

BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE

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March 1, 2004

Charles Yirka
NC DENR Division of Air Quality
PO Box 29590
Raleigh, NC 27626-0580

**Re: International Paper-Riegelwood Mill proposed No. 5 Recovery Boiler Upgrade Project,
Site Number: 2400036, Air Permit No. 03138, PSD, 15A NCAC 2D .0530**

Dear Mr. Yirka:

On behalf of the Board of Directors of the Blue Ridge Environmental Defense League and our members in the Columbus, Bladen, Pender, Brunswick, and New Hanover county area, I write to provide comments on the proposed changes at International Paper-Riegelwood.

Plant Overview

International Paper-Riegelwood is a bleached kraft paper mill (SIC 2631, NAICS 32213) which manufactures paperboard from wood fiber. Wood chips are cooked in digesters with white liquor: sodium sulfide and sodium hydroxide, Na₂S and NaOH. Spent liquor and lignin are removed from the mixture, leaving a brown cellulose pulp. Turpentine is also removed from the resulting mixture when softwoods are used. The pulp is then bleached with chlorine dioxide to make paper.

To reduce water pollution, paper mill operators burn waste products from the paper process in the power boilers. International Paper-Riegelwood's Title V permit lists 5 power boilers, 3 recovery boilers, 4 smelt tanks, 2 lime slakers, 2 lime kilns, and many other sources of air pollution.

IP-Riegelwood is classified as a major source of air pollution because it has the potential to emit more than 100 tons per year of one or more criteria air pollutants: particulates (PM), nitrogen oxide (NO_x), sulfur dioxide (SO₂), carbon monoxide (CO), or photochemical oxidants (VOC).

Riegelwood mill annual emissions include:

| | | |
|-----------------|------|-----------|
| PM | 2192 | tons/year |
| SO ₂ | 2830 | tons/year |
| VOC | 140 | tons/year |
| NO _x | 5408 | tons/year |
| CO | 6214 | tons/year |
| HAP | 1106 | tons/year |

Air pollutants emitted by IP-Riegelwood include compounds which cause serious neurological damage, carcinogens, and many other health problems in plant workers and mill neighbors. The

pollutants include large amounts of toxic formaldehyde, hydrogen sulfide, hydrochloric acid, sulfuric acid, mercury, dioxin and many others. Because they emit large amounts of hazardous air pollutants (HAP) to the air, paper mills are regulated by Title III of the federal Clean Air Act.

On June 26, 2003 IP submitted an application which requested permission to modify its permit to allow increased burning of black liquor solids (BLS) in Recovery Boiler No. 5 from 115 TPH to 140 TPH, an increase of 21%. The increase was to be offset by the closure of three other emission sources: Recovery Boiler No. 3, Smelt Tank No. 3 and Power Boiler No. 1. The change qualifies as a major modification and requires new source review (NSR) because it has the potential to increase emissions of nitrogen oxides and carbon monoxide in excess of PSD Significant Emission Rates.

The No. 5 Boiler Upgrade project would result in an increase in at least 12 air pollutants: acetaldehyde, benzene, carbon disulfide, chloroform, chromium VI, fluorides, formaldehyde, mercury, methylene chloride, sulfuric acid, nitrogen oxide, and carbon monoxide.

PSD Comments

International Paper's Recovery Boiler No. 5 Upgrade project would result in an increase of two criteria pollutants: NO_x and CO. IP's application states that the proposed modification will cause an increase in these criteria pollutants and that the Recovery Boiler No. 5 Upgrade is a major modification:

Based on the netting analysis, the proposed project is classified as a major modification because it will result in emission increases of NO_x and CO that exceed the respective PSD Significant Emission Rates for these compounds. (IP-Riegelwood Application, 26-JUN-03, Section 3.1.1.5.)

We disagree with the company's analysis which says that the proposed modification will result in air pollution increases which do not exceed *de minimis* limits for these two compounds. The company's application states that Class I and Class II computer modeling was performed for NO_x and CO using the ISCST3 dispersion model. According to URS, neither the NO_x nor the CO emission increases would exceed Class I or Class II significance levels, thereby allowing IP to avoid increment analysis. However, the application appears to omit data for the Class I CO analysis. Table 5-11 contains a summary of impact analyses but no data for CO in Class I areas is listed there or anywhere.

The IP-Riegelwood paper mill must undergo a more complete, comprehensive PSD review before being permitted to modify Recovery Boiler No. 5. The air quality analysis submitted to DAQ by IP-Riegelwood lacks data which is critical to determine if the modification proposed by International Paper will not cause degradation of national ambient air quality standards (NAAQS). For example, no ambient monitoring data was submitted to DAQ by IP in its application for the Recovery Boiler No. 5 project. According to OAQP&S guidance, a new source or modification is subject to an air quality impact analysis under PSD regulations must conduct preconstruction ambient monitoring. Determination of existing air quality is necessary to ascertain whether NAAQS will be exceeded in the area around the modified source after it begins operation. Such monitoring, subject to quality assurance requirements and independent audit, could provide residents living in downwind communities better protection of their health.

In its application for the Recovery Boiler No. 5 Upgrade project, IP asserts that particulates from recovery boiler 5 would remain within previous permit limits required under 15A NCAC 2D .0508 (3 lbs. per equivalent ton of air dried pulp). But no actual testing is proposed to support this claim. In a similar way, SO₂, NO_x, and toxic air pollutant emissions limits are set aside. Emissions impacts were based on emission factors, computer models, and engineering judgment instead of site-specific measurements and test data. Computer estimates of pollution levels may predict pollution levels before a new source is constructed. However, IP Riegelwood's Boiler No 5 has been in operation since 1982. Computer modeling is no substitute for ambient testing.

Two criteria for the determination of ambient monitoring are met by IP-Riegelwood: 1) the proposed plant modification poses a threat to meeting NAAQS, and 2) the plant is located in a region with other major sources of air pollution. IP-Riegelwood is within 10 miles of a cluster of major air pollution sources which lie along the US 421 industrial corridor in New Hanover County and is 12 miles from the City of Wilmington. Also, the Columbus/Bladen/Pender county region is also known for an abundance of hog waste lagoons which emit large amounts of air pollutants including VOCs, sulfur dioxide, carbon monoxide and nitrogen compounds. (Iowa Concentrated Animal Feeding Operations Air Quality Study, Iowa State Univ., February 2002). Though not subject to permitting by DAQ, hog waste lagoons do have an impact on NAAQS and are known to emit the two compounds which will be increased by the Recovery Boiler No. 5 Upgrade: carbon monoxide and nitrogen oxides.

IP utilized a "top-down" approach in its determination of best available control technology (BACT) for its boiler recovery upgrade project. According to IP, BACT, "is based on the 'maximum degree of emissions limitation achievable' ... but equal emphasis is ... placed on the words 'maximum' and 'achievable.'" (IP-Riegelwood Application, 26-JUN-03, Section 4.2) The applicant's explanation of what BACT means defies accepted definitions. For example, the state of California defines BACT without the qualifiers posed by IP:

Definition of Best Available Control Technology

40405. (a) As used in this chapter, "best available control technology" means an emission limitation that will achieve the lowest achievable emission rate for the source to which it is applied. (H&S 40405, California Air Pollution Control Laws, 2003)

IP is wrong to state that there is an equal emphasis placed on "maximum" and "achievable." The permitting authority has the authority to determine how external factors energy, environment, cost are to be considered in meeting maximum emission reductions. The federal definition of BACT as defined in the Clean Air Act is:

An "emission limitation" set by the permit issuer, based on the "maximum degree of reduction" that can be achieved for each regulated pollutant, on a case-by-case basis, after "taking into account energy, environmental, and economic impacts and other costs." 42 U.S.C. 7479(3)

(PSD Appeal No. 88-4, W. K. Reilly, June 7, 1990)

For control of NO_x and carbon monoxide, IP dismisses as technically infeasible selective catalytic reduction and selective non-catalytic reduction, and catalytic oxidation, respectively,

settling on design factors and combustion control. The state should not accept the analysis provided by IP. Further, we object to the shifting of the burden of pollution control costs away from IP, costs borne by local residents and plant personnel through medical bills and a reduction in the quality of life. Even relatively small, *de minimis*, increases in toxic air pollution can have a negative impact on human health. Nowhere in the documents submitted to DAQ is this externalization addressed by International Paper. DAQ must require the best available control technology in this case, not a computer-modeled substitute.

Respectfully submitted,

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