Garratt CALLAHAN

FORMULA 1153 BOILER WATER TREATMENT

USE

Garratt-Callahan Formula 1153 is an all-polymer treatment designed to inhibit mineral scale, condition and disperse boiler sludge, complex metal ions and passivate the internal metal surfaces of the steam generating section of the boiler. In industrial boilers operating under a wide variety of conditions, Formula 1153 performs effectively in controlling the buildup of scale on the drum and tube surfaces.

Use of Formula 1153 will help:

- Control iron or copper oxide deposition
- Avoid acid descales
- Provide cleaner heat transfer surfaces
- Increase heat transfer
- Reduce energy and maintenance costs
- Remove old scale deposits

DESCRIPTION

Formula 1153 is a special formulation containing a blend of polymers, copolymers, and alkalinity.

DIRECTIONS

Formula 1153 is fed to the feedwater line or directly to the boiler in proportion to the boiler makeup. The normal dosage is 400 to 800 ppm as product in the boiler water, with a minimum hydrate alkalinity of 200 ppm. A simple test is available to maintain recommended levels.

RECOMMENDATIONS

When used in steam boilers, we recommend that Formula 1153 be used in conjunction with an effective oxygen scavenger. Dissolved oxygen should essentially be zero at the point of injection for optimum performance.

SAFETY & HANDLING

Please refer to MSDS before handling any products.

For Medical Emergencies call (650) 697-5811 (Garratt-Callahan Company) from 8:00 AM to 4:30 PM Pacific Time or call (303) 623-5716 (Rocky Mountain Poison Center, 24-hour number).

For Non-emergency Product Information please call (650) 697-5811 from 8:00 AM to 4:30 PM Pacific Time.

PRODUCT DATA

	Typical Values	
Appearance	:	clear liquid
Color	:	pale yellow to light pink
Freezing Point	:	5 °F (-15 °C)
pH (neat)	:	12.0-14.0
Specific Gravity	:	1.1-1.25 (9.2-10.5 lbs/gal)

STORAGE

Product does not readily deteriorate, but has a suggested in-plant storage limit of one year. Protect from extremes in temperature. Store between 50-104 °F (10-40 °C).