Department of Examinations and Assessment

Louisiana State Licensing Board for Contractors



Horizontal Directional Drilling

Classification Description:

Refers to the use of horizontal drilling technologies to construct and install pipelines and conduit.

Horizontal Directional Drilling is a closed book examination with 100 multiple-choice questions which are equally weighted.

You will have four hours to complete this examination. A calculator will be provided for use during the examination.

Content Outline

Administrative (Project Site, Cost, Estimating) 15
Safety and Hazard Assessment and Environmental Guidelines 12
Traffic Management and DOT/DOTD Regulations 10
Obstacle Recognition/One Call Management 19
Means and Methods 44

References

The examination for 7-136 Horizontal Directional Drilling is set at the level of knowledge, skill, and abilities expected for individuals entering the field as contractors for this work. Often the best preparation is training through a mentor or through a company or organizational training program, or a higher educational or vocational educational training program, etc., along with actual experience. Below is only a representative sample of the references available on this subject at the time this list was compiled.

<u>Horizontal Directional Drilling (HDD) Good Practices Guidelines</u> – 4th Edition; North American Society for Trenchless Technology; Cleveland, OH; 2017. Available at: https://www.nastt.org/resources/bookstore/

<u>Trenchless Construction and Rehabilitation Methods</u>, Fourth Edition; Tom Isley et. al., editors; National Utility Contractors Association; Arlington, VA; 2004.

<u>Horizontal Directional Drilling: Utility and Pipeline Applications</u>; Willoughby, David A.; McGraw-Hill; New York; 2005.

<u>Trenchless Technology: Pipeline and Utility Design, Construction, and Renewal</u>; Najafi, Mohammad, and Gohkale, Sanjiv; McGraw-Hill; New York; 2005.

<u>Trenchless Technology Piping: Installation and Inspection</u>; Najafi, Mohammad; McGraw-Hill; New York; 2010.

Manual for Controlling and Reducing the Frequency of Pavement Utility Cuts, Final Report, DTFH61-01-C-00024; Federal Highway Administration; Washington, D.C.; 2013. Available at: https://www.fhwa.dot.gov/utilities/utilitycuts/manual.pdf

<u>Guidelines for Use of Mini-Horizontal Directional Drilling for Placement of High Density Polyethylene</u>

<u>Pipe</u>, TR-46; Slavin, Larry; The Plastics Pipe Institute; Irving, TX; 2009. Available at:

https://plasticpipe.org/pdf/tr-46-hdd-guidelines.pdf

<u>Permits - HCPs in Development: NiSource Multi-Species Habitat Conservation Plan</u>; Shafer, John; Appendix J, "Horizontal Directional Drilling"; U.S. Fish & Wildlife Service; Bloomington, MN; 2013. Available at:

https://www.fws.gov/midwest/endangered/permits/hcp/nisource/2013NOA/NiSourceHCPfinalJune2013.html

<u>Avoiding Underground Utilities During Horizontal Directional Drilling Operations</u>, Safety and Health Information Bulletin, SHIB 03-13-2018; Occupational Safety and Health Administration; Washington, DC; 2018. Available at: https://www.osha.gov/dts/shib/shib031318.pdf

<u>Louisiana Underground Utilities and Facilities Damage Prevention Law</u>"; Louisiana Revised Statutes, Title 40, Chapter 8, Part VIII, and Sections 40:1749.11 to 40:1749.27. Available at: http://www.dnr.louisiana.gov/assets/OC/pipe_div/DamagePrevention/Statutes.pdf

<u>CGA Common Ground Alliance Best Practices 15.0</u>; Common Ground Alliance; Alexandria, VA; 2018. Found at: http://commongroundalliance.com/damage-prevention/toolkits/best-practices-toolkit

<u>Louisiana Regulations for Trucks, Vehicles and Loads,</u> 2013, 24th Edition; Louisiana Department of Transportation and Development; Baton Rouge, LA; 2013. http://perba.dotd.louisiana.gov/welcome.nsf/RegBook2013.pdf

<u>Training Requirements in OSHA Standards</u>, OSHA 2254-09R 2015; p. 164; Occupational Safety and Health Administration; Washington, DC; 2015. Available at: https://www.osha.gov/Publications/osha2254.pdf

<u>Title 49, Code of Federal Regulations, Subtitle B, Chapter III, Subchapter B, Parts 395, 396</u>; U. S. Government Printing Office; Washington, DC; 1028. Available at: https://www.fmcsa.dot.gov/advisory-committees/mcsac/publications

<u>Louisiana Administrative Code, Title 51, Part XII, Sections 115, 247</u>. Available at: http://www.doa.la.gov/pages/osr/lac/books.aspx

<u>Louisiana Administrative Code, Title 55, Chapter 21.</u> Available at: http://www.lsp.org/pdf/rtk 55 21upd.pdf

<u>Louisiana Administrative Code, Title 73, Part 1, Sections 301, 301, and 503.D.</u> Available at: http://www.doa.la.gov/pages/osr/lac/books.aspx <u>Louisiana Revised Statutes 32:380 to 387.8.</u> Available at: http://legis.la.gov/legis/Laws Toc.aspx?folder=106&title=32

<u>Louisiana Commercial Driver's License Manual</u>; American Association of Motor Vehicle Administrators; Arlington, VA; 2010. Available at: http://dda.edu/LA CDL Manual.pdf</u>

<u>Trenching and Excavation Safety</u>, OSHA 2226-10R 2015; U S. Department of Labor, Occupational Safety and Health Administration; Washington, DC; 2015. Available at: https://www.osha.gov/Publications/osha2226.pdf

<u>Permit-Required Confined Spaces</u>; U S. Department of Labor, Occupational Safety and Health Administration; Washington, DC; 2004. Available at: https://www.osha.gov/Publications/osha3138.pdf

OSHA Brief. Hazard Communication Standard: Safety Data Sheets; U.S. Department of Labor, Occupational Safety and Health Administration; Washington, DC; 2012. Available at: https://www.osha.gov/Publications/OSHA3514.html

<u>Personal Protective Equipment</u>; U S. Department of Labor, Occupational Safety and Health Administration; Washington, DC; 2015. Available at: https://www.osha.gov/Publications/osha3151.pdf

Manual on Uniform Traffic Control Devices, 2009 Edition with Revisions 1 and 2 from 2012; pp. 551-560, Table 6-C; Federal Highway Administration; Washington, DC; 2012. Available at: https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/mutcd2009r1r2edition.pdf

Protecting Construction Workers in Confined Spaces: Small Entity Compliance Guide, OSHA 3825-09 2015; U.S. Department of Labor, Occupational Safety and Health Administration; Washington, DC; 2015. Available at: https://www.osha.gov/Publications/OSHA3825.pdf