Yukon Water & Wastewater Operator Program

Polyethylene Pipe Fusion, Small Diameter

Course Outline

INSTRUCTOR: Ryan Ethier
DATE: October 31, 2017 (Tuesday)
TIME: 8:30 am – 4:00 pm

Course Description

This 1 day course prepares the participants to work in mid-range diameter applications from ½" CTS to 6" DIPS (16mm to 180mm) using MMI McElroy hydraulic fusion machines.

Course Pre-requisites

There are no specific pre-requisites for this course. However, Grade 12 (or equivalent) math skills is an asset. Math upgrades are available –contact us.

Continuing Education Units (CEUs)

0.6 CEUs

Course Duration

- 1 day
- 8:30 am to 4:00 pm
- 1 hour lunch break
- morning and afternoon break (15 minutes each)

Course Topics and Learning Outcomes

Upon successful completion of the course, the students will be able to:

- Introduction to Polyethylene
- Fusion Theory
  - understand the theory of fusion
    - sidewall fusion (optional)
    - socket fusion (optional)
- ASTM Standards
- Proper Fusion Techniques
  - properly fuse small diameter pipes and fittings

- Application Tips
  - obtain a minimum level of operator proficiency in order to competently operate hydraulic MMI McElroy butt fusion equipment (see "Equipment covered")
- Equipment Design
- Troubleshooting Resources

Equipment covered:

Butt Fusion	**Socket Fusion**	**Saddle Fusion**
2LC	SOCKET TOOLING	SIDEWINDER
2CU		
Pit Bull® 14		
Pit Bull® 26		

Delivery Method/Format

Instructional Method	**Percentage of Class Time**
Hands-on/Q & A	80%
Examples/Case Study	
Presentation/Lecture	
Slides	15%
Demonstration	5%
Video/DVD	
Tutoring	

Material/Handouts (supplied)

- Student Binder: AH McElroy, 2017. Polyethylene Pipe Fusion, Small Diameter. Edmonton, Alberta.
- EOCP Course Completion and Evaluation Form.
  - every student needs to complete and return this form for any CEU allocation
- Calculators are provided but students are welcome to use their own.
  - please return

Course Requirements

Attendance and participation are required. CEUs will be allocated based on attendance and course completion. If the participant doesn't attend the course, records will show a "no show" result.

Evaluation

There will be a final exam in this course with a passing mark of 70%. Yukon College records will only show a pass or fail result. If anyone fails this exam, arrangements can be made for a re-write.

Academic and Student Conduct

Information on academic standing and student rights and responsibilities can be found in the current Academic Regulations that are posted on the Student Services/Admissions & Registrations web page.

Plagiarism

Plagiarism is a serious academic offence. Plagiarism occurs when students present the words of someone else as their own. Plagiarism can be the deliberate use of a whole piece of another person's writing, but more frequently it occurs when students fail to acknowledge and document sources from which they have taken material. Whenever the words, research or ideas of others are directly quoted or paraphrased, they must be documented according to an accepted manuscript style (e.g., APA, CSE, MLA, etc.). Resubmitting a paper which has previously received credit is also considered plagiarism. Students who plagiarize material for assignments will receive a mark of zero (F) on the assignment and may fail the course. Plagiarism may also result in dismissal from a program of study or the College.

Students with Disabilities or Chronic Conditions

Reasonable accommodations are available for students with a documented disability or chronic condition. It is the student's responsibility to seek these accommodations. If a student has a disability or chronic condition and may need accommodation to fully participate in this class, he/she should contact the Learning Assistance Centre (LAC) at (867) 668-8785 or lassist@yukoncollege.yk.ca.

Class Outline

Topic	Time Allocation
Principles of Heat Fusion	.5
Fusion Presentation and Demonstration — Butt Fusion, Socket Fusion, Saddle fusion	1
Hands-On Training	4
Written and Practical Testing	1