UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

MAR 29 2013

Mr. José Uriol
General Manager
Essroc San Juan Inc.
P.O. Box 366698
San Juan, Puerto Rico 00936-6698

Re: ESSROC San Juan, PR- Prevention of Significant Deterioration (PSD) Non-Applicability Request for the Use of Biomass- October, 2012 and January, 2013 Submittals

Dear Mr. Uriol:

The Region 2 Office of the United States Environmental Protection Agency (EPA) received Environmental Resources Management's January 18, 2013 letter and e-mails (until March 7, 2013), on behalf of ESSROC, providing responses to EPA's December 11, 2012 comments. EPA's comments were related to ESSROC's October 25, 2012 request for a PSD non-applicability determination for the proposed use of biomass as an additional fuel in its cement kiln. EPA had commented that ESSROC's reasoning that PSD would not be applicable because the emission factors would not change when burning biomass was not acceptable. The PSD applicability in 40 CFR Part 52.21 is determined based on the difference between baseline actual emissions and projected future actual emissions in tons per year and it is not determined based on any changes in any emission factor defined in pounds per ton of clinker produced. Secondly, EPA had commented that ESSROC's projection that the clinker production will be 682,500 tons per year in the future due to demand growth was not acceptable because ESSROC did not justify why it expects this growth in clinker demand even though the clinker production had decreased from 562,663 tons in 2006 to 255,288 tons in 2011.

In order to address EPA's comments, ESSROC revised its biomass proposal and stated that it will maintain its projected future actual emissions at the baseline actual emission levels and its future clinker production at the revised baseline level of 579,763 tons/year. In addition, ESSROC will limit the biomass heat input to a maximum of 35% of the total kiln heat input and to a maximum of 70,000 tons per year of biomass to maintain the projected actual emissions to below PSD de minimis levels. ESSROC estimated its maximum heat input requirement at 1750 Btu per pound of clinker. EPA notes that ESSROC used biomass emission factors available from a CEMEX Miami plant to refine its projected future actual emission estimates and proposes to conduct stack tests to verify those emission factors for its Puerto Rico plant. ESSROC has stated that it will burn biomass with coal and/or oil at the prescribed levels and adhere to its proposed practices to manage the biomass quality. Based on the review of the information ESSROC provided, it appears that the use of biomass as an additional fuel in the cement kiln may not be subject to PSD if the conditions listed in the attachment to this letter are met. ESSROC must incorporate all these conditions into a construction and/or a title v permit issued by the Puerto Rico Environmental Quality Board (EQB) prior to burning biomass.

Please note that our assessment of PSD non-applicability does not constitute a final Agency action and it is based solely on information provided by ESSROC. In the event that we learn of facts suggesting a different assessment of the past and future activities, EPA may revisit this issue, and invoke any necessary authorities under the Clean Air Act. However, we do not anticipate further action at this time. If you have any questions, please contact Mr. Umesh Dholakia, of my staff, at (212) 637-4023.

Sincerely,

Steven C. Riva, Chief
Permitting Section
Air Programs Branch

Enclosure

cc: Luis R Sierra Torres, PREQB
Leimarys Delgado, PREQB
Beatriz Rivera, ESSROC
Ángel O. Berríos Silvestre, ERM

ATTACHMENT

ESSROC San Juan, Inc. Dorado, Puerto Rico (March, 2013)

PSD Non-Applicability Conditions

ESSROC proposes to combust biomass as an additional fuel in its cement kiln no. 3. ESSROC currently combusts coal and oil to produce a maximum of 682,500 tons of clinker and estimates that its maximum heat input requirement will be 1750 Btu/lb of clinker produced.

ESSROC will apply to PREQB to incorporate the following conditions in its title V and/or a permit to construct- PREQB may streamline permit conditions where appropriate:

1. ESSROC shall only burn coal, waste oil and biomass as fuels in its cement kiln no. 3. Biomass use shall be permitted up to a maximum of 35% of the kiln Btu heat input and 70,000 tons per year of biomass on a 12-month rolling basis.
2. ESSROC shall comply with all short-term emission limits established in any other part of any EQB permit ESSROC's 12-month (yearly) emissions on a monthly rolling basis shall be limited and monitored as follows:

	Tons/Year	Emission Factor (EF)	Monitoring
Sulfur Dioxide	324	Fuel Sulfur Content	CEM
Nitrogen Oxides	922	3.18 lbs/ton of clinker	CEM
Carbon Monoxide	1,113	3.84 lbs/ton of clinker	CEM
PM-10/PM 2.5	99	0.34 lbs/ton of clinker	Clinker production x EF
VOC	41	0.14 lbs/ton of clinker	Clinker production x EF

3. Biomass fuel sulfur content shall not exceed 0.6%.
4. ESSROC shall use EPA approved performance test methods to verify the emission factors while burning biomass at 35% kiln heat input. These tests shall be conducted within 180 days of the EQB permit issuance or whenever the biomass is introduced first time.
5. All emissions data collected with the CEMs and calculations shall be maintained for at least five years. All CEMS must meet applicable EPA certification requirements. ESSROC shall also monitor and record daily clinker production, daily consumption of each fuel, its sulfur content and each fuel's heat input.
6. For the purposes of this permit, biomass includes regular biomass, clean and other cellulosic biomass and bio-solids. Regular biomass is defined as non-fossilized and biodegradable organic material originating from plants, animals or micro-organisms, including products, by-products, residues and waste from agriculture, forestry and related industries as well as the non-fossilized and biodegradable organic fractions of industrial and municipal wastes, including gases and

liquids recovered from the decomposition of non-fossilized and biodegradable organic material. Clean cellulosic is defined as residuals that are akin to traditional cellulosic biomass such as forest-derived biomass (*e.g.,* green wood, forest thinnings, clean and unadulterated bark, sawdust, trim, and tree harvesting residuals from logging and sawmill materials), corn stover and other biomass crops used specifically for energy production (*e.g.,* energy cane, other fast growing grasses), bagasse and other crop residues (*e.g.,* peanut shells), wood collected from forest fire clearance activities, trees and clean wood found in disaster debris, clean biomass from land clearing operations, and clean construction and demolition wood. These fuels are not secondary materials or solid wastes unless discarded. Clean biomass is biomass that does not contain contaminants at concentrations not normally associated with virgin biomass materials. Other cellulosic biomass is a category that does not comply with the definition of untreated cellulosic biomass. These include discarded consumer products and wood residues from non-primary mill manufacturers, wooden furniture, cabinets, pallets and containers, and scrap lumber. Bio-solids are defined as organic materials sanitized to meet EPA Class A sanitization standards and are derived from treatment processes of public treatment water systems Class A bio-solids and comply with the requirements established on 40 CFR Part 503.

7. ESSROC shall sample and analyze each fuel received in a manner consistent with the industry standards and any other requirements in this permit.
8. Each delivery from a biomass supplier must be accompanied by a supplier document or manifest, including the date of delivery, and certifying that the biomass is free of plastic, paint, stain, coatings, and wood preservatives. ESSROC shall keep records of these manifests for a period of at least five years. ESSROC shall inspect the incoming biomass to ensure that it meets these requirements.
9. ESSROC shall store the biomass under cover or in covered trailers, containers or buildings, on top of a paved or compacted clay surface to ensure that the heating value of the biomass is not reduced due to high water content and that there is no runoff contamination.
10. Biomass shall be introduced after the kiln has achieved normal operation, temperature and production and will be introduced in the high-temperature combustion zone of the main kiln burner. ESSROC shall make every effort during the shakedown and assessment periods to promote efficient combustion and minimize emissions.