BEST AVAILABLE CONTROL TECHNOLOGY (BACT) DETERMINATION
Mizkan Americas, Inc., Lake Alfred Plant
Construction Permit 1050418-001-AC
Polk County

The above company has submitted a permit application for a Clark 300 HP (12.55 MMBtu/hour heat input rating) process steam boiler (Emission Unit EU 001). This boiler will be fired on natural gas only. (Note: This boiler was previously permitted as part of the Imperial Brands, Inc.\Florida Distillers Company facility at this same location (ARMS Facility ID 1050090). It was originally permitted in 1994 on construction permit AC53-241925, which included a BACT Determination for this boiler. This existing boiler and the existing vinegar generation units at this Lake Alfred facility were purchased by Mizkan Americas, Inc.)

This BACT Determination is required for this emission unit as set forth in the Florida Administrative Code (F.A.C.) Rule 62-296.406 - *Specific Emission Limiting and Performance Standards: Fossil Fuel Fired Steam Generators with less than 250 million Btu's per hour Heat Input, New and Existing Sources.*

BACT Determination Requested by Applicant:
Particulate matter and sulfur dioxide emissions are to be controlled by the firing of only natural gas.

Date of Receipt of Permit Application: May 7, 2008

BACT Determination by DEP:
The amount of particulate matter and sulfur dioxide emissions from the boiler shall be limited by the firing of natural gas exclusively.

BACT Determination Rationale:
Sulfur in fuel is a primary air pollution concern since most of the fuel sulfur becomes sulfur dioxide. Also, particulate matter emissions from fuel burning are related to the sulfur content. The Department has performed air dispersion modeling analyses on small natural gas fired boilers typical of those recently permitted in Florida. These analyses show that all standards and increments will be met with the use of natural gas.

Details of the Air Dispersion Analysis May be Obtained by Contacting:
Department of Environmental Protection, Bureau of Air Regulation
Twin Towers Office Building, 2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended by/Date:

Cindy Zhang-Torres 8/11/08
Cindy Zhang-Torres, P.E.
SW District Air Permitting Supervisor

Approved by/Date:

Mara Grace Nasca
Mara Grace Nasca
SW District Air Program Administrator