



Pumps keep oil moving

Pump stations play a vital role in moving crude oil through the Enbridge pipeline system. In general, pump stations contain one or more electrically driven pumping units, and they are strategically located to boost internal pipeline pressure and flow within safe operating limits of the pre-tested pipeline. Pump stations then move the crude oil through the pipeline and on to the next station or to its final market destination. Typically, pump stations are situated 40 to 60

miles apart; however, their exact location is determined by a variety of factors, including engineering design, terrain, power availability and delivery needs.

Enbridge pump stations are designed, built and landscaped to minimize visual impact. As well-maintained facilities, they generally have little effect on nearby landowners or the community. Typically, pump stations are located on several acres and include the

pump units themselves, which are coupled with electric motors, the electrical switchgear equipment and above ground valve controls as well as one or more small auxiliary or support buildings. Stations can include above ground as well as underground piping. Station facilities are secured and fenced, with lighting designed to provide security yet minimal disturbance to neighbors. A qualified Enbridge technician maintains one or more stations.

Fast facts on pump stations

- Enbridge's pump stations are carefully designed and built to meet or exceed federal safety regulations as well as national and industry building and fire codes and relevant environmental regulations.
- The pipeline and station piping are designed as fully enclosed systems, in part so that petroleum and vapors do not escape. No crude oil is stored at pump station sites.
- Although a major release at a pump station is highly unlikely, Enbridge personnel are trained and prepared to respond immediately. All pump stations are monitored 24/7 from a state-of-the-art control center, and multiple on-site detectors and transmitters are employed to promptly initiate remote shutdown and isolation, if needed.
- Enbridge stations meet state and local noise standards. Typical background noise levels in a rural setting are approximately 40 decibels at a distance of about a quarter mile away, which is equivalent to the hum of a refrigerator.
- Enbridge operates more than 130 pump stations along our U.S. liquids pipeline systems.
- Enbridge's more than 70 years of operating experience, protection equipment and emergency procedures have helped us minimize and prevent impact to the public.