#### **Radiant and Hydronic Basics**

### by Morgan Muir (\$65 Lunch and Manuals Included)

Do's, don'ts and design principals of radiant floor heating Including heat source selection, piping and switching controls. Class also covers radiators, convectors and air handler A practical overview for any installing contractor or designer. One Day Class.

	Wednesday, Feb 16	8:30 am to 4:30 pm	JTG Muir, 4723 Tidewater Ave. • Oakland, CA 94601
Ī	Wednesday, May 18	8:30 am to 4:30 pm	JTG Muir, 4723 Tidewater Ave. • Oakland, CA 94601
Ī	Wednesday, Aug 24	8:30 am to 4:30 pm	JTG Muir, 4723 Tidewater Ave. • Oakland, CA 94601

# Condensing Boilers and Water Heaters: Installation and Servicing (Full Day) by John Grose, Michael Ericksen (Ike) (\$55 Lunch and Manuals Included)

Installation and servicing basics for MC Series, Elite, Pioneer, Modcon, Versa-Hydro, and Phoenix Solar condensing boilers and water heaters. Installation dos and don'ts, including piping, pumping, venting, condensate removal, electrical and combustion analysis **plus live boilers and water heaters!!...** 

	Wednesday, Feb 23	8:30 am to 4:30 pm	JTG Muir, 4723 Tidewater Ave. • Oakland, CA 94601
ĺ	Wednesday, Apr 20	8:30 am to 4:30 pm	JTG Muir, 4723 Tidewater Ave. • Oakland, CA 94601
	Thursday, June 23	8:30 am to 4:30 pm	JTG Muir, 4723 Tidewater Ave. • Oakland, CA 94601

#### **Residential Solar Hot Water**

## by Morgan Muir, Randy Bettis (\$25 half day)

This class features the design and installation of HTP solar hot water heaters, Phoenix Solar system and Boiler solar systems. Sizing and selecting SRCC certified solar systems. Collectors, tanks, circulators, controls and system installation. Review of the CSI Thermal rules and regulations.

Tuesday, Feb 22	8:30 am to 12:00 pm	JTG Muir, 4723 Tidewater Ave. • Oakland, CA 94601
Wednesday, Apr 06	8:30 am to 12:00 pm	JTG Muir, 4723 Tidewater Ave. • Oakland, CA 94601
Thursday, Jun 02	8:30 am to 12:00 pm	JTG Muir, 4723 Tidewater Ave. • Oakland, CA 94601
Wednesday, Aug 10	8:30 am to 12:00 pm	JTG Muir, 4723 Tidewater Ave. • Oakland, CA 94601

# **Commercial Solar Hot Water Workshop**

# by Morgan Muir, John Grose (\$65 Manual and Lunch Full day)

Site evaluation, sizing and installation of multifamily and commercial solar hot water systems will be covered. Discussion of the economics and highlights of CSI Thermal program. Prior attendance at PG&E CSI training is recommended. Learn dos' and don'ts' based upon thirty years of field installation and servicing experience.

	Wednesday, Feb 09	8:30 am to 4:00 pm	JTG Muir, 4723 Tidewater Ave. • Oakland,	CA 9460 <sup>-</sup>
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# JTG/MUIR

# **HYDRONIC TRAINING CLASSES SPRING 2011**

#### The Residential Boiler Room

by John Grose (\$25 4 hour minimum Lunch)

Sizing and selecting Circulators, Variable Speed, Air Elimination, Expansion Tanks, Component configuration, Primary/Secondary, Hydraulic Separation, Pipe Sizing for Mechanical Room and Distribution, Mechanical Modules, Outdoor Reset. The nuts and bolts of the mechanical room and beyond. The dynamics of Why everything goes Where!

	Wednesday, Mar 16	8:00 am to 12:30 pm	JTG Muir, 4723 Tidewater Ave. • Oakland, CA 94601
	Thursday, May 19	8:00 am to 12:30 pm	JTG Muir, 4723 Tidewater Ave. • Oakland, CA 94601
	Wednesday, Jul 13	8:00 am to 12:30 pm	JTG Muir, 4723 Tidewater Ave. • Oakland, CA 94601

#### **Control Basics.**

by Michael Ericksen (Ike) (\$50 4 hour minimum Lunch)

Learn the purpose of / how to install zone switching controls for pumps and zone actuators, outdoor reset basics, mixing strategies, variable speed circulators and more.

Ī	Wednesday, Mar 09	8:30 am to 12:30 pm	JTG Muir, 4723 Tidewater Ave. • Oakland, CA 94601
ŀ	Wednesday, May 04	8:30 am to 12:30 pm	JTG Muir, 4723 Tidewater Ave. • Oakland, CA 94601
Ī	Tuesday, Aug 23	8:30 am to 12:30 pm	JTG Muir, 4723 Tidewater Ave. • Oakland, CA 94601

## **Condensing Boilers and Water Heaters.**

by John Grose (\$25 4 hour, Lunch)

Beyond the Munchkin! A technical presentation of the Munchkin, Elite, Phoenix, Versa-Hydro, Pioneer, ModCon, Solar, and other heat sources. Installation issues such as venting, piping, controls, gas, and combustion air will be discussed.

Thursday, January 20	12:30 pm to 4:30 pm	Lake Tahoe Unified School District (Board Room) 1021 Al Tahoe Blvd South Lake Tahoe, CA 96150
		1021 Al Taribe bivu South Lake Taribe, CA 90150



Use the check boxes nex to each class to indicate the one(s) you would like to attend and then fax back the pages with information filled out below

° Fax in your registration to 510-434-3140 ° Call in your registration! (800) 493-8432

\* Complete location information and class details will be sent upon registration

Name	Company		
Address	City	State	Zip
Phone ()	Fax()	Email	100 100
Credit Card #		Exp. Date	
PO #			