

Case Study

INDION 256 H for removal of Aqueous Ammonical Nitrogen from effluent of Hexamine process stream.

Introduction

In a specialty chemicals intermediate manufacturing industry, the waste water formed during process contains ammonical nitrogen in the range of 700 to 750 ppm.

Challenge:

1. Removal of ammonical nitrogen from the waste water stream of hexamine process plant.
2. To reduce outlet COD of waste water stream to less than 50 ppm in order to comply with the regulation.

Solution:

Waste water from process stream is passed through INDION 256 H, which removes ammonical nitrogen. The chemically bound ammonical nitrogen is recovered by eluting it with H_2SO_4 .

Result:

After passing waste water through the ion exchange column containing INDION 256 H, the treated effluent meets the customer's requirement with respect to reduction in COD and ammonical nitrogen.

Details of existing column:

	INDION 256 H
Resins qty, m ³	2
Regeneration level, Kg/m ³ of H ₂ SO ₄	52
Service flow, m ³ /h	2
OBR, m ³	42

Parameters	Ammonical nitrogen, ppm	COD, ppm
Inlet	700 - 750	11000 - 15000
Outlet	< 50	< 6000