

Society Collection Continues to Grow

Our first Newsletter (April 2018) announced the Society's move into "our new home" where we began to store and display artifacts that in some cases had been kept in basements for a number of years in anticipation of a Society facility. These artifacts were widely spaced in our building to create an impression of a collection much larger than we actually possessed. How quickly that situation has changed! We are now at a point where we are forced to consider very carefully what new artifacts, particularly larger ones, we can accommodate. The arrival of three large models this summer - two of the Gentilly-1 reactor and one of the Douglas Point reactor - have required careful re-arranging of the artifacts of our collection. We now have over 600 catalogued "objects" or "physical artifacts". This collection is supplemented by bookshelves and filing cabinets holding almost 2300 catalogued documents and over 1700 catalogued hard-copy photographs.

Periodic Table

Numerous versions of the Periodic Table have been carefully filed in the cabinets housing our documents, but recently a version arrived that we would have difficulty filing in this manner. It is a much more substantial "table" originally designed and built by local Deep River woodworker, Dave Morrison, for the Canadian Nuclear Society who have donated it to the Society. The artifact, which stands just over a meter in height, displays 106 elements in a unique manner. An explanatory note on the artifact states: "Each vial in this display contains a sample or photograph of one chemical element and bears its name, its characteristic atomic number, its symbol in chemical formulae, and in some cases the old name for the element from which the symbol was derived. Photos were used for the elements that are gases, or very toxic, or radioactive, or metals that are unstable

in air. The vials with trefoil symbols are empty; the corresponding radioactive elements are too unstable to accumulate even enough to take a photograph."



Virtual Museum

Developments in video and computer technology have now allowed many museums to greatly increase their viewership by posting their collections on their website. Allan Symons, a long-time SPCNHI Director and the operator of the Canadian Clock Museum in Deep River, spearheaded the effort to produce a virtual reproduction of the Society's facility at 51 Poplar St. The result is a "street-view" interactive walk through our collection, available on the website at www.nuclearheritage.com/virtual-tour. Enjoy!.

Video-taping of Interviews

The video-taping of interviews with nuclear pioneers has been a continuing major effort over the past twelve months. Seventeen interviews have been completed and three more are scheduled for the near future. These interviews have required a significant commitment of Society funds and no further ones are planned beyond this series. A sub-committee of the Board has been set up to review the interviews for quality and consistency and it is hoped all will be available for release to the public early in 2023.

SNOLAB Artifacts

The Sudbury Neutrino Observatory (SNO) and its continuation of experiments as SNOLAB have been a major Canadian scientific success recognized worldwide by the awarding of the Nobel Prize in Physics to Art McDonald, formerly a physicist at Chalk River. The Society has for some time been attempting to acquire some artifacts from SNO for our collection. In September of this year this became a reality when Art personally delivered one of the photomultiplier tubes used at SNO for the neutrino discovery experiments. It joins a glass bottle holding about 60 cc of the heavy water used as the interacting medium. The heavy water had been used by the late Malcolm Harvey in the many public lectures he gave to explain and promote SNO. In addition to delivering the photomultiplier tube, Art McDonald volunteered to sit for one of our video-interviews.

NRX Accident Anniversary

December 12 will be the 70th anniversary of the (in)famous accident at the National Research eXperimental reactor at Chalk River. A combination of out-of-norm experimental conditions, faulty systems, operator error and design flaws led to the first “severe accident” in the world. The core rose to about three times full power, then was shut down, in just over one minute; the damage was done, including some melted fuel and a damaged calandria vessel. After extensive cleanup and component removal, the reactor was rebuilt (better) and restarted in only 14 months! A young lieutenant Jimmy Carter, of the US Navy, was sent north to assist in the cleanup and dismantlement of the reactor. The Society has recently been made aware of an interesting speech made by Admiral

Hyman Rickover (Director of the nuclear submarine program) in August 1978. Rickover stated “It is not generally known that in 1953 [sic], while he was in the Navy’s nuclear program, a radiation incident occurred at the Canadian nuclear plant in Chalk River, Ontario. To obtain experience, I asked the Canadians for permission to send a group of naval personnel to help. Lieutenant Carter was in this group. He did an outstanding job. In the process, he learned much about the practical aspects of nuclear power.” A legacy of the NRX accident was the development of much-improved safety systems and operating procedures, and that Canada became a world leader in reactor safety, a position continuing to this day.



Annual General Meeting

The Society Annual General Meeting was held September 22 and despite efforts to recruit new volunteers as Directors for the Society no changes in the Board membership has occurred. The Executive can be seen at: nuclearheritage.com/society-executive/