

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

APR 16 1979

OFFICE OF ENFORCEMENT

MEMORANDUM

SUBJECT: Fuel Conversion from Natural Gas to Distillate  
Fuel Oil-Chemplex

FROM: Director  
Division of Stationary Source Enforcement

TO: William A. Spratlin, Jr.  
Chief, Air Support Branch  
Air and Hazardous Materials Division, Region VII

This is in response to your memo of January 31, 1979, in which you request a determination regarding the applicability of the PSD regulations to a fuel switch from natural gas to a vaporized mixture of two-thirds distillate fuel oil and one-third fuel gas. The fuel conversion involves two 300 million Btu/hour boilers and will require the installation of an oil-fired vaporizer.

Section 52.21(b)(2)(ii)(d) of the PSD regulations exempts from the definition of major modification, unless previously limited by permit conditions,

"the use of an alternative fuel or raw material, if prior to January 6, 1975, the source was capable of accommodating such fuel or material;..."

Since the Chemplex boilers can switch from gas to oil without making any modifications to the boilers themselves, they are considered to have been capable of burning oil prior to January 6, 1975. Therefore, the increased emissions from the boilers will not be subject to PSD review, but will consume a portion of the available increment.

In addition to the increased boiler emissions which as discussed above are not PSD-affected, the alterations taking place at Chemplex will result in some direct emissions from the firing of the new vaporizer. Should the (direct)

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potential emissions from the vaporizer amount to 100 tons or more of a regulated pollutant per year, a PSD review would be necessary.

The Office of Air Quality Planning and Standards has been consulted and concurs in this response.

If you wish to discuss this issue further, please contact Libby Scopino of my staff at 755-2564.

Edward E. Reich

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**DATE:** January 31, 1979

**SUBJECT:** Prevention of Significant Deterioration (PSD) Applicability, Fuel Conversion from Natural Gas to Distillate Fuel Oil Through the Use of an Oil Vaporizer.

**FROM:** William A. Spratlin, Jr.  
Chief, Air Support Branch  
Air and Hazardous Materials Division

**TO:** Edward E. Reich  
Director, Stationary Source Enforcement Division (EN-341)

A chemical company operating a polyethylene plant near Clinton, Iowa, plans to convert two gas-fired 300-million-BTUs-per-hour boilers to burn distillate oil. No modifications to the boilers themselves will be required. They have operated on fuel gas (natural gas, ethane and propane) since before January 6, 1975. The conversion will be accomplished by pumping a mixture of two-thirds distillate fuel-oil and one-third fuel-gas through an oil-fired vaporizer (5.8-million-BTUs per-hour heat input) and on to the boilers. The vendor claims that particulate emissions will be lower with this system than with normal fuel oil combustion devices because part of the ash is left behind as the oil vaporizes. This "Allied" vaporizing system is presently under construction and scheduled for completion in February of 1979.

Please advise whether this fuel conversion is exempt from the definition of a major modification under 40 CFR 52.21(b)(2)(ii)(d) based on the fact that the boilers have been "capable of accomodating" this fuel all along.

If we can provide you or your staff with any additional information, please contact Craig W. Smith at 8-758-3791.

cc: Richard Biondi  
Stationary Source Enforcement Division (EM-341)