

Case Study

INDION PA 1200 for removal of phenol and phenoxy compounds from waste mother liquor formed during manufacture of 2-4 D Acid

Introduction

In a herbicide manufacturing industry, the waste mother liquor formed during the process contains phenol and phenoxy compounds in the range of 800 to 1500 ppm.

Challenge:

1. Removal and recovery of phenols and phenoxy compounds from the waste mother liquor
2. To reduce outlet COD of waste mother liquor to less than 250 ppm in order to comply to the regulatory norms

Solution:

Waste Mother Liquor from process stream is passed through INDION PA 1200, which removes phenol and phenoxy compound. The adsorbed phenol and phenoxy compounds are recovered by eluting these with NaOH.

Result:

After passing waste Mother Liquor through ion exchange column containing INDION PA 1200, the treated effluent meets the customer's requirement with respect to reduction in COD and phenol phenoxy compound.

Details of existing column:

	INDION PA 1200
Resins qty, lit	3300
Regeneration level, Kg/m ³ NaOH	100
Service flow, m ³ /h	10
OBR, m ³	400

Parameters	Phenol & Phenoxy, ppm	COD, ppm
Intlet	800 - 1500	1100 - 2000
Outlet	< 50	< 250