

PWHT Heat treatment practitioners performing local heat treatment of welded fabrications on site, or in a workshop, using resistance heating, will benefit from this course. The course is also suitable for maintenance personnel who are responsible for supervising heat treatment operations. Candidates should preferably have a Grade 12 qualification and experience in engineering and/or metal working is recommended.

Course Content:

Theory:

Basic metallurgy; heat treatment definitions; welding processes; welding effects on materials – why is heat treatment necessary?; heat treatment cycles, heating and cooling rates, soaking temperatures, soaking times; code and material specification requirements for welding; pre-heat, post-weld heat treatment, normalising,

annealing, hydrogen removal; methods of heat treatment; equipment – machines, heaters, recorders, cables, thermocouples, thermocouple welders, insulation materials; thermocouple locations; code requirements for heating band width and insulation band width.

Practical:

Determining pre- and post-weld heat treatment requirements to codes and standards; determining heating and insulation band widths; determining

heating configurations on nozzles; setting up equipment for weld heat treatments – thermocouples, heaters, insulation; operating heat treatment equipment.

Successful candidates will: Understand the necessity to perform pre- and post-weld heat treatments; be able to determine heat treatment cycles in accordance with various codes; be able to set up and operate heat treatment equipment.

Course Schedule

JOHANNESBURG		
	HOURS	JHB 1
Welding processes Materials PWHT codes	80	18 Feb - 01 Mar
Examination (2 x 2 hrs)	4	