



RCF Programme Assessment

2010 and 2011

Executive Summary

In accordance with the Regulatory Cooperation Forum (RCF) programme, an annual assessment is to be performed. The primary purposes of the assessment are to determine the continuing need of the RCF based on its objectives, examine and assess the development and implementation of recipient-specific action plans and to evaluate the programme for needed changes.

Numerous inputs were used to assess the RCF's activities in 2010 – 2011 with assessment results being presented in three main areas: (1) Programme Implementation; (2) Jordan Nuclear Regulatory Commission Action Plan Development and Implementation and (3) Communications and Outreach.

A number of recommendations have been made to improve the RCF which are highlighted by improving coordination, clarifying the role of the IAEA, funding RCF activities and improving internal and external RCF communications. The RCF Programme Assessment and proposed recommendations (Appendix 5) are to be presented to the RCF Steering Committee with decisions made by the committee regarding their implementation.

Based upon member feedback, it is clear that RCF members wish to retain the Forum for coordinating regulatory support for its members and that the programme is being effectively promoted and facilitated by the Agency. However, the Forum's progress needs to be further realized in 2012 beyond that of Jordan to make the Forum worthwhile and commensurate with the level of effort expended by its members. In 2012, it is expected that that two more RCF recipient members (Poland and Vietnam) will be reviewed for support and that the RCF's ability to meet its objective for effective coordination further tested. There are several programme changes needed to both improve the coordination of RCF activities and more effectively operate the Forum in a more effective and efficient manner. Finally, funding for RCF activities is expected to continue to be a significant challenge unless sufficient funding is received.

RCF Programme Assessment

2010 and 2011

I. Purpose

In accordance with the Regulatory Cooperation Forum (RCF) Terms of Reference and Programme Plan, an annual assessment is to be performed by the RCF secretariat. The primary purposes of the assessment are to determine the continuing need of the RCF based on its objectives, examine the development and implementation of recipient-specific action plans and to evaluate the programme for needed changes.

II. Background

During early discussions of the RCF, its members wanted to ensure that the Forum continued to add value by helping to coordinate the support offered by countries with advanced nuclear power programmes (providers) to countries embarking upon nuclear power for the first time and those considering expansion of existing programmes (recipients). The members did not want the Forum to continue to exist without it having a notable impact in this coordination role, recognizing the difficulty of coordinating support activities from multiple provider countries and other entities, such as the IAEA and the European Commission (EC). Therefore, the RCF membership agreed that an annual assessment be conducted for this purpose. This assessment was added to the RCF Programme Plan to be performed by the RCF secretariat.

Although the Programme Plan places emphasis on the development and implementation of action plans for its recipient members, the first assessment will also include other overall programme features. This is being done because the RCF is a relatively new initiative having learned many lessons and because there was only one recipient country (Jordan) in the first assessment period.

III. Methodology

Several inputs were used in the assessment with the primary inputs including the compliments, challenges and concerns regarding the Forum offered by RCF members at the 2nd annual RCF Plenary meeting during the 55th General Conference (emphasis), lessons learned realized from the Jordan test case, direct feedback from RCF members and other stakeholders to the RCF secretariat throughout the assessment period, RCF secretariat observations and experience while facilitating and promoting the RCF programme, a review of all RCF meeting summaries and development and implementation of the Action Plan developed for the Jordan Nuclear Regulatory Commission (JNRC).

The following is a list of inputs that are included in the assessment as Appendices.

Appendix 1 - Summary of Significant Activities

Appendix 2 – Lessons Learned

Appendix 3 – Compliments, Challenges and Concerns

Appendix 4 – JNRC Action Plans

This material was reviewed with the following major areas of the programme and its effectiveness to be discussed.

- Program Implementation
- JNRC Action Plan Development and Implementation

- Communications and Outreach

IV. Program Implementation

A review was conducted to determine if the RCF programme documents were effectively implemented. Both the Terms of Reference and Programme Plan were revised twice during the assessment period primarily taking into account lessons learned from the Jordan experience described in Appendix 2. A small working group met in March 2011 and streamlined the documents making them more user-friendly and more importantly adding specific process steps for RCF coordination, criteria for RCF support and RCF funding strategies. The guiding principles of the RCF have remained essentially the same since the RCF was formed in June 2010.

Terms of Reference

All specific requirements were satisfied as demonstrated by the conduct of required meetings, needed revisions to programme documents, maintenance of the RCF web pages, conduct of working groups and steering committee activities. Although it is difficult to know that the RCF objectives were satisfied, the early indication with JNRC is that the RCF was mostly effective at coordinating the identified support noting the challenges faced due to the Fukushima accident and the ability of provider members to focus on RCF activities and provide support in the first six months of 2011.

On the RCF objectives, feedback received from some RCF members was that the objectives may not align with the Forum's originally intended purpose. Although it is highly desirable and reflective of the IAEA Safety Standards that regulators be effectively independent and robust, the RCF in its coordination role is unlikely to realistically meet such an objective. Therefore, it is suggested that the RCF objective(s) be more focused on the reason the RCF was formed which was to more effectively coordinate regulatory support, typically offered through bi-lateral agreements, in a collaborative and cooperative way between regulators of nuclear power.

Recommendation 1: It is recommended that the RCF revise its objectives to focus on its coordination role and let other mechanisms such as the Integrated Regulatory Review Service (IRRS) assess the effectiveness, independence and robustness of regulatory bodies.

There was specific feedback on the coordination role of the RCF and the suggestion to share administrative resources for support activities between the various Agency departments such as Nuclear Energy, Nuclear Safety and Security, and Technical Cooperation (TC). The Agency has formed a "soft coordination" group for selected embarking countries that may be able to support this suggestion.

Recommendation 2: It is recommended that the RCF secretariat pursue with IAEA departments potential ways to share administrative resources for the Agency's support for embarking countries.

Another area of needed attention involved programme finances. This area received a great amount of attention by RCF members to reduce the programme's financial burden on its members. Many members commented on financing identifying it as both a challenge and concern thus representing a pivotal issue for the RCF's sustainability. Although participation in RCF activities is the responsibility of its members, there was a need to finance travel expenses for JNRC representatives using IAEA extra budgetary contributions earmarked for embarking countries. The IAEA agreed to this financial assistance because JNRC had agreed to be the test case recipient country and had not budgeted this participation making access to travel funds very difficult. Some members questioned the degree of financial responsibility for RCF participation suggesting ways to lessen this responsibility by communicating more effectively through electronic means. One provider member stated that providing

support without compensation made participating in the RCF very difficult and had no plans to support recipients without compensation.

To address the funding issue, the IAEA in its role to facilitate and promote the RCF requested extra budgetary assistance that was provided by the United States in September 2011. The RCF secretariat had also requested financial assistance from the EC and discussions continued at the end of 2011.

Recommendation 3: It is recommended that RCF Steering Committee revisit RCF financing with the following suggestions: (a) the RCF Steering Committee to solicit extra budgetary contributions from its members with the use of the funds restricted to travel and living expenses and not staff time, consistent with the Terms of Reference, (b) the RCF programme should be reviewed for financial efficiencies such as the use of videoconferencing for certain meetings and the use of electronic media as means to reduce the financial burden of participating in routine RCF activities and (c) the guiding principle involving finances be further reviewed by the RCF Steering Committee to ensure the Forum continues to desire that members make their own financial arrangements for participating in the RCF.

Although one of the RCF's guiding principles is that the Forum be driven by its members, the RCF secretariat observed through its routine interactions with RCF members that more timely involvement is needed by its members when attempting to arrange activities noting that some members did not provide responses or provided them very late making facilitation difficult. Noting that RCF members were highly satisfied with the Agency's support of the RCF, a general observation by the RCF secretariat was that the Agency may have gone beyond its role to facilitate and promote RCF activities and tended to lead the Forum's activities, particularly in the area of ensuring committed support was acted upon by provider members. Two possible reasons were that (1) several provider countries were challenged by the Fukushima accident in terms of resources and (2) the challenge of communicating activities amongst RCF members which is discussed further in the Communications and Outreach Section of this assessment.

Recommendation 4: It is recommended that the RCF Steering Committee review and discuss the Agency's role in the RCF to determine if changes are needed.

Programme Plan

The Programme Plan was significantly revised and improved since it was issued in 2010. The first draft of the Programme Plan involved the development of support and needs templates for each RCF member. When attempting to obtain this information, the RCF secretariat received feedback from RCF members that the template approach was too complicated and too difficult with only one member providing the requested information. Therefore, it was decided to conduct face-to-face meetings between providers and recipients in developing country specific action plans. This approach was used for JNRC proving to be a significant programme improvement noting that some member feedback was that face-to-face meetings were somewhat burdensome.

An additional programme change involved the development of criteria for receiving RCF support. These criteria made it clear that in order to receive RCF support, recipient members must be *committed through national actions* to develop a nuclear power programme. The first revision simply stated that recipient members must be "serious" regarding their intentions to develop or expand their programme. This change was made at the request of provider members acknowledging the "scarce" resources available to support recipient members. One observation made about the new criteria, however, was that they may be too limiting, possibly resulting in the RCF not engaging with embarking countries sufficiently early in their development of their regulatory body once it is formed or changed to accommodate nuclear power.

Recommendation 5: It is recommended to revisit the RCF support criteria to ensure that they are not overly limiting in their application thus excluding support from certain RCF members with less developed programmes.

A major improvement made to the Programme Plan involved the development of the process steps taken to receive RCF support. The steps developed reflected the guiding principles of the RCF described in the Terms of Reference and clearly laid out the roles and responsibilities of participating RCF members. Of particular note was the guidance addressing the responsibility of recipient members to identify not only needs but to also identify all the support being received in an open and transparent manner thus allowing the RCF to perform its function of coordination by all entities involved with an emphasis on bi-lateral assistance.

Acknowledging that finances remained the responsibility of RCF members, funding strategies were developed to assist RCF members in this regard, including the use of existing funding mechanisms such as the IAEA's TC Programme and the EC's nuclear safety support programmes. Although this was an improvement, more attention is needed in this area for the RCF to continue its activities. It was observed that the funding strategies developed were somewhat unclear to RCF members, in particular the use of the IAEA's TC Programme.

Recommendation 6: It is recommended that more clarity be provided to RCF members on RCF funding strategies, including use of the IAEA's Technical Cooperation Programme.

V. JNRC Action Plan Implementation

The JNRC Action Plan was first developed in November 2010 and then modified in September 2011 – see Appendix 4. The original plan included 12 areas of support that were identified during an RCF test case support mission in September 2010. The mission team used the framework of DS424 (now SSG 16), to both evaluate the needs and gaps for JNRC. This approach proved highly effective resulting in the common language of RCF support would be the IAEA Safety Standards. This was a significant programme insight and was therefore added to the Programme Plan. Another important aspect of the mission was that the RCF should not engage with its recipient members until they complete an assessment of their needs using the support of the IAEA and other entities. It was decided, however, that the RCF would no longer conduct such missions. Rather, RCF members should use IAEA support services, as needed for this important preparatory activity for RCF support.

In the early stages of the plan's implementation, many other lessons were learned. One important lesson was that multiple providers addressing the same recipient need was normally not effective. In fact, having multiple providers for the same need was in conflict with the RCF's objective to avoid unnecessary overlapping support. The exception identified were situations where seminars or workshops might address the particular gap identified in which multiple providers could share their knowledge and experience to multiple recipients. This was effectively demonstrated in a workshop conducted on regulatory approaches. Another workshop was planned for 2012 involving oversight of external support organizations. These workshops had not been previously planned by the IAEA until their need was identified through the RCF. This coordination allowed not only JNRC's need to be addressed but also the potential needs of other embarking countries participating in the workshops. The workshops were notable successes of the RCF because of the coordination efficiencies realized

Another important lesson learned involved the need for openness and transparency between RCF members. It was determined that without this transparent approach that coordination of RCF activities would be difficult. The Programme Plan was therefore revised to require the recipient country to identify all the support being received, including support from the IAEA, the EC and support from bi-lateral arrangements.

Regarding the plans' early implementation, the Fukushima accident proved to have a significant effect resulting in the plan's activities making marginal progress. Two important activities did occur in the first six months of 2011 that being the IAEA sponsored workshop on regulatory approaches and support for the development of the JNRC 5-year Management Systems Plan.

The progress of the plan was reviewed at a June 2011 meeting where members reassessed their support capabilities with a revised plan being finalized in September 2011. The June meeting was conducted consistent with the need to revisit the status of the Action Plan about every six months as described in the Programme Plan proving to be a worthwhile activity.

Regarding staff training needs for JNRC, the RCF was highly successful in the coordination of support between RCF provider countries, the IAEA and the European Commission. Two actions (Actions 118 and 172 of SSG 16) showed that when bringing together otherwise separate support entities that effective coordination can be accomplished. For Action 118, the IAEA through financial support from the EC, set into motion a series of safety assessment training activities to be conducted in 2012. For Action 172, the EC modified its existing project to include training on safety principles and requirements for NPP design thus negating the need for provider countries to fill this particular need. These two support activities represented another significant success of the RCF's coordination role.

Of the 12 gaps originally identified during the November 2010 RCF mission, six were addressed by the end of 2011 representing a marked improvement over the first six months of the plan's implementation.

In terms of assessing the value added to a recipient's capacity building efforts from the RCF's support activities, it was judged by the RCF secretariat that an assessment of this nature would prove highly difficult.

Recommendation 7: It is recommended that future assessments not attempt to perform the value added of RCF support unless the recipient members themselves provide the assessment results.

VI. Communications and Outreach

Communications

There were several actions in the assessment period taken to improve communications among RCF members, the IAEA and the general public. Most importantly was the development of the RCF members only web page. The page was developed in the Microsoft Sharepoint environment proving to be an excellent means to share information. Numerous members had registered for the web page but others had not registered resulting in the web page not as effective as it could have been. In addition, it was observed that many of the members who had registered had not effectively used the web page to keep track with the RCF's activities. As a result, the RCF secretariat relied upon email to communicate and coordinate the work of the RCF. The primary reason the web page was established was due to early feedback from members that too many emails were being used to communicate the routine activities of the RCF. Also, there needed to be a means to access the many documents created by the RCF such as meeting summaries, presentations, developed action plans for RCF recipients and other documents.

Recommendation 8: It is recommended that the RCF web page continue to be the electronic mechanism for RCF communications and activities. It is further recommended that all RCF members register and use the web page as it was intended.

An RCF web page was also developed for the general public using the Global Nuclear Safety and Security Network. The web page is part of the REGNET system accessible to regulators worldwide. A

significant enhancement made to the public web page was the link to the members web page. Although there was no feedback on its usefulness it should continue to be updated and available.

Another action taken to improve communications and efficiencies of the RCF was the delegation of activities to individual(s) in each organization closer to the work of the RCF (versus the senior regulatory official for each member). This change resulted in a dramatic improvement in communications. However, several members reassigned RCF responsibilities within their organizations without informing the RCF secretariat making the facilitation of RCF activities difficult.

Recommendation 9: It is recommended that each RCF member revisit/update their delegated RCF representative(s) and a list of these individuals and their contact information be maintained on the RCF members only web page. When delegation changes are made, members are encouraged to inform the RCF secretariat in a timely manner.

Outreach

There were numerous presentations made to Member States and other stakeholders regarding the RCF and encouragement provided to join the forum noting that actual support would be limited to those countries committed to develop a nuclear power programme. Videos regarding the RCF were also developed and are displayed on the IAEA and RCF web pages. In addition, Member State briefing notes for the IAEA's Director General included references to the RCF encouraging participation in its activities.

Since the Forum was established in 2010, four new members joined increasing the total membership to 21 - a surprisingly small number considering the high number of countries considering the introduction of nuclear power. The RCF secretariat reached out to several embarking countries that appeared to be committed to develop a nuclear power programme based on the Agency's interactions with these countries but at the end of the 2011 only one additional country expressed interest in joining.

As part of the IAEA's Action Plan on Nuclear Safety, encouraging Member States to participate in the RCF was added as an activity for the recommendation involving Member States embarking on nuclear energy.

Recommendation 10: To reach out to more Member States it is recommended that the RCF secretariat and RCF members perform more reach out activities. In particular, it is suggested that RCF members approached by embarking countries requesting regulatory support for nuclear power development be informed about the RCF and be encouraged to join the Forum. In addition, it is recommended that the RCF secretariat discuss the RCF at regional networks such as the ANNuR (Middle East), ANSN (Asia), FNRBA (Africa) and FORO (Latin America) where numerous regulatory bodies throughout the world regularly meet to discuss and act upon their continued capacity building needs.

VII. Conclusions

It is clearly evident that RCF members wish to retain the Forum for coordinating regulatory support for its members and that the programme is being effectively promoted and facilitated by the Agency. However, the Forum's progress must be further realized in 2012 beyond that of Jordan to make the Forum worthwhile and commensurate with the level of effort expended by its members. It is expected that in 2012 that two more RCF recipient members (Poland and Vietnam) will be addressed and that the RCF's ability to meet its objective for effective coordination further tested. There are several programme changes needed to both improve the coordination of RCF activities and more effectively operate the Forum in a more effective and efficient manner – see Appendix 5. Finally, funding for

RCF activities is expected to continue to be a significant challenge unless sufficient funding is received.

END

Appendix 1

Summary of Significant Activities

A list of significant activities is presented as Attachment 2 to the RCF Programme. These activities are provided below and the results located on the RCF web page.

1. The first meeting of the RCF Core Group was held on 21 June 2010 in Vienna, Austria where the Core Group discussed the draft RCF Terms of Reference and Programme Plan and gave detailed guidance for their revision. Jordan was selected as the first test case recipient.
2. An RCF mission was conducted in Amman, Jordan on 4 - 8 September 2010. The purpose of the mission was to assist the Jordan Nuclear Regulatory Commission identify regulatory needs based on DS424, "*Establishing the Safety Infrastructure for a Nuclear Power Programme.*"
3. The first RCF general meeting occurred on 23 September 2010 during the 54th General Conference.
4. The first RCF support meeting for the JNRC was conducted in Vienna, Austria on 11 - 12 November 2010 where an action plan was developed.
5. An RCF working group meeting was held in Vienna on 14 - 16, March 2011 to revise the Terms of Reference and Programme Plan.
6. The second RCF Core Group met on 15 April, 2011 to approve the Terms and Reference and Programme Plan and make decisions regarding activities for the remainder of the year. Vietnam (VARANS) was approved as the second RCF recipient. At this meeting, it was decided to dissolve the Core Group and form a steering committee and to continue RCF activities by supporting Vietnam later in 2011.
7. The second meeting with JNRC took place on 16 – 17 June, 2011 where the 2011 Action Plan was reviewed for progress and necessary actions taken for revision.
8. The first RCF Steering Committee meeting took place on 23 September, 2011 where the new members were confirmed and a briefing conducted on important issues affecting the RCF's objectives.
9. The second annual RCF Plenary took place on 23 September, 2011 during the 55th General Conference where the RCF members discussed their compliments, challenges and concerns regarding the RCF. The membership agreed to continue the RCF with near term support to be provided to Vietnam.

Appendix 2

Summary of Lessons Learned

There were many lessons learned since the establishment of the RCF through its interactions with the JNRC as the test case recipient country. These lessons learned were incorporated into the programme documents, as appropriate. Below are the key lessons and a brief description.

- *Openness and transparency are needed.* For effective coordination all involved members must be aware of not only the support needs but also what support is being received or is planned to be received by the numerous providers.
- *Face-to-face meetings are more effective and necessary.* Communications by email proved very difficult when the RCF was established. Initially, the programme was developed to include a matrix of support needs developed by the recipients and a provider country specific matrix of support that could be offered. This did not prove to be effective because of the time consuming task to construct the matrix and the lack of needed dialogue among RCF members.
- *Common language for support is IAEA Safety Standards – use of now approved SSG 16, “Establishing the Safety Infrastructure for a Nuclear Power Programme,”* is an effective framework for identifying needs. This safety guide was used to assist JNRC at the RCF’s first mission. Once main conclusion from this mission was that the RCF needed a common language for support and that provider countries would provide support consistent with the IAEA Safety Standards.
- *Exchange of regulatory experience is more valuable than exchange of information.* It was noted by Jordan that the exchange of experience was far more important to an embarking country thus the need for on-the-job support activities.
- *Support provided by RCF may be more timely than support from other entities, including the IAEA and the EC.* The RCF is able to develop an action plan to meet the specific and current needs much faster than existing support entities because it is not hampered by more complicated and time consuming processes, procedures and at least one year in advance budget formulations.
- *RCF to coordinate needed support but not identify recipient needs.* Although a needs assessment was done for Jordan as part of the RCF test case mission, it was decided other mechanisms would be more effective and efficient in this regard such as use of the self-assessment tool for SSG 16 being developed by the IAEA and related advisory services.
- *Funding needs for recipients must be addressed.* Although RCF activities are the responsibility of its members, it was noted that embarking countries (and some provider countries) have difficulty obtaining travel funds that have not been pre-approved during the budget cycle.
- *Certain providers may need financial assistance.* Certain RCF provider members have much to offer in terms of regulatory knowledge and experience but because their operating budgets are typically much smaller than large more developed countries, participating in RCF activities was challenging.
- *Recipients must clearly identify their needs in advance and be ready for support.* It is the responsibility of RCF recipients to understand their needs before asking for RCF support demonstrating the necessary ownership in developing the regulatory body.

- *Planning support beyond a 12-month period is not recommended and follow-up support meetings would normally take place 6 – 9 months apart.* It was found that due to the fast moving nature of the regulatory body development in its attempt to keep pace with the NPP schedule that addressing regulatory needs beyond 12 months was not warranted. Follow-up meetings would, however, be helpful for the RCF support to stay current.
- *A better understanding of DS424 (now SSG 16) is needed.* From the Jordan experience and through the Agency's interactions with other Member States, it was evident that more is needed by the IAEA to help with the use of SSG 16. Since the time of the Jordan test case, SSG 16 workshops have been conducted and a self-assessment tool based on SSG 16 is being finalized.
- *An understanding of support resources should be estimated when support is offered.* During the Jordan test case, resources needed to provide and receive the committed support were not estimated. This lack of information later proved to be a barrier for providers when delivering the support causing delays and in some cases the support was not provided.
- *Close coordination and oversight of committed support is needed.* Once the support is committed and the RCF members return to other activities, it was found that close monitoring by the RCF secretariat was needed to ensure providers followed up on their commitments.
- *Support from multiple providers for the same need may not be practical.* Having multiple providers support the same need initially occurred with Jordan but was found to be problematic on many fronts and not consistent with the objectives of the RCF. However, support mechanisms involving multiple providers such as workshops and seminars were exceptions as was demonstrated in the May 2011 workshop on regulatory approaches.
- *Need for effective coordination/integration of support from IAEA, regional activities and other support entities.* It was found that embarking countries are seeking support from numerous entities to quickly develop their infrastructures and staff competences creating an undesirable situation for both the recipient and the providers. It was found that the RCF could prove highly useful in introducing efficiencies in this regard working with the Agency's "soft coordination" initiative led by the Agency's Department of Nuclear Energy.

Appendix 3

Compliments, Challenges and Concerns

Canada

Compliments

- The primary compliment is the creation of the RCF and resourcing it with a well organised secretariat. Although each meeting is chaired by a member of the RCF, the effectiveness of the meeting is contingent on a secretariat that organizes the meetings, seeks clarity on the agreed-to actions and tracks and follows up on action items to make sure none fall through the cracks. This role provides continuity from meeting to meeting and leads to regulatory cooperation.

Challenges

- The primary challenge will likely be the ability to support more than one recipient country, either in series or in parallel. For this to occur, more provider countries may be required, or the larger countries will need to carry more of the work load. Given the fiscal restraint in most G-8 countries, this may be difficult. Also, the RCF does not have a budget beyond the salaries of the secretariat; it is entirely reliant on provider country funding. A small budget might assist the future activities, especially in the area of providing training (see concern below).

Concerns

- The primary concern is the long-term sustainability of the RCF. The Jordan test case seems to be working but also seems to be taking up a lot of provider-country resources. Whereas, the IAEA seems to have some good resources, especially for training of newcomer countries, that could be made available to recipient countries starting out on their nuclear regulatory programs. For this training to be delivered the IAEA needs to be funded for it; however, there appears to be no internal funding / budget available. In the Jordan test case, it appears that the European Commission will be funding the IAEA to deliver the training. It is not clear whether this is the best funding model for delivering IAEA training.

Chile

Compliments

- The existence of a collaborative environment between senior and new regulators is warranted.
- The proximity between parties facilitates the exchange of information and knowledge, enabling a more effective intervention in the requesting country.

Challenges

- To identify some RCF mechanisms that may also be covered by other mechanisms or initiatives already developed by the IAEA (IRRS, among others) and other institutions. This will avoid the duplication of resources and efforts.
- To visualize intermediate support mechanisms for countries that have research reactors but have not declared the beginning of a nuclear power program yet. This is particularly significant for countries like Chile.
- Currently, recipient countries receive support and recommendations from teams composed of donor countries, which usually have diverse realities. In practice, this may cause “average recommendations,” rather than tailored ones. The challenge is to shape teams that can be appropriate (more homogeneous) for specific countries.

Concerns

- The coherence between RCF objectives and the actual success possibilities should be assured.
- Not having the minimum necessary capacities in the recipient country in order to fully seize the support given through the assessment missions is a concern. It is particularly important to

guarantee the capabilities to act as counterpart. This requires a previous assessment by the designated team.

China – not provided

Egypt – not provided

European Commission

Compliments

- The RCF allows optimisation of the nuclear safety cooperation between regulators and facilitates the coordination between different donors.
- The European Commission is pleased with the effectiveness of the secretariat by the IAEA and the open and transparent communication via email and the website.
- The speed at which this forum has become active and produces results.
- The working groups of the RCF are the place for coordination of nuclear safety cooperation at working level and they are effective.
- The European Commission therefore considers the RCF as a unique activity which is not a duplication of activities.
- The yearly evaluation mechanism ensures that the RCF will end functioning as soon as it is not useful anymore.

Challenges

- To keep the positive momentum in both donor and recipient countries.
- To involve all relevant beneficiary and donor countries.
- To have sufficient participation from all donor members of the RCF.
- To avoid that the RCF becomes a burden instead of a help.
- The European Union is one of the largest donors of nuclear safety regulatory support in the world but has a much longer decision and approval cycle than most other donors. Whereas national authorities have cycles of one year, the European Commission has cycles of two to three years. We see therefore a challenge in coordinating the large long term EC donor projects with the activities of the other donors, but are committed to meet this challenge.

Concerns

- The biggest concern is that some beneficiary countries do not take the step to register with RCF and will therefore, be overlooked. However the European Commission commits itself to supporting the RCF and to advising bilateral beneficiaries to participate.
- In that the recipient country has to perform a self-assessment and gap analysis may deter those beneficiaries who may need the RCF support the most.

Finland

Compliments

- It is very good that there is a forum that is trying to coordinate and prioritise the requests for help from recipient countries. There certainly is a place for such a forum.

Challenges

- Challenge is that some countries use their own requirements as a baseline. So this should be agreed.
- Another challenge is to find resources and funding to this work in donor countries. EU assistance programme should be co-ordinated with this programme to allow donor countries to use the money available in EU for the work. As long as this is not possible, STUK's resources will not be available for RCF work.

Concerns

- RCF resources are a concern. Another thing is that we are still getting requests for assistance from many countries (some of them directly and some of them via EU programmes), some of which are also in the RCF. So, there is still room for the RCF to communicate its presence, work and purpose.

France (from RCF secretariat notes)

Compliments

- The RCF is a good initiative.
- Oversight of the RCF programme by the IAEA is effective.

Challenges

- How to increase RCF effectiveness – has not seen that the RCF has avoided unnecessary overlap.
- How the RCF interfaces with large providers such as the IAEA and European Union.
- Clarifying recipient requests using IAEA Safety Guide SSG 16, “*Establishing the Safety Infrastructure for a Nuclear Power Programme.*”

Concerns

- RCF support may not be consistent with the recipient country’s regulatory approach.
- How the RCF can provide consistent support.
- Danger that embarking countries will not do their homework.

Germany – not provided

Iran

Compliments

- We welcome the establishment of RCF and wish a prosperous future for all the participants for a safe nuclear world.

Challenges – none provided specific to the RCF

Concerns

There shall be a reliable mechanism and suitable terms of references for smooth cooperation in the forums for everyone to:

- Learn
- Exchange information
- Share experience
- Implement the outcomes
- Ensure safety

Japan

Compliments

- Japan supports the RCF because the RCF is useful in further strengthening global nuclear safety.

Challenges – none offered.

Concerns – none offered.

Jordan

Compliments

- Since joining the RCF, JNRC is receiving more coordinated and serious support.
- JNRC appreciates the role and work of the IAEA.
- The RCF enhances international cooperation and collaboration and has great potential.

Challenges

- Receiving support from multiple providers for the same regulatory need.
- Actual delivery of committed support acknowledging the impacts of the Fukushima accident.
- Funding for participating in RCF activities.

Concerns

- The support currently being received and planned by multiple international providers, including the RCF, may not be sufficient in helping JNRC develop into an effectively independent and robust regulatory body within the existing schedule for Jordan's NPP development.

Nuclear Energy Agency

Compliments

- The RCF has a role to play in helping the international community develop strong, independent regulatory authorities in countries looking to add nuclear power to their energy supply.

Challenges

- Providing access to technical and policy experts to the RCF recipient's regulatory authority for day-to-day decision-making on licensing and oversight programs.
- Sharing insights on the resources and technical expertise needed within the regulatory authority necessary to effectively implement licensing reviews and oversight activities.
- The effective use of probabilistic safety assessment tools in regulatory decision making.
- How best to take advantage of safety reviews conducted by regulatory authorities in other countries, particularly countries from where the nuclear technology originates.
- Following accident at Fukushima – the importance and role of emergency planning and preparedness during siting and licensing reviews, and during the oversight of construction, commissioning and operations of new nuclear power plants.

Concerns – none offered.

Pakistan – (from RCF secretariat notes)

Compliments

- RCF is a good initiative.

Challenges

- Realistic commitments that are made are sustainable.

Concerns

- Insufficient RCF financing making it difficult to participate.
- Political issues that make participating in RCF challenging.

Poland

Compliments

- The RCF is an accurate initiative in the field of regulatory cooperation. RCF can be a very useful tool to help organizations like our Agency in developing its regulatory infrastructure. Therefore PAA has engaged in RCF activities; just to mention participation in the March 2011 meeting of RCF working group on revision of Terms of Reference and Program Plan. Our Agency has already benefited from RCF, being invited and participated in July this year in a comprehensive ANSN/IAEA SSG 16 workshop on developing regulatory infrastructure.

Challenges

- Cooperation in development of regulatory infrastructure requires proper timing to fit to national nuclear power program.
- The efficiency of RCF requires good planning to assure fitting to national needs in a proper time and in a proper way. Therefore it is needed to consider every recipient country in an individual way, to avoid ineffective use of resources or overlapping with other initiatives or bilateral cooperation.

Concerns

- Our concern is also to avoid multiplication of assistance from different sources, what can potentially happen and would tie limited resources which have to serve also for other present duties of PAA.

Republic of Korea – (from RCF secretariat notes)

Compliments

- The RCF should continue.

Challenges

- The responsibility of the vendor country for support in relation to RCF support.

Concerns – none offered

Russian Federation

Compliments

- RCF is a good tool which gives the possibility to support regulatory authorities of the newcomers in a well-coordinated way, to avoid overlapping in providing such support but also to organize a wide exchange of relevant information and regulatory experience.
- The mechanisms of RCF activities are verified within the pilot project for the Jordanian Regulatory Authority (JNRC) which allows the opinion of recipient countries as the basis for the evaluation of results and providing countries can assess how effectively and efficiently they performed.

Challenges

- If quite a large number of possible recipients ask for the forum's support, the time and human resources of providing countries are restricted. The probable way is to use the IAEA experience in holding workshops on multinational level for several countries grouped on the territorial or some other criteria or to use modern training approaches, including distant learning and webinars.
- A quick support mechanism for embarking countries, such as internet forum or emailing questions to all forum members for their responses is possibly needed.

Concerns

- There is a probable need to improve a three-tire coordination mechanism. A recipient country is supposed to coordinate all regulator's support programs, which are implemented both on

bilateral and multilateral basis. A providing country is supposed to coordinate its support activity bilaterally and within the programs of international organizations, IAEA as the principle one. And the IAEA itself will coordinate its activity which is implemented by TC and other IAEA Departments.

South Africa

Compliments

- Culture of mutual support established.
- Sharing of best practices.
- Practical guidance towards strengthening regulatory regimes and infrastructure as evidenced in the recent case of Jordan.
- Development of a common regulatory platform.
- Element of peer review and objective evaluation.

Challenges

- Slow pace of intervention due to capacity constraints, e.g., a number of countries within the Forum of Nuclear Regulatory Bodies of Africa (FNRBA) are still struggling with the Self-Assessment Tool (SAT) and would essentially need rigorous and immediate support to bring them up to the required level. The current constraints in terms of resources will hamper rapid progress in reaching out to as many countries as is needed.
- Monitoring of results post RCF intervention. Of course it is still early days, but it will be important to establish mechanisms for post-implementation evaluation of the impact of the RCF interventions.
- Effective integration of RCF processes to other Agency initiatives. It is important that a clear articulation of existing initiatives is made so that each intervention including the RCF will be appropriately contextualized and integrated in the greater whole. The risk with lack of a clear definition of the initiatives is that we might run parallel processes with unnecessary duplication and overlaps that might undermine rather than enhance the processes.

Concerns

- Objectives of the RCF do not aptly describe the RCF intervention and place certain responsibilities or obligations where they do not reside. (Note from RCF secretariat - suggestions offered but not listed here but will factored into RCF programme evaluation and follow-up).

United Arab Emirates – (from RCF secretariat notes)

Compliments

- The RCF is a good and promising initiative and should continue its work.

Challenges

- The ability of the RCF to effectively share knowledge and experience.

Concerns – none offered.

United Kingdom

Compliments

- RCF is up and running in a remarkably short time from inception.
- The RCF has demonstrated, through activities with Jordan, that it can function effectively.
- All participants have, to date, demonstrated a willingness and commitment to implement and learn from and develop the process.

Challenges

- The ability of the RCF process to respond in a timely manner to meet the needs of recipient countries, particularly as the number of recipients grows.
- The resources available, particularly to providers as demands grow, but also to recipients to absorb information.
- The additional tasks for all regulatory bodies identified after Fukushima will lead to a strain on resources.

Concerns

- There has been limited progress in developing the RCF activities beyond Jordan.
- There is a need for both providers and recipients to strengthen their capabilities to both provide and receive support.

United States

Compliments

- The RCF has offered the opportunity to work with fellow regulators on providing support to countries with less advanced programs. We have learned from the interactions and found that the IAEA has provided a useful secretariat role in setting up the meetings and bringing together the groups. Of particular note is the opportunity to find out what other countries were providing in assistance and the opportunity to link assistance work.

Challenges

- We need to look for efficiencies in all programs because of the competing interest in implementing lessons learned from Fukushima. In this regard, it is very important that the IAEA's Department of Nuclear Safety and Security continue its efforts to coordinate its work with other IAEA offices, and vice versa. The IAEA's Nuclear Energy Department, for example, continues to seek our support to do Integrated Nuclear Infrastructure Review missions and follow ups to measure new nations' ability to meet the milestones document.
- There is a significant amount of effort put into these RCF meetings and the efforts of the working group. We need to ask ourselves whether this is yielding commensurate benefits to the new nuclear power nations.
- We would ask the working group to convene a meeting with NE, NS, and TC to consider whether the RCF and other existing programs might be enhanced by combining administrative resources.

Concerns

- None offered.

Vietnam

Compliments

- The RCF can be a benefit for Vietnam to fulfil its big gaps between needs and capabilities in regulatory framework and human resource development.

Challenges

- One of the RCF's important objectives is to take advantage of international support to a recipient country to avoid overlapping in receiving international assistance. However, the mechanism/methodology to achieve this target is not clearly identified.

Concerns

- It seems that RCF has been slowly implementing those actions which are supposed to be taken quickly to such member states embarking nuclear power programme as Vietnam. Consequently, the recipient country could not receive the necessary assistance in a timely manner.

Appendix 4

**Simplified JNRC RCF Support Action Plan
November 2010 - Revision 0**

WHAT Support	WHO Provides Support	WHEN Support Provided	WHERE Support Provided
Develop 5-Year Management Systems Plan (Actions 75 and 76)	Pakistan and United States	Throughout 2011 – Plan complete by December 31, 2011	Amman
Support JNRC's Capability to Review Site Radiological Environmental Impact Analysis (Actions 111 and 164)	France (IRSN) through EU, Japan, Pakistan, and Republic of Korea	Before end of 2011	Amman (France, Pakistan, Republic of Korea), Tokyo (Japan)
Workshop on Regulatory Philosophies (Action 29)	Canada, France, Japan, Republic of Korea, Pakistan, Russian Federation, United Kingdom, United States, and IAEA	May 16 – 20, 2011	Vienna
Safety Assessment Review Training Plan Development (Action 118) *Support is in 2 stages. Initial stage by IAEA followed by RCF provider support with OJT focus.	France (IRSN) possibly through EU, Pakistan, IAEA	June 30, 2011 for plan development	Various (Amman, Vienna, Pakistan and France locations – TBD)
Program Evaluation for Training on Safety Principles and Requirements for NPP Design (Action 172)	European Union under existing support program	Program evaluation completed by June 30, 2011.	Amman when training is conducted
3-Day Seminar for Site Authorization Process (Action 161)	Pakistan, Russian Federation, and United States	3 rd or 4 th Quarter 2011	Amman
Workshop on External Support Oversight (Action 66)	Canada, France, Japan, Republic of Korea, Pakistan, Russian Federation, United Kingdom, United States, and IAEA	4 th Quarter 2011	Vienna
Training and Preparation Assistance for Development of Guides and Procedures for Licensing Process, including Inspections (Action 30)	France and United States	Guides and procedures completed by December 31, 2011. Inspection procedures completed by December 2012.	TBD (France), Amman (United States)

**Simplified JNRC RCF Support Action Plan
September 2011 - Revision 1**

WHAT Support	WHO Provides Support	WHEN Support Provided	WHERE Support Provided	Comments
Develop 5-Year Management Systems Plan (Actions 75 and 76)	United States	Throughout 2011 – Plan complete by December 31, 2011.	Amman	(1) Executive training workshop held January 2011. (2) Workshop conducted September 2011 on developing quality assurance procedures.
Support JNRC's Capability to Review Site Radiological Environmental Impact Analysis (Actions 111 and 164)	Japan	November 21 – December 2, 2011	Tokyo	Japan will conduct a two-week workshop for 3 JNRC staff.
Workshop on Regulatory Approaches (Action 29)	Canada, France, Japan, Pakistan, Russian Federation, United Kingdom, United States, and IAEA	May 16 – 20, 2011	Vienna	Complete. Workshop viewed by JNRC as highly successful. JNRC has elected to use a prescriptive approach. More assistance needed from providers who use prescriptive approach.
Safety Assessment Review Training Plan Development (Action 118) <i>Support provided in 2 phases. Initial phase provided by IAEA followed by RCF provider support with OJT focus.</i>	Phase 1 - IAEA in conjunction with EU funding Phase 2 - TBD	June 30, 2011 for plan development (complete). Phase 1 - Begin training in 2012.	Amman and Vienna for Phase 1	Phase 1 will be series of workshops covering about 15 weeks. Phase 2 OJT activities to be planned after partial completion of Phase 1.

WHAT Support	WHO Provides Support	WHEN Support Provided	WHERE Support Provided	Comments
Program Evaluation for Training on Safety Principles and Requirements for NPP Design (Action 172)	European Union under existing support program	Program funding and evaluation to be completed in 4 th quarter 2011.	Amman and various EU locations when training is conducted.	EU will add needed training activities item to 2012 project plan.
5-Day Seminar for Site Authorization Process (Action 161)	United States	October 9 – 13, 2011	Amman	JNRC agreed to invite members of Arab Network of Nuclear Regulators (ANNuR) to participate.
Workshop on External Support Oversight (Action 66)	Canada, France, Japan, Republic of Korea, Pakistan, Russian Federation, United Kingdom, United States, and IAEA	February 27 – 29 2012	Vienna	IAEA Technical Officer is Mr Jean-Rene Jubin Numerous embarking countries will be invited
Training and Preparation Assistance for Development of Guides and Procedures for Licensing Process, including Inspections (Action 30)	TBD	Guides and procedures completed by December 31, 2011. Not complete because choice of reactor technology delayed until 2012. Inspection procedures completed by December 2012.	TBD	Development of guides and procedures to follow choice of reactor technology. Assistance will involve a 4-step process: (1) provide initial training on concepts of drafting guides and procedures; (2) JNRC prepares draft guides and procedures with provider training and drafting support; (3) Provider reviews guides and procedures; (4) JNRC makes necessary changes with subsequent provider review.

Appendix 5

Summary of Recommendations

Recommendation 1: It is recommended that the RCF revise its objectives to focus on its coordination role and let other mechanisms such as the Integrated Regulatory Review Service (IRRS) assess the effectiveness, independence and robustness of regulatory bodies.

Recommendation 2: It is recommended that the RCF secretariat pursue with IAEA departments potential ways to share administrative resources for the Agency's support for embarking countries.

Recommendation 3: It is recommended that RCF Steering Committee revisit RCF financing with the following suggestions: (a) the RCF Steering Committee to solicit extra budgetary contributions from its members with the use of the funds restricted to travel and living expenses and not staff time, consistent with the Terms of Reference, (b) the RCF programme should be reviewed for financial efficiencies such as the use of videoconferencing for certain meetings and the use of electronic media as means to reduce the financial burden of participating in routine RCF activities and (c) the guiding principle involving finances be further reviewed by the RCF Steering Committee to ensure the Forum continues to desire that members make their own financial arrangements for participating in the RCF.

Recommendation 4: It is recommended that the RCF Steering Committee review and discuss the Agency's role in the RCF to determine if changes are needed.

Recommendation 5: It is recommended to revisit the RCF support criteria to ensure that they are not overly limiting in their application thus excluding support from certain RCF members with less developed programmes.

Recommendation 6: It is recommended that more clarity be provided to RCF members on RCF funding strategies, including use of the IAEA's Technical Cooperation Programme.

Recommendation 7: It is recommended that future assessments not attempt to perform the value added of RCF support unless the recipient members themselves provide the assessment results.

Recommendation 8: It is recommended that the RCF web page continue to be the electronic mechanism for RCF communications and activities. It is further recommended that all RCF members register and use the web page as it was intended.

Recommendation 9: It is recommended that each RCF member revisit/update their delegated RCF representative(s) and a list of these individuals and their contact information be maintained on the RCF members only web page. When delegation changes are made, members are encouraged to inform the RCF secretariat in a timely manner.

Recommendation 10: To reach out to more Member States it recommended that the RCF secretariat and RCF members perform more reach out activities. In particular, it is suggested that RCF members approached by embarking countries requesting regulatory support for nuclear power development be informed about the RCF and be encouraged to join the Forum. In addition, it is recommended that the RCF secretariat discuss the RCF at regional networks such as the ANNuR (Middle East), ANSN (Asia), FNRBA (Africa) and FORO (Latin America) where numerous regulatory bodies throughout the world regularly meet to discuss and act upon their continued capacity building needs.