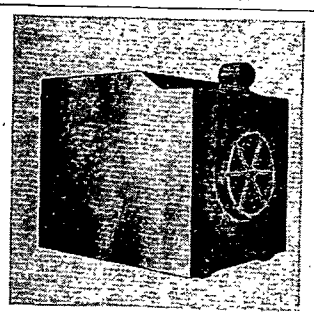
Santa Fe Tank & Tower Co.

Since 1903
50 years of service to industry

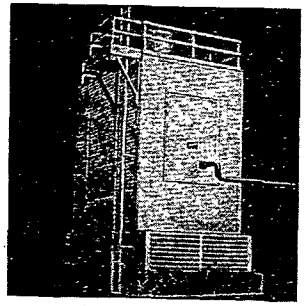
5401 So. Boyle Ave. **Los Angeles 11, Calif.**

Branch Offices

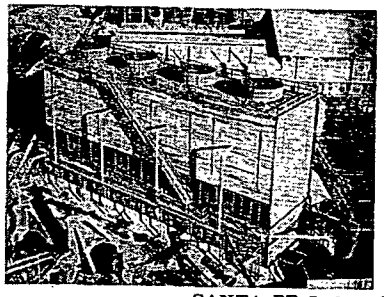
Atlanta, Boston, Chicago, Dallas, Denver, Detroit, El Paso, Houston, Minneapolis, New Orleans, New York, San Francisco, Tulsa, Washington, D. C.

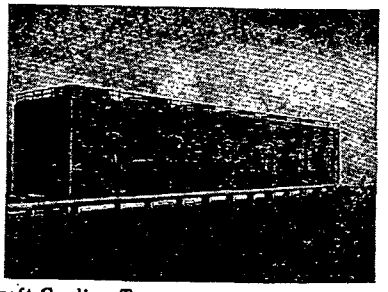


SANTA FE Econotower (Series H)
This is a compact, efficient cooling unit specifically designed for low initial cost and economical operation. Completely assembled at the factory. . .shipped ready for immediate operation. Gravity type distribution system assures uniform water coverage. High efficiency, multi-bladed fans are corrosion resistant and assure trouble-free service. Motors are of the ball-bearing type, built to *NEMA* standards. Collecting basins are of heavy gage metal construction. . .provided with outlet connections and float valve for make-up water.



SANTA FE Econotower (Series V)
A prefabricated tower furnished with either a double Redwood shell or Redwood interior wall and Transite exterior wall. Prefabrication assures simple field erection. Available with gravity or uniform spray type distribution. Spray distribution system consists of steel pipe headers with Santa Fe bronze nozzles. Sturdy interlocking decks are made in assembled sections and can be removed. Multiple-blade, belt-driven fans are durable and corrosion resistant. Motors are *NEMA* standard specification, either totally enclosed fan cooled or splash proof type, as specified. Redwood towers may have collecting basins manufactured from durable Redwood. These units utilize bolted construction and are furnished with a heavy galvanized steel sump with Vortex breaker and float valve for make-up water.





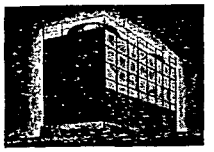
SANTA FE Induced Draft Cooling Towers
Santa Fe Induced Draft Cooling Towers are engineered to provide the most economical unit per cubic foot of space required. They are designed for continuous operation, and standard structural design will withstand wind loads up to 100 miles per hour. Specially designed decks assure proper break-up of water and a balanced distribution of air. Either gravity or spray type distributing system. Inner and outer sheathing serves as an insulator and prevents deterioration. Clear and select California Redwood provides a sturdy framework to withstand all live and dead loads. Mechanical equipment is selected for continuous operation.

Water Cooling Equipment Co.

New Hampshire Ave. and Weber Rd.
St. Louis 23, Mo.

Fabricating Plants
St. Louis, Mo.
Arcata, Cal.
Houston, Texas

Representatives In Twenty Eight Principal Cities



COOLING TOWER SELECTION is dependent upon many factors and variables including type of service, water pollution, wet bulb air temperature, temperature of water to be cooled, final temperature required, power source, location of proposed installation, adjacent equipment, and many other variables peculiar to each proposed installation. Therefore it is extremely difficult for an engineer to select the proper type and size of water cooling equipment without the assistance of a **WCEC** engineer.

Selection of the type of cooling tower should not be made on the initial cost basis alone, but instead on the cost of providing sufficient water cooling capacity to assure low operating temperature and high performance.

OUTSTANDING DESIGN FEATURES—(1) **Patented Cast-iron Timber Connectors** which develop the full strength of the timber joints, an accomplishment almost impossible to achieve otherwise. (2) **Patented Redwood Drift Eliminators** of the new multiple effect type remove the entrained moisture carried by the air. The eliminator blades are separated by spacers so arranged that the blades are free to expand and contract to avoid warping. No nails or metal fastenings are used. (3) **Patented Non-Clogging Low Pressure Spray Nozzles** provide maximum water break-up at lowest possible pressure. A true paraboloid of revolution is maintained in the whirl chamber thereby eliminating a constricted orifice which is the principal cause of clogging. (4) **Improved Nailless Grid Type Fill** repeatedly interrupts and refilms the water in its passage through the tower. The filling members are arranged to obtain maximum possible retardation of the descending water to allow a long and intimate exposure of the water to the air rising through the tower. The filling guides the air to completely utilize its heat removing capacity with minimum resistance. No nails are used in the filling.

MECHANICAL DRAFT TYPE COOLING TOWERS, either Induced Draft or Forced Draft, are designed for more exacting performance and operate independent of wind velocity. Overall plant economy results from cooler water possible with controlled volume of air. **Three Types of Induced Draft Systems** are built (1) Contraflow, (2) Multi-Stage, and (3) Low Head. Fans located on the top of the tower provide vertical movement of air across the filling, discharging air at high velocity to prevent recirculation. **Contraflow Type** are designed for large cooling systems needed by industry. Water distribution is by gravity splash system. Most extremely large installations are of this type. **Multi-Stage Type** has been designed by **WCEC** to meet the demand for extreme performance and low operation and maintenance costs. They employ low pressure head and have less air resistance, longer air travel, and consequently cooler water. **WLH Low Head Series Towers,** especially suitable for medium duty are compact, low in height, and are shipped completely pre-fabricated, ready for assembly, with minimum field labor. Twelve sizes are manufactured. **Forced Draft Systems,** especially suitable for corrosive or polluted waters, operate on the same principal as Induced Draft Systems except that the fans are located in the air entrance.

WATERFALL SPRAY TYPE ATMOSPHERIC COOLING TOWERS are fabricated in from 5 to 1,000 gpm capacity. Spray nozzles break up the water with cooling performed by air movement controlled solely by atmospheric conditions. Thirty-three sizes are pre-fabricated for easy assembly. **Deck Type Atmospheric Towers** are manufactured in various sizes for any capacity or cooling requirement. The size is changed by varying the number of bays and cooling decks. All are made of All Heart California Redwood or other suitable material.

ENGINEERING ASSISTANCE is available to help solve the cooling problems in your plant. Our engineering staff is prepared to work with you in the proper selection of a water cooling tower that will meet your requirements with (1) guaranteed maximum efficiency, (2) economy of operation, (3) conservation of water. Write for our Catalog.