Radiation Safety Information Computational Center

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"If tyranny and oppression come to this land, it will be in the guise of fighting a foreign enemy."

– James Madison

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CHANGES TO THE RSICC CODE AND DATA COLLECTION

There is one update to the RSICC catalog for those individuals that may be interested.

CCC-860/SCALE 6.3.3

Oak Ridge National Laboratory (ORNL), Oak Ridge, Tennessee, contributed an updated version of the SCALE code system, which is a widely used modeling and simulation suite for nuclear safety analysis and design that is developed, maintained, tested, and managed within the Nuclear Energy and Fuel Cycle Division (NEFCD) of ORNL. SCALE provides a comprehensive, verified and validated, user-friendly tool set for criticality safety, reactor physics, radiation shielding, radioactive source term characterization, and sensitivity and uncertainty analysis. SCALE includes current nuclear data libraries and problem-dependent processing tools for continuous energy and multigroup neutronics and coupled neutron-gamma calculations, as well as activation, depletion, and decay calculations. SCALE includes unique capabilities for automated variance reduction for shielding calculations, as well as sensitivity and uncertainty analysis. SCALE's graphical user interfaces assist with accurate system modeling and convenient access to computed results. SCALE is bundled with AMPX to generate cross section data libraries from ENDF formatted nuclear data evaluations.

The latest release of SCALE 6.3 contains various enhancements that are detailed in the codes user manual that is available at the following website: https://scale-manual.ornl.gov/. Our customers are encouraged to review this document for more details about this version of SCALE 6.3. Please visit the SCALE website for more information at http://scale.ornl.gov

In February 2023, the U.S. Department of Energy asserted control over the SCALE software. In as such all versions of the SCALE software are controlled under Part 810 of Title 10 of the U.S. Code of Federal Regulations (10 CFR 810). This control places more restrictions on the availability of the SCALE code and limits its distribution to U.S. persons and citizens of countries listed in Appendix A of 10 CFR 810. In limited cases, non-Appendix A citizens may be provided access to SCALE under a restricted or cloud access on a case-by-case basis.

This package is distributed as an electronic download for Windows, Linux and MacOS systems. Package C00860MNYCP011 includes executables for Linux, MacOS and Windows systems; documentation and sample problems for verification. Package C00860MNYCP010 includes the items listed above plus source files and CMake build configuration scripts. Executables require the Java runtime environment for installation. For compilation Intel gfortran, g++, gcc, GNU/GCC 4.8.3,

CMAKE. Reference: Fortran 2003 and C/C++; Windows PCs, Linux, and MacOS X [Package ID: C00860MNYCP10 (source package) and C00860MNYCP11 (executable-only package)].

SINGLE USER MULTI-ORGANIZATION LICENSE AGREEMENT

(*Last updated July 1, 2018*)

To support the use of RSICC software by multi-national organizations and international collaborations, RSICC now offers our customers the option to request a Single User Multi-Organization Software License Agreement. The Single User Multi-Organization Software License Agreement addresses issues regarding the "re-export" of software and data packages obtained from RSICC because under Federal export control regulations our customers cannot "re-export" the code to another person in another country.

This agreement is intended to allow our customers to specify additional foreign locations for which they may be approved to utilize RSICC software. In general, the default option will be the standard single user license agreement for the country in which the customer resides and is employed. The following defines the requirements for use of this license agreement.

This SUMO software license agreement is only available for individuals that receive software directly from RSICC. In addition, the point of contact (host or system administrator) at the additional foreign location(s), must be licensed directly from RSICC and must agree to abide by the policies associated with host/server/cluster systems that are summarized following this announcement.

To apply for this license the customer must first register with RSICC and provide full and complete information. When submitting their request, the customer must provide the following information in the COMMENTS section of the request form for each applicable package:

- full name and email address of the point of contact (POC),
- the full name of the organization at which the software will be used, and
- the complete address (no post office boxes) of the organization under which additional access is being requested.

Individuals that would like to utilize this service must have a valid reason for needing this access and provide such justification to RSICC in the END USE statement as well. If this information is not included in the END USE statement, then the customer's request will only be considered for the standard single user license agreement.

When processing the request, RSICC staff will verify that the designated POC(s) has a valid license for the same version of software that is being requested by the applicant and verify that the POC obtained the package directly from RSICC. If the POC, did not obtain the package directly from RSICC, the POC will need to register with RSICC, apply and be approved for the package before the applicant's request can be processed.

The requests will be reviewed for each designated location and a decision will be rendered as to whether a license is granted. If an organization or location is denied, then the customer will be notified and may be limited to the standard single user license agreement for their own organization.

Exceptions:

Persons that have any citizenship of or are in countries that are not listed in Appendix A of 10 CFR 810 are not permitted to utilize the Single User Multi-Organization License Agreement.

Fees:
The customer making the request for the single user multi-organization software license will be required to pay the cost recovery fee for each location at which they are approved. In addition, the POCs at the other foreign locations that have not obtained the software directly from RSICC will have to obtain the software from RSICC and pay the applicable fee.

HOST/SERVER/CLUSTER GUIDANCE

(*Last updated November 1, 2022*)

Software obtained from RSICC is export controlled under the jurisdiction of the U.S. Department of Energy, 10 CFR 810, or the U.S. Department of Commerce, 15 CFR 730-744. Additionally, RSICC distributes this software under guidance issued by the U.S. Department of Energy's Office of Nonproliferation and Arms Control. The distribution and use of RSICC software is restricted and controlled under these regulations and guidelines. Individuals that request the software must be cleared through both an export control and a nonproliferation review process prior to the individual being granted a license to receive software for a specific end use.

The software distributed by RSICC is licensed to individual requestors (Licensee) under a single-user license agreement while employed at the organization listed on the license forms and cannot be transferred to any other individual or entity. The Licensee is responsible for the control, management and protection of the software. The Licensee is responsible for compliance with U.S. export control requirements (laws and regulations) and the terms of the license agreement. This includes preventing access to the software by any individual or entity (including IT staff) as such access may be deemed an export control violation. Individual Licensees should protect the software, documentation, and installation accordingly. Neither the software nor manuals should be posted to the Internet or otherwise be made publicly available. Any and all system administrators that are assisting with the installation and maintenance of a licensed code(s) or that would otherwise have access to a licensed code(s) that is placed on a stand-alone system and/or server/cluster must also be licensed for the exact version of the software that is placed on these systems. Individuals whose duties are only that of a System Administrator are not authorized to be users of the licensed codes(s). **Those individuals serving only as system administrators are NOT charged the cost recovery fee for processing their requests.**

System administrators and/or hosts should implement standard and customary account access and/or file permissions such that only the licensed individuals may access the program. This should include identity and access management, such as multi-factor authentication, to ensure software is kept secure from unauthorized access. Please note that the single-user license agreement is code and version specific. The Licensee must be licensed for the specific version to which they are granted access. For example, an individual with a license only for MCNP5 should not be permitted access to MCNP6.1. Additionally, some individuals are only licensed for the executable versions of the code(s), and the system administrator(s) must ensure that such individuals do not have access to the source code. Therefore, it is recommended that the source code be removed after installation of the program(s) and furthermore procedures must be implemented such that control software is not lost via decommissioned storage media.

Network, server, parallel, cluster, or similar installations outside of the United States may not be within a country NOT listed in Appendix A of 10 CFR 810 nor occur at facility identified as an entity under 15 CFR 744.

RSICC software may be hosted on a server, cluster or high-performance computing system with the following conditions:

1) Each server/cluster operator must designate one individual responsible for oversight of the use of RSICC software on the server/cluster. This individual will be responsible for communicating and reporting to RSICC on an annual basis regarding the users of the cluster/server.

2) Each and every system administrator that would have access to any form (source or executable) must register, request, **and** be approved for the software with RSICC for the version to which they would have access.

3) An authorized and approved system administrator may install and maintain the software and must ensure that the software is not distributed or shared with those who do not have a specific license for the version to which they would have access. System administrators are required to utilize protocols that limit access to the software. Users should only be granted access and use of software to which they have a specific license, e.g. users that have a license for SCALE 6.1 should NOT be granted access to SCALE 6.0 or SCALE 6.2.

4) System administrators are not permitted to provide access to RSICC software to individuals **NOT** located within the same country as the server/cluster unless the Licensee has an approved Single User Multi-Organization License Agreement from RSICC.

5) Individuals with citizenship or multiple citizenships that include a country not listed in Appendix A of 10 CFR 810 **may be granted** access to RSICC software on a server/cluster, if the individual **has been approved** for access to the software by the U. S. Department of Energy's Office of Nonproliferation and Arms Control.

6) Under no circumstances should an individual with citizenship or multiple citizenships that include a country **NOT** listed in Appendix A of 10 CFR 810 be granted access to RSICC software on the server/cluster, if that individual has **NOT** been approved by the U.S. Department of Energy's Office of Nonproliferation and Arms Control. Additionally, under no circumstances should an individual located at an entity identified under 15 CFR 744 be granted access to RSICC software on the server/cluster.

7) Individuals that have been only granted access to RSICC's secure cloud server **MAY NOT** be granted access to any other server/cluster.

8) When a Licensee requests access to RSICC software on a server/cluster, the system administrator must follow the following process:

(a) The system administrator will require that the Licensee provide proof of a license by requiring that the Licensee provided an electronic copy of either the Single User License Agreement or the Single User Multi-Organization License Agreement. System administrators cannot provide access to anyone located in another country unless that individual has an approved Single User Multi-Organization License Agreement from RSICC and the organization of the system administrator is listed on the SUMO License Agreement.

(b) The system administrator must ensure that the Licensee's current installation/affiliation is the same as that on the license agreements.

(c) If the Licensee's current installation is NOT the same as that on license agreements, then access should be denied until the Licensee has updated license agreements with RSICC. This will require the Licensee to update their registration with RSICC and submit a new request with RSICC. The Licensee

should not be granted access to the software until they have been authorized. Please note that some approvals are location and organization specific.

9) The system administrator will maintain records of the Licensees that are utilizing the server/cluster and send a record to RSICC (rsic@ornl.gov) that include the Licensee's full name, RSICC customer identification number, installation, and the codes to which the Licensee has access on the system. This information must be provided when the system administrator makes the first request to RSICC to provide such services and must be updated annually by sending updated information to RSICC no later than November 30 of each calendar year. The record should include the customer's full name, RSICC customer number, customer installation as well as request numbers and software package name and identifier for which they are accessing on the cluster.

Server/cluster operators that agree to comply with these conditions may install RSICC software on the server/cluster that are within their corporate/institutional ownership, physical control, and the individual country identified.

USE OF RSICC SOFTWARE ON COMMERCIAL CLOUD SERVICES

(*Last updated September 1, 2024*)

Many customers have asked about the use of RSICC-distributed software such as MCNP® and SCALE on a commercial cloud system. If you intend to use a commercial cloud solution for RSICC software, please ensure that the chosen solution meets with the following:

RSICC may only support cloud solutions where the cloud service is physically within the jurisdiction of the United States of America, and provides information security objectives /impact levels meeting guidelines consistent with Level 4 from current DoD Cloud Computing Security Requirements (https://public.cyber.mil/dccs/dccs-documents/). Cloud services that meet this requirement have U.S persons as system administrators.

The AWS GovCLOUD (US) (https://aws.amazon.com/govcloud-us/) and the Microsoft Azure Government (https://azure.microsoft.com/en-us/explore/global-infrastructure/government) cloud services are options that meet the DOD IL4 requirements. Various RSICC customers in the U.S. have used the AWS GovCloud (US) and Microsoft Azure Government (US) services. There are other commercial cloud services that also meet the Level 4 DOD Cloud Computing Security Requirements. Hoonify (https://www.hoonify.com/) is the only private server operator in the U.S. that provides access to the MCNP® Monte Carlo code. Staff at Hoonify comply with RSICC's server/cluster requirements and ensure that all users of their server have a valid RSICC license. Some RSICC customers have availed themselves of Hoonify's services. It is important to remember that only persons licensed in the U.S. can access these systems for use of RSICC software.

The following are guidelines for controlling access to the software on such commercial cloud servers. The employee that is responsible for working with the cloud service to install the software must be licensed. If this person is not an end user but a systems administrator/manger we will waive any fee for the software that they might need. After installation, the source code for the package should be removed since some of the users may only be licensed for the executable version of the software. The individual that manages an employee's access to the cloud service should ensure that everyone that is given access is licensed. We request that you keep a record of the persons given access to the cloud

service with verification of each person's license. The primary point of contact for the organization that authorizes access for company employees to the cloud service should provide RSICC with an annual report each November of the users of the cloud service.

END USE STATEMENT

(***Last updated January 1, 2025***)

Customers are strongly encouraged to provide full and complete information regarding the intended end use of the software being requested. End use statements that specify that the code is for research, training or educational activities are not sufficient. RSICC's regulators need to know explicitly for what purpose you intend to use the codes and detail needs to be provided. Requests that lack sufficient detail will be rejected. Please include the type of calculations that you intend to perform e.g., criticality, reactor physics, shielding, dose, etc. and for what types of applications e.g., reactor shielding design, fusion shield design, nuclear medicine, reactor design, etc. For reactor simulation uses, the customer should include a description of the reactor type and the intended use of the reactor such as commercial, maritime, or space reactors. Use of software distributed by RSICC may be restricted under U.S. Federal export control regulations for maritime or space applications.

Students that submit requests to RSICC are strongly encouraged to consult their professor or academic advisor as to what purpose they intend to use the codes for their classes and/or their research. Professors are also encouraged to provide such guidance to their students since the professor is responsible for identifying the activities of the students under their tutelage. Professors are encouraged to write an end use statement for their students that describe both the intended use of the code and the applications for which the code will be applied. Providing this information will help expedite the processing of the request and speed up delivery of the software.

REGISTRATION REQUIREMENTS

(***Last updated September 13, 2023***)

During the registration process, individuals are required to provide the name of the institution at which they will use the software, an institutional mailing address and an institutional e-mail address. RSICC's regulators require us to obtain an address associated with the individual's organization. If you are working remotely, you may include an alternate mailing address as a comment during the registration process. Please note that you cannot provide an alternate mailing address that is in a country different than that for the organization with which you are affiliated. RSICC cannot register a customer for access to software in a country different than that of the organization with which the individual is affiliated as the single user license and export control agreements are specific to the country in which the organization is located.

REQUESTING PRIOR VERSIONS OF SOFTWARE

(***Last updated January 1, 2025***)

RSICC retains older versions of software that we distribute in our archives; however, our software list contains the most recently released version of the software. Customers can request older versions of the software by including a comment when submitting their request stating the versions of the software that are needed. Customers will be charged a cost recovery fee for each version of a package that is requested.

CONFERENCES, TRAINING COURSES, SYMPOSIA

CONFERENCES

15th International Conference on of the Croatian Nuclear Society

The Fifteenth International Conference on Radiation Shielding (ICRS15) will be held May 31 – June 3, 2026 at the Hotel Kolovare, Zadar, Croatia. The conference is organized by the Croatian Nuclear Society. Those interested can find additional details at: http://www.nuclear-option.org

35th International Conference Nuclear Energy for New Europe

The Nuclear Society of Slovenia in association with the Jožef Stefan Institute, cordially invites you to attend the 35th International Conference Nuclear Energy for New Europe. The conference will be held in Portoroz, Slovenia, **September 7 - 10, 2026**.

The conference is an annual meeting of professionals dealing with different aspects of nuclear energy from all around Europe and worldwide. The primary objective of the meeting is to foster international cooperation amongst professionals active in nuclear research and educational institutions, nuclear vendors, utilities, and regulatory bodies.

For more details on this conference, please visit website at
https://www.djs.si/nene2026/conference

8th International Conference on Nuclear and Renewable Energy Resources

The 8th International Conference on Nuclear and Renewable Energy Resources (NURER 2026) will be held September 10 – 12, 2026 in Almaty, Kazakhstan. The conference is hosted by the Al-Farabi Kazakh National University of Kazakhstan. Those interested can find additional details at: http://www.nurer.org.

17th Workshop on Shielding Aspects of Accelerators, Targets, and Irradiation Facilities (SATIF-17)

The Seventeenth Workshop on Shielding Aspects of Accelerators, Targets, and Irradiation Facilities (SATIF-17) will be held October 20 – 22, 2026 at the Institute for Basic Science (IBS) Science Culture Center, Daejeon, South Korea. The workshop is organized by the Institute for Rare Isotope Science. Those interested can find additional details at: https://www.indico.kr/event/61/overview.

15th International Conference on Radiation Shielding

The Fifteenth International Conference on Radiation Shielding (ICRS15) will be held October 25 – 29, 2026 at the Lotte Hotel Jeju, Jeju, South Korea. The conference is organized by the Korean Association for Radiation Protection. Those interested can find additional details at: http://icrs15.org/

TRAINING COURSES

MCNP®

MONTE CARLO N-PARTICLE

LANL MCNP6 Class Schedule

Individuals interested in attending or that have registered for these classes are encouraged to contact the organizers regarding any delays or cancellations.

Website: https://mcnp.lanl.gov/classes.html

April 6 – 10, 2026	Unstructured Mesh with Attila4MC Non-US citizens must register by January 16, 2026	$1,800
April 13 – 17, 2026	Intermediate MCNP6 Non-US citizens must register by January 23, 2026	$1,800

May 4 – 8, 2026	Criticality Calculations with MCNP6 Non-US citizens must register by February 13, 2026	$1,800
June 1 – 5, 2026	MCNP6 for Nuclear Safeguard Practitioners Non-US citizens must register by March 13, 2026	$900
June 8 – 12, 2026	Introduction to MCNP6 Non-US citizens must register by March 20, 2026	$600
August 31 – September 3, 2026	Using NJOY to Create MCNP Ace Files and Visualize Nuclear Data Non-US citizens must register by June 12, 2026	$900
October 5 – 9, 2026	Intermediate MCNP6 Non-US citizens must register by July 17, 2026	$1,800
October 26 – 30, 2026	Introduction to MCNP6 Non-US citizens must register by August 07, 2026	$600
November 30 – December 4, 2026	Variance Reduction with MCNP6 Non-US citizens must register by September 11, 2026	$1,800

See the website for more information.

10th Annual SCALE Users' Group Workshop

We are pleased to announce that registration is open for the 10th SCALE Users' Group Workshop that will be held as **a virtual workshop on June 8–12, 2026**. You can register on the workshop website at https://scalemeetings.ornl.gov. The event is offered free of charge.

You are invited to participate in the workshop and contribute with presentations and discussions on impactful and innovative applications of SCALE. Under the SCALE Open Mic technical session, users are invited to discuss their work challenges and achievements, with no formal presentation required, however, presentation slides are welcome. Contributions to the SCALE Model Contest session require only a single slide showing one or more images of a SCALE model. Participants will have 5–10 minutes during the session to provide background on the model, present additional information as desired, and answer questions. The best models will be showcased in the 2027 SCALE calendar.

Fifteen hands-on tutorials will be available as part of this event. To be eligible to participate in these tutorials, registrants must have a user license for SCALE 6.3. Before registering for any tutorial, please verify that you have or are eligible to request a SCALE 6.3 license. See https://www.ornl.gov/content/how-order-scale on details on how to request a SCALE license.

For details on the sessions organized in 2025 and other previous years, please see https://scalemeetings.ornl.gov/previous-workshops/.

Please email scalehelp@ornl.gov for any related question or suggestion.

SYMPOSIA

2026 CALENDAR

April 2026

World Nuclear Fuel Cycle, April 14 – 16, 2026, Monaco, Website: https://world-nuclear.org/events/world-nuclear-fuel-cycle-2026

PHYSOR 2026: International Conference on the Physics of Reactors, April 19 – 23, 2026, Turin, Italy. Website: https://www.physor2026.org/

Pacific Basin Nuclear Conference, April 22 – 24, 2026, Busan, South Korea. Website: https://kapconf.com/en/

Nuclear and Emerging Technologies for Space (NETS-2026), April 27 – 30, 2026, Dayton, Ohio, USA. Website: https://www.ans.org/meetings/view-nets2026/

May 2026

15th International Conference of the Croatian Nuclear Society, May 31 – June 3, 2026, Zadar, Croatia. Website: https://nuclear-option.org/

2026 Annual Conference of the American Nuclear Society, May 31 – June 3, 2026, Denver, Colorado, USA. Website: https://www.ans.org/meetings/view-398/

June 2026

International Conference on Plasma Sciences, June 22 – 26, 2026, Lake Tahoe, Nevada, USA. Website: https://icops.ieee.org/icops2026/

July 2026

IEEE Nuclear and Space Radiation Effects Conference, July 20 – 24, 2026, San Juan, Puerto Rico, USA. Website: https://www.nsrec.com/

August 2026

GLOBAL 2026, August 16 – 20, 2026, Chicago, Illinois, USA, Website: https://www.ans.org/meetings/global2026/

2026 Nuclear Energy Conference and Expo, August 24 – 27, 2026, Dallas, Texas, USA, Website: https://nuclearenergyconference.org/

September 2026

35th New Energy for New Europe Conference, September 7 – 10, 2026, Portoroz, Slovenia. Website: https://www.djs.si/nene2026/conference

World Nuclear Symposium, September 9 – 11, 2026, London, United Kingdom. Website: https://www.wna-symposium.org/

NURER 2026, 8th International Conference on Nuclear and Renewable Energy Resources, September 10 – 12, 2026, Almaty, Kazakhstan. Website: http://www.nurer.org

October 2026

17th Workshop on Shielding Aspects of Accelerators, Targets, and Irradiation Facilities (SATIF-17), October 20 – 22, 2026, Daejeon, South Korea: Website: https://www.indico.kr/event/61/overview

15th International Conference on Radiation Shielding/ 23rd Topical Meeting of the Radiation Protection and Shielding Division, October 25 – 29, 2026, Jeju Island, South Korea. Website: http://icrs15.org/

November 2026

2026 IEEE Nuclear Science Symposium Medical Imaging Conference and Room Temperature Semiconductor Detectors Symposium, November 7 – 14, 2026, Granada, Spain. Website: https://nssmic.ieee.org/2026/.

December 2026

First International Conference on Commercial Advances for Fusion Power Plants 2026, December 14 – 17, 2026, Quebec City, Quebec, Canada. Website: https://fpp-conf.org/