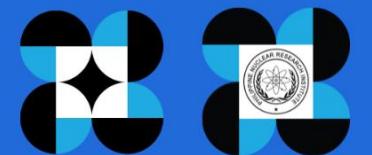


# Implementation on the Code of Conduct on the Safety and Security of Radioactive Source: Philippine Perspective

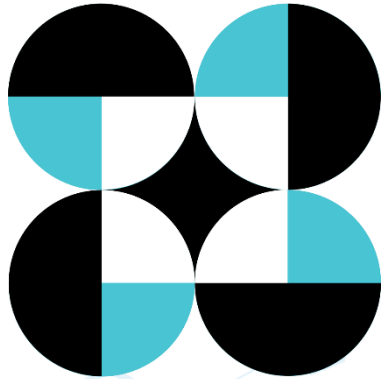
**Maria Teresa SALABIT**

Nuclear Regulatory Division

Philippine Nuclear Research Institute



# Regulatory Authority Set-Up



**DOST**

Philippine Nuclear  
Research Institute  
(PNRI)

Nuclear  
Regulatory  
Division(NRD)

**PNRI-NRD**  
regulatory functions  
on nuclear and  
radioactive  
materials

**DOH**

Food and Drug  
Administration (FDA)

Center for Device  
Regulation Radiation  
Health and Research  
(CDRRHR) -  
Radiation Regulation  
Division



**FDA-CDRRHR**  
regulatory functions  
on electrically  
generated ionizing  
radiation

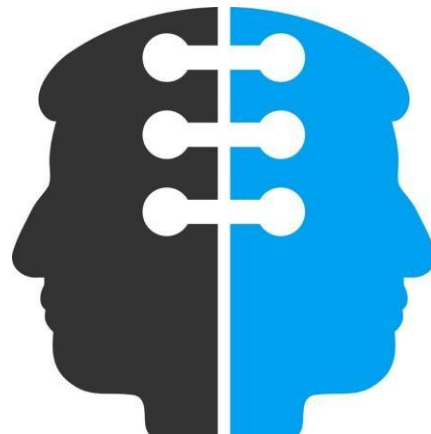




# Dual Mandate

To promote, develop and regulate the safe and peaceful uses of nuclear science and technology in the country.

**Regulation**

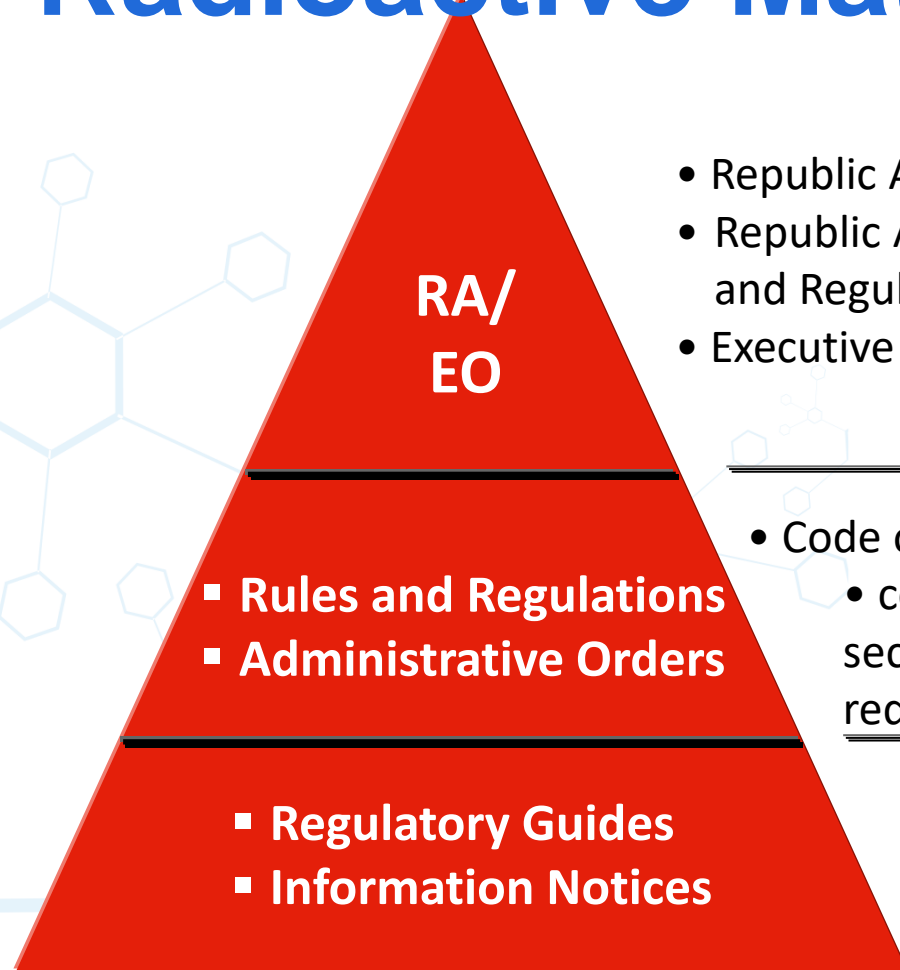


**Promotion**





# Philippine Legislative and Regulatory Framework for Radioactive Material



- Republic Act (RA) 2067 known as the Science Act of 1958, created PAEC
- Republic Act 5207 of 1968 known as An Act Providing for the Licensing and Regulation of Atomic Energy Facilities and Materials
- Executive Order (EO) of 1987 reorganizes PAEC to PNRI

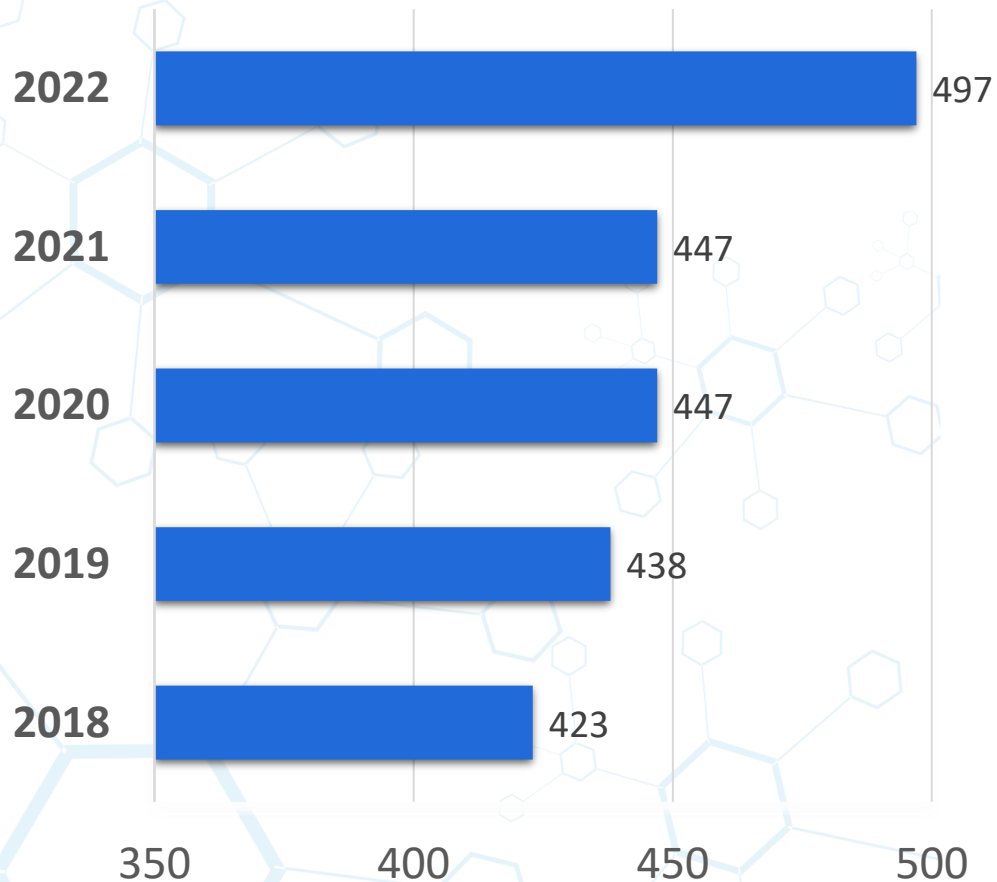
- 
- Code of PAEC/PNRI Regulations (promulgated by PNRI)
    - consists of Parts 0 - 31; covers radiation protection, transport, security and fees and practice specific administrative and safety requirements

- 
- License application guides; Information bulletins and notices; incidents and lessons learned

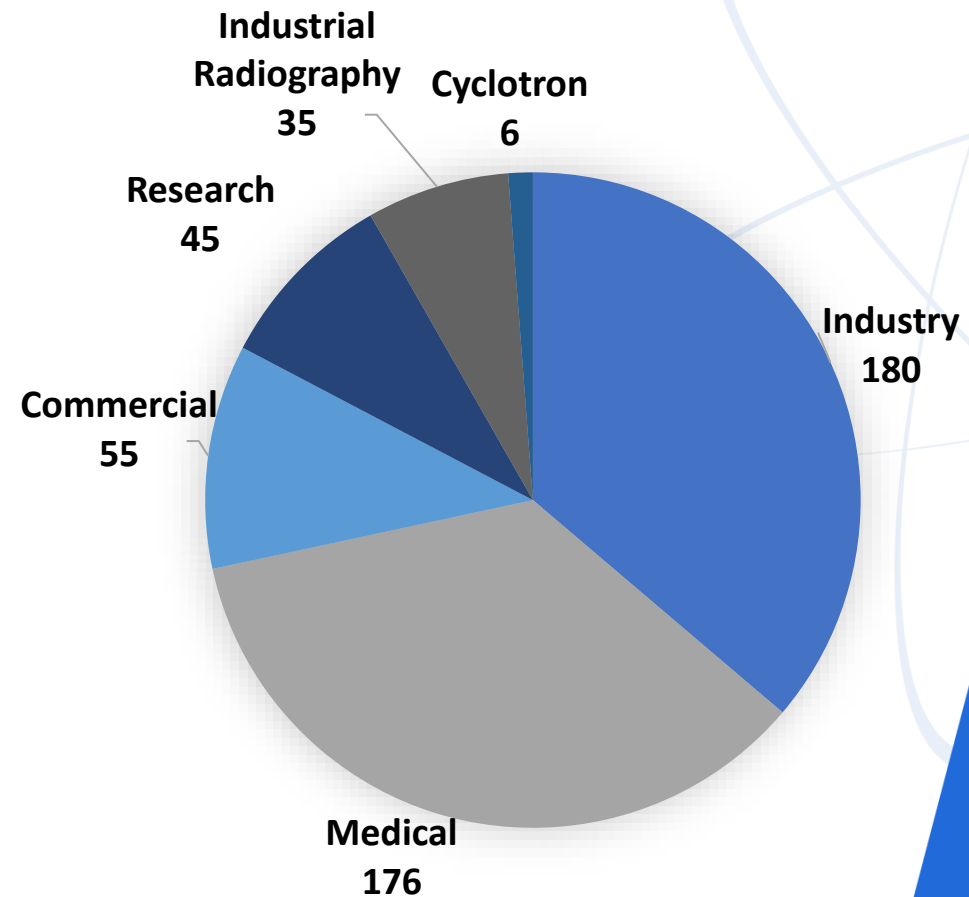


# Number of Licensees

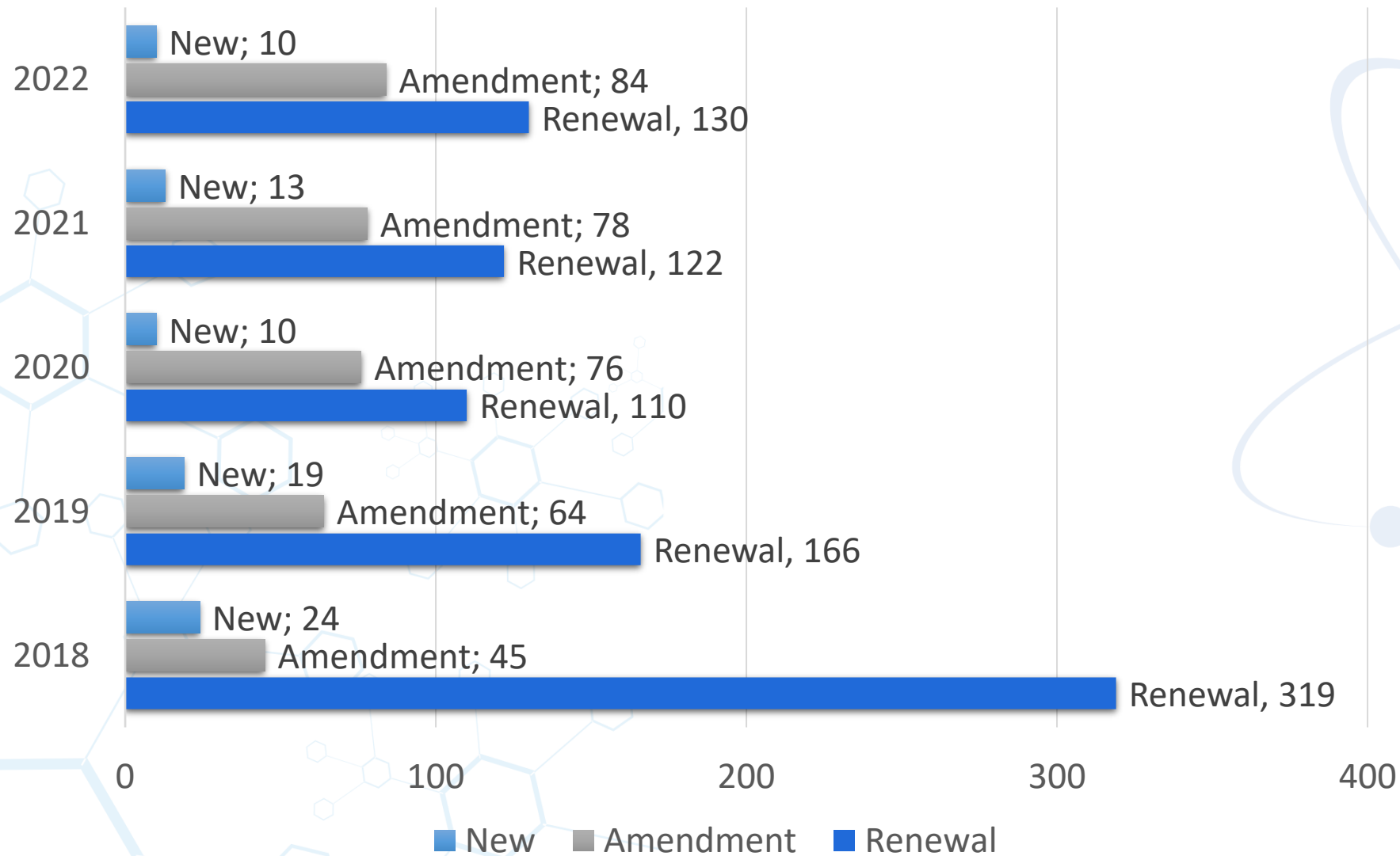
## Numbers of Licensees (2019-2022)



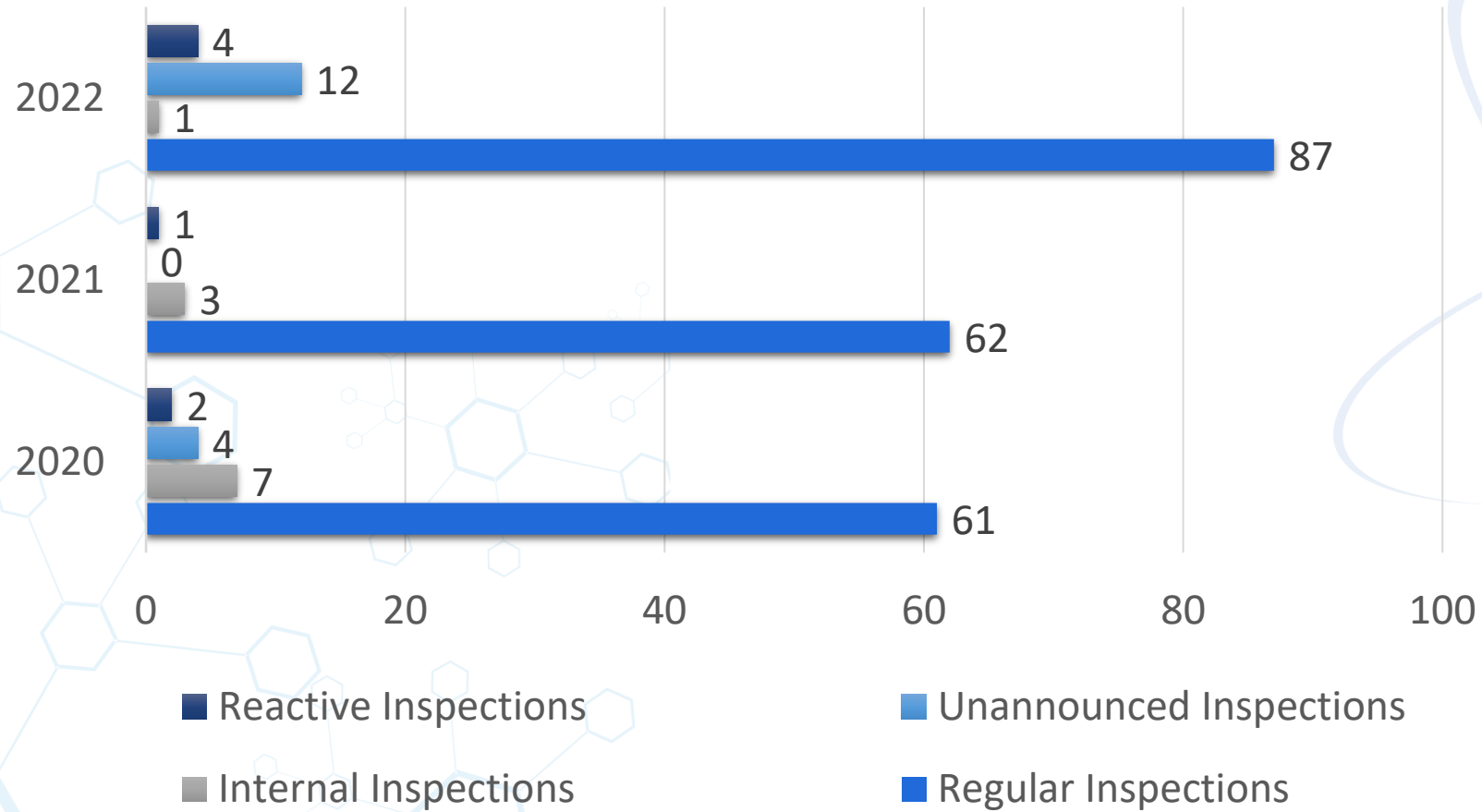
## Number of Licensees according to Practice (As of Dec. 2022)



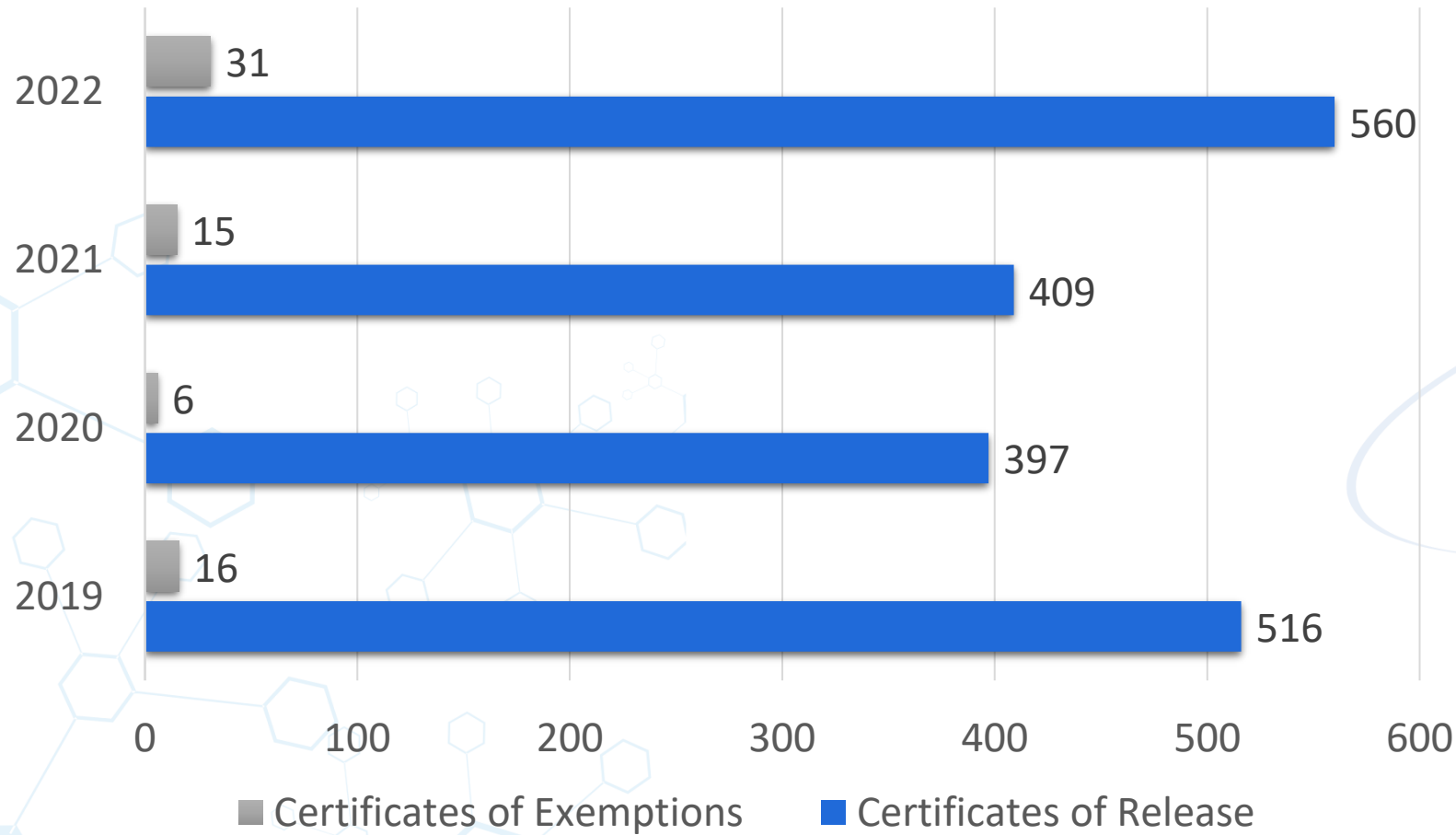
# RAM License Issued



# Inspections



# Certificates Issued





# RAIS 3.2

The screenshot displays the RAIS 3.2 Web application interface. The browser address bar shows the URL: `rais.intranet.pnri/RAIS2014/Dynamic%20Masks/SingleRowMask.aspx?id=58&tabId=1&parentId=4545&rowId=4545&addRow=Fa`. The page header includes the Philippine Nuclear Research Institute logo and the text "RAIS 3.2 Web Regulatory Authority Information System". The user is logged in as "Abby Joy T. De Los Santos" from the "Selected Department".

The main content area is titled "Sealed Source Details" and contains the following fields:

- Regulatory Authority Number: SS0714
- Nuclide: Cs-137
- Activity: 1.85E+000 GBq
- Activity Date: 1/12/1999 12:00:00 AM (M/d/yyyy HH:mm)
- Manufacturer: [Empty]
- Model: [Empty]
- Serial No: 7758GK
- Local Distributor: [Empty]
- Physical Form: Solid
- Chemical Form: [Empty]
- Other Descriptions: [Empty]
- Category: Category 4
- Security Level: [Empty]
- ISO Compliance: [Empty]
- Recommended Working Life: [Empty]
- Intended Use: for storage
- Comments: [Empty]

At the bottom of the form, there are buttons for "Back To List", "Add", "Edit", "Delete", "View log", "Undo", and "Apply".

## PRESENT

Regularly update RAIS with the current applications (new, renewal, and amendment)

Monitor the status of licensees based on the encoded data in RAIS

## FUTURE

With the help of RAIS+, a more comprehensive report will be generated to easily obtain the desired pertinent information of the licensees



# RAIS Data Requests

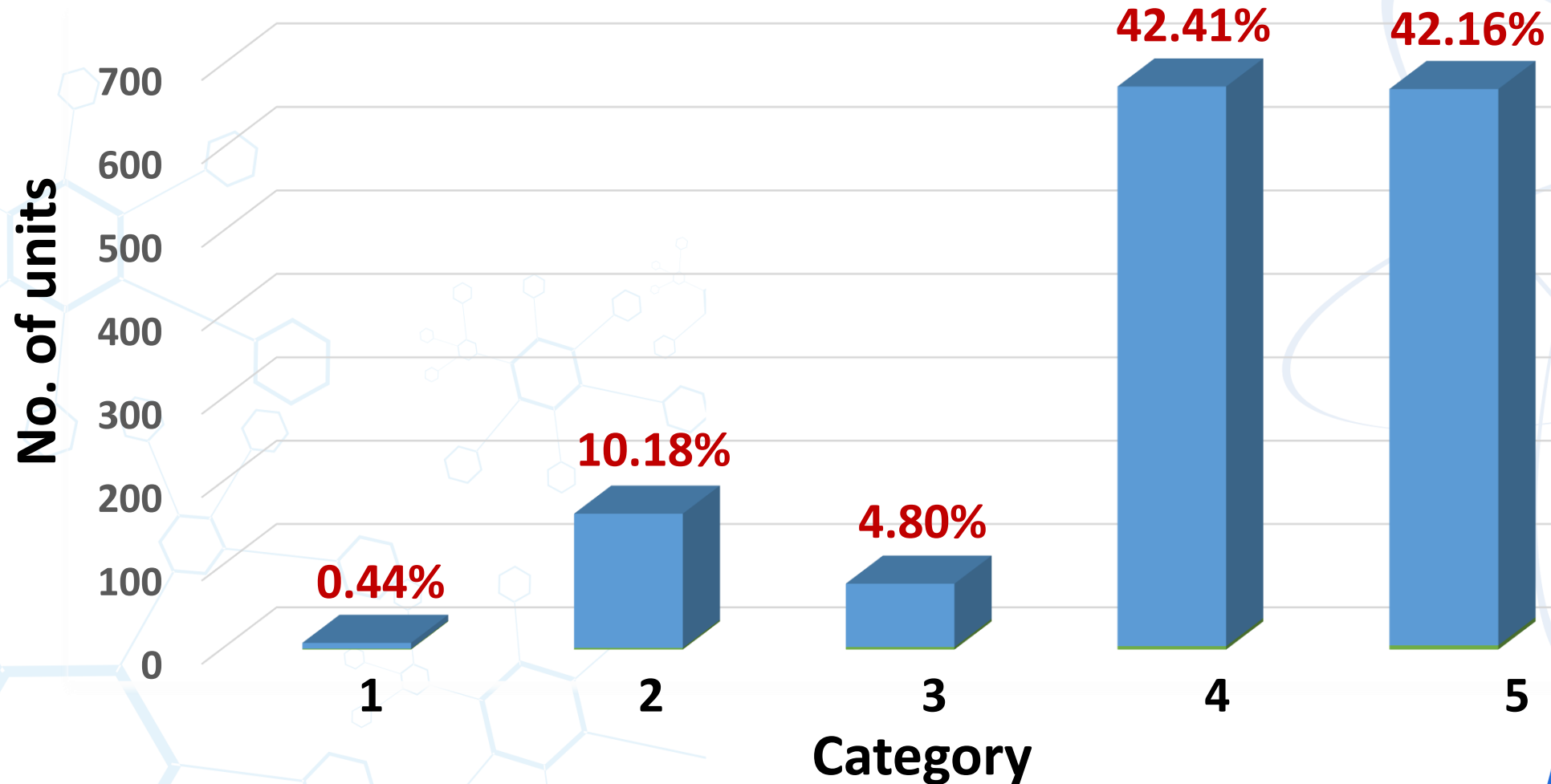
---

- Inventory of Licensed Radioactive Materials & Associated Equipment
- List of Licensees with Cs-137 Radioactive source/s of Categories 1 and 2
- Facility contact details of Categories 1-3
- Inventory of the associated equipment used in industrial radiography
- License Expiry
- Radioactive Sources of a Specific Facility
- Workers' Affiliation



# SRS in the Country

## Categories of Radioactive Sealed Sources



# PNRI Internal Regulatory Oversight

**IRCP-001**

Nuclear Reactor  
Operation  
Section

**IRCP-003**

Secondary  
Standard  
Dosimetry

**IRCP-002**

Radiation Waste  
Management  
Facility

**IRCP-007**

Multipurpose  
Irradiation  
Facility



# DSRS in Philippines

| DSRS | CATEGORY      | NO. OF UNITS | ACTIVITY (Bq)    |
|------|---------------|--------------|------------------|
|      | Cat 1         | 1            | 3.9E+13          |
|      | Cat 2         | 46           | 1.9E+14          |
|      | Cat 3         | 12           | 1.4E+12          |
|      | Cat 4         | 328          | 4.2E+12          |
|      | Cat 5         | 1585         | 3.7E+11          |
|      | Uncategorized | 147          | Data Unavailable |
|      | <b>TOTAL</b>  | <b>2119</b>  | <b>~ 2.4E+14</b> |

| Other DSRS | STATUS  | NO. OF UNITS | ACTIVITY (Bq)  |
|------------|---|--------------|----------------|
|            | Transferred units (repatriated, for rent, etc.) | 926          | 2.1E+14        |
|            | Units released from regulatory control          | 262          | 4.8E+4         |
|            | <b>TOTAL Units</b>                              | <b>1224</b>  | <b>2.1E+14</b> |



- DSRS are retrieved and conditioned in stainless steel capsule and placed inside concrete lined steel drums.
- DSRS that are unretrievable (corrosion, legacy) are placed in storage shelves





# Other NRD Activity Highlights



## Participation to ORPAS Mission

- Pre-licensing Inspections (9)
- License Terminated (13)

*\*For the year 2022*

### RESEARCH REACTOR FACILITY AUTHORIZATION

Pursuant to PNRI Office Policy Instruction No. 01 Series of 2022, “Revised Radiological Health and Safety Policy, on the Terms of Reference of the Nuclear and Radiological Safety and Security Management Committee (NRSSMC), an Internal Regulatory Control Program (IRCP) for PNRI Nuclear and Radiation Facilities and Laboratories”, and in reliance on statements and representations heretofore made by the facility operator; this Authorization is hereby issued for the conduct of the following activities:

- implementation of IAEA Technical Cooperation Project (PHI0016), “Building Capacity for the Safe Operation and Utilization of the PRR-1 Subcritical Assembly for Training, Education and Research” with scope as may be applicable;
- implementation of PNRI-GAA funded project, “Capacity building to utilize the Philippine Research Reactor-1 TRIGA fuel in a subcritical assembly to re-establish Nuclear Science Knowledge and Expertise in the Philippines” with scope as may be applicable;
- operation and maintenance of plant infrastructure including good housekeeping;

and to **possess, store,** and **use** the nuclear/radioactive material(s) and to **operate** the facility listed at the place(s) designated below.

- Reactor Facility Manager: **Ryan U. Olivares**
- Name of Facility/Laboratory: **PHILIPPINE RESEARCH REACTOR - 1 SUBCRITICAL ASSEMBLY FOR TRAINING, EDUCATION, AND RESEARCH (PRR-1 SATER)**
- Division/Section or Unit: **Nuclear Services Division (NSD) / Nuclear Reactor Operations Section (NROS)**
- Authorization Number: **IRCP-017-0323**

## Issuance of Authorization to Operate a Subcritical Research Reactor



The background features a light blue and white color scheme. On the left, there are faint, light blue chemical structures consisting of interconnected hexagons and pentagons. On the right, there is a stylized atomic model with three elliptical orbits and three small grey spheres representing electrons. A solid blue triangle is positioned on the right side, pointing towards the center. A solid blue horizontal bar runs across the bottom of the slide.

# IMPORT and EXPORT on the Code of Conduct Guidance



# Stakeholders: Trade



## Frontline Officer (FLO) Trade

- Dept. of Trade and Industry- Strategic Trade Management Office (DTI-STMO)
- Dept Of Finance-BOC

## Regulatory Authority: Certificate of Release

- Philippine Nuclear Research Institute



# Mandate: Bureau of Customs

- Assessing and collecting customs revenues,
- Curbing illicit trade and all forms of customs fraud,
- Facilitating trade through an efficient and effective customs management system.

18






# STRATEGIC TRADE MANAGEMENT OFFICE

**The lead government agency responsible for managing the trade of strategic goods and technologies to prevent the proliferation of weapons of mass destruction.**



|                               |  |                   |                             |
|-------------------------------|--|-------------------|-----------------------------|
| Name: Heat Exchanger          |  | Other codes:      |                             |
| Similar Commonly Traded Terms | Transducer / Heat Exchanger  | HS                | 9001                        |
|                               |  | AHTN              | 9001                        |
|                               |  | CAS               | 9001                        |
| Specifications:               | Accuracy: 0.2% F.S. @ and undirectional<br>Operating Temperature: 2 to 55 degrees Celsius<br>Range: 10 to 2000000<br>Full scale Range: 0.2, 1, 10, 100, 1000000<br>Materials: Inconel, ceramic, polycarbonate, SS, glass<br>Maximum Pressure: 4000psi(275MPa)<br>Maximum Over Pressure: 100% F.S. @ 150psi (10MPa) | Region:           | Market-Supplier Group (MSG) |
|                               |  | Product Category: | Materials Processing        |
|                               |  | Dir               | 2                           |

|  |  |
|--|--|
| <b>System, Interface, Physical Interface</b> | Appearance may vary based on the types of usage or installation, ex. Chemical base or water base |
| <b>Packaging</b>                             | Transducer air package with bubblewrap and box   |

|  |                                   |
|--|-----------------------------------|
| <b>Typical Application</b>   |                                   |
| Industry   | WMO                               |
| Used to transfer/flow heat between two or more fluids in preheating, oil cooling, generation, chemical processing, powerplants etc. in manufacturing | component for nuclear flow system |


|                           |                                      |     |
|---------------------------|--------------------------------------|-----|
| <b>Other Information:</b> |                                      |     |
| Global Production         | Trading companies in the Philippines | OGA |

# STRATEGIC GOODS PROFILE

| <b>COMPANY NAME</b>   | <b>Company X</b>   |  |                              |                             |                              |                             |                           |      |  |      |         |
|---|--|--|------------------------------|-----------------------------|------------------------------|-----------------------------|---------------------------|------|--|------|---------|
| <b>ADDRESS:</b>   | <b>GENERAL INFORMATION</b>   |  |                              |                             |                              |                             |                           |      |  |      |         |
| 1.) 123 Main Street, Bldg. Uno, Manufacturing Zone, Calamba, Laguna, Philippines  | SEC Registered (Reg.No. A1980(2345))<br>PEZA Registered (No. 01-234)   |  |                              |                             |                              |                             |                           |      |  |      |         |
| <b>WEBSITE:</b>   | <b>BUSINESS ACTIVITIES:</b>  |  |                              |                             |                              |                             |                           |      |  |      |         |
| http://www.companysite.com  | Manufacturer, Importer, Exporter   |  |                              |                             |                              |                             |                           |      |  |      |         |
| <b>CONTACT PERSONS:</b>   | <b>LINE OF BUSINESS:</b>   |  |                              |                             |                              |                             |                           |      |  |      |         |
| 1.) Juan dela Cruz  | Manufacturer of electronic goods & technology (i.e. semiconductors) mainly used in the industrial, automotive, personal electronics, communication equipment, enterprise systems, etc.   |  |                              |                             |                              |                             |                           |      |  |      |         |
| <b>CONTACT NUMBER:</b>  | <b>PRODUCTS:</b>   |  |                              |                             |                              |                             |                           |      |  |      |         |
| 1.) +63 48 123 4567   | Amplifiers, Audio, Clock & timing, Data converters, Di & wafers services, interface, isolation, Logic, Microcontrollers, ROM/ DRAMs, Power management, Processors, RF & microwave, Sensors, Space & harsh environment, Switches & multiplexers, Wireless connectivity, Calculators & education technology  |  |                              |                             |                              |                             |                           |      |  |      |         |
| <b>PREVIOUSLY ISSUED STMO CERTIFICATE/LICENSE:</b>  | <b>STRATEGIC GOODS DETAILS:</b>  |  |                              |                             |                              |                             |                           |      |  |      |         |
| No record of license issued   | <table border="1"> <thead> <tr> <th>Description of Strategic Goods</th> <th>HS Code</th> <th>Country of Origin</th> <th>HS No. of Products per annum</th> <th>HS No. of Imports per annum</th> </tr> </thead> <tbody> <tr> <td>Integrated Circuits (ICs)</td> <td>8502</td> <td>USA, Malaysia, Singapore, Taiwan, Thailand, Netherlands, Germany</td> <td>1000</td> <td>1000000</td> </tr> </tbody> </table> | Description of Strategic Goods                                   | HS Code                      | Country of Origin           | HS No. of Products per annum | HS No. of Imports per annum | Integrated Circuits (ICs) | 8502 | USA, Malaysia, Singapore, Taiwan, Thailand, Netherlands, Germany | 1000 | 1000000 |
| Description of Strategic Goods  | HS Code  | Country of Origin  | HS No. of Products per annum | HS No. of Imports per annum |                              |                             |                           |      |  |      |         |
| Integrated Circuits (ICs)   | 8502   | USA, Malaysia, Singapore, Taiwan, Thailand, Netherlands, Germany | 1000                         | 1000000                     |                              |                             |                           |      |  |      |         |
| <b>CONSIDERATIONS FOR EXPORT REVIEW AND LICENSE APPLICATION:</b>  | <b>PROLIFERATION/NATIONAL SECURITY CONCERNS:</b>   |  |                              |                             |                              |                             |                           |      |  |      |         |
| <ol style="list-style-type: none"> <li>Recommended to apply for Individual Authorization.</li> <li>The activity of export is considered an integral transfer of technology. Further additional information on the specific technology transfer under these facilities design must be required.</li> <li>Consider all control parameters listed under Nuclear Technology Transfer(NTT) of the MTR, Annex 2. Take into consideration that the approval of goods for export also authorizes the export in the same volume of the minimum "technology" required for the installation, operation, maintenance and repair of the goods (technology).</li> </ol> | None.  |  |                              |                             |                              |                             |                           |      |  |      |         |

# COMPANY PROFILE

Table of Government participation constitutional inventory  
 Head of State: President Rodrigo Duterte  
 Population: 109,681,128 as of January 2020  
 GDP: 4.077 Trillion USD (2019)  
 Life per capita: 71.17 (2019) (2019)  
 (Approximate Mission in the Country)  
 Embassy of Japan in Philippines  
 1001, 1002, 1003  
 1500 Legaspi Street, Pasay  
 Metro Manila, Philippines  
 Diplomatic Mission of the Philippines in JEM  
 Embassy of the Republic of the Philippines  
 100-1001  
 1-14-1 Roppongi, Minato-ku, Tokyo, 106-8002  
 Tokyo, Japan

**TRADE INFORMATION**

|   |   |
|---|---|
| <b>EXPORT</b>   | <b>IMPORT</b>   |
| Total Exports, Philippines to Japan (2014-2018) - US\$ Thousand | Total Imports, Philippines from Japan (2014-2018) - US\$ Thousand |

**STMO AREAS FOR CONSIDERATION**

| STMO Area | Control | Remarks |
|-----------|---------|---------|
| ...       | ...     | ...     |

# COUNTRY PROFILE

# STRATEGIC TRADE RISK ASSESSMENT TOOLS



# Thank You!!!

Department of Science and Technology

**Philippine Nuclear Research Institute**

 [pnri.dost.gov.ph](http://pnri.dost.gov.ph)

 /PNRIDOST

