

ELASTUFF

CASE HISTORIES

SALT WATER & WATER EXPOSURE APPLICATIONS

1. GHAZLAN II POWER PLANT – DAMMAM, SAUDI ARABIA

This large project used approximately 150,000 liters of **Elastuff** on the inlet canals for the cooling towers, as well as the water outlet canal and 2 evaporation ponds. The coating was applied to a minimum thickness of 30 mils (760 microns), with most applied to the seawater inlet channels for the cooling towers. A large breakwater was built to hold back the seawater during construction. The project was completed in 2001.

2. PIPE PILINGS – YANGSHAN DEEPWATER PORT PROJECT – SHANGHAI, CHINA

UNITED'S **Elastuff 160** was chosen to protect the steel pilings on this prestigious project after a rigorous submittal process. The new deepwater port facility, to be constructed in 6 separate phases, is the second largest construction project in China. Phase I alone involved the coating of over 3,000 each 3.5' to 5' (1.2 to 1.7 m) diameter pilings, each 97' (30 meters) long. The abrasion, impact and corrosion resistance, adhesion, and fast application qualities of **Elastuff 160** were major factors in the ultimate decision to use it on this project. Since this port is located over 18 miles (30 kilometers) from the mainland, a large bridge is also under construction. Similar pipe piling projects have also been done in Qingdao, Ying Kou (Dalian) and Tianjin.

3. SEAWATER BREAKWALL – SEATTLE, WA

UNITED'S **Elastuff** was specified to protect thousands of steel H-Beams used to form a breakwall along the Seattle Harbor. Approximately 40 mils (1,000 microns) of **Elastuff** were applied over all sides of the abraded steel H-Beams to provide protection from abrasion and corrosion from the seawater. This project was completed in 1984.

4. OCEAN BOUYS – US NAVY – SUBIC BAY, PHILIPPINES

The U.S. Navy specified UNITED'S **Elastuff** on several dozen large ocean buoys, which were then installed in Subic Bay, Philippines. Approximately 40 mils (1,000 microns) were applied to the sandblasted steel surfaces to provide abrasion and corrosion protection caused by exposure to the seawater. This project was completed in 1989.

5. HYDROELECTRIC DAM SITES – THROUGHOUT NW UNITED STATES

Elastuff is specified as a "no equal" system by the U.S. Government for protection against cavitation and abrasion on drum gates and trash racks on dams under the jurisdiction of the Bureau of Reclamation and Corp of Engineers. The specification is the result of a 5 year study conducted by the Bureau of Reclamation in Denver, in which they tested numerous products from dozens of manufacturers. **Elastuff** outperformed all others in this extensive test. Over the past 25 years, the drums gates and trash racks on dozens of dams throughout the Northwestern United States have been coated with **Elastuff**. These projects are ongoing.

6. DOCK COMPONENTS – TENAKEE FERRY PROJECT – PHASE I – ALASKA

This project was specified by the Alaska Department of Transportation, and involved the coating of numerous large metal floats used to support the ferry docks in Alaska. This project was done at Washington Steel in Seattle. The metal was fabricated, shot blasted, and coated on site in Seattle with **Elastuff**, then barged to Alaska. Specified thickness was approximately 48 mils (1,200 microns) due to the degree of abrasion. This project was completed in 1984.

7. DOCK FLOATS – TENAKEE FERRY PROJECT – PHASE II – ALASKA

This project consisted of additional work for the State of Alaska Department of Transportation. It involved the encapsulation of a large number of 36" (9 m) steel pipes were been modified for use as float tubes for the ferry docks. The wooden dock assembly was installed on the top of these float tubes to form the ferry docks. After the pipes were fabricated, they were sandblasted and coated with **Elastuff**, at a thickness of approximately 60 mils (1,500 microns). This project was completed in 1985.

8. TRANSFER BRIDGE FLOAT – PETERSBURGH FERRY TERMINAL – ALASKA

Additional work specified by the Alaska Department of Transportation as part of their ferryboat system. These large transfer floats are used to load and unload cars to and from the ferries. A ramp connects the transfer floats to the land on one side, and on the other side a separate ramp goes from the ferry to the transfer floats. The transfer bridge float was coated at a thickness of 43 mils (1,100 microns) on the sides and bottom, and 83 mils (2,100 microns) on the top using **Elastuff**. This project was completed in 1985.

9. WASTE/WATER TREATMENT PLANT PROJECTS AND WATER STORAGE TANKS – WORLDWIDE

UNITED COATINGS products have been used on waste/water treatment projects in various locations throughout the world. **Elastuff** is particularly effective for use in primary and secondary clarifier tanks, digester tanks, aeration tanks, holding ponds, etc. **Elastuff** has also been tested and certified to meet ANSI/NSF 61 guidelines for use in potable water storage and transport applications. These projects are ongoing.

10. HYDRO-BIN APPLICATIONS – THROUGHOUT NE UNITED STATES

Coal fired power plants continue to be a common source for electrical power in the Northeastern United States. After the coal is burned, it is mixed with water and pumped into steel hydro-bins, where the water is separated from the slag. Due to the high degree of abrasion, **Elastuff** was applied to a minimum thickness of 60 mils (1,500 microns) on these applications. These projects are ongoing.

11. IRRIGATION WATER STORAGE TANKS – KUWAIT

Four large concrete irrigation water storage tanks were waterproofed with NSF 61 certified **Elastuff 120**. A total area of approximately 650,000 ft² (60,000 m²) was coated, requiring 14,7000 gallons (55,640 liters) of **Elastuff 120** in addition to 2,560 gallons (9,690 liters) of **Uni-Tile Sealer**, 400 gallons (1,514 liters) of **Elastuff 120 Mastic** and 200 gallons (757 liters) of urethane caulk. The concrete surfaces were first scrape-troweled using **Uni-Crete** to provide a pinhole-free surface.



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