



N Structure Kit

NORTH ISLAND REFINERY

933-3219

Thanks for purchasing this Cornerstone Series® kit. Please read all instructions before starting. All Parts are molded in styrene plastic, so use only glue and paints which are compatible.

Refineries can be found in both oil-producing and using areas throughout the world. Location of the complex is usually determined by the distance to the supply of crude oil, proximity to water for shipping and manufacturing purposes and the distance to the market for the finished products.

The refining process begins by pumping crude oil into a "pipe still" where a furnace heats it, and some fractions begin to vaporize. The heated mixture of vapor and liquid is then piped into an upright cylinder called a "fractioning tower." Live steam is fed into the base of the tower to speed the process. As the heated vapors rise, the fractions separate. Each cools at a different temperature and condenses at a different level within the tower. Lighter fractions rise to the top as gases, while the heavier residues drop to the bottom and are used as asphalt and fuels.

The various materials are drawn off and piped to other areas in the refinery where wax, sludge, heavy materials and other impurities are removed. To obtain more desirable products, some heavier and less useful fractions may undergo a conversion process, where they may be heated and pressurized or mixed with other materials. This method is used to produce gasoline from heavier materials and is also a key process in making high octane gasoline and aviation fuel. From here, the various products may be blended with other materials, such as detergents in gasoline.

The finished products are then piped to tank farms for storage. Each tank is connected to a long network of piping, some of which supplies loading facilities for rail cars or trucks at the refinery, or long distance pipelines that supply regional oil terminals.

This model is based on a facility in Wyoming that's typical of most refineries. When completed, your North Island Refinery will be a busy customer for your railroad. By combining additional Refinery kits, you can build a larger complex. Your dealer can also supply the Oil Storage Tank kit (933-3223) to complete the scene. This easy-to-build model is typical of the large tanks used for storage of both crude oil and finished products. It's complete with add-on vents, stairway and colorful decals. Many of the parts in the Interstate Fuel and Oil kit (933-3200) can be adapted for use with your new refinery scene too.







