

Humidity Control in Bio Plant -Caustic Soda Dosing Room

Caustic Soda Sodium hydroxide is utilized to raise the pH of water in a variety of applications. The chemical leaves no residual color, is a high-strength product, and is available at concentrations of 2-50%.

Effects of Uncontrolled Humidity

White crystalline solid Caustic soda being highly hygroscopic and very soluble in the water. It should be stores in an airtight container or drums. During the dosing process, caustic soda is exposed to high moisture environment and adsorbs moisture until it liquefies. The mixture of liquefies soda and solid soda will cause difficulty in the dosing process.



General Recommendation

Relative humidity in the dosing room should be maintained as low as possible, proposed to maintain at $20 \pm 5\%$ at 28°C (82°F) to overcome the problem of moisture pickup or moisture regain.

Bry-Air Solution

Due to powdering environment in the the dosing room, 100% fresh air system was proposed. Hence a Dehumidifier consisting of precooled and after cooled is suggested.