

PIPELAYER TRAINING PROGRAM

2018 IPLOCA HEALTH AND SAFETY AWARD



WHO IS LEDCOR?

- Our legacy of success and innovation began over 65 years ago when we worked out of one shop in central Alberta. With our headquarters in Vancouver, we now operate throughout North America and embrace the differences of each location we work in.
- Leducor currently employs over 7,000 staff across 20 offices throughout North America. Our company's entrepreneurial spirit and strategic decision making continues to lead us down the road of growth and expansion. So we can be who our clients need us to be, today and tomorrow.

OUR VISION AND MISSION

Forward. Together. Committed to building *Leducor lifetime clients* through accountability, innovation, quality and sustainability.



**PROVEN.
RELIABLE.**

FOR OVER 65 YEARS, THE LEDCOR GROUP HAS BEEN BUILDING WITH INTEGRITY.



WHO IS LEDCOR?

Building



As North America's most diverse construction company, we have the knowledge and expertise to understand each project's complexities from a variety of angles.

Communications



Our unmatched geographic reach, experience and resources are the reasons we are trusted to build and maintain North America's most vital communications networks.

Environmental



We go beyond environmental regulations by making investments that will drive positive change.

Oil & Gas



We have constructed some of the continent's largest resource and infrastructure projects and are well positioned to help meet the demand of the energy needs of the future.

Forestry



Ledcor covers the entire supply chain from start to finish, which includes everything from selling logs to saw mills and pulp facilities to processing logs into cants, chips, and hog fuel.

Infrastructure



Ledcor's first project involved infrastructure construction – and 65 years later, we're still experts in all aspects of public and private infrastructure construction.

Mining



With more than six decades of experience, Ledcor's mining team has been one of the key building blocks of our organization.

Power



For over 20 years we have been providing design and construction services to the energy sector, including power projects and transmission, and power asset maintenance.

Transportation



We have a long history of providing specialized aviation and marine transportation services.

Properties



Ledcor Properties is actively involved with our partners in the acquisition, development, and management of properties across North America.

INITIATIVE – CREATING AN EFFECTIVE PIPELAYER TRAINING PROGRAM

Over a decade ago, Ledcor led the North American pipeline industry when it became the first large contractor to retrofit its entire fleet of pipelayers with roll-over-protective structures. The safety of our workforce is paramount. Senior management's commitment to safety has remained steadfast. More recently, Ledcor recognized that our pipelayer operators needed a consistent program of verifiable, skill based, and practical training that would exceed stricter regulatory requirements.

Senior management's commitment ensured the leadership support and resources needed for the development and implementation of the program.

Ledcor is proud to have received accolades from the regulators, clients, and most importantly the operators of the equipment who have stated that the training has heightened their confidence as well as increased their safety awareness and efficiencies.



THE PROGRAM

The pipelayer training development team worked with experienced pipeline operators and experts to identify the key training components. This program exceeds the requirements of Energy Safety Canada (formally Enform) Sideboom Operator Training Standard which is endorsed by the Canadian Energy Pipeline Association.

Program outline:

- The training consists of two components:
 - in-class technical training, and
 - field coaching and evaluations
- A minimum of 8 hours of classroom training which includes, but is not limited to the following:
 - Regulation and industry standards
 - Review of the pipelayer operating manuals
 - How to complete a thorough daily inspection of equipment (including machine warm up procedures and cold start up procedures)
 - Calculating pipe weights and moving the load
 - Basic side boom maintenance
 - Operational hazards including working with ground and specialized crews (i.e., stringing, bending, lowering in, etc.)
 - Sharing of lessons learned from pipelayer incidents in the industry.

Pipelayer

Training Manual



FIELD MENTORING/COACHING AND EVALUATIONS

After the operators attend the in-class instruction and pass the knowledge verification test, they then participate in an in-depth field competency assessment and evaluation.

The competency assessment is tailored for the specific scope of work that the operator will be assigned. Assessing competency and coaching is an ongoing process. Our trainers work closely with supervisors to ensure that training is timely and relevant to the work being undertaken.

The image displays three overlapping copies of the 'PRACTICAL COMPETENCY ASSESSMENT FORM' for Pipelayers. The forms are tilted and arranged to show different sections.

Top Form (Left): Shows the header 'PRACTICAL COMPETENCY ASSESSMENT FORM Pipelayer' and the 'ASSESSMENT TYPE' section with checkboxes for 'Competency Evaluation' and 'Maintenance Evaluation'. It includes fields for 'Date of Assessment', 'Trainer Name', 'Supervisor Name', 'Location Name', 'Trainer Name (as per work)', 'Equipment Manufacturer', 'Equipment Model', and 'Equipment Type' (Hydraulic, Mechanical).

Middle Form (Center): Shows the 'PRACTICAL ASSESSMENT' section with the heading 'DEMONSTRATE SAFETY AWARENESS'. It includes a 'WALK AROUND & PRE-START CHECKLIST' with a list of items to check: 'Limit', 'Understand', 'Equipment', 'Skillset', 'Safety', 'System', 'Counterweight', 'Arm', and 'Cooler'. Each item has a corresponding checkbox.

Bottom Form (Right): Shows the 'PRACTICAL OPERATIONS' section with numbered tasks:

- 14. Smooth Start
- 15. Safe Operation of the Equipment
- 16. Changing Implements
- 17. Fueling Procedure
- 18. Slow, Stop, and Park
- 19. Shut Down and End-of-Shift Walk Around
- 20. Emergency Shutdown Procedure
- 21. Contact with Live Electrical Conductor
- 22. Respond to Rapid Fluid Spill
- 23. Onboard Fire

 Below these tasks is the 'EMERGENCY PROCEDURES' section with checkboxes for 'Uncontrolled when printed'.

The forms also include sections for 'START UP & EQUIPMENT TESTS', 'OBSERVATIONS - SITE SPECIFIC TASKS', and 'Comments'.

PROGRAM SUCCESS

The program has undergone three revisions to date and has expanded to include a competent assessor program. The assessor program is a way for our company to identify the operators that demonstrate the right safety attitude and skills who show desire to want to become a program trainer. This allows Ledcor to leverage their knowledge and experience in helping us to further expand and improve our pipeline training program

The program's success can be attributed to building stronger relationships from the one on one coaching, mentoring, and building trust amongst the team between the trainers, operators, and the ground crew.

The program's success is a huge accomplishment, and Ledcor is proud to have had over three hundred personnel successfully complete the Pipelayer Training.



**FORWARD.
TOGETHER.**

