

ENVIRONMENT

Environmental protection is the lifeline of an enterprise. The United Laboratories, with a strong sense of social responsibility, adheres to the sustainable development concept of “environment priority” and properly handle the relationship between development and environment. Embracing the national environmental protection strategy, the Group invested resources, imported international advanced technology and equipment and assembled first-rate professional team to build green productivity and an economic industry chain of environmental friendliness and recycling and achieve a win-win for both environment and economic development.

Emissions

The United Laboratories always adheres to the concept of green environment and sustainable development and considers environment friendliness as a priority in the process of project construction, production operation and enterprise development. The United Laboratories (Inner Mongolia) Co.,Ltd., mainly for the production of pharmaceutical intermediates and bulk medicines, is the Group’s largest production base in terms of investment and scale, as well as with the most representative environmental protection system. Its environmental protection system, as compared with those of its peers in China, is among the better configured and has a higher proportion in the investment, and strictly complied with the Environmental Protection Law of the People's Republic of China, Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution, Law of the People's Republic of China on the Prevention and Control of Water Pollution, Law of the People's Republic of China on the Prevention and Control of Pollution by Solid Waste and other relevant laws and regulations, with all the emission indexes accorded with national and local environmental protection standards. In order to elevate our level of environmental management, improve our environmental performance and environmental awareness of the staff, the Group has successfully adopted the ISO14001 International Standard for Environmental Management Systems in 2014, and passed the supervision and audit conducted by China Quality Certification Center in 2015 and 2016.



Governing Unit of China
Environmental Friendly Enterprise Alliance



Environmental Protection Social
Responsibility Enterprises

Wastewater Treatment

The Company has built three sets of independent wastewater treatment system, combining biochemical, physicochemical, aerobic and anaerobic as a whole. Wastewater is treated with the “preprocessing – hydrolytic acidification - Upflow Anaerobic Sludge Blanket (UASB) – Cyclic Activated Sludge System (CASS) –catalytic oxidation – secondary sedimentation tank” procedure, equipped with relevant technical staff and assisted with contingency plans and management systems to ensure to the utmost extent the functioning of wastewater treatment facility and up-to-standard wastewater discharge. At the same time, the Company invested in and set up COD (chemical oxygen demand) and $\text{NH}_3\text{-N}$ (ammonia nitrogen) online monitoring system which accorded with relevant national standards, at the total outfall of wastewater. The system is interconnected with the urban environmental information monitoring center and achieved real-time data transmission. In addition, the online monitoring data and monitoring and inspection data conducted by the Company itself will be published at specified information platform on time.



Wastewater treatment facility

Waste Gas Treatment

There are two kinds of waste gas produced by the Company, including technology gas and boiler flue gas. Technology gas treatment: The Company uses a variety of technologies for treating the organic waste gas which was produced in the process of production, and related technologies comprise the double or multiple combinations of activated carbon and activated carbon fiber adsorption, alkali spray, low temperature plasma, catalytic oxidation and so on. For odor gas which was produced in the process of wastewater treatment, we use the technology of “alkali spray + ozone oxidation”. Boiler flue gas treatment: The dust and sulfur dioxide in boiler flue gas was treated by the technology of “(spraying calcium inside the furnace) + SNCR + cloth bag dusting + limestone-gypsum desulfurization”.



Waste gas treatment facility

The Company conducted sealed collection treatment to the emission source of waste gas and odorous gas originating from production, wastewater treatment and related processes. All the emissions were consistent with the limits of Comprehensive Emission Standard of Air Pollutants GB16297-1996, Emission Standard of Air Pollutants for Thermal Power Plants GB13223-2011, Emission Standards for Odor Pollutants GB14554-93 and other related standards.

Solid Waste Treatment

The Group, strictly in compliance with the national administrative regulations on hazardous and solid waste, classified and treated the different kinds of solid waste. Fermented mushroom residue and so on to have dangerous waste management qualification unit for disposal of use; waste activated carbon and enzymes are treated by internal comprehensive incineration boiler facilities, and has reached harmless standard; general solid wastes are transferred and disposed of at a company with hazardous waste business license qualification. All the treatment with corresponding management system, records and contingency plans for hazardous and solid waste, disposes its wastes in a appropriate, legal and explicit manner.

Use of Resources

The Group persists the production and business model which is "safe, environmentally friendly and efficient", with an aim to improve its production process in both advancement and environment-friendliness, committed to achieving the goal of green production and sustainable development, as well as the energy consumption which also obviously improved.

Our "Green Enzymatic Method" Amoxicillin bulk medicine process is the most advanced production process in the world. It efficiently decreased the use of organic solvent and the production of wastes, underwent significant improvements in energy use compared with the traditional chemical processes. "Green Enzymatic Method" achieved to protect the environment at the uttermost.

The United Laboratories (Inner Mongolia) Co., Ltd. has established a cyclic economic & industrial chain that runs Corn Fermentation – 6-APA Intermediate Products – Amoxicillin Bulk Medicine – Amoxicillin Finished Products, the upper end of which connects with the origins of corn and starch processors, the middle section connects with intermediate bulk medicine and finished products, and the lower end connects with the organic fertilizer producers, with the by-products (fungi residue) turned into organic compound fertilizer after non-hazardous treatment, undergoing a circular utilization of resources. In addition, the methane, which produced in the treatment process of solid waste, can be burned as energy and realized the saving of standard coals with a total amount of 5,000 tons per year.

By forging such a beneficial cyclic economy & industrial chain, the Group strive to achieve higher standard.

The Environment and Natural Resources

The Group took the impact of production and business operation and decisions on the environment into overall considerations, through continuously improving production technology, completing the environmental management system, strengthening the supervision of environmental protection measures, made efforts to minimize the impact of production and business operation on the environment.

We strictly control the wastes production process and gradually improve discharge requirements. In view of the high concentration wastewater treatment, the Company adopted the MVR technology (high concentration wastewater hyperconcentration), and completed the installation and operation of the

crystallization mother liquor MVR system and waste acid water MVR system. The technology can greatly reduce the emission of COD (chemical oxygen demand) and ammonia nitrogen into the water. The wastewater, with reaching the standards after testing, will be discharged to the local wastewater treatment plant for reprocessing and the wastewater will be reused once reaching the recycling standard. We strive to reduce the waste of water resources by strengthening the water reuse and reducing the use of the one-time water.



The plant of The United Laboratories (Inner Mongolia)