider the check valve installed in 1996 to prevent steam produced by boilers 1 or 2 from serving steam turbine 3 and the “de minimis” sulfur dioxide (SO<sub>2</sub>) emissions from these boilers. Alliant-IPC also asserts that EPA should consider that Alliant-IPC did not own the units until 1998.

EPA rejects Alliant-IPC’s claim that boilers 1 and 2 are unaffected units. First, the annual data submitted by Alliant-IPC in Exhibit 1 shows that, at least for years 1991, 1992, and 1993, steam turbine 3 utilized more steam than boiler 3 produced. Until 1996, boilers 1, 2, and 3 supplied steam into a common piping system, and the steam from any of the boilers could flow to any of the steam turbines (1, 2, or 3) connected to that piping system. Alliant-IPC did not deny that, before 1996, steam could and did flow in this manner. Boiler 4 is connected only to steam turbine 4. Thus, in 1991-93, boilers 1 and 2 - - the only available sources of steam for steam turbine 3, other than boiler 3 - - provided the additional steam for steam turbine 3 and thus served that turbine. Moreover, even in the other pre-1996 years when boiler 3 alone produced at least as much steam as steam turbine 3 used, boilers 1 and 2 appear to have served steam turbine 3 since steam could physically flow from any boiler to any steam turbine. This is reflected in Alliant-IPC’s data, which shows steam flows involving various combinations of boilers and steam turbines on an annual basis.<sup>1</sup> For example, in 1991 and 1993, boiler 2 supplied steam to steam turbines 1 and 3 since, for those years, boilers 1 and 3 each provided less steam than their respective steam turbines used. The data similarly show that, in 1992, both boilers 1 and 2 supplied steam to turbine 3. For these reasons, EPA finds that the installation of a check valve in 1996 does not alter the fact that, prior to installation of the valve, boilers 1 and 2 served steam turbine 3.

Second, the claim that Alliant-IPC did not own the units until 1998 and so could not “control events in the past” is irrelevant. The applicability of the Acid Rain Program in this case is based on the physical facts regarding what size steam turbines boilers 1 and 2 were serving and when. The change in ownership of the boilers does not alter these historical facts.

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<sup>1</sup> Data on boiler steam production and turbine steam use on a shorter term basis (e.g., hourly or monthly) would also likely show similar types of steam flows.

Third, the Acid Rain Program applicability regulations under 40 CFR 72.6 do not provide for applicability determinations based on “de minimis” SO<sub>2</sub> emissions.<sup>2</sup>

Therefore, since boilers 1 and 2 are fossil-fuel fired, burn coal, commenced commercial operation prior to November 15, 1990, and served a generator greater than 25 MW that produced electricity for sale, they are “existing units” and “utility units” under 40 CFR 72.2 and subject to the Acid Rain Program under 40 CFR 72.6(a)(2). As affected units, the units must comply with all applicable requirements under the Acid Rain Program, including the requirement to apply for and receive an acid rain permit (under 40 CFR part 72), to meet any applicable sulfur dioxide or nitrogen oxides emission limitation (under 40 CFR parts 72 and 76), and to monitor and report emissions (under 40 CFR part 75).

EPA bases this determination on the representations made in your petition of November 29, 1998 and relies on the accuracy and completeness of those representations. The determination is appealable under 40 CFR part 78. The applicable regulations require you to send copies of this letter to each owner or operator of the project (40 CFR 72.6(c)(1)). If you have further questions regarding the Acid Rain Program, please contact Robert Miller at (202) 564-9077.

Sincerely,

/s/ (April 16, 1999)

Brian J. McLean, Director  
Acid Rain Division

cc: Chris Kjellmark, State of Iowa  
Lisa Hanlon, EPA Region 7

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<sup>2</sup> In 40 CFR 72.7, EPA established a “de minimis” exemption for new units burning clean fuels. This exemption does not apply here since boilers 1 and 2 are existing units and burn coal.