The RESRAD family of codes have been used at Argonne and other US sites and are currently used by multiple organizations, operating various nuclear facilities around the world.

Argonne's [Quality Management System](#) includes a Quality Assurance Program Plan (QAPP) and a Safety Software Quality Assurance Program Plan (SSQAPP) that incorporate DOE O 414.1D, *Quality Assurance*, and DOE Guide 414.1-4, *Safety Software Guide for Use with 10 CFR 830 Subpart A, Quality Assurance Requirements and DOE O 414.1C, Quality Assurance*. In addition to these plans, the RESRAD family of codes implements a comprehensive Software Quality Assurance Plan (SQAP) that documents compliance with the Lab QAPP and SSQAPP and defines Software Quality Assurance activities.

The quality plans also incorporate consensus standards, including ISO 9001:2015, ANSI/ASQ Z1.13-1999, IEEE software standards, and ASME NQA-1 2008/NQA-1a 2009, *Quality Assurance Requirements for Nuclear Facility Applications*.

Together, the Orders, Guide, and Standards ensure the RESRAD family of codes meet all regulations and requirements, function correctly, and maintain high reliability and performance standards.

RESRAD SQA activities include:

1. Software project management and quality planning

2. Software risk management

3. Software configuration management

4. Procurement and supplier management

5. Software requirements identification and management

6. Software design and implementation

7. Software safety analysis and safety design methods

8. Software verification and validation

9. Problem reporting and corrective action

10. Training of personnel in design, development, use, and evaluation of software

Argonne's Quality, Work Planning, and Control division applies their expertise to organizations across the Lab to ensure continued delivery of exceptional products and services through audits, assessments, and continuous improvement programs.