

Waste Treatment Plan

1. Waste Water Control and Treatment

A combination of an Activated Sludge Treatment system and a Tubular Ultrafiltration (UF) unit is to be installed at the plant site to separate organic biomass from the bio-oxidized wastewater. This system, supplied by ZENON Inc., a Canadian Company, will produce a plant effluent that will meet the influent limits of the large Tainan Science Industrial Park final wastewater treatment system. ScinoPharm's plant effluent must have a COD of < 700mg/l, a BOD₅ of < 500mg/l, and TSS of < 500mg/l.

The initial treatment capacity (volumetric) of the ScinoPharm on-site system is 48 m³/day. The system has an ultimate capacity that can be expanded to 280 m³/day. The capacity of the Tainan Science Industrial Park wastewater treatment facility is initially 22,500 m³/day and 100,000 m³/day after the expansion. The maximum allowable concentrations of influent and effluent from SPT Waste Water Treatment Facility and Tainan Science Park wastewater Treatment Facility are listed below:

Parameter	ScinoPharm Wastewater Treatment Facility		Tainan Science Park Wastewater Treatment Facility	
	influent	effluent	influent	effluent
BOD (mg/l)	3500	100	500	<50
COD (mg/l)	7200	350	700	<180
TSS (mg/l)	2000	5	500	<50

2. Solid Waste Management

The solid waste generated from the ScinoPharm plant is estimated to be less than 2 tons per day. A dedicated storage area is established for both hazardous and non-hazardous wastes. The hazardous wastes will either be incinerated or properly buried in government approved landfill site(s) by contracting with a certified class A Hazardous Waste treatment vender. The non-hazardous is shipped to a Sanitary landfill by a certified class B waste disposal vender.

3. Air Pollution Control

Any vapor and/or particulate emissions from either the processing areas in the R&D acility or from the main production facilities will be captured and removed by using wet scrubbers containing caustic followed by activated charcoal absorber units. In addition, all processing areas will attempt to capture and recover solvents using fractionation and distillation columns and recovery receivers.