

The "IBI-TECHNO" Pavilion on the Theme of Environmentally Aware Technologies for 70th Anniversary Ceremony for the Higashiyama Zoo and Botanical Gardens in the City of Nagoya.

Together with providing funding support for commemorating the seventieth anniversary of the Higashiyama Zoo and Botanical Gardens in the city of Nagoya, IBIDEN simultaneously set up an IBI-TECHNO pavilion in front of the zoo's pygmy hippopotamus house to showcase, in an readily understandable way, environment-related business operations by members of the IBIDEN Group (IBIDEN Greentec Co., Ltd. and IBIDEN Engineering Co., Ltd.). The event was held from March 17 through June 3, 2007. During this time, to help deepen parent-child ties, the company donated 1,400 tickets for the zoo to some 700 children at four kindergartens and four nursery schools in the city of Ogaki.

Wastewater Treatment at the Pygmy Hippo House — IBIDEN Engineering Co., Ltd.

●Objective

The pygmy hippopotamus by nature excretes its bodily wastes underwater, constantly fouling the water in the pool of their habitat, in this has conventionally been held to be unfavorable in terms of the care of the animals. What is more, the fouled pool water has been discharged completely, with no effort made to conserve water. The zoo's recovery plans are being implemented on the basis of three R concepts. Because the events celebrating the facility's seventieth anniversary were also conducted according to the same principles, compact wastewater treatment equipment employing symbiotic bacterial flora was installed to treat the wastewater from the pygmy hippopotamus house in keeping with the recovery plans.

●Policy

To treat large quantities of wastewater from the pygmy hippopotamus house, owing to such issues as the cost of construction and number of days required, a set amount of fouled water is pumped up into a tank and treated using symbiotic bacterial flora. The treated water is used to grow fish and aquatic plants, thereby providing visual verification of the water's clarity (purity) and reflecting the three R principles.

Important Point

Because this is an example of vehicle-mounted compact wastewater treatment equipment that can be carried to factories and other such locations scattered around Japan, it eliminates the conventional need to sample the wastewater using brought-in poly containers or the like in order to verify treatment capacity, while simultaneously making it possible to conduct treatment testing even at sites such as the Higashiyama Zoo where such sampling was physically impossible. What is more, treatment is performed directly on site, enabling customers to see and verify the treatment capacity for themselves and making operation more convincing for them. Also, because this equipment is a compact version of the wastewater-treatment sites held by IBIDEN Engineering, the equipment can be applied to a broad range of wastewater treatment employing symbiotic bacterial flora.



The IBI-TECHNO pavilion

Living Walls at the Pygmy Hippo House — IBIDEN Greentec Co., Ltd.

●Objective

As the "before" photo shows, the pygmy hippo house previously had an exposed concrete structure. The construction was carried out not only to improve the thermal environment, which is an original aim of living walls, but also to provide a space capable of instilling a sense of restfulness in zoo visitors during the course of the event through the visual effects of greenery.

●Policy

Because the building itself was considerably aged and the concrete had become discolored in areas, instead of a landscaping plan involving the cultivation of a wide variety of different types of plants, a greenification plan was devised that achieved impact through use of a single color, with an emphasis on harmonization with a center section featuring reliefs of hippos. Consideration was also given to achieving a low-maintenance design, partly because the living wall was to be donated to the zoo after the conclusion of the event.

Important Point

The "Wall of Relaxation" product from IBIDEN Greentec has a soil thickness of approximately 8 centimeters, facilitating planting of potted seedlings of flowers and other plants and offering a high degree of initial-stage completion. These qualities help ensure a product that facilitates construction operations at events like this one as well as in commercial facilities. The wall was constructed with its entire surface lushly covered by the creeping fig (*Ficus pumila*), a relatively cold-resistant ornamental plant having thin stalks and small, variegated leaves. According to continuous temperature measurements conducted at the Bio-lung exhibit at Expo 2005 Aichi, Japan, the design is effective in reducing temperatures by several degrees, making the product an effective measure against urban heat islands.



Before



After