

Environmental and Labor Issues

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. The main environmental and labor considerations related to the project are: the raw materials supply, good manufacturing practices, solid waste and liquid effluent management, hazardous product management, air emissions and air quality, general occupational health and safety, and other labor issues.

The company is working toward GMP+ certification, which includes HACCP (hazard analysis and critical control points) certification. The plant is located in Gualeguaychú Industrial Park in the rural outskirts of the city of Gualeguaychú in Entre Ríos province, some 5 km from the urbanized areas and some 7 km from the city center.

ERCSA began operations in 2008, when it acquired a plant in the installation phase that had not yet gone into operation. In order to complete the installation process and subsequent commissioning of the plant, ERCSA conducted an environmental impact review, which it submitted to the Secretariat of Production (Secretaría de la Producción) and the Secretariat of Environmental Sustainability (Secretaría de Ambiente Sustentable) of the Ministry of the Interior (Gobernación) of Entre Ríos province, as well as the Municipality of Gualeguaychú. The plant was commissioned in the last quarter of 2010 and since then has steadily increased production. By the start of this 2013 agricultural cycle it had reached the productive capacity contemplated in its design, having made new investments and performed maintenance during February and March.

Raw Materials Supply: ERCSA procures all its soybeans from Entre Ríos province. The company's area of influence covers a radius of some 130 km around the plant. At greater distances, freight costs become higher than the cost of transporting the product to Rosario, Argentina's soybean marketing hub. Producers in ERCSA's area of influence are longtime farmers and livestock producers who have practiced crop rotation and used the land for grazing for decades without adding new areas or damaging natural habitats. ERCSA procures over 50% of its raw materials from cooperatives or other entities that market the crops of several producers, obtaining the rest through direct sales. Prices are pegged to the prices on Rosario's Bolsa de Comercio, where the bulk of Argentina's soybeans is traded.

Liquid Effluent Management: ERCSA obtains its water supply from the service provided by the industrial park. Since its production processes do not generate liquid effluents, today the only effluents generated by its industrial activity come from cleaning the plant and its machinery. This water is channeled to an equalization tank in which some parameters (temperature, pH, BOD, COD, etc.) are controlled before sending it to the industrial park's water treatment facility. Wastewater from employee restrooms is also treated at the plant. Hazardous liquid effluents (lubricants, solvents, etc.) are sent for final disposal by a licensed operator.

Solid Waste Management: The bulk of the solid waste with no commercial value is inorganic waste from the soybean cleaning process. This nonhazardous waste usually contains metals that are separated by electromagnets before the raw product enters the process. The metal is then disposed of as scrap. When the raw product is damaged by handling or moisture, it is used as animal feed. The remainder of the waste generated by the plant is sorted and disposed of in separate receptacles. General waste from the plant, similar to household waste, is sent to the municipal dump.

Handling of Hazardous Products: The oil extraction process uses hexane as a solvent. Hexane is considered hazardous due to its combustibility, high volatility, and potential health effects. It is stored in underground tanks, each of which is fitted with a spill containment device. All the solvent

in the extraction process is recycled, although a small amount depleted in the process must be replaced.

For authorization to acquire and use hexane, ERCSA is registered with the national registry for chemical precursors of the Secretariat of Programs to Prevent Drug Addiction and Combat Narcotrafficking (Secretaría de Programación para la Prevención de la Drogadicción y la Lucha contra el Narcotráfico) (SEDRONAR).

Air Emissions and Air Quality: The boiler and grain dryer burn natural gas; consequently, their emissions have a low contaminant load. The grain dryer has cyclone dust collectors and sleeve filters to extract dust and prevent the particulate matter from being released into the atmosphere.

Hexane levels are measured frequently at several points in the plant to check for leaks and the risk of fire and explosions.

Noise: There is a risk of noise exposure in several areas of the plant, particularly the seed preparation area, the area near the boiler, and the solvent extraction plant. The use of hearing protection equipment is required throughout the plant, except in closed-off spaces that are removed from the noise (control panels, laboratory, etc.).

Personal Safety and Emergency Response: ERCSA engaged the services of a consultant to develop a security model based on the concept of total loss control and safety, which integrates safety into production management through the chain of command. This model was successfully implemented by other companies of the same type, reducing their accident rate and the associated losses to a minimum.

The company is conducting an occupational risk analysis for each sector of the plant. The design of the hexane extraction and management plant conforms to standard NFPA 36 of the National Fire Protection Association of the United States, applicable to solvent extraction plants.

The industrial plant has a fire alarm and firefighting system, sprinklers, a water reserve of 600 m³, and stand-alone pumping systems (jockey pump and engine pump), portable fire extinguishers, and a fire brigade. Its internal emergency brigades are taught how to proceed in the event of a fire, explosion, gas or hexane vapor leak, flammable product spill, injuries, and other emergencies. There is an emergency plan detailing the chain of command, the external communication system, and the evacuation plan.

Labor and Social Issues: ERCSA complies with national labor laws. Mandatory core labor standards include legally mandated benefits, freedom of association, the organization of labor unions, the prohibition of forced labor and exploitation and abuse of child labor, and nondiscrimination in the workplace. A high proportion of plant employees are members of the vegetable oil workers' union. Labor contracts are governed by collective bargaining agreements with this union. Workers and their dependents receive medical coverage from their respective Obra Social (group health insurance and other benefits scheme). Administrative personnel, as well as section chiefs, supervisors, and floor managers, are covered by a prepaid health service. Under Argentine law, all workers are covered by workplace accident insurance (aseguradora de riesgos de trabajo—ART).

ERCSA works to address social issues by collaborating in specific areas with organizations such as schools, unions, producers' groups, and local publications.

Oversight and Compliance: ERCSA shall prepare an Environmental and Social Action Plan (ESAP)

satisfactory to the IIC to ensure compliance with domestic regulations and the IIC's environmental and workplace safety and health guidelines. As part of the ESAP, an annual report shall be prepared with updates on environmental and occupational safety and health parameters.