# RELAP5-3D Software Licensing Updates

#### **Gary W. Smith**

Sr. Commercialization Manager Technology Deployment



May 4, 2018 International RELAP Users Group Idaho Falls, Idaho

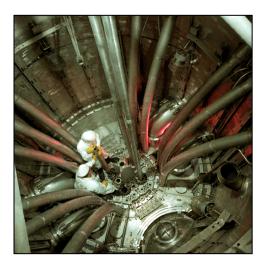


#### Benefits of IRUG Membership

- Access to an internationally recognized tool for safety and engineering analyses of nuclear power reactors and pressure vessels
- Provides a control point for RELAP5-3D maintenance and software development.
- Training classes offered in conjunction with annual meeting
- On-site training is also available at licensees facilities
- Cost sharing mechanism for code improvements









## Currently Active Licenses April 3, 2018

Universities
Commercial
Government Use
Sub-Total

| Domestic | International | Totals |
|----------|---------------|--------|
| 27       | 25            | 52     |
| 12       | 17            | 29     |
| 16       | 2             | 18     |
| 55       | 44            | 99     |

**Total Licensees** 

99



#### Current RELAP5-3D License Fees

|                           | Domestic Users | International Users |
|---------------------------|----------------|---------------------|
| Full Membership Regular   | \$28,500       | \$54,500            |
| Full Membership Super Use | er \$63,500    | \$79,000            |
| Multi User Participant    | \$9,500        | \$17,000            |
| Single User Participant   | \$6,500        | \$12,000            |



### Membership Fee Increase

- IRUG membership fees increase on June 1, 2018.
- Continued growth in IRUG membership helps to absorb increased development and maintenance costs.
- Membership increased from 92 in Oct. 2016 to 99 in April 2018
- Universities, both domestic and international, will continue to receive RELAP5-3D for free if used for educational purposes.



## RELAP5-3D License Fees Effective June 1, 2018

|                            | Domestic Users | International Users |
|----------------------------|----------------|---------------------|
| Full Membership Regular    | \$30,000       | \$58,000            |
| Full Membership Super User | \$67,000       | \$83,000            |
| Multi User Participant     | \$10,000       | \$18,000            |
| Single User Participant    | \$7,000        | \$13,000            |



### **Export Control Reminder**

- DOE determination: RELAP5-3D falls under 10 CFR 810 restrictions.
- BEA, licensees, sub-licensees and users all have responsibilities for export and deemed export compliance.
- Update "Program Participant Data Sheet" information for new users
- All users must be approved by DOE and/or BEA.

#### **Our Checklist:**

- ✓ Legal name of licensee
- ✓ Full names and citizenship of end users and contacts
- ✓ Full addresses and phone number
- Assurance letters
- ✓ End use of the code
- ✓ IRUG membership level requested



### Accomplishment Since 2016

## Continuous Improvement

- RELAP5-3D Version 4.4.2 is being finalized
- Invitations to join IRUG were sent to every US university and college offering a degree in Mechanical Engineering
- Two "Gateway for Accelerated Innovation in Nuclear" (GAIN) licenses signed
- Expanded distribution of RELAP5-3D to non-nuclear markets
- Expanded into new international markets
- Coupled with RAVEN and PHISICS
- New website <a href="https://relap53d.inl.gov/">https://relap53d.inl.gov/</a>



### Summary

- Annual membership fees will increase on all renewals and new license agreements effective June 1, 2018
- Continuous annual growth in IRUG membership every year since 2010
- Automated renewal notifications sent electronically to licensees three months prior to license expiration
- Additional staff have been added to support INL's software programs
- Gary Smith is retiring June 1
- Art Baker is assuming responsibility for software licensing





#### **Licensing Contacts:**

Arthur L. Baker, Sr. Commercialization Manager

Phone: 208-526-1872

E-mail: arthur.baker2@inl.gov

Kaleigh Peterson, Agreements Specialist

Phone: 208-526-1046

E-mail: kaleigh.peterson@inl.gov