

Environmental Classification and Issues:

Classification: This is a category III project according to the IIC's environmental and labor review procedure because it could produce certain effects that may be avoided or mitigated by following generally recognized performance standards, guidelines, or design criteria. Environmental and labor considerations related to the project include management of liquid effluents and solid waste, product quality control and safety, fire protection, personal safety, and emergency response.

Liquid Effluents

The main liquid effluent is wastewater from the processing plant, which is used chiefly for washing cooked shellfish, cooling the autoclaves, and cleaning the plant, as well as from the bathrooms. Canning shellfish leaves little organic waste, so the liquid effluent is relatively clean and only contains fragments of shellfish damaged during processing. The effluent is treated at an aerobic activated sludge plant, where it goes through aeration, sedimentation, sludge digestion, disinfection, flotation, and oil and solids separation for subsequent discharge in the ocean from a 500-meter-long pipe. Effluent quality is checked monthly by the Superintendencia de Servicios Sanitarios.

The company also uses fresh seawater to desand bivalves. The water is pumped, filtered, and sterilized before it enters the desanding tanks. It is subsequently returned to the sea through the discharge pipe along with the effluent treated at the activated sludge plant.

Solid Waste Management

The plant generates three types of solid waste: inorganic waste from processing shellfish (shells), organic waste from processing (discarded shellfish and cleaning waste), and general refuse (paper, cardboard, plastic, and bathroom and kitchen refuse). The inorganic waste is removed from the plant by screw feeders leading to elevated hoppers. This waste is taken to a plant where it is used to make calcium carbonate. Organic waste is put in special containers that are later emptied at authorized industrial landfills.

General refuse (such as paper, plastic, cardboard, and leftover food) is stored in containers and sent to an authorized municipal landfill.

Air Emissions

The processing equipment (dehydrators, cookers, and autoclaves) is steam heated. The steam is generated by two boilers that run on fuel oil n^o 6 and are authorized by the Servicio de Salud. The company is installing a gaseous effluent monitoring system.

Waste that could cause odors is removed from the plant daily; strict cleanliness standards prevent nuisance odors. SERNAPESCA performs sensory monitoring for odors as part of the quality assurance program Programa de Aseguramiento de Calidad (PAC) certification process.

Product Quality Control and Safety

The company's entire production process, from raw material receiving through finished product inspection, is PAC and HACCP certified by SERNAPESCA. Product quality is confirmed by external laboratories. SERNAPESCA oversees compliance with PAC standards, plant infrastructure conditions, and worker hygiene. Workers must use task-specific clothing and equipment. There are sanitary filters and hygiene procedures for returning to the processing areas.

Monitoring and Reporting

Trans Antartic shall develop an Environmental Management Plan (EMP) satisfactory to the IIC to ensure compliance with domestic regulations and the IIC's environmental and workplace safety and health guidelines. The EMP shall provide for a yearly report on liquid effluent and solid waste management; health, occupational safety, and emergency response training; and accident reporting.