

All prototype equipment developed under the Program, complete with drawings and manuals, is given to the IAEA for its use, free of any conditions. Some of the most important pieces of equipment developed by Canada are shown in Figure 7.

#### **Achievements and Impact**

The Canadian Safeguards Support Program has achieved a large measure of success in assisting the IAEA to develop a comprehensive safeguards approach for the CANDU reactor. Accomplishments achieved so far and, in particular, the success of the schemes implemented at the two Canadian and two offshore CANDU 600 MW reactors have permitted increased assurance that CANDU reactors are fully safeguarded. Although the basic approach has been demonstrated, it remains to be fully implemented at some facilities. Work is continuing to make equipment that is more reliable, "user-friendly" and durable.

The IAEA has standardized its safeguards approaches for several types of nuclear facilities which it safeguards. Of these, three relate to various designs of CANDU reactors and are based on Canadian work under the Canadian Safeguards Support Program.

Such standardized systems greatly simplify the IAEA's work. The pieces of equipment developed to help implement these safeguards schemes have now been accepted by the IAEA, five foreign governments and three Canadian utilities.

The Canadian Safeguards Support Program has also given valuable assistance to the IAEA in areas of international safeguards not specifically related to Canadian developed nuclear facilities, and some safeguards equipment developed by the Program for CANDU reactors may be applied to safeguarding other types of nuclear facilities in other IAEA member countries. In addition, the IAEA has identified a number of safeguards areas and new tasks for which Canadian expertise could be particularly helpful. These include the development of safeguards approaches and equipment for other nuclear facilities in or being developed by Canada, and for nuclear material in long-term (deep geological) disposal.

The IAEA is constantly upgrading its safeguards criteria to improve the effectiveness and credibility of international safeguards. Consequently, safeguards requirements are continually evolving and are a moving target in all areas, not just CANDU reactors. It is