



Holcim

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Mr. David Schanbacher
Chief Engineer
Texas Commission on Environmental Quality
Building F, Fourth Floor
12110 Park 35 Circle
Austin, TX 78753

Dear Mr. Schanbacher,

Holcim (Texas) LP ("Holcim") submits this letter to comment on the draft final Report "Assessment of NO_x Emissions Reduction Strategies for Cement Kilns-Ellis County" dated December 31, 2005 ("Report"), to present its position and to supplement the comments submitted by PCA on January 24, 2006. Holcim does not support some conclusions in the report, which lack factual substantiation and place a disproportionate and unfair burden on Holcim for NO_x reduction in the DFW area.

Holcim owns and operates a portland cement plant in Ellis County. The plant operates two preheater/precaliner (PH/PC) kilns. PH/PC technology is the most modern cement manufacturing technology as acknowledged in section 2.1.1 of the Report. Of the ten kilns covered in the Report, there is only one other PH/PC kiln, with all the remaining kilns being old wet kilns.

Holcim is committed to the protection and improvement of environmental performance and is an industry leader in sustainability. This commitment is reflected in the historic agreement reached in August 2005 with the DFW Blue Skies Alliance and Downwinders At Risk, in which Holcim commits to the installation and operation of SNCR systems on both kiln lines and allocation of \$2.25 million dollars for NO_x reduction projects affecting the Dallas-Fort Worth ozone non-attainment area. In the summer of 2005, Holcim conducted extensive SNCR pilot tests observed by both the environmental groups as well as by TCEQ and demonstrated significant reductions in NO_x emissions on both lines. As a result, Holcim has initiated a project to install a full scale SNCR system which is expected to be operational during the 2006 ozone season.

In the sections that follow, we identify three key findings of the report that appear to unduly shift the burden of reducing NOx emissions to the Holcim kilns.

1. Upgrade of Holcim Kiln 1 Calciner

The report identifies Holcim #1 calciner system as a candidate for a kiln upgrade based on a comparison of the emission rate of this kiln with that reported for TXI Kiln #5. Holcim has two fundamental concerns with this approach:

First, it is well known and correctly stated in the report that the NOx emission rate is a function of several parameters including kiln system design, feed materials, product type, and operating parameters. It is troubling that the study group overlooked the effect of differences in these parameters between the two plants and made an upgrade determination based solely on a comparison of emission rates. The type of fuel used can affect NOx emissions significantly. For example, the use of certain waste derived fuels (WDF) such as tires has been demonstrated to reduce NOx emissions and is recognized by the U. S. Environmental Protection Agency (USEPA) as a NOx control technology. The use of alternative raw materials such as steel slag can also have a significant impact on NOx emissions. Finally the type of cement being produced also impacts NOx emissions. Some cement types require the use of higher flame temperatures which in turn result in higher NOx emissions.

Second, there is no documentation in the report of the data quality analysis undertaken by the study team to ensure that the emission rates being used for comparison are in fact reliable. Holcim has in place a comprehensive data quality assurance and quality control procedure to ensure the veracity of the data it reports. We would like some assurance that the data which is used in assessing the feasibility of a major plant upgrade has been subject to equivalent data quality checks.

2. Classification of Technologies

There is a clear disparity in classification of NOx control technologies for different kiln types in the Report. The Report considers SCR as "available" for PH/PC and "transferable" for wet kilns and SNCR as "available" for PH/PC and "innovative" for wet kiln. Section 1.1 of the report defines "available" as commercially available technology, "transferable" as commercially available technology which is in use at a similar process

and "innovative" as a technology that has not been successfully applied in the cement industry. It appears that the assertion that SCR is an available technology for PH/PC kilns is based upon the existence of a single SCR system operating at the Solnhofen cement plant in Germany. The Solnhofen kiln is a relatively small dry preheater kiln. None of the plants in Ellis County have a dry preheater kiln system. Therefore, proper SCR technology designation for both wet and PH/PC kilns should be "innovative" or at most "transferable". It is unclear why SCR is considered "available" for PH/PC kilns and "transferable" for wet kilns. PH/PC kiln design differs from the other three kiln types (i.e. wet, dry, pre-heater). It utilizes a second burner to carry out significant portion of the chemical processes used to manufacture clinker (calcination), while in the other kiln types the entire pyro-process take place in the rotary kiln.

We are also puzzled by the Report's classification of SNCR as "innovative" for wet kilns whereas there is at least one full scale SNCR installation in operation on a wet kiln in Europe. We are troubled with the inconsistency in the Report which designates SCR as "available" for PH/PC system when there is no existing installation on a PH/PC kiln system while designating SNCR as an innovative technology for wet kilns when there is at least one existing installation on such a kiln system. Although, we believe that neither SCR technology for PH/PC kilns nor SNCR technology for wet kilns should be considered available technology, the Report designations have the potential to place Holcim as operator of two modern PH/PC kilns at a significant competitive disadvantage.

Section 1.1 states that there is no control technology available for wet kilns and all other technologies examined are only transferable or innovative controls. It goes on to state, that, "The only available wet kiln option evaluated in this study is conversion of the wet kiln to modern dry PH/PC units. This decision is complex and may require consideration of expand production and use of alternative energy sources to be commercially justified." Based on this statement, one could conclude that the Report precludes any significant reductions from seven out of the ten kilns in operation in the study area. As the operator of two of the remaining three kilns, and the one identified in the Report as having the lowest burden cost, Holcim is very concerned that the ultimate burden for NOx reduction is on its shoulders, even though it runs the most efficient operation in the study area and has made a substantial corporate and financial commitment to significantly reduce its emissions further through the installation of SNCR and the implementation of NOx reduction projects in the community.

3. Back-Up and References for Cost Analysis

The Report indicates that Holcim has the lowest cost effectiveness and burden costs for all technologies compared with the other two plants. Since no back-up and/or references are provided in the draft Report for the cost analysis and we are unable to ascertain whether these numbers are based on realistic assumptions. For instance, one concern is that if the quality of the data used in evaluating potential reductions is not accurate, this could significantly affect the calculation of burden cost in \$/ton of NOx reduced.

Proper documentation and verification of all emission and cost data used needs to be undertaken and made transparent in the Report to ensure that erroneous conclusions are not arrived at which would subject efficient operations to additional NOx reduction requirements (while less efficient, higher emission facilities enjoy continuation of business as usual). The environment cannot benefit unless the recommendations made (and mandates imposed) are equitable and require every company to do its fair share.

In summary, Holcim would like to reiterate its commitment to improving its environmental performance and its desire to work with the study team to ensure that the final Report provides accurate assessment of the NOx reduction options in the cement industry and thereby contribute positively to the development of the SIP.

If you have any questions regarding this report, please feel free to contact me at (972) 923-5808.

Sincerely,



Michel Moser

Plant Manager