accommodations were eventually worked out and embodied in a series of exchanges of notes, according to which the United States agreed to build a canal and two locks on United States territory to by-pass the Barnhart-Cornwall generating dam at the foot of the Long Sault Rapids and, in addition, to do some essential dredging elsewhere, while Canada agreed to build a lock and canal round the Iroquois Control Dam some 30 miles upstream and, in addition, to complete to a common standard all the necessary navigation facilities in Canadian territory, i.e. between Montreal and Cornwall and in the Welland Canal. The estimated cost to the United States of these works was of the order of $100 million, while the estimated cost to Canada was to amount to about $200 million.

The first sod on the St. Lawrence Power Project was turned on August 10, 1954. Work on the Seaway began in September of 1954. The Iroquois Lock was in regular use by May 1958 and the two United States locks also from July 4. First power came from the international powerhouses on the latter date. Through transit of the St. Lawrence Seaway began April 25, 1959, and the Seaway was opened officially by Queen Elizabeth II and President Dwight D. Eisenhower of the United States on June 26 of that year.

Navigation Facilities

Some idea of the magnitude of the work undertaken can be obtained by taking an imaginary voyage on a ship west-bound from Montreal.

a) St. Lambert Lock:

Opposite the pool of Montreal Harbour can be seen the protecting dyke of the channel giving access to the Seaway, which begins just east of the Jacques Cartier Bridge, passes beneath the bridge and extends for three miles before reaching the first lock of the Seaway, the St. Lambert Lock, at the southern end of the Victoria Bridge. (At Victoria Bridge are lift spans and a system of rail and road traffic diversion.)

The St. Lambert Lock lifts the ship some 15 feet from the level of Montreal Harbour to the level of Laprairie Basin, through which the ship channel sweeps in a great arc 8½ miles long between its protecting embankments to the second lock.

b) Cote Ste. Catherine Lock:

The Cote Ste. Catherine Lock, like the other six new Seaway locks and the seven lift locks on the Welland Canal, has been built to the following standard dimensions: Length, 766 feet; length between stop signs in lock, 715 feet; width, 80 feet; depth over sills, 30 feet.

This lock, which requires 24 million gallons of water to fill, can be filled or emptied in less than ten minutes. It lifts ships from the level of Laprairie Basin through 30 feet to the level of Lake St. Louis. Its function is to by-pass the Lachine Rapids. Beyond it, the channel runs 7½ miles before reaching Lake St. Louis.

Over this channel at one point tower the piers that give Honoré Mercier highway bridge 120 feet of clearance for ships. Further upstream the Canadian Pacific Railway bridge has had two lift spans installed to allow for the passage of ships. These lift spans can be raised or lowered in a minute and a half.

c) Lake St. Louis and Beauharnois Locks

Entering Lake St. Louis, the ship proceeds some 12 miles by dredged channels before reaching the Lower Beauharnois Lock at the west end of the Lake.

The minimum width of St. Lawrence Seaway channels is 200 feet when provided with two embankments, 300 feet when there is only one embankment, and 450 feet in the open reaches. The depth in canals and channels is 27 feet.