

This is a category B project according to the IIC's Environmental and Social Sustainability Policy 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: efficient resource use and pollution prevention, workplace and labor conditions, and community health and safety. Tecnomyl has a plant in Villeta, about 35 km from Asunción. It occupies about 7 hectares in the Avay industrial park. Including its offices in Asunción and Ciudad del Este, the company employs about 380 people. In addition to the above-mentioned certifications, Tecnomyl is working on obtaining its OHSAS 18001 certification. The certification's standards and procedures make up the company's Integrated Management System (IMS), which ensures the quality of its products and services.

Management of Liquid Effluents: The industrial plant gets its water from a network that supplies the industrial park and from its own well. The industrial park gets its water from the Paraguay River and treats it for industrial uses. The company has a liquid effluent treatment plant that uses physical-chemical processes. It has a receiver tank divided into four sections that separates industrial effluents (water from the manufacturing process, from the synthesis plant, gas scrubbers, sludge filter presses, laundry area, etc.) and incrementally adds them in for treatment based on the type and amount of contaminants in each. The process begins in a decanter reactor with the addition of flocculants to separate the precipitate from the supernatant through decantation. The sludge is compacted and taken to the incinerator while the supernatant undergoes a second stage of oxidation involving the addition of sodium hypochlorite. The sludge is again removed through decantation. It is pressed and incinerated, and the supernatant is sent to an aeration basin. The treated liquid passes through sand and activated charcoal filters to an equalization basin where it is tested to ensure it meets the standard for discharge into a waterway (Paraguay River). The discharge standards are set by Paraguay's environmental ministry (Secretaría del Medio Ambiente, SEAM). Domestic effluent is discharged into the industrial park sewage system. Tecnomyl is exploring the possibility of subjecting the sewage to a biological treatment prior to disposal to reduce BOD. The treatment is currently in the testing phase and has an established timetable. Pluvial waters are channeled to the river. Samples are collected for analysis and monitoring.

Air emissions: The industrial plant's main air emissions come from the incinerator, the production gas scrubbers, and the boiler. The incinerator and the boiler burn a mix of vegetable and mineral oils. The gases from the incinerator pass through a cyclone dust separator, a shell-and-tube heat exchanger with activated carbon and lime to neutralize and absorb compounds, a sleeve filter, and finally a gas scrubber with counter-current circulation of a caustic solution in a closed circuit. The water from this gas scrubber, as well as from the plant's other gas scrubbers (synthesis reactor, granular production line, and micronization line) is treated in the effluent treatment plant.

Noise: Some parts of the industrial process, like the micronizer mills and the grinder in the plastics recycling process, produce high levels of noise. The company tries to mitigate that noise through encapsulation (recycling grinders), but where this is not possible, personal hearing protection equipment is necessary. Noise levels outside the plant remain below legal limits.

Waste Management: There are numerous sources of hazardous waste at the plant. The production, quality control, and research and development processes produce containers and testing and cleaning waste that must be treated. Products that can be reused are returned to the production line. Those that cannot are sent together with cleaning products to the incinerator, in compliance with SEAM standards. Raw materials packaging is classified according to its material. Plastic containers are triple-washed and sent to the plastics recycling plant. Metal containers are crushed and sold for scrap. Cardboard and wood containers are incinerated, as are any plastic containers that cannot be recycled. The sludge produced by the effluent treatment plant is incinerated. The ash from the incinerator and boiler is temporarily stored at the plant. Tecnomyl and other outside companies are looking at solutions for disposing of this waste, including sending it to a secure landfill or using it in the manufacture of ceramics. Tecnomyl is working on a program to recover and recycle plastic containers used in agriculture. For this program, called the Empty Container Management System (Sistema de Gestión de Envases Vacíos,

sigEV), it has collection points throughout the country where producers can take their containers after triple-washing them. Tecnomyl transports empty containers to its plant, where it recycles the plastic by grinding it and then extruding and pelletizing it. The result is raw material that can be used for specific purposes such as the manufacture of accessories for electrical installations, sewer pipes, etc. Domestic waste not considered hazardous is removed by the Municipality of Villeta.

Handling of Hazardous Materials: Hazardous materials – both raw materials and finished products – are stored in accordance with the requirements of the national phytosanitary and seed quality service (Servicio Nacional de Calidad y Sanidad Vegetal y de Semillas, SENAVE). Storage areas are physically separated to prevent cross-contamination or non-compatible products from coming in contact with each other. The storage areas include cross ventilation, top extraction fans, and drainage channels that empty into closed chambers in the event of spills.

Personal Safety and Emergency Response: The company's occupational health and safety department comprises four individuals who cover all hours of operation for both production and maintenance. The members of the safety team must be certified by Paraguay's justice and labor ministry (Ministerio de Justicia y Trabajo). Additionally, certain personnel are trained to respond to emergencies such as spills, leaks, and evacuations. A risk analysis is performed for each of the plant sectors, and specific training is provided for the risks present. All personnel go through an orientation process and receive personal protection equipment. The good practices manual provides staff with basic safety recommendations and good practices on saving resources and reducing waste, establishing basic safety rules. Among other issues, it deals with the following:

- Good practices in the use of resources
- Workstation organizing and cleanliness
- Fire prevention
- Machinery, tools, and equipment handling
- Chemical handling
- Basic hygiene
- Laboratory work practices
- Good waste and emissions handling practices
- First aid and emergency procedures

The storage areas have fire alarms that are triggered by optical barriers and smoke alarms, while production areas have manual alarms. All the electrical installations are explosion proof. The sprinkler system feeds 47 hydrants and has a 165 m³ water storage tank, a jockey pump, an auxiliary pump, and a power generator. Manual fire extinguishers are also placed throughout the facility. The facilities have fire retardant suits, self-contained breathing apparatus, and spill-containment kits. The company's security system has a network of 64 cameras throughout the industrial plant.

Labor Practices: Tecnomyl complies with domestic labor laws. Core labor standards include: social security contributions and health insurance benefits, freedom of association, organization of workers' unions, prohibition of forced labor, elimination of exploitative and abusive child labor, and nondiscrimination in the workplace. Tecnomyl personnel do not belong to any union. Social security (Instituto de Previsión Social) contributions cover medical insurance and retirement. To improve medical care for its employees, Tecnomyl also pays for private medical insurance and has a staff physician on the premises three days a week, as well as an on-site infirmary. All employees receive annual medical check-ups. The company provides other benefits to its employees, including food in the company cafeteria, transportation, and benefits for school and other life events (marriage, births, deaths, etc.).

Social and Community Issues: Tecnomyl and Agrofertil (which is part of the same business group) formed a technological center for development and research (Centro Tecnológico de Desarrollo e Investigación, CETEDI), an NGO that supports social responsibility projects. CETEDI promotes education in under-served areas, trade school for parents of the children in those schools, agreements with technical training institutes, and support for the Villeta community through improvements in infrastructure, healthcare services, sports, and the environment, among other activities.

Monitoring and Reporting: Tecnomyl will 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. The ESAP will include the preparation of yearly reports with information on solid and liquid waste management and air emissions.