

**Tentative Schedule of  
The 2004 FNCA Workshop on the Utilization of Research Reactors  
January 13 – 21, 2005, Bangkok, Thailand**

**Sub-Workshop for NAA Session**

~~~ *Thursday, 13 January 2005* ~~~

**Neutron Activation Analysis Group** Reactor Hall, Meeting Room: 103, Building No.4, OAP

|                      |                                                                                                                                                                              |                                                    |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| <b>09:00 – 09:15</b> | <b>Registration</b>                                                                                                                                                          |                                                    |
| <b>09:15 – 09:30</b> | <b>Welcoming/Opening Remarks:</b><br>- Mr. Manit Sonsuk, Head of the Chemistry Research and Material Science Program<br>- Prof. Mitsuru Ebihara, NAA Project Leader of Japan |                                                    |
| <b>09:30 – 10:30</b> | <b>Introduction of IAEA K<sub>0</sub> Software (IAEA)</b>                                                                                                                    |                                                    |
| <b>10:30 – 11:00</b> | <i>Coffee Break</i>                                                                                                                                                          |                                                    |
| <b>11:00 – 12:00</b> | <b>K<sub>0</sub> Method Experiment</b>                                                                                                                                       |                                                    |
| <b>12:00 – 13:00</b> | <i>Lunch</i>                                                                                                                                                                 |                                                    |
| <b>13:00 – 15:00</b> | ..Continued                                                                                                                                                                  |                                                    |
| <b>15:00 – 15:30</b> | <i>Coffee Break</i>                                                                                                                                                          |                                                    |
| <b>15:30 – 17:00</b> | <b>Discussion</b>                                                                                                                                                            | <b>Chairperson</b><br><b>Prof. Mitsuru Ebihara</b> |
| <b>18:00 – 20:00</b> | <b>Reception hosted by MEXT at Pola-Pola Restaurant</b>                                                                                                                      |                                                    |

~~~ *Friday, January 14, 2005* ~~~

**Neutron Activation Analysis Group** Reactor Hall, Meeting Room: 103, Building No.4, OAP

|                      |  |   |
|----------------------|--|---|
| <b>09:00 – 10:30</b> | <b>K<sub>0</sub> Method Experiment</b> |   |
| <b>10:30 – 11:00</b> | <i>Coffee Break</i>                    |   |
| <b>11:00 – 12:00</b> | ..Continued                            |   |
| <b>12:00 – 13:00</b> | <i>Lunch</i>                           |   |
| <b>13:00 – 15:00</b> | <b>Discussion</b>                      | <b>Chairperson</b><br><b>Dr. Ho Manh Dung</b> |
| <b>15:00 – 15:30</b> | <i>Coffee Break</i>                    |   |
| <b>15:30 – 17:00</b> | ..Continued                            |   |

~~~ *Saturday, January 15, 2004* ~~~

**Neutron Activation Analysis Group** Meeting Room: 103, Building No.4, OAP

|                      |                                                                                |                                                 |
|----------------------|--------------------------------------------------------------------------------|-------------------------------------------------|
| <b>09:00 – 10:30</b> | <b>K<sub>0</sub> Method Evaluation</b>                                         |                                                 |
| <b>10:30 – 11:00</b> | <i>Coffee Break</i>                                                            |                                                 |
| <b>11:00 – 12:00</b> | ..Continued                                                                    |                                                 |
| <b>12:00 – 13:00</b> | <i>Lunch</i>                                                                   |                                                 |
| <b>13:00 – 15:00</b> | <b>Discussion</b>                                                              | <b>Chairperson</b><br><b>Dr. Wanna Cheuinta</b> |
| <b>15:00 – 15:30</b> | <i>Coffee Break</i>                                                            |                                                 |
| <b>15:30 – 16:30</b> | ..Continued                                                                    |                                                 |
| <b>16:30 – 17:00</b> | <b>Closing Remarks:</b><br>-Dr. Wanna Cheuinta, NAA Project Leader of Thailand |                                                 |

## Workshop on Utilization of research Reactors

~~~ Monday, January 17, 2005 ~~~

### Plenary Session Main Meeting Room, OAP

|                      |   |                          |
|----------------------|---|--------------------------|
| <b>09:00 – 09:30</b> | <b>Registration</b>   |                          |
| <b>09:30 – 10:30</b> | <b>Welcoming/Opening Remarks:</b><br><b>Welcome Address :</b> Mr. Pathom Yamkate, Secretary General of OAP<br><b>Remarks :</b> - Ms. Miwako Shimizu, Special staff of Atomic Energy Division,<br>Research and Development Bureau, Ministry of Education, Culture, Sports,<br>Science and Technology (MEXT)<br>- Dr. Hideaki YOKOMIZO, Chairman of Research Reactor Field<br><b>Opening Speech :</b> Dr. Saksit Tridech, Deputy Permanent Secretary, MOST of Thailand<br><b>Master of Ceremony :</b> Mr. Sakda Charoen , PL, Head of Radioisotope Production<br>Program<br><b>Introduction of Participants</b><br><b>Group Photo</b> |                          |
| <b>10:30 – 11:00</b> | <b>Press Conference (Meeting Room 313, OAP) / Coffee Break</b>  |                          |
|                      | <b>General Lectures:</b>  | <b>Chairperson</b>       |
| <b>11:00 – 11:30</b> | “Neutron Sources in Japan” by Dr. Hideaki Yokomizo - Japan  | <b>Mr. Sakda Charoen</b> |
| <b>11:30 – 12:00</b> | “Medical application of RI in Thailand” by Dr.Tawatchai - Thailand  |                          |
| <b>12:00 – 13:30</b> | <i>Lunch</i>  |                          |
| ⋮                    |   |                          |
| <b>18:30 – 20:30</b> | <b>Reception hosted by OAP at Rachada 1 Chaophya Park Hotel</b>   |                          |

### Paralel Session

#### Neutron Activation Analysis Group Meeting Room: 103, Building No.4, OAP

|                      |   |                               |
|----------------------|---|-------------------------------|
| <b>13:30 – 14:00</b> | <b>Workshop Review, Perspectives by Prof. Mitsuru Ebihara</b>   |                               |
|                      | <b>Country Report on Air Particulate Samples</b>  | <b>Chairperson</b>            |
| <b>14:00 – 14:30</b> | “Progress Report of FNCA 2004 URR Workshop of NAA Group” by Prof. Ni Bangfa - China   | <b>Ms. Flora Lopez Santos</b> |
| <b>14:30 – 15:00</b> | “Analysis of Airborne Particulate Matter Collected in Urban and Rural Area by Instrumental Neutron Activation Analysis” by Mr. Sutisna - Indonesia    |                               |
| <b>15:00 – 15:30</b> | <i>Coffee Break</i>   |                               |
| <b>15:30 – 16:00</b> | “Elemental Compositions of Atmospheric Particulates Collected in Japan in First Half Year of 2004” by Dr. Yasuji Oura - Japan                         | <b>Prof. Tsunehiko Otoshi</b> |
| <b>16:00 – 16:30</b> | “Chemical Characterization of Urban Air Particulate Matter of Kuala Lumpur 2002 – 2004” by Mr. Wee Boon Siong - Malaysia                              |                               |
| <b>16:30 – 17:00</b> | “Roadside Air Particulate Monitoring in the PM10 range at the Poveda Learning Center, EDSA, Metro Manila” by Ms. Flora Lopez Santos - The Philippines |                               |

Mon, Jan. 17 - continued

**Paralel Session**

**Research Reactor Technology Group** Main Meeting Room, OAP

|                      |   |                              |
|----------------------|---|------------------------------|
| <b>13:30 – 14:00</b> | <b>Workshop Review, Perspectives by Mr. Toshio Kosugi</b>   |                              |
| <b>14:00 – 14:30</b> | <b>"Present Status of KURRI" by Prof. Seiji Shiroya - Japan</b>   |                              |
|                      | <b>Country Report on Research Reactors and Utilization</b>  | <b>Chairperson</b>           |
| <b>14:30 – 15:00</b> | "Utilization of MCNP Code in the Research and Design for China Advanced Research Reactor" by Mr. Shen Feng - China        | <b>Mr. Siripone Chueinta</b> |
| <b>15:00 – 15:30</b> | "Aging Management and Experience in Safety Operation of the Indonesian Research Reactors" by Mr. Iman Kuntoro - Indonesia |                              |
| <b>15:30 – 16:00</b> | <i>Coffee Break</i>   |                              |
| <b>16:00 – 16:30</b> | "Current Status of Operation and Utilization of Research Reactors in JAERI" by Mr. Hisashi Sagawa - Japan                 | <b>Mr. Adnan Bin Bokhari</b> |
| <b>16:30 – 17:00</b> | "HANARO Operation Experience in the Year 2004" by Dr. Soo-Youl Oh - Korea   |                              |

**Paralel Session**

**Tc Generator Technology Group** Meeting Room: 122 Building No.4, OAP

|                      |  |                                     |
|----------------------|--|-------------------------------------|
| <b>13:30 – 14:00</b> | <b>Workshop Review, Perspectives by Dr. Tsuguo Genka</b>   |                                     |
|                      | <b>Country Report on Radioisotope Production</b>   | <b>Chairperson</b>                  |
| <b>14:00 – 14:30</b> | "The Labeling Results of MDP Prepared with Tc-99m Eluted from PZC Based Tc-99m Generator" by Prof. Liu Yishu - China   | <b>Dr. Tsuguo Genka</b>             |
| <b>14:30 – 15:00</b> | "Pre-Clinical and Clinical Trial Evaluation of Mo-99/Tc-99m Generator Based on PZC Materials and Neutron Irradiated Natural Molybdenum" by Dr. Abdul Mutalib - Indonesia |                                     |
| <b>15:00 – 15:30</b> | "Improvement of the Characteristics of PZC Adsorbent" by Dr. Katsuyoshi Tatenuma - Japan   |                                     |
| <b>15:30 – 16:00</b> | <i>Coffee Break</i>  |                                     |
| <b>16:00 – 16:30</b> | "Quality Control of Tc-99m Solution Produced by PZC Generator and Production Status of Tc-99m Generator in Korea" by Mr. Hyon-Soo Han - Korea                            | <b>Ms. Adelina Dela Mines Bulos</b> |
| <b>16:30 – 17:00</b> | "Radioisotopes Development and Production in Malaysia" by Mr. Wan Anuar Wan Awang - Malaysia   |                                     |

~~~ Tuesday, January 18, 2005 ~~~

**Parallel Session**

**Neutron Activation Analysis Group**

Meeting Room: 103 Building No.4, OAP

|                      | <b>Country Report on Air Particulate Samples</b>                                                                                                     | <b>Chairperson</b>           |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| <b>09:00 – 09:30</b> | “Using of k0-INAA for Determination of Trace Multi-Element in APM and Marine Samples Collected in Period of 2002-2004” by Dr. Ho Manh Dung - Vietnam | <b>Mr. Wee Boon Siong</b>    |
| <b>09:30 – 10:00</b> | “INAA of Airborne Particulate Matter Collected in Bangkok and Pathumthani 2002-2004” by Dr. Wanna Chueinta - Thailand                                |                              |
| <b>10:00 – 10:30</b> | <i>Coffee Break</i>                                                                                                                                  |                              |
| <b>10:30 – 11:00</b> | “Summary of Sub-workshop on NAA-k0 Method” by Dr.Sirinart Laoharajanaphand - Thailand                                                                | <b>Dr. Yasuji Oura</b>       |
| <b>11:00 – 11:30</b> | “Roles of Environmental Monitoring Toward the Better Environment” by Prof. Tsunehiko Ootshi - Japan                                                  |                              |
| <b>11:30 – 12:00</b> | <b>General Discussion on Air Particulate Sample Analysis</b>                                                                                         | <b>Chairperson</b>           |
| <b>12:00– 13:30</b>  | <i>Lunch</i>                                                                                                                                         |                              |
| <b>13:30 – 14:30</b> | ..Continued                                                                                                                                          |                              |
| <b>14:00 – 15:00</b> | <b>Report and Discussions on “Home Works” in 2003-2004</b>                                                                                           | <b>Chairperson</b>           |
| <b>15:00 – 15:30</b> | <i>Coffee Break</i>                                                                                                                                  |                              |
| <b>15:30 – 17:00</b> | <b>Report and Discussion on Standard Marine Sample Analysis</b>                                                                                      | <b>Prof. Mitsuru Ebihara</b> |
|                      |                                                                                                                                                      | <b>Dr. Ho Manh Dung</b>      |

**Paralel Session**

**Research Reactor Technology Group**

Main Meeting Room, OAP

|                      | <b>Country Report on Research Reactors and Utilization</b>                                                   | <b>Chairperson</b>      |  |
|----------------------|--------------------------------------------------------------------------------------------------------------|-------------------------|--|
| <b>09:00 – 09:30</b> | “Operation and Maintenance of the 1MW PUSPATI TRIGA Reactor” by Mr. Adnan Bin Bokhari - Malaysia             | <b>Mr. Iman Kuntoro</b> |  |
| <b>09:30 – 10:00</b> | “Current Status of Operation and Utilization of the Dalat Research Reactor” by Dr. Nguyen Nhi Dien - Vietnam |                         |  |
| <b>10:00 – 10:30</b> | <i>Coffee Break</i>                                                                                          |                         |  |
| <b>10:30 – 11:00</b> | “Current Status of the Thai Research Reactor (TRR-1/M1)” by Mr. Siripone Chueinta - Thailand                 |                         |  |
| <b>11:00 – 11:30</b> | “Ongkharak Nuclear Research Center Project” by Mr. Mongkol Jullanan - Thailand                               |                         |  |
| <b>11:30 – 13:00</b> | <i>Lunch</i>                                                                                                 |                         |  |
|                      | <b>Project Proposal</b>                                                                                      | <b>Chairperson</b>      |  |
| <b>13:00 – 13:45</b> | Mr. Shen Feng - China                                                                                        | <b>Dr. Soo-Youl Oh</b>  |  |
| <b>13:45 – 14:30</b> | “Project Proposal for Research Reactor Technology Group” by Mr. Iman Kuntoro - Indonesia                     |                         |  |
| <b>14:30 – 15:00</b> | <i>Coffee Break</i>                                                                                          |                         |  |
| <b>15:00 – 15:45</b> | “Project Proposal on Research Reactor Technology from Japan” by Mr. Tomoaki Kato - Japan                     |                         |  |
| <b>15:45 – 16:30</b> | Mr. Adnan Bin Bokhari - Malaysia                                                                             |                         |  |

*Tue, Jan. 18 - continued*

**Parallel Session**

**Tc Generator Technology Group**

Meeting Room: 122 Building No.4, OAP

|                      | <b>Country Report on Radioisotope Production</b>                                                                                     | <b>Chairperson</b>                             |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <b>09:00 – 09:30</b> | “Characterization of Tc99m from PZC Generators” by Ms. Adelina Dela Mines Bulos - The Philippines                                    | <b>Mr. Hyon-Soo Han</b>                        |
| <b>09:30 – 10:00</b> | “Evaluation of 99Mo/99mTc Generator Experiment Using PZC Material and Irradiated Natural Molybdenum” by Mr. Sakda Charoen - Thailand |                                                |
| <b>10:00 – 10:30</b> | <i>Coffee Break</i>                                                                                                                  |                                                |
| <b>10:30 – 11:00</b> | “Present Status of OAP Radioisotope Production” by Mr.Sakda Charoen - Thailand                                                       | <b>Prof. Liu Yishu</b>                         |
| <b>11:00 – 11:30</b> | <b>Discussion on the work plan for FY2005</b>                                                                                        |                                                |
| <b>11:30 – 13:00</b> | <i>Lunch</i>                                                                                                                         |                                                |
| <b>13:00 – 15:00</b> | <b>Discussion on Radiopharmaceutical Labeling Test (1)</b>                                                                           | <b>Chairperson</b><br><b>Dr. Abdul Mutalib</b> |
| <b>15:00 – 15:30</b> | <i>Coffee Break</i>                                                                                                                  |                                                |
| <b>15:30 – 17:00</b> | <b>Discussion on future program</b>                                                                                                  | <b>Dr. Tsuguo Genka</b>                        |

~~~ Wednesday, January 19, 2005 ~~~

**Paralel Session**

**Neutron Activation Analysis Group**

Meeting Room: 103 Building No.4, OAP

|               |  |                       |
|---------------|--|-----------------------|
| 09:00 – 10:30 | Report and Discussion on Standard Marine Sample Analysis | Chairperson           |
|               |  | Mr. Sutisna           |
| 10:30 – 11:00 | <i>Coffee Break</i>                                      |                       |
| 11:00 – 12:00 | ..Continued  | Prof. Ni Bangfa       |
| 12:00 – 13:30 | <i>Lunch</i>   |                       |
| 13:30 – 15:00 | ..Continued  | Dr. Wanna Chueinta    |
| 15:00 – 15:30 | <i>Coffee Break</i>                                      |                       |
| 15:30 – 17:00 | Drafting of Summary Report                               | Chairperson           |
|               |  | Prof. Mitsuru Ebihara |

**Paralel Session**

**Research Reactor Technology Group**

Main Meeting Room, OAP

|               |   |  |
|---------------|---|--|
|               | <b>Project Proposal</b>   | <b>Chairperson</b>                         |
| 09:00 – 09:45 | Dr. Soo-Youl Oh - Korea   | Mr. Shen Feng                              |
| 09:45 – 10:30 | Dr. Nguyen Nhi Dien - Vietnam   |  |
| 10:30 – 11:00 | <i>Coffee Break</i>   |  |
| 11:00 – 11:45 | “Status of Neutronics Calculation for TRR-1/M1” by Mr. Siripone Chueinta - Thailand |  |
| 11:45 – 13:15 | <i>Lunch</i>  |  |
| 13:15 – 14:45 | Discussion on the New Project   | Chairperson                                |
|               |   | Prof. Seiji Shiroya<br>Dr. Nguyen Nhi Dien |
| 14:45 – 15:15 | <i>Coffee Break</i>   |  |
| 15:15 – 17:00 | Preparation of Proposal for Coordinators Meeting                                    | Chairperson                                |
|               |   | Mr. Toshio Kosugi                          |

**Paralel Session**

**Tc Generator Technology Group**

Meeting Room: 122 Building No.4, OAP

|               |  |                   |
|---------------|--|-------------------|
| 09:00 – 10:30 | Discussion on Loading machine and Pre-loading System | Chairperson       |
|               |  | Mr. Sakda Charoen |
| 10:30 – 11:00 | <i>Coffee Break</i>                                  |                   |
| 11:00 – 11:45 | Discussion on Publication of Comprehensive Report    | Chairperson       |
|               |  | Dr. K.Tatenuma    |
| 11:45 – 13:15 | <i>Lunch</i>   |                   |
| 13:15 – 15:00 | Discussion on Dissemination of PZC Technology        | Chairperson       |
|               |  | Mr. Wan Awang     |
| 15:00 – 15:30 | <i>Coffee Break</i>                                  |                   |
| 15:30 – 17:00 | Drafting of Summary Report                           | Chairperson       |
|               |  | Dr. Tsuguo Genka  |

~~~ Thursday, January 20, 2005 ~~~

**Paralel Session**

**Neutron Activation Analysis Group**

Meeting Room: 103 Building No.4, OAP

|                      |                                      |                              |
|----------------------|--------------------------------------|------------------------------|
| <b>09:00 – 10:30</b> | <b>Project Evaluation</b>            | <b>Chairperson</b>           |
|                      |                                      | <b>Prof. Mitsuru Ebihara</b> |
| <b>10:30 – 11:00</b> | <i>Coffee Break</i>                  |                              |
| <b>11:00 – 12:00</b> | <b>Drafting of Evaluation Report</b> |                              |
| <b>12:00 – 13:30</b> | <i>Lunch</i>                         |                              |

**Paralel Session**

**Research Reactor Technology Group**

Main Meeting Room, OAP

|                      |                                   |                            |  |
|----------------------|-----------------------------------|----------------------------|--|
| <b>09:00 – 10:30</b> | <b>Drafting of Summary Report</b> | <b>Chairperson</b>         |  |
|                      |                                   | <b>Dr. Nguyen Nhi Dien</b> |  |
| <b>10:30 – 11:00</b> | <i>Coffee Break</i>               |                            |  |
| <b>11:00 – 12:00</b> | ..Continued                       |                            |  |
| <b>12:00 – 13:30</b> | <i>Lunch</i>                      |                            |  |

**Paralel Session**

**Tc Generator Technology Group**

Meeting Room: 122 Building No.4, OAP

|                      |                                      |                         |
|----------------------|--------------------------------------|-------------------------|
| <b>09:00 – 10:30</b> | <b>Project Evaluation</b>            | <b>Chairperson</b>      |
|                      |                                      | <b>Dr. Tsuguo Genka</b> |
| <b>10:30 – 11:00</b> | <i>Coffee Break</i>                  |                         |
| <b>11:00 – 12:00</b> | <b>Drafting of Evaluation Report</b> |                         |
| <b>12:00 – 13:30</b> | <i>Lunch</i>                         |                         |

|                      |                                                                                                                                            |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>13:30 – 16:30</b> | <b>Technical Visit to OAP</b><br>-Research Reactor<br>-Radioisotope Production<br>-Food Irradiation<br>-Plant mutation<br>-Gem Irradiation |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------|

~~~ *Friday, January 21, 2005* ~~~

**Paralel Sessions** Meeting Room: Main meeting room, Meeting room 103, Meeting room 122, OAP

|                      |                                    |
|----------------------|------------------------------------|
| <b>09:00 – 09:45</b> | <b>Summary Report Draft Review</b> |
| <b>09:45 – 10:00</b> | <i>Coffee Break</i>                |

**Plenary Session** Main Meeting Room, OAP

|                      |  |   |
|----------------------|--|---|
| <b>10:00 – 11:30</b> | <b>Round Table Discussion</b><br><b>Workshop Summary</b><br>NAA: Prof. Mitsuru Ebihara<br>RRT: Mr. Siripone Chueinta<br>TCG: Dr. Tsuguo Genka<br><b>Discussion on Future Plans</b> | <b>Chairperson</b>                                      |
|                      |  | <b>Mr. Sakda Charoen</b><br><b>Dr. Hideaki Yokomizo</b> |
| <b>11:30 – 12:00</b> | <b>Closing Remarks:</b><br>- Dr. Tsuguo Genka, Japan Project Leader<br>- Mr. Sakda Charoen, Thailand Project Leader  |   |
| <b>12:00 – 13:30</b> | <i>Lunch</i>   |   |
| <b>13:30 – 17:00</b> | <b>Optional Visit : Grand Palace and Emerald Bhudda Temple</b>   |   |