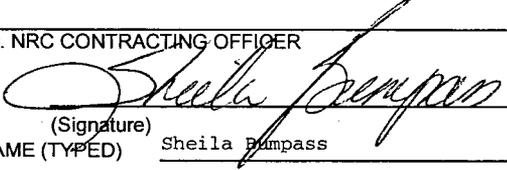


**U.S. NUCLEAR REGULATORY COMMISSION
NOTICE OF GRANT/ASSISTANCE AWARD**

1. GRANT/AGREEMENT NO. NRC-04-07-119	2. MODIFICATION NO. M003	3. PERIOD OF PERFORMANCE FROM: 10/01/2007 TO: 09/30/2011	4. AUTHORITY Pursuant to Section 31b and 141b of the Atomic Energy Act of 1954, as amended												
5. TYPE OF AWARD <input checked="" type="checkbox"/> GRANT <input type="checkbox"/> COOPERATIVE AGREEMENT	6. ORGANIZATION TYPE DUNS: 233016265	7. RECIPIENT NAME, ADDRESS, and EMAIL ADDRESS INTERNATIONAL COMMISSION ON RADIOLOGICAL PROTECTION I C R P ICRP c/o Stralskyddinst. NIGHTINGALE HO EPSOM KT17 1HQ													
8. PROJECT TITLE: "Development of Recommendations and Guidance for Radiological Protection Standards"															
9. PROJECT WILL BE CONDUCTED PER GOVERNMENT'S/RECIPIENT'S PROPOSAL(S) DATED AND APPENDIX A-PROJECT GRANT PROVISIONS	10. TECHNICAL REPORTS ARE REQUIRED <input checked="" type="checkbox"/> PROGRESS AND FINAL <input type="checkbox"/> FINAL ONLY <input type="checkbox"/> OTHER (Conference Proceedings)	11. PRINCIPAL INVESTIGATOR(S) NAME, ADDRESS and EMAIL ADDRESS Dr. Jack Valentin ICRP c/o Stratskddsinst) Stockholm, Sweden SE-171-16													
12. NRC PROGRAM OFFICE (NAME and ADDRESS) U.S. Nuclear Regulatory Commission Attn: Terry Brock, 301-251-7487 Mail Stop: T10-KB 11545 Rockville Pike Rockville, MD 20852	13. ACCOUNTING and APPROPRIATION DATA APPN. NO: 31X0200.060 B&R NO: 060-60-111-621 JOB CODE: G6853 BOC NO: 4110 OFFICE ID NO: FFS-C10-875	14. METHOD OF PAYMENT <input type="checkbox"/> ADVANCE BY TREASURY CHECK <input checked="" type="checkbox"/> REIMBURSEMENT BY TREASURY CHECK <input type="checkbox"/> LETTER OF CREDIT <input type="checkbox"/> OTHER (SPECIFY) Electronic ASAP.gov (See Remarks in Item #20 "Payment Information")													
15. NRC OBLIGATION FUNDS <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">THIS ACTION</td> <td style="width:50%; text-align: right;">\$45,000.00</td> </tr> <tr> <td>PREVIOUS OBLIGATION</td> <td style="text-align: right;">\$150,000.00</td> </tr> <tr> <td>TOTAL</td> <td style="text-align: right;">\$195,000.00</td> </tr> </table>		THIS ACTION	\$45,000.00	PREVIOUS OBLIGATION	\$150,000.00	TOTAL	\$195,000.00	16. TOTAL FUNDING AGREEMENT <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">NRC</td> <td style="width:50%; text-align: right;">\$400,000.00</td> </tr> <tr> <td>RECIPIENT</td> <td style="text-align: right;">_____</td> </tr> <tr> <td>TOTAL</td> <td style="text-align: right;">\$400,000.00</td> </tr> </table> <p style="text-align: right; margin-top: 10px;">This action provides funds for Fiscal Year 2011 in the amount of See Page 2</p>		NRC	\$400,000.00	RECIPIENT	_____	TOTAL	\$400,000.00
THIS ACTION	\$45,000.00														
PREVIOUS OBLIGATION	\$150,000.00														
TOTAL	\$195,000.00														
NRC	\$400,000.00														
RECIPIENT	_____														
TOTAL	\$400,000.00														
17. NRC ISSUING OFFICE (NAME, ADDRESS and EMAIL ADDRESS) U.S. Nuclear Regulatory Commission Div. of Contracts Attn: Sheila Bumpass Mail Stop: TWB-01-B10M Rockville MD 20852															
18. Acceptance of or objections to the Terms and Conditions of Award must be Emailed to the NRC Issuing Office (Block #17) within three (3) business days following the Award issue date. NRC considers lack of response as acceptance by the grantee of the terms and conditions of award.		19. NRC CONTRACTING OFFICER <div style="text-align: center;">  (Signature) _____ NAME (TYPED) <u>Sheila Bumpass</u> TITLE <u>Contracting Officer</u> TELEPHONE NO. <u>301-492-3484</u> </div> <div style="text-align: right; margin-top: 10px;"> <u>9/27/2010</u> (Date) </div>													
20. PAYMENT INFORMATION Payment will be made through the Automated Standard Application for Payment (ASAP.gov) unless the recipient has failed to comply with the program objectives, award conditions, Federal reporting requirements or other conditions specified in 2 CFR 215 (OMB Circular A110).															
21. Attached is a copy of the "NRC General Provisions for Grants and Cooperative Agreements Awarded to Non-Government Recipients. Acceptance of these terms and conditions is acknowledged when Federal funds are used on this project.															
22. ORDER OF PRECEDENCE In the event of a conflict between the recipient's proposal and this award, the terms of the Award shall prevail.															
23. By this award, the Recipient certifies that payment of any audit-related debt will not reduce the level of performance of any Federal Program.															

TEMPLATE - ADM001

SUNSI REVIEW COMPLETE

ADM001

The purpose of this modification number 003 is to:

1. Extend the period of performance from 9/30/2010 to 9/30/2011 and to
2. Increase the Assistance Grant Ceiling amount from \$150,000 to \$400,000.
3. Add funding in the amount of \$45,000, thereby increasing the total obligated amount from \$150,000 to \$195,000.
4. Delete the "ATTACHMENT B – PROGRAM DESCRIPTION " in its' entirety and replace with the attachment 1

Period of performance: 10/01/2007 to 9/30/2011

Assistance Award Ceiling: \$400,000

Total Obligated amount: \$195,000.00

All other terms and conditions remain the same.

1. Proposal Summary

The International Commission on Radiological Protection (ICRP) issues Recommendations (every ~15 years) and advisory documents. Essentially every country in the world with developed radiological protection regulations, including the US, bases their legislation on ICRP Recommendations. However, the US is still using 1977 (and older), rather than the more recent 2007 Recommendations as a basis for its regulations. ICRP hopes that the 2007 Recommendations will provide an opportunity for further international harmonisation.

This project includes two key activities: (i) support of the ICRP program of work and (ii) continuing and enhancing interactions between ICRP and the NRC and other US agencies with an interest in radiological protection.

- (i) A program of work to produce a series of reports providing essential and crucial information on the implementation of the 2007 Recommendations is now underway. These cover various topics, including radiation biology, radiation physics and dosimetry, use of radiation in medicine, and application of ICRP recommendations.
- (ii) This project enhances on-going cooperation between NRC/EPA etc. and ICRP through regular interactions between NRC/EPA staff and the ICRP Scientific Secretary and members (e.g. annual brown-bags and meetings). As well, ICRP holds meetings of the Main Commission and Committees together every other year (in opposite years they meet separately). A key activity in the program of work is to hold the next such milestone meeting in the US in the fall of 2011, and in conjunction hold open sessions on the work of ICRP to aid the current US efforts to consider legislative changes that would take into account the 2007 Recommendations.

Funding in the amount of \$50,000 will help support the ongoing work of ICRP and regular annual interactions between ICRP and NRC/EPA staff for one year. An additional \$200,000 will go towards the key activity of holding a meeting of the ICRP Main Commission and Committees, along with a parallel symposium, in the Washington, DC area in the fall of 2011.

Therefore, a one-year extension to the current arrangement is sought, including funding of \$250,000.

2. Introducing the applicant organisation

The primary body in radiological protection, the International Commission on Radiological Protection (ICRP) is an independent non-profit non-governmental organisation. Its legal seat is in the United Kingdom, where ICRP is a Registered Charity, while its Scientific Secretariat is based in Canada.

The Commission was founded in 1928 at the second International Congress of Radiology. Since that time, the ICRP has prepared general recommendations on radiation protection against ionising radiation in different fields. The System of Radiological Protection developed by ICRP forms the basis for radiation protection standards, guidelines, regulations, programs and practice world-wide.

The Commission members are chosen on the basis of their recognised competence in the fields of medical radiology, radiation protection, health physics and radiation biology, with regard to an

appropriate balance of expertise rather than to nationality. Several US citizens are among the approximately 84 members in the Commission, Secretariat and Committees coming from approximately 26 countries.

3. Why is this project necessary?

The System of Radiological Protection developed by ICRP forms the basis for radiation protection standards, guidelines, regulations, programs and practice world-wide, and has done so for more than 80 years. Nonetheless, this system has not remained static. Over decades it has changed to remain current with respect to our evolving understanding of the relevant scientific findings, and also to continue to reflect current societal norms. As well, practical application of the system can point out areas for improvement.

In the five to ten years leading up to publication of the 2007 Recommendations much of the focus of ICRP was on development of this evolutionary update to the system of radiological protection. Barring revolutionary new findings that demand a rapid overhaul of the system, for the next decade or so ICRP will focus on refining and further elaborating the system of radiological protection as set out in 2007, always with an eye on emerging science, evolving social norms, and novel uses of radiation.

This project is necessary to support the continued work of ICRP: to fully develop the System of Radiological Protection described in the 2007 Recommendations; and to assess emerging trends in science and societal norms that may influence the System of Radiological Protection.

In addition, this project is necessary to support enhanced cooperation between ICRP and US agencies.

4. Project objectives

One objective of this project is to provide support for the continued work of ICRP: to fully develop the System of Radiological Protection described in the 2007 Recommendations; and to assess emerging trends in science and societal norms that may influence the System of Radiological Protection.

This includes development of a comprehensive set of recommendations on radiological protection, building on the 2007 ICRP Recommendations. Thus, the most important task for ICRP in the coming years is to produce a set of documents necessary for detailed application of the 2007 Recommendations. Those Recommendations are based on, and develop, the 1990 ICRP Recommendations, and therefore are also derived from the 1977 Recommendations, which are still the basis for some regulations in certain countries.

These publications will support and further elaborate elements of the system of radiological protection as described in the 2007 Recommendations. Most of these publications will fall into one of two broad categories: those that elaborate on specific exposure categories (occupational, public and medical) or situations (planned, existing, and emergency), and those that provide detailed technical information necessary for the implementation of the system of radiological protection. Some publications will also describe advances in the science behind, and potential implications on, the system of radiological protection

A second objective of this project is to support enhanced cooperation between ICRP and NRC in order to:

- Aid knowledge transfer to younger NRC staff on the ICRP history and evolving technical basis and policy decisions in the field;
- Create an opportunity for the staff to discuss technical details with the originators of the latest ICRP radiation protection recommendations that the NRC is contemplating to adopt;
- Demonstrate to the international community that the U.S. is their partner in radiation protection and is seriously considering updating our regulations to become consistent with other first world economies; and,
- Provide an opportunity for NRC to explain the rationale to the international community on why in certain regulatory areas NRC has not adopted the latest ICRP regulations (i.e., no significant public health and safety gains).

5. Project methods

Task Groups appointed by ICRP prepare draft reports for review by their Committees and final approval by the Main Commission. Task Groups do much of their work by correspondence, but generally need to meet once or twice to complete a report. Draft reports are scrutinised at meetings of the sponsoring Committee and then reviewed for possible approval at Main Commission meetings. Normally, each Committee meets annually and the Main Commission meets once or twice a year. Furthermore, members and officers of the Commission need to travel to participate in various consultation and information exercises. This project will provide some ongoing financial support for these activities.

In addition, this project will help fund regular interactions between ICRP and NRC/EPA staff (e.g. annual brown-bags and meetings), as well as help support the next major meeting of the ICRP Main Commission and Committees in the US in the fall of 2011. In conjunction with this meeting ICRP will hold open sessions on the work of ICRP with the objective of aiding US efforts to consider legislative changes that would take into account the 2007 Recommendations. The location and nature of these open sessions will be determined in consultation with NRC staff

6. Evaluation

ICRP is funded by grants from organisations with an interest in radiological protection, all of which require reporting. Standard procedures are in place to provide annual reports, compare results with schedules and plans, assess costs versus budgets, and so on. The Main Commission reviews and updates work plans and schedules annually on the basis of such evaluations.

Proposed publications are distributed world-wide for consultation before approval (including public consultation via the ICRP web site), and for major projects there may be several iterations of consultation. ICRP Recommendations and guidance are intended for use by regulators and operators. Regulators provide a crucial evaluation of ICRP reports by deciding whether to use and include them in regulatory texts.

7. Project budget

The total annual budget of ICRP is in the order of \$600,000. This does not include in-kind contributions; since all of the working time of ICRP members is contributed free of charge by members' institutions, and many of those institutions also provide substantial additional resources, the budget reflects only a minor part of the total cost of the operation. In other words, grants to ICRP cover only meeting/travelling and secretariat costs and thus represent excellent value for money. It has been estimated that each \$100,000 contributed to ICRP leverages \$500,000 to \$1,000,000 of effort.

A contribution of \$250,000 over one fiscal year is requested. This includes \$50,000 to cover the general program of work of ICRP and ongoing collaboration with US agencies, and \$200,000 towards a meeting of the Main Commission and Committees and associated open meetings in the US in the fall of 2011. Most major expenses will be incurred well in advance e.g. economy airline tickets and amounts for accommodations and other meeting arrangements paid to the venue. Therefore, ICRP will request these funds near the beginning of the US federal fiscal year.