



SAFETY TAILGATE MEETING

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Company	Pacific Hydrotech Corporation	Project	C2414 VWRP Outfall Pump Station & Temp Facilities		
Date	December 30, 2024	Time	7:26 AM	Conductor	kiwileigh@live.com

HDPE PIPE WELDING (BUTT FUSION)

INTRODUCTION

HDPE pipe welding is a common practice in many different industries. The machines used to weld the HDPE pipe vary from small units that are labor-intensive to larger machines that are run with easy-to-use controls and hydraulics. The process to weld HDPE is relatively straight forward however there are many hazards to be considered when planning and completing this work task.

In this meeting, we will discuss

- (1) What is HDPE Welding?**
- (2) Hazards Associated with HDPE Welding**
- (3) Best Practices**
- (4) Summary**

WHAT IS HDPE WELDING?

HDPE welding is a process used to weld HDPE pipe together. There are different types of fusion including saddle fusion or socket fusion, but in this talk, we will discuss about butt fusion. As stated above, the actual machines vary greatly in design and use, but the overall process is the same.

For butt fusion, two separate pieces of pipe are loaded into the machine and a cutting face rotates and cuts both pipe ends to create a smooth edge for proper bonding. The pipes are then put into contact with a heat plate, usually heated up to at least 400 degrees Fahrenheit, but the actual temperature can vary depending on wall thickness and size of pipe. After being heated up the pipes are pressed together forcefully to create a connecting joint between the two pipes.

HAZARDS ASSOCIATED WITH HDPE WELDING

There are many hazards associated with this process of butt fusing HDPE pipe. Some of the major hazards include:

- Struck-by and caught in between incidents. Often times hundreds of feet of pipe are being fused together. Equipment such as front loaders or excavators need to be used in order to lift and pull the pipe into place to be fused or to be installed in the final resting place. This creates many different opportunities for struck-by and caught-in or between incidents to occur.
- Stored energy. When moving the pipe, be aware of stored energy in the pipe. Stored energy can be hazardous to personnel in the area if it is released creating a struck-by hazard. If too much pressure is applied the pipe can snap resulting in a violent whiplash effect.
- Pinch points. There are many pinch point hazards associated with this task between lifting and rigging the pipe to the actual welding.
- Other hand injuries. Burns and lacerations can occur due to the heat plate and cutting face.
- Strains and sprains. Lifting heavy lengths of pipe or heavy parts from the welding machine can cause sprains and strain injuries. Smaller machines require the manual pulling of levers which can create repetitive stress injuries.

BEST PRACTICES

- Always have the proper training and knowledge to run the specific welder you are using. Each welder is different and can present different unique hazards.
- Never stick your hands or body in the line of fire in the machine. Even if the machine is “off” crawling into it to retrieve the shavings from the cut pipe can be a fatal mistake. Use an object or tool to clear the shavings or follow the manufacturer’s recommendations to safely be able to clear the shavings.
- Make sure all people and equipment are out of the line of fire when lifting and moving pipe. Always be mindful of where a pipe will go if it is dropped or stored energy releases; if you are in these areas then move.
- Never try to lift heavy or awkward objects alone. Use heavy equipment to eliminate this hazard completely or involve a coworker to help move a manageable object.
- Keep your hands and body clear of the pipe when the equipment is moving it. Pinch points are abundant between the pipe and the machine anytime it is being moved into place.
- Block of the work area to control unnecessary traffic in the area.

SUMMARY

There are many other hazards and safeguards to consider when completing this task. There are many moving parts going on to successfully weld long lengths of this pipe and move it into place. When evaluating and planning out this work task consider not only the immediate dangers of the welding process but also lifting and moving the pipe.

Discussion point:

What are other hazards and best practices we need to consider for our HDPE welding task?

Attendees Names

Jeremia Nickolls

Attendees Signatures

N/A

Chris Foote



Mark Morales



Leigh O'keefe

N/A

Luis Castrejon

N/A

Ricardo Vasquez



Nathan Wolitarsky

N/A

Ken Roque



CONDUCTOR SIGNATURE

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