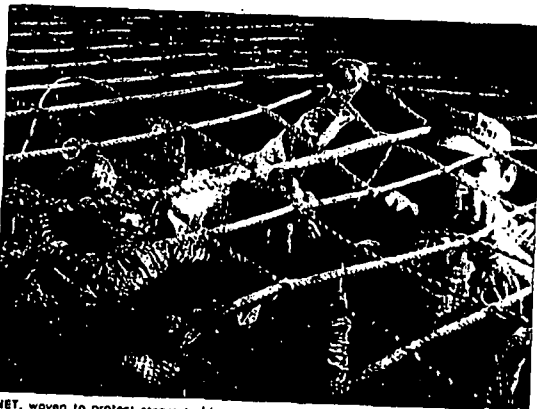
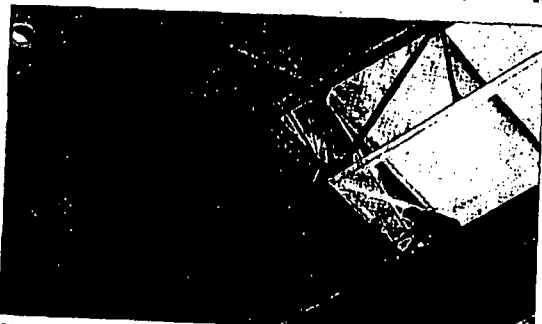




NET, woven to protect steam turbines, is inspected by Art Cannon. Ropes are strong enough to support workmen, materials. This is also good insurance against outage



SAFETY NET with dropcloth is spread above machinery before painters work on 70-ft. high ceiling in power plant. Paint splashes and dropped tools kept from machinery



SAFETY SIGNS tell plant employees that men are working above them here



PROTECT running machinery with dropcloth over frames so no shutdown's needed



IDENTIFY pipes with removable plastic strips, either lettered or plain colors

Soak Up This...

"SAVE THE SURFACE and you save all" is good advice, but just how do you save the surface? For an answer to this and other plant-painting questions, I visited Art Cannon of Oliver B. Cannon & Sons, in Philadelphia. With 32 painting crews about the country, Art Cannon is our leading industrial painting contractor.

Regardless of who does your painting, you should know how this top-notch industrial specialist goes about a job. Then you will see that painting takes plenty of know-how.

Staff Meetings: Art Cannon has staff meetings each month. His key men fly in from the field. Sales, estimating, production and testing personnel attend. An expert from a paint manufacturer, one from a chemical firm, or a specialist on corrosion, etc., is usually present.

Current jobs are discussed and solutions arrived at. Art's own paint chemist gives lab findings on new products. He also advises on tough surface-protection problems and licking some unusual local condition.

Everyone has a chance to put in his oar. So supervisors go back into the field ready to tackle their problems from a new slant. Do these meetings pay off? They helped put this firm at the head of the list, competing with local contractors everywhere.

Another reason Cannon does so much work in power plants is that his experts do critical areas, without a shutdown. The plant's regular painting crew does routine safe areas that almost any painter can do.

Every Cannon supervisor has ten years

Information Before Painting Your Plant

of previous training with the firm. Safety is a big item, especially when working high above and around machinery, as in power plants. A green painter always works with a trained man until he knows the ropes.

Estimating is important. Condition of each building or section is listed as good, fair, poor or very poor. When the paint, next scheduled repainting, and other data are listed. Here are some typical remarks I copied from Cannon's \$85,000 estimate:

(1) Buildings can wait until rehabilitation program is scheduled, then interior and exterior painting can be done. (2) Buildings viewed by public need painting for public relations and appearance. (3) Can wait until more essential buildings are finished. (4) Building important to production should be done before more replacements are needed.

Scheduling. All preparations are completed before plant is shut down. That means putting up protection, having enough men for shutdown equipment so work isn't held up, etc.

His average power-plant team of painters is about 40 men. Idea is to put as many men as possible on a job at one time as overhead costs the same for 10 men as for 100.

Safety. Each painting super checks scaffolds, ladders, rope and other equipment before sending them to a job. Safety nets are homemade because Art isn't satisfied with ones on market. Every rope, scaffold, ladder, etc., is numbered and recorded on an office card. Age, repairs and all other data are

jotted down. All rope is scrapped after one year's service, regardless of condition. "CAUTION, men working overhead" signs are placed below painters. Because of an excellent safety record, this firm has very low insurance rates.

Doing the Job. Here are a few rules on painting: Wire-brush, scrape or chip all rust and corrosion spots. Vacuum clean to prevent loose dust, flyash, etc., getting into machinery.

Spraying can be more expensive than a brush job as it needs more protection. But, usually, spraying gives a thinner coat, does not protect as well.

Never red-lead new metal exposed to weather. When building outdoor metal tanks and steel structure, let them rust for a year or two until all mill-scale rusts off. Coat of primer and paint lasts on such a job. If red lead is painted over new metal, mill scale peels off with time, taking new paint with it.

In our electric-generating plants, 35% burn coal, 35% burn oil or gas, 30% are hydroelectric. Newest plants can switch from coal to oil, whichever is cheaper. These dual-design boilers present temperature problems.

Ducts get hotter when oil-fired, need a heat-resistant paint to cover changing temperatures. Aluminum is often used—one: cost. Aluminum's varnish-vehicle stacks up with other enamels. If not aluminum, use a light pearl gray, a semi-alkyd oil-base paint, with a semi-gloss finish. There is no good heat-resistant paint in green or blue. Here are a few color schemes for power plants.

Turbine Room, ceiling—oyster white for right light reflection. Ceilings are

usually 60 to 70 feet high. Light green or cream adds good character to this room. Walls—light gray. Machinery—soft green enamel.

Boiler room, ceiling—oyster white. If walls are brick, well struck and pointed, or of good monolithic concrete, leave unpainted. Don't paint unnecessarily if surface is attractive and needs no protection. Once painted, a surface must always be painted. Use heat-resistant aluminum or a gray paint for boilers and adjacent piping, boiler doors, buck stays and ducts.

Piping. Paint the same color as boiler. Paint all insulated piping connected with boiler feed system a contrasting enamel of dark gray or green. On other machinery, such as pumps, drivers, coal pulverizers, coal feeders, use a gray hard-drying gloss surface. Colored plastic bands are best for piping. If over 12 colors are used, have labeled bands. Adopt U.S. Bureau of Ships color scheme.

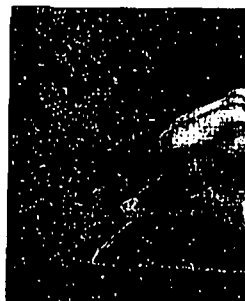
Crane. Paint high-visibility yellow for safety.

Rolling. Paint top rail black, so scaling from hands won't show. Paint middle rail safety yellow, and the rest gray. Yellow middle-rail makes stairway "stand out" for quick access to trouble spot.

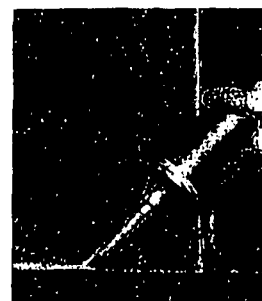
Fire lines. Paint red or use red bands to identify them.

Stacks. Paint with special coating to withstand temperature. Paint aluminum stacks at top with broad black band to camouflage smoke discoloration.

"Remember," Art Cannon reminded me as I left, "It costs more not to paint."



CORROSION is tough on steel sash if putty fills between glass and the sash



CALK steel sash with gun after digging out old putty—before painting sash



SPRAYING: not usually as good as brush work, calls for mask in close quarters