



## Feedwater Standards & Chemical Treatment Program

**Boiler Water Quality Standards:** York-Shipley Global recommends all boiler feedwater quality standards should be determined locally by a reputable and qualified water treatment company. For reference in discussing water quality with your local chemical treatment company, the following table includes average water quality values as recommended from numerous sources, including ASME, ABMA, chemical treatment companies and boiler water treatment publications.

Recommended Boiler Water Quality (Acceptable Ranges - Saline Concentrations)					Recommended Boiler Feedwater Quality		
Pressure (psi)	Dissolved Solids (ppm)	Suspended Solids (ppm)	Alkalinity (ppm of CaCO <sub>3</sub> )	pH	Silica Range (ppm)	Dissolved Oxygen (ppm or mg/L)	Hardness (ppm of CaCO <sub>3</sub> )
5-50	700-3500	50-100	150-700	8.0-10.0	15-25	<0.03	30
100	700-2000	10-50	140-500	8.0-10.0	15-25	<0.03	20
200	600-1500	5-10	120-400	8.0-10.0	10-20	<0.03	5.0
300	500-1000	3-5	100-300	8.2-9.2	7.5-15	<0.005	1.0

The following books include several articles on recommended boiler feedwater quality. For your additional information, please contact the following vendors for the referenced publications on boilers, including water quality and failure analysis.

American Boiler Manufacturers Assoc. 950 North Globe Rd. Suite 160 Arlington, VA 22203-1824 phone: (703) 522-7350 fax: (703) 522-2665 <a href="http://www.abma.com/">http://www.abma.com/</a>	Mc-Graw-Hill, Inc (main office) 11 West 19th Street New York, NY 10011 phone: (800) 262-4729 fax: (614) 759-3644 <a href="http://www.mcgraw-hill.com/">http://www.mcgraw-hill.com/</a>	Mc-Graw-Hill, Inc (mail orders) PO Box 182607 Columbus, OH 43218 phone: (800) 262-4729 fax: (614) 759-3644 <a href="http://www.mcgraw-hill.com/">http://www.mcgraw-hill.com/</a>	John Wiley & Sons, Inc 605 Third Avenue New York, NY 10158-0012 phone (212) 850-0012 fax: (212) 850-6088 <a href="http://www.wiley.com/">http://www.wiley.com/</a>
Boiler Water Requirements and Associated Steam Purity for Commercial Boilers First Edition, 1984	The NALCO Guide to Boiler Failure Analysis ISBN #0-07-045873-1	Control of Scale and Corrosion in Building Water Systems ISBN #0-07-036217-3	Metallurgical Failures in Fossil Fired Boilers ISBN #0-471-55839-7

## Boiler Blowdown Standards:

Boiler blowdown is primarily used to control dissolved solids in boiler water, and to remove loose scale and sediment contaminants. However, the frequency of blowdown depends solely on specific boiler and steam system operating conditions. This frequency can be specified by a local chemical treatment company. Boiler blowdown is performed through bottom shell connections shown on boiler PLH drawing.

**NOTE: Blowdown of all low water cut-off controls on your boiler should be performed daily at a minimum, simultaneously testing the low water cut-off controls functions.** Consult your boiler insurance inspector and your local jurisdictional boiler authority for additional requirements.

**Water Treatment Companies:** If your company does not have a local boiler water treatment company, contact the following international water treatment chemical manufacturers for a treatment specialist in your area.

NALCO Chemical Co. 1 NALCO Center Naperville, IL 60563 Phone: 603-305-1000 (N. & S. America)	NALCO Singapore Office Phone: 65-861-4011 (Pacific Rim)	NALCO The Netherlands Phone: 31-71-524-1100 (Europe)	Betz Laboratories 4636 Somerton Road Trevose, PA 19053-6783 Phone: 215-355-3300 (Corporate Offices)	Rochester Midland Group 412 Illinois Avenue Delanco, NJ 08075-5187 Phone: 60-858-5750 (Corporate Offices)
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Thank you for your continued interest in York-Shipley Boilers and Auxiliary Equipment. For all inquiries regarding parts, service, technical or general information, please provide your boiler identification numbers. These numbers will assist in expediting our response. For additional information, please [contact us](#)