

## **N296. Robotics, Video, and Advanced Technologies for ALARA**

Activities undertaken by Commonwealth Edison's (ComEd) ALARA Group helps creative users to find new technologies that increase performance efficiency in radiation work areas at the six ComEd nuclear stations.

- **Byron Station Robotics Users Group:** This group promotes the use of robotics and other technologies at Byron Station, and has been meeting on a routine basis for about a year.
- **LaSalle Station Robotics Users Group:** This group was formed this summer to promote the use of robotics and other advanced technologies at LaSalle Station.
- **ComEd Robotics and Advanced Technologies Users Manual:** This catalog is a three hundred page manual that was assembled as a compendium of robotic equipment and software available throughout the industry. The Byron Robotics Manual is a companion document that catalogs equipment already owned by CECo.
- **1994 ComEd Equipment Survey:** Starting in the summer of 1994, the ALARA groups have set out to determine the inventory and locations of the robotic and remote equipment purchased in the past, ascertain its material and operating condition, arrange for service and repair, and develop site contacts for equipment sharing. The ultimate objective will be to increase the pool of equipment available to all the sites.

Video equipment and remote tools have also been used for ALARA purposes. Video systems include:

- Miniature Remote Cameras
- Omniview System
- Lightwave Phonenumber Signal Conversion
- Component Video Imaging during In-Service Inspection
  - Enhancement Robotics Equipment includes:
    - 'Snoopy' Mini-Scarab Submersible Miniature Crawler
    - Integrated Radiation Mapper Assistant (IRMA) Crawler
    - Scavenger II Submersible Vacuuming Crawler Camera and Light Package Upgrade
    - MISR Surveillance Crawler with Telescopic Head
    - Andros Mk. VI Mobile Crawler with Arm, Wrist & Manipulating Gripper
  - Robotic Wrist/Arm Tooling System
    - Remote tooling includes:
      - Radioactive Filter Handling System
        - Software used includes:
          - PC-Based "Intelligent" Temporary Shielding Administrative Procedure and Tracking System
          - Lead-PC Shielding Design Basis Analysis Software
          - Man/Machine Interface

*For more, "Robotics, Video, and Advanced Technologies for ALARA," by P. Hamby. For further information, please contact Peter Hamby at (708)/663-3863*