Canadian Radiation Protection Association

Professional Recognition/Registration/Certification

‘PROCESS’

NOTE: ***AT THIS TIME, ONLYRECOGNITIONAND REGISTRATIONAT THE CORE LEVEL ARE AVAILABLE.***

CERTIFICATION (CHAPTER 5 AND 6) ARE UNDER DEVELOPMENT

Prepared by: CRPA Examination Committee

Reviewed by: CRPA Board of Directors

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CANADIAN RADIATION PROTECTION ASSOCIATION

CRPA - ACRP

www.crpa-acrp.ca

TABLE OF CONTENTS

1 *PROFESSIONAL RECOGNITION, REGISTRATION AND CERTIFICATION*

Introduction

This manual defines the process that enables the Canadian Radiation Protection Association (CRPA) to assess individual credentials and award a letter of *recognition*, or certificates of *registration* or *certification*. The certificates are designated for individuals as Radiation Safety Professionals within the association.

The Canadian Radiation Protection Association (CRPA), established in 1979, is comprised of individuals actively engaged in some aspect of radiation safety. These individuals represent many organizations that include, but are not limited to regulatory bodies, research establishments, universities, power utilities, hospitals and medical centers, industry, consultants, uranium mines and refineries.

The objectives of the CRPA indicate that the association will strive to promote educational opportunities in those disciplines that support the science and practice of radiation protection, and to assist in the development of professional standards in the discipline of radiation protection.

At the CRPA meeting of May 8, 2002 a motion was passed to have the Radiation Safety Professional Committee submit a proposal establishing a radiation professional certification for the association. The proposal defined a core level competency profile common to all radiation safety professionals, an outline for recognition, registration at this core level and a provision for certification at a more advanced specialty practice. The core level competency profile was approved at the annual meeting in 2003 and the committee was given the task of defining the process by May 2004.

Certification Format

This process is designed to address the varied duties of Radiation Safety Professionals and the difficulty in trying to apply one certification that would meet the differing responsibilities. A core group of competencies, expected of all individuals responsible for overseeing the use of ionizing radiation, has been developed. The specific wording of the competencies was carefully considered. If the wording was too specific, the document would require constant changing in order to reflect the changing profession. If the competencies were too general, it would be difficult for training programs to determine the appropriate material to include in the program as well as the depth in which to teach.

This process is designed to register individuals at the core level and then give them an opportunity to pursue more advanced certification outside the core group of competencies. This permits training programs to design modules or courses that address the specific needs of certain groups of radiation safety professionals.

Competency Based Criteria

- The CRPA will not be involved in the direct training of individuals and assumes the individual has the requisite knowledge obtained from relevant training.
- The CRPA will define and validate the competencies expected and will establish an examination based on these competencies.
- Training programs should use the competency profile in the development of their curriculum.
- The basis of any examination set by the CRPA will be the competency profile.
- Similar competencies are placed together in general categories. When a competency could fit in several sections, a decision was made to put it in only one section to avoid redundancy.

FIGURE 1 – CRPA Core Level Competency Sections

(For a complete list of all the core level competencies refer to the CRPA website www.crpa-acrp.ca***)***

Radiation Safety Professional 'Recognition/Registration/Certification'
CORE AREAS

20. Employee Qualifications-Performance
- Training Program Development, Delivery, and Evaluation
- Employee Training Requirements
- Radiation Safety Professional Requirements
- Continuing Education-Refresher

30. Inspections, Audits & Investigations
- Hazard Identification - Evaluation
- Observations
- Recommendations and Reports
- Compliance Enforcement

40. Exposure and Dose Control
- Exposure Limits
- Area Surveys
- ALARA Program
- Working Habits - Decommissioning

50. Instrumentation and Equipment
- Basic Monitoring Devices
- Performance Checks and Calibrations
- Radiation Protection Devices

60. Radioactive Inventory Management
- Purchasing-Inventory Tracking
- Receiving
- Transportation
- Storage
- Waste Disposal

70. Personnel Dosimetry
- Exposure Hazards
- Personal Monitoring
- Bioassay
- External Exposure-Internal Dosimetry - Ionizing Radiation and Pregnancy

80. Contamination Control
- Contamination Surveys
- Spills and Decontamination
- Emissions Monitoring (Release to Environment)

90. Emergency Procedures
- External and unusual situations

CRPA Recognition, Registration and Certification Process

PHASE I - RECOGNITION

Objectives

The recognition phase will permit individuals to obtain peer recognition for education and training obtained. The basis for recognition will be the core level competency profile. This phase is also important for those who wish to have training recognized by the association but who do not wish to pursue further credentials. It also allows a review of training prior to applying for registration examination. This helps identify core level competency areas where addition training may be required.

Requirements

- Individuals wishing to obtain general recognition will be required to submit a record of training that is referenced against the competency profile and curriculum guide. This would be similar to a portfolio of training. It would be the responsibility of the individual to ensure all the components of the competency profile are met. Portions of a sample submission are included in Chapter 8.
- It is recognized that the individual may take many different courses to meet the total requirement of the core level competencies.
- The CRPA 'Registration/Certification Committee' will assess training programs and courses using the competency profile and curriculum guideline.
- The CRPA will keep a list of programs that meet all the requirements of the core competencies. Individuals taking courses that are on the list will only need to submit a completion certificate and not a full referenced course outline. The current list is included in Chapter 2.
- Programs or courses used for recognition will be expected to have a formal written examination on the material in their course.
- The 'Registration/Certification Committee' may appoint ad hoc members if expertise in another area is needed.
- The 'Registration/Certification Committee' assesses candidate submissions and determines if all the information is complete. The committee will inform candidates if any other information is required.
- A candidate may also combine education in relevant areas with experience in a radiation safety setting to meet the requirements of the competencies. This may require an interview with members of the committee.

PHASE II- REGISTRATION

Objectives

The registration phase will permit individuals to meet a standard level of training recognized by the CRPA. Any individual that has met the criteria of Phase I will be eligible to proceed to Phase II if they choose.

Requirements

- The individual will be required to meet the training requirements for the core level competencies as defined in the recognition phase.
- The individual will be required to pass an examination, set by the CRPA and based on the core competencies.
- Candidates cannot proceed to certification until they have completed the core level registration phase.

PHASE III - CERTIFICATION

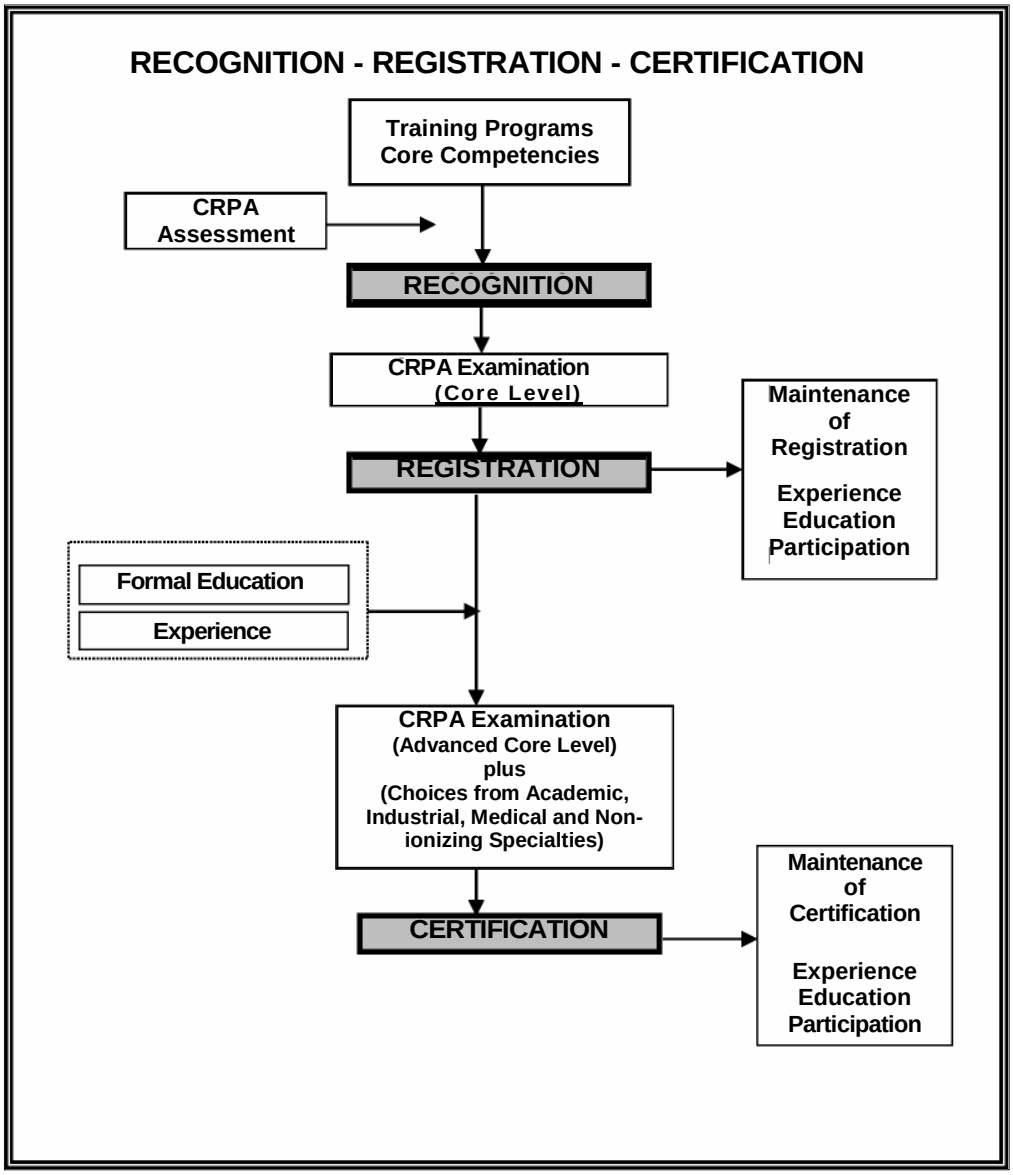
Objectives

The certification phase will permit individuals to meet a comprehensive level of training, beyond the core level. This phase requires individuals to pursue formal education training, obtain experience in radiation safety and obtain training in the certification specialty areas.

Requirements

- The individual will be required to meet the training requirements for the core level competencies as defined in the recognition phase.
- The individual will be required to pass an examination, set by the CRPA and based on the core competencies as defined in the registration phase.
- The individual will be required to obtain an undergraduate degree in the sciences such as: medical science, physics, biology, chemistry, health physics or engineering.
- The individual will be required to gain experience in a radiation safety setting.
- The individual will be required to pass an examination set by the CRPA. The exam will be based on an advanced understanding of the core level competencies. In addition to this the candidate will also choose questions from the four broad specialty areas of academic, medical, industrial or non-ionizing areas.

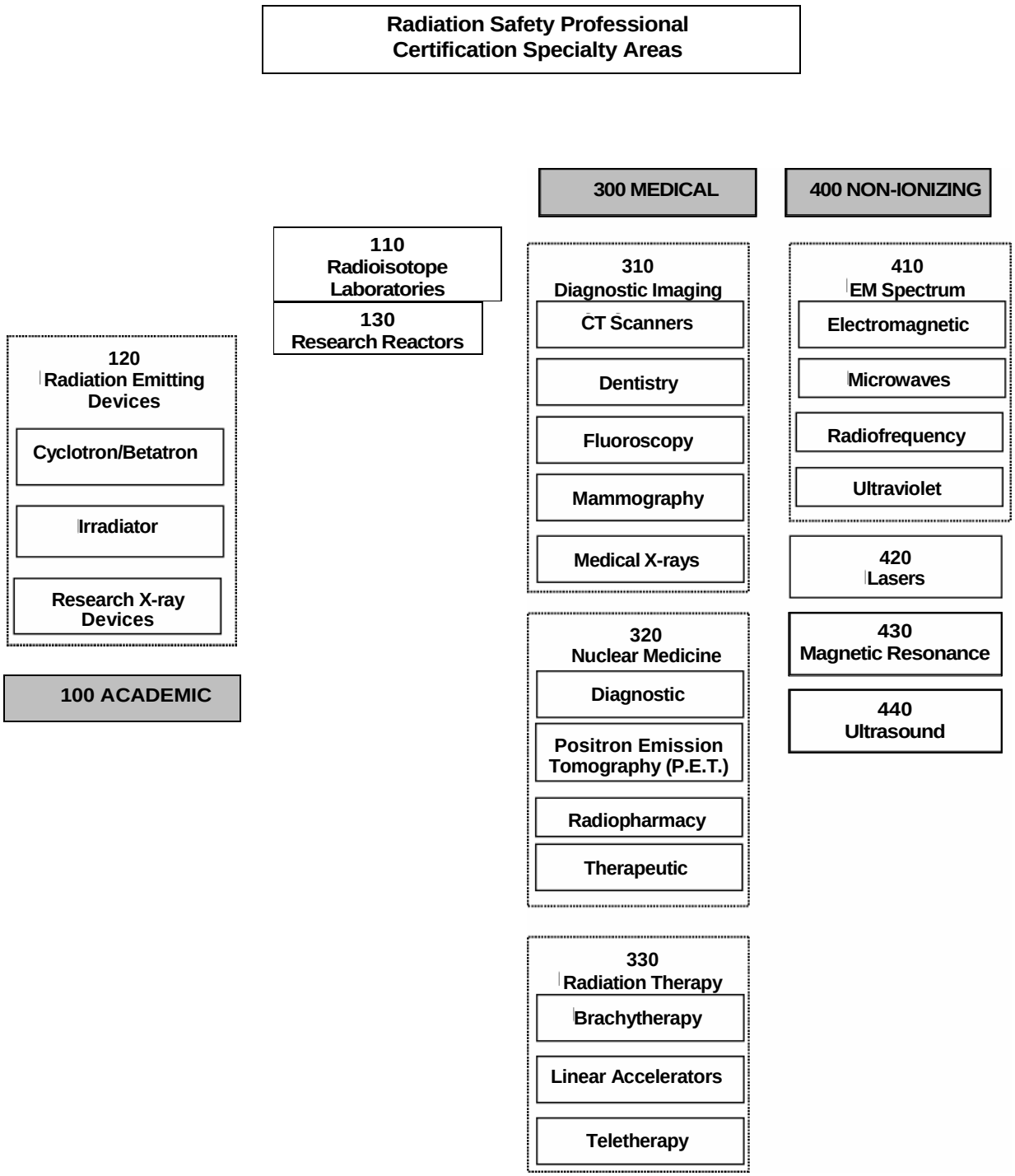
FIGURE 2 – CRPA Recognition – Registration- Certification Process



6. Certification Specialty Areas

The specialty areas, listed in Figure 3, expand on the knowledge gained in the core level. This will provide the flexibility so an individual can work in different areas as they work toward certification. An individual in an academic setting may focus on that area and thus choose questions from that section on the certification examination. Another individual may choose to focus on specialties in the medical section and choose certification questions in that area.

FIGURE 3– CRPA Specialty Areas



200 INDUSTRIAL

210
Industrial Gauges

220
Industrial
Radiography

230
Nuclear Power

240
Uranium Processing

PROFESSIONAL RECOGNITION PHASE

2 *APPLICATION FOR RECOGNITION PHASE*

Required Information:
Submit the application form and a record of training that is referenced against the CRPA core level competency profile and curriculum guide. This would be similar to a portfolio of training and it would be the responsibility of the individual to ensure all the components of the competency profile are met. For a sample of some of the sections please refer to Chapter 8 'Sample Recognition Submission'.

- It is recognized that the individual may take many different courses to meet the total requirement of the core level competencies. Programs or courses used for recognition will be expected to have a formal written examination on all material in their course.
- The CRPA will keep a list of programs that meet all the requirements of the core competencies so individuals taking those courses will only have to submit completion certificates and not a full referenced course outline. (See list of courses below)
- An individual may use their experience in a radiation safety setting to be considered by the review committee. It is the responsibility of the candidate to justify relevant experience for the required competencies.

Entry Requirements:

- Membership in the CRPA

Application Steps:
An application is accepted only when these requirements are met:

- The Core Level Competency Profile is included and referenced.
- The Application Form is complete.
- The applicable non-refundable fee is submitted.
- All required information is complete and verified.
- All information is received by the deadline indicated on the application form.

Notification:

- The candidate will be notified when the information is verified.
- If there are no questions regarding the submission, verification shall be completed within 90 days of receipt of the portfolio. Incomplete information may delay the verification process.
- The candidate will receive notification of the deadline to apply for the next available core level registration examination.

Accepted Training Programs and Courses:

- See Figure 2.1 for a list of programs that have been accepted by the CRPA Registration/Certification Committee. For other courses, not listed you are required to submit the full course outline.

Program Fees

- The non-refundable application fee is $50 CDN and payable to the Canadian Radiation Protection Association.

FIGURE 2.1 - CRPA Accepted Training Programs and Courses

	Course Title	Training Program Provider	Sections from competency profile Approved
1	Principles of Radiation Safety	Technical Management Services, Inc.	30, 60, 80, 90
2	Radiation Measurement and Control	Technical Management Services, Inc.	40, 50, 70
3	Radiation Program Administration and Regulatory Requirements	Technical Management Services, Inc.	10, 20
4	Radiation Safety Officer RSO-1	Radiation Safety Institute of Canada	all sections
5	Responsables de la radioprotection. Sources scellées industrielles.	Radioprotection Inc.	tous sections
6	Responsables de la radioprotection. Sources non scellées et médecine nucléaire.	Radioprotection Inc.	tous sections
7	Unsealed Laboratory RSO	Monserco Limited	all sections
8	Sealed Source/Radiation Device RSO	Monserco Limited	all sections
9	Cours de formation à l'intention des officiers de radioprotection	Contex Environnement inc.	tous sections
10	Advanced Training Course for Radiation Safety Officers	Contex Environnement inc.	all sections

Recognition Application Form

NOTE: Those wishing to write the CRPA registration exam must complete the recognition application and postmark it sixty (60) days prior to the scheduled registration exam.

Name (print): _

Address Home:

STREET NUMBER AND NAME

CITY PROVINCE COUNTRY POSTAL CODE

Address Business:

STREET NUMBER AND NAME

CITY PROVINCE COUNTRY POSTAL CODE

Preferred Mailing Address: ___Home ___Business

Home Phone: (____) _____ Business Phone: (_)

Fax: (_____) _____Email: _____

A non-refundable application fee of $50 CDN is payable to the Canadian Radiation Protection Association. This fee is for the review process and is separate from any registration or certification exam fees.

Method of Payment:

_____ Cheque (payable to CRPA) _____ Money Order (payable to CRPA)

_____ Master Card _____ Visa

Card Number _____ Expiration Date

Name of Card

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I certify that all the information associated with this application is complete and correct to the best of my knowledge. I understand that any falsification in this application will be grounds for rejection, or later revocation of any certificate issued. I understand that the Canadian Radiation Protection Association (CRPA) may investigate any submitted information and I agree to provide additional documentation if asked. If I am registered or certified with the CRPA at any level, I understand that I will be required to maintain the registration or certification according to the conditions set by the CRPA. By signing this application I hereby release the CRPA, its administrators, volunteers, employees and all other persons associated with the CRPA, from any and all claims which have resulted or may in the future develop from any actions as a result of my practice of radiation safety. I am aware of the risks of practising radiation safety and hereby assume all risks known and unknown. I declare that these terms are fully understood and voluntarily accepted as part of this application process.

Signature

D a t e :

Checklist: ____ Current Membership in CRPA paid

____ Application Form completed and attached

____ Cross Referenced Competency Profile completed and attached

____ Fee enclosed or indicated on application form

Mail Application and all documents to CRPA Secretariat

CRPA Secretariat
PO Box 83
Carleton Place,
Ontario
K7C 3P3

Telephone: (613)-253-3779
Fax: 1-888-551-0712
E-mail: secretariat2007@crpa-acrp.ca
Website: www.crpa-acrp.ca

OFFICE USE ONLY

Date Received: _____ CRPA Membership Confirmed

Comments:

PROFESSIONAL REGISTRATION PHASE

3 *APPLICATION FOR CORE LEVEL REGISTRATION*

Required Information:

Submit the application form and confirmation of completion of the recognition phase. The individual will be required to meet the training requirements for the core level competencies as defined in the recognition phase. The individual will be required to pass an examination, set by the CRPA, based on the core competencies.

- It is the responsibility of the individual to meet all deadlines set by the CRPA.

Entry Requirements:

- Membership in CRPA
- Completion of Recognition Phase

Application Steps

An application is accepted only when these requirements are met:

- The deadline for the application is 30 days prior to the scheduled exam.
- The Application Form is complete.
- The applicable fee is submitted. (note: 20% of this fee is non-refundable)
- All required information is complete and verified.

Notification:

- The candidate will be notified when the information is verified.
- The candidate will be notified of the date, time and location of the next available core level registration examination.

Examination process

- The candidate shall provide a photo ID prior to admittance for the exam.
- All other examination material will be provided.
- The Exam: Three hours will be allotted to write the examination.

Program Fees

- The examination fee is $250 CDN payable to the Canadian Radiation Protection Association. (note: 20% of this fee is non-refundable)

Core Level Registration Application Form

NOTE: Those wishing to write the CRPA registration exam should note that the registration application must be complete and postmarked 30 days prior to the scheduled exam.

Name (print): _

Address Home:

STREET NUMBER AND NAME

CITY PROVINCE COUNTRY POSTAL CODE

Address Business:

STREET NUMBER AND NAME

CITY PROVINCE COUNTRY POSTAL CODE

Preferred Mailing Address: ___Home ___Business

Home Phone: (____) _____ Business Phone: (_)

Fax: (___) _____ Email: _____

CRPA Core Level Recognition Completion Date: _____

An application fee of $250 CDN is payable to the Canadian Radiation Protection Association. Note: 20% of this fee is non-refundable should you withdraw your application to write the registration examination.

Method of Payment:

_____ Cheque (payable to CRPA) _____ Money Order (payable to CRPA)

_____ Master Card _____ Visa

Card Number _____ Expiration Date

Name on Card

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I certify that all the information associated with this application is complete and correct to the best of my knowledge. I understand that any falsification in this application will be grounds for rejection, or later revocation of any certificate issued. I understand that the Canadian Radiation Protection Association (CRPA) may investigate any submitted information and I agree to provide additional documentation if asked. If I am registered or certified with the CRPA at any level, I understand that I will be required to maintain the registration or certification according to the conditions set by the CRPA. By signing this application I hereby release the CRPA, its administrators, volunteers, employees and all other persons associated with the CRPA, from any and all claims which have resulted or may in the future develop from any actions as a result of my practice of radiation safety. I am aware of the risks of practising radiation safety and hereby assume all risks known and unknown. I declare that these terms are fully understood and voluntarily accepted as part of this application process.
Signature

D a t e :

Checklist: ____ Current Membership in CRPA paid

____ Application Form completed and attached

____ Fee enclosed or indicated on application form

Mail Application and all documents to CRPA Secretariat

CRPA Secretariat
Box 83
Carleton Place,
Ontario
K7C 3P3

Telephone: (613) 253-3779
Fax: 1-888-551-0712
E-mail: secretariat2007@crpa-acrp.ca
Website: www.crpa-acrp.ca

OFFICE USE ONLY

Date Received: _____ CRPA Membership Confirmed

Comments:

PROFESSIONAL REGISTRATION PHASE

4 *REGISTRATION EXAMINATION STUDY GUIDE*

The registration examination is based on two main documents that are posted on the CRPA web-site.
The Core Level Competency Profile
The Core Level Curriculum Guide

The registration examination is based on core level knowledge. The questions will be of a generic nature to cover all work disciplines. Questions that are determined to be at an advanced level will not be questioned on the registration examination but will be moved to the certification examination bank.

The examination will consist of 100 multiple choice questions. Each question will have one correct answer and three distracters. The passing grade for the examination is 75%. Marks will not be deducted for incorrect answers.

EXAMINATION BLUEPRINT		
COMPETENCY SECTION		**%OF EXAM***
11-15	Program Administration, Radiation Safety Act and Regulations, Licenses, Working Rules, Record Keeping	23
20	Employee Qualifications and Performance	9
30	Inspections, Audits, Investigations	17
40	Exposure and Dose Control	8
50	Instrumentation and Equipment	8
60	Radioactive Inventory Management, Purchasing, receiving, Transportation, Storage, Waste Management	18
70	Personnel Dosimetry	9
80	Contamination Control	4
90	Emergency Procedures	4
* The percent of the competency sections on the examination are approximate and dependent on the number of available questions in each section. The Examination Committee will strive to keep as close to the percentages as possible.		

RECOMMENDED READING LIST

No one set of books can cover all the competencies defined for all radiation safety practices across the country. It is important to remember that the regulatory questions are based on the Canadian Nuclear Safety Act and Regulations as well as all Regulatory Policies, Standards and Guides related to the regulations. Other questions, based on the competency profile and curriculum guide, are referenced to

general texts used in many radiation safety programs across the country. The following list, while not all inclusive, should give you a fair representation of where the questions are referenced.

The Examination Committee reserves the right to use material not listed in the recommended reading list but all questions will still be based on the core level competency profile and expectations of an entry level radiation safety professional. Some texts refer to non-Canadian regulations and unit measurements so the candidate should keep in mind that questions will be based on Canadian units and regulations.

1. Nuclear Safety and Control Act
2. General Nuclear Safety and Control Regulations
3. Radiation Protection Regulations
4. Nuclear Substance and Radiation Devices Regulations
5. Packaging and Transport of Nuclear Substances Regulations
6. Class I Nuclear Facilities Regulations
7. Class II Nuclear Facilities and Prescribed Equipment Regulations
8. Uranium Mines and Mills Regulations
9. Nuclear Security Regulations
10. Regulations for the Safe Transport of Radioactive Material, International Atomic Energy Agency, IAEA Safety Standard Series TS-R-1 (ST-1 Revised)

For specific radiation safety textbooks you can consult training providers or academic institutions for their radiation safety related reading lists. Some common texts are listed here in no particular order. Keep in mind that many texts refer to non-Canadian Regulatory standards. Preparation must be done with this in mind.

1. Martin, Alan and Harbison, Samuel, An Introduction to Radiation Protection, 4th edition, Oxford University Press Inc., 1996
2. Bevelacqua, Joseph, Basic Health Physics: Problems & Solutions, John Wiley and Sons Inc. 1999
3. Knoll, Glen F., Radiation Detection and Measurement, 3rd edition, John Wiley and Sons Inc. 2000
4. Cember, Herman, Introduction to Health Physics, 3rd edition, McGraw Hill Companies Inc. 1996
5. AECB, Canada: Living with Radiation, Canada Communication Group Publishing, 1995
6. Roessler, Charles, Management and Administration of Radiation Safety Programs, Health Physics Society 1998
7. Attix, F.H., Introduction to Radiological Physics and Radiation Dosimetry
8. Cooper, J.R., Radioactive Releases to the Environment
9. Schery, S.D., Understanding Radioactive Aerosols and their Measurement
10. Turner, J.E., Atoms, Radiation and Radiation Protection
11. Lamarsh, John, Introduction to Nuclear Engineering, 3rd edition, Prentice Hall, 2001
12. IAEA, Radiation, People and the Environment
13. Shapiro, Jacob, Radiation Protection - A Guide for Scientists, Regulators, and Physicians, 4th edition, 2002.

SAMPLE QUESTIONS

The sample questions are only intended to give you an idea of the level of questioning for the registration examination. It is the intent to include a few more sample questions as the question bank grows and we can remove some from the bank to be included as samples.

1. What agency regulates the use of x-rays in Canada?
   A. Canadian Nuclear Safety Commission (CNSC)
   B. National Council on Radiation Protection (NCRP)
   C. Nuclear Regulatory Commission (NRC)
   D. Provincial Regulatory Agencies

Competency Area 12: Radiation Safety Act and Regulations

2. What is required in order to comply with the ventilation system regulations for Uranium Mines and Mills?
   A. Ensure the fans have warning devices for malfunctions.
   B. Keep a record of the daily flow rate of the ventilation system.
   C. Post a sign by all fans warning of the radiation hazard.
   D. Provide respiratory protection for workers as a primary control in the facility.

Competency Area 12: Radiation Safety Act and Regulations

3. Which group must be declared a Nuclear Energy Worker?

Group		Average Yearly Dose for Group	Highest Individual Yearly Dose for Group
1	Industrial Radiographer	2.46 mSv	23.25 mSv
2	Reactor Fuel Handler	3.99 mSv	8.40 mSv
3	Nuclear Medicine Technologist	1.7 mSv	5.26 mSv
4	Laboratory Technologist	0.12 mSv	0.25 mSv

   A. 1 and 3 only
   B. 2and4 only
   C. 1,2and3only
   D. 4 only

Competency Area 20: Employee Qualifications-Performance (Designating Workers)

4. When conducting an investigation or inspection, at what dose rate do you expect to see a radiation warning sign posted at the entry or boundary of an area?

   A. 1.0 µSv/hr
   B. 5.0µSv/hr
   C. 10 µSv/hr
   D. 25 µSv/hr Competency Area 30: Inspections-Audits-Investigations

5. You are investigating after an incident where there has been a spill of radioactive liquid resulting in personnel being contaminated. What practice is consistent with a first investigation response?

A. Send those who were not involved in the incident home for the day.
B. Document the incident and interview all the people involved.
C. Notify the regulator immediately.
D. Call the provincial radiation safety personnel for assistance.

Competency Area 30: Inspections-Audits-Investigations

6. One tenth value layer (TVL) is defined as:

A. 1/10 the initial dose
B. 1/10 the initial shielding
C. 10 times the HVL
D. The shielding required to reduce the exposure to 1/10

Competency Area 40: Exposure and Dose Control

7. What device is commonly used to warn workers entering an area of elevated radon progeny concentration?

A. Direct Reading Dosimeter (DRD)
B. Thermo-luminescent Dosimeter (TLD)
C. Personal Alpha Dosimeter (PAD)
D. Continuous Working Level Monitor (CWLM)

Competency Area 50: Instrumentation and Equipment

8. What is the transport index for a package (cross section $<1m^2$) being shipped as a Yellow III with the following dose rates:

Surface = 510 µSv/hr
1 metre from the surface =43 µSv/hr
10 metres from the surface = 0.5 µSv/hr

A. 0.5
B. 4.3
C. 5.0
D. 8.6

Competency Area 60: Radioactive Material Inventory Management

9. When applying for a licence renewal, you anticipate the release for your liquid waste of one of the short-lived isotopes will be 10% higher than the limit on your licence. What should you do?

A. Determine if the sewage treatment worker dose is less than 1 mSv per year and ask for an increase in the disposal limit for your licence.
B. Do not change your licence but document any extra releases for subsequent inspections.
C. Stop all work at the organization until the numbers are verified.
D. Tell the affected users they must reduce their workload for that isotope by ten percent.

Competency Area 60: Radioactive Material Inventory Management

10. When do the Radiation Protection Regulations require a licensee to use a licensed dosimetry service?

    A. At all times.
    B. When the worker is reasonably likely to exceed 1 mSv/year.
    C. When the worker is reasonably likely to exceed 5 mSv/year.
    D. When the worker is reasonably likely to exceed 20 mSv/year.

Competency Area 70: Personnel Dosimetry

11. You receive a call that there has just been a spill of radioactive liquid and that two people have contaminated. What practice is consistent with a first response to this incident?

    A. Conduct a screening bioassay on the people that were involved in the incident.
    B. Document the incident and interview all the people involved.
    C. Notify management before reporting the incident to the regulator.
    D. Take steps to control or limit the effects of the incident.

Competency Area 80: Contamination Control

12. An industrial radiographer is contracted to perform a test at one of your campus buildings. He reports that the 2 TBq Iridium-192 source is missing from his vehicle. What is the first action you recommend be taken?

    A. Call together the campus emergency response personnel and develop an action plan involving the radiography company.
    B. Arrange for the entire campus to be evacuated until the source is found.
    C. Have your assistant take a radiation survey meter and walk around the campus to try and find the source.
    D. Make arrangements for the media to come on campus and let the public know that a source has gone missing.

Competency Area 90: Emergency Procedures

PREPARING FOR THE EXAMINATION

There is no one study plan that will work for everyone. Every candidate must establish a pattern that works for them. It is not sufficient to assume that relying on work experience without studying will mean success on the examination.

As a minimum, you should review the regulations and any policies, standards and guidelines related to the regulations. You should also be familiar with transport of dangerous goods as they relate to radioactive material. Many people have separate Transport of Dangerous Goods training. The registration exam does not focus on general physics, chemistry or biology questions and calculations. While there may be some basic calculations and physics questions, the exam has a focus on practical radiation safety at an entry level. The more advanced physics questions and calculations are reserved for the certification examination.

Some individuals set up study groups if there were sufficient numbers in their area.

CRPA Professional Recognition/Certification Process

Review time will depend on whether or not you have taken one of the approved training courses as listed in *Chapter 2– Application for Recognition*.

The two most important documents are the competency profile and curriculum guide. Review each section and understand the material that would be expected of a licensee in each section. This should be done with the expectations of an entry level Radiation Safety Professional in mind. Material should be covered in a general manner. Detailed regulations on a specialized industry will generally not be included on the examination.

The examination reflects national standards. Provincial or institutional procedures may vary so you must keep this in mind when preparing for the national examination.

MARKING THE EXAMINATION

Exam questions, in which more than 50% of the candidates answered incorrectly, will be reviewed. In addition to this, candidates are encouraged to comment on questions that are not clear and any questions with comments will also be reviewed. A determination will be made to accept the question or remove it from marking. Once the review is complete, the results will be issued. The final exam results will be issued as a pass/fail only. No individual marks will be issued.

Candidates who do not pass the examination will be sent a summary of their percent pass in each of the nine (9) competency categories. This will enable the candidate to determine their weak areas for subsequent exam writings. A straight average of the section percentages does not equal the total exam percent because each section contains a different number of questions.

5 APPLICATION FOR CERTIFICATION PHASE

NOTE: CURRENTLY BEING DEVELOPED

Required Information:

- Submit the application form and confirmation of completion of the registration phase.
- The individual will be required to pass an examination, set by the CRPA.
- The individual will be expected to have an understanding of at least one of the major specialty areas as defined in Chapter 1.
- Examinations are based on advanced understanding of the core level competencies as well as material from all subsections in the specialty area.
- It is the responsibility of the individual to meet all deadlines set by the CRPA.

Entry Requirements:

- Full member of the CRPA
- Registration at the core level as defined in the registration phase.
- Obtain an undergraduate degree in the sciences such as: medical science, physics, biology, chemistry, health physics or engineering.
- Have a minimum of 36 months experience in a radiation safety setting.

Application Steps

An application is accepted only when these requirements are met:

- The Application Form is complete.
- The applicable fee is submitted.
- Two professional references are provided. One shall be from a CRPA member and one from an employer. If self employed, submit two references from CRPA members.
- All required information is complete and verified.

Notification:

- The candidate will be notified when the information is verified.
- If there are no questions regarding the submission, verification shall be completed within 90 days of receipt of the application. Incomplete information may delay the verification process.
- The candidate will be notified of the date, time and location of the next available certification examination.

Examination process

- The candidate shall provide a photo ID prior to admittance for the exam.
- All other examination material will be provided.

Program Fees

- The application fee is $350 CDN payable to the Canadian Radiation Protection Association.

Certification Application Form

NOTE: Those wishing to write the CRPA certification exam should note that the certification application must be complete and postmarked by December 31 of each year.

Applicant Name (print): ________________________________

Address Home: ____
STREET NUMBER AND NAME

CITY PROVINCE COUNTRY POSTAL CODE

Address Business: ____
STREET NUMBER AND NAME

CITY PROVINCE COUNTRY POSTAL CODE

Preferred Mailing Address:
___Home Phone: (_____) ____________________ ___Business Phone: (_____)

Fax: (___) _______________________Email: ____________________________

Entry Requirements:
CRPA Core Level Registration Completion Date:___________________________

UNDERGRADUATE DEGREE MAJOR UNIVERSITY COMPLETION DATE

Professional Experience -demonstrating 36 months in radiation safety setting
-attach more if needed or include complete radiation safety resume

Employer:________________________________From: _________ to:____________Total Months:____
(YYYY-MM-DD) (YYYY-MM-DD)
Position: ________________________________ Immediate Supervisor: ________________________

Supervisor phone: (_____) ________________ Email: _____________________________________

Radiation Safety Duties: ____

Employer:________________________________From: __________ to:____________Total Months:____
(YYYY-MM-DD) (YYYY-MM-DD)
Position: ________________________________ Immediate Supervisor: ________________________

Supervisor phone: (_____) ________________ Email: _____________________________________

Radiation Safety Duties: ____

Employer:________________________________From: __________ to:____________Total Months:____
(YYYY-MM-DD) (YYYY-MM-DD)
Position: ________________________________ Immediate Supervisor: ________________________

Supervisor phone: (_____) ________________ Email: _____________________________________

Radiation Safety Duties: ____

An application fee of $350 CDN is payable to the Canadian Radiation Protection Association. Note: 20% of this fee is non-refundable should you withdraw your application to write the certification examination.

Method of Payment: _____ Cheque (payable to CRPA) _____ Money Order (payable to CRPA)

Master Card _____ Visa _____

Card Number _____ Expiration Date _____

Name on Card

Acknowledgement:

I certify that all the information associated with this application is complete and correct to the best of my knowledge. I understand that any falsification in this application will be grounds for rejection, or later revocation of any certificate issued. I understand that the Canadian Radiation Protection Association (CRPA) may investigate any submitted information and I agree to provide additional documentation if asked. If I am registered or certified with the CRPA at any level, I understand that I will be required to maintain the registration or certification according to the conditions set by the CRPA. By signing this application I hereby release the CRPA, its administrators, volunteers, employees and all other persons associated with the CRPA, from any and all claims which have resulted or may in the future develop from any actions as a result of my practice of radiation safety. I am aware of the risks of practising radiation safety and hereby assume all risks known and unknown. I declare that these terms are fully understood and voluntarily accepted as part of this application process.

Signature _____ Date:

Checklist: ____ Application Form completed and attached

____ Copy of Undergraduate Degree Attached

____ Two references obtained and given forms

____ Fee enclosed or indicated on application form

Mail Application and all documents to CRPA Secretariat

CRPA Secretariat
PO Box 83
Carleton Place,
Ontario
K7C 3P3

Telephone: (613) 253-3779
Fax: 1-888-551-0712
E-mail: secretariat2007@crpa-acrp.ca
Website: www.crpa-acrp.ca

OFFICE USE ONLY

Date Received: _____ CRPA Membership Confirmed
Comments:

Professional Reference Form

NOTE: The individual completing this form shall send it directly to the CRPA Secretariat.
P.O. 83 Carleton Place, ON K7C 3P3 **Fax: 1-888-551-0712**
E-mail: secretariat2007@crpa-acrp.ca

~~Applicant Name (print)~~ ~~Referee~~ ~~Name (print)~~

Specialty Area for Reference (CHECK THE AREA IN WHICH THE APPLICANT HAS WORK EXPERIENCE):

____ 100 Academic ____ 200 Industrial ____ 300 Medical ____ 400 Non-ionizing

Referee Contact Information:

Address: _____
STREET NUMBER AND NAME

_____
CITY PROVINCE COUNTRY POSTAL CODE

Phone: (____) _____ Email:

Reference Questions: Time during which you have personal knowledge of the applicant's radiation safety work experience. From: _____ to: _____
(YYYY-MM-DD) (YYYY-MM-DD)

Nature ofAssociation: __Supervisor __ Peer/Colleague __ Other (specify:_____)

Comment on the *applicant's radiation safety functions* and activities based on the specialty area indicated at the beginning of this form. Please include specific examples to back up comments. If more space is required please attach comments to this application form.

Accountability: Performs radiation safety duties in a safe and cost effective manner, taking responsibility for outcomes. Prioritized workload and deals with demanding situations.

Collaboration: Works with others to provide services and achieve the organization's radiation safety goals.

Excellence: Adjusts to changing work conditions and strives to improve work performance by expanding knowledge, learning new skills. Adapts to new information and changing conditions.

Knowledge and Skills: Demonstrates an understanding of radiation safety duties related to the specialty area within established standards.

Do you recommend this applicant for certification in radiation safety? ___Yes ___No

Additional Comments:

All information in this reference is complete and correct to the best of my knowledge.

Referee Signature _____ Date: ____

OFFICE USE ONLY

Date Received: _____ CRPA Membership Confirmed

Comments:

PROFESSIONAL CERTIFICATION PHASE

6 *CERTIFICATION EXAMINATION STUDY GUIDE*

The certification examination is based on two main documents that are posted on the CRPA web-site.
The Core Level Competency Profile
The Core Level Curriculum Guide

The certification examination is based on advance level questioning from the core level competency profile.

The examination will consist of two parts.
Part A will consist of 100 multiple choice questions. Each question will have one correct answer and three distracters. The candidate will be required to answer all questions from Part A.
Part B will comprise of questions from the four (4) Certification Specialty Areas listed in Chapter 1. The candidate must answer only 50 of the 200 multiple choice questions from the specialty areas. Additionally, two of eight short answer questions must be answered and one of eight essay/case study questions must be answered.

The total examination will be marked out of 200 points. (Part A 100 points, Part B 50 multiple choice points plus 15 points for each of the two short answer questions (total 30 points) and 20points for the essay/case study question. The passing grade for the total examination is 75%. Marks will not be deducted for incorrect answers.

The exam is marked in total not according to separate sections. The candidate must pass the examination in total. Failure on the examination will require a rewriting in all parts.

CERTIFICATION EXAMINATION BLUEPRINT		
PART A – TOTAL OF 100 QUESTIONS		**%OF PART A EXAM***
11-15	Program Administration, Radiation Safety Act and Regulations, Licenses, Working Rules, Record Keeping	23
20	Employee Qualifications and Performance	9
30	Inspections, Audits, Investigations	17
40	Exposure and Dose Control	8
50	Instrumentation and Equipment	8
60	Radioactive Inventory Management, Purchasing, receiving, Transportation, Storage, Waste Management	18
70	Personnel Dosimetry	9
80	Contamination Control	4
90	Emergency Procedures	4
* The percent of the competency sections on the examination are approximate and dependent on the number of available questions in each section. The Examination Committee will strive to keep as close to the percentages as possible.		
		TOTAL PART A POINTS 100
PART B		
Multiple Choice Questions		
50 Questions from Specialty Area 100 Academic 50 Questions from Specialty Area 200 Industrial 50 Questions from Specialty Area 300 Medical 50 Questions from Specialty Area 400 Non-ionizing		Candidate selects only 50 questions in total to answer
		Total Points 50
Short Answer Questions		
2 Questions from Specialty Area 100 Academic 2 Questions from Specialty Area 200 Industrial 2 Questions from Specialty Area 300 Medical 2 Questions from Specialty Area 400 Non-ionizing		Candidate selects only 2 questions in total to answer at 15 points each
		Total Points 30
Essay/Case Study Questions		
2 Questions from Specialty Area 100 Academic 2 Questions from Specialty Area 200 Industrial 2 Questions from Specialty Area 300 Medical 2 Questions from Specialty Area 400 Non-ionizing		Candidate selects only 1 question in total to answer at 20 points
		Total Points 20
		TOTAL PART B POINTS 100
		TOTAL CERTIFICATION POINTS 200
		PASS MARK 150/200 or 75%

RECOMMENDED READING LIST

All questions will be based on an advanced understanding of the core level competency profile and expectations of a senior level radiation safety professional such as a health physicist. Some texts refer to non-Canadian regulations and unit measurements so the candidate should keep in mind that questions will be based on Canadian units and regulations. Basic references are listed in Chapter 4, Registration Examination Study Guide.

No one set of books can cover all the competencies defined for all radiation safety practices across the country. For specific radiation safety textbooks please consult training providers or academic institutions for their radiation safety related reading lists for health physics related courses or any of the certification specialty areas. Some texts are listed here in no particular order. Keep in mind that many texts refer to non-Canadian Regulatory standards. Preparation must be done with this in mind.

GENERAL

1. Bevelacqua, J.J., Contemporary Health Physics: Problems & Solutions
2. Hall, E.J., Radiobiology for the Radiologist
3. ACGIH, Air Sampling Instruments for Evaluation of Atmospheric Contaminants
4. Hind, Aerosol Technology
5. Baron & Willeke, Aerosol Measurement
6. Alpen, E.L., Radiation Biophysics
7. Eisenbud, Merill, Environmental Radioactivity from Natural, Industrial & Military Sources, Academic Press Inc. 1997
8. McGinley, P., Shielding Techniques for Radiation Oncology Facilities, Medical Physics Publishing, 1998.

100 ACADEMIC

200 INDUSTRIAL

300 MEDICAL

1. H.E. Johns & J.R. Cunningham, The Physics of Radiology
2. Health Canada, Safety Code 20A X-Ray Equipment in Medical Diagnosis
3. Health Canada, Safety Code 31 Radiation Protection in Computed Tomography Installation
4. Health Canada, Safety Code 33 Radiation Protection in Mammography
5. Health Canada, Safety Code 30 Recommended Safety Procedures for the Use of Dental X-ray Equipment
6. AECB, GMA-14 Guidelines for Community Hospitals in the Handling of Radiation Accident Patients

400 NON-IONIZING

1. W. Greene, Non-Ionizing Radiation
2. R.T. Hitchcock & R.M. Patterson, Radiofrequency & ELF Energies, A Handbook for Health Professionals

SAMPLE QUESTIONS

(UNDER DEVELOPMENT)

PREPARING FOR THE EXAMINATION

There is no one study plan that will work for everyone. Every candidate must establish a pattern that works for them. It is not sufficient to assume that relying on work experience without studying will mean success on the examination.

As a minimum, you should review the regulations and any policies, standards and guidelines related to the regulations. You should also be familiar with regulations and radiation safety practices related to any of the specialty areas in which you intend to specialize.

Some individuals set up study groups if there were sufficient numbers in their area.

The two most important documents are the competency profile and curriculum guide. Review each section and understand the material that would be expected of a licensee in each section. This should be done with the expectations of a senior level Radiation Safety Professional.

7 *MAINTENANCE OF REGISTRATION - CERTIFICATION*

Required Information:
Once you have received registration or certification with the Canadian Radiation Protection Association, it is mandatory to meet the established criteria for maintenance of that registration or certification.

Submit documented evidence upon renewal of CRPA membership that a total of 25 points have been obtained from the listed categories.

The category areas are suggested guidelines and members are encouraged to submit any professional or service contributions that relate to radiation safety. This will allow the maintenance of registration and certification to expand to meet the changing radiation safety profession.

Determination of the credit point value and acceptance of credit points rests with the Examination Committee and all decisions are final.

It is the responsibility of the CRPA(R) or CRPA(C) professional to record their points and have verification proof of completion for audit purposes.

The CRPA examination committee will audit the submitted credit summary reviews on a random basis. When the candidate is contacted for an audit they are required to submit the documents that verify their point credits.

To maintain Registration or Certification you are required to accumulate 25 points over a three year period. All maximum points per category are based on a three year total. All category credit category points must be related to the field of radiation protection.		
CATEGORY	**POINTS PER EVENT**	**MAXIMUM POINTS PER CATEGORY**
1. CRPA Association		
Committee Member	1 point per year	3
Committee Chairperson	1 points per year	3
Board Member	3 points per year	9
Conference Local Organizing Committee	2 points in year of conference	2
2. Professional Practice		
Work hours in radiation safety	5 points per year based on full time work (1800 hours) Points adjusted based on % work of full time hours. (eg. 0.5 FTE = 2.5 points)	15
Providing academic instruction or lectures not related to your job requirements.	0.1 points per hour of training	5
3. Publications		
CRPA Bulletin	1 point per article	None
On-line training module	1 point per module	3
Journal/Bulletin or Newsletter article (non-peer reviewed – referenced)	0.5 points per article	3
Journal article (peer reviewed – referenced)	1 point per article	6
Paper or poster presenter	1 point per paper or poster	6
Paper or poster author	1 point per paper or poster - points adjusted based on number of contributors (eg. 4 contributors each receive 0.25 points)	3
Book or book chapter	2 points per book/chapter	6
Award winning paper, poster, scientific exhibit	2 points per award	4
4. Professional Development		
CRPA Conference Attendance	1 point per day	None
Other related radiation protection conferences	0.5 points per day	None
5. Continuing Education Courses		
Registrant (related to CRPA Certification Specialty Areas, Chapter 1 of the Registration/Certification Process Document)	0.1 points per hour	None
Instructor Workshop or Lecture (not related to your job requirements)	0.2 points per hour	None
6. Other		
CRPA(R) Registration exam questions	1 point for every 5 questions	5
CRPA(C) Certification exam advance level questions, case studies and problem based	2 points for every 5 questions	10
Exhibit or paper contest judge	0.5 points per term	2
Special Recognition Award	2 points per award	4
Other Association Membership (APIH, CAMRT, CCPM , CRBOH , HPS , Laser Institute, NRRPT , PCRSP and other related radiation protection associations)	1 point per year per association	3

Credit Summary Review

(Keep a copy of proof of credit points for audit purposes)

	Total for Category A			
PROFESSIONAL PRACTICE				
	Total for Category B			
PUBLICATIONS				
	Total for Category C			
PROFESSIONAL DEVELOPMENT				
	Total for Category D			
CONTINUING EDUCATION				
	Total for Category E			
OTHER				
	Total for Category F			
	TOTAL CREDITS (Sum of A – F)			

I declare that the information provided is accurate and reflects the true nature of my radiation safety practices throughout the period indicated.

Credit Summary for – (Name)

Period Covered – (Calendar Year)

Date	Activity/Event/Position/Description	Points	Cumulative Maximum Points	Verification by CRPA
CRPA ASSOCIATION				

Signed: _____ Date:

Position:

NOTE: All training or instruction must clearly relate to radiation safety job performance requirements in

the core level or advanced level competency profiles. If college courses are declared for training hours the applicant must convert credit hours to actual contact hours.

8 *FREQUENTLY ASKED QUESTIONS*

NOTE: UPDATED AS QUESTIONS NEED ANSWERING

GENERAL

Do I have to get registered?
This process was implemented based on a membership survey and a desire by the membership to put some kind of certification process in place. This process is not mandatory and is not meant to replace any other professional designations. It does, however, provide an opportunity for those with no other professional designation to obtain a professional designation from the CRPA. This process also establishes a standard set of competencies for various duties of radiation safety professionals, which may assist people when applying for certain radiation safety officer positions.

Do I have to be registered in order to work?
It is up to the employer and the regulatory agencies to determine the criteria for employment. Some employers may give preference to those who have pursued registration over someone who has not.

I already have my CHP designation. Will I have to get registered with the CRPA as well?
The short answer is no. Many jobs require a health physicist level of training. The core level is a basic entry level standard. It is hoped, in the future, that the certification level may meet the needs of the health physics community but this is an evolutionary process and we are not yet at the certification level.

Will my membership in the CRPA be affected if I do not obtain registration or certification?
This process does not affect the membership categories of the association. Once you obtain registrati on or certification you must meet the criteria to maintain that professional designation.

RECOGNITION

Can I still write in June ifI miss the December 31 deadline?
No. It takes time for our volunteer committee to review the recognition information. The comm ittee is not paid and performs the task outside other job responsibilities. If you miss the deadline you will have to wait until the next exam sitting.

REGISTRATION

Will I receive a refund ifI withdraw my application to write the exam?
You will be refunded 80% of the exam fee. If you do not show up to write to exam it is still your responsibility to notify the association for the 80% refund.

Can I still write the registration exam ifI miss the '30 day prior to exam' deadline?
No. The deadline is set to confirm exams to be printed, arrange room size, and prepare the material for shipping to the exam site.

Is there only one exam writing and location each year?
At this time we only can schedule the exam around the conference location and date. This allows the volunteers sufficient time to review all applications and prepare the examinations. There are plans to offer more locations in the future but no decision has been made on offering more than one writing a year.

CERTIFICATION

Do I have to know all specialty areas before writing the certification exam?
No. The specialty areas recognize that radiation safety professionals work in many different areas. The certification examination is made of two parts. A general section based on advanced knowledge of the core level competencies and a specialist section that allows the candidate to pick questions. If you work in one specialty area you can pick questions from that group of questions only. You are expected to have sufficient knowledge in all areas of one specialty and not just one small section of that specialty.

MAINTENANCE

How do I keep track of my maintenance credits?
It is up to you to keep your verification material. It is best to start a binder to place the material. If you speak at a conference then you should keep a copy of the conference schedule that contains your name and the date you spoke. If you submit a journal or bulletin article you can keep a copy of the table of contents or the article itself. For employment hours you can get a verification letter from your employer. These are just examples but hopefully you get an idea of the type of verification required.

Do I submit my maintenance credits each year or at the end of three years?
You are only required to submit the credit summary not the verification material. You are required to keep the verification material and only submit it if requested for audit purposes.

9 *SAMPLE CORE PROFILE SUBMISSION*

This Sample Recognition does not include a complete competency profile. Sample sections have been included to give the candidate an idea on completing a portfolio using accepted courses or those that are not yet on the CRPA accepted list. The samples are fictitious and any resemblance to actual courses is unintentional.

CRPA Accepted Training Programs and Courses
SAMPLE ONLY

	Course Title	Training Program Provider	Sections from Core Level Competency Profile Approved
1	**Management of Radiation Safety Programs**	**Acme Training Incorporated**	**11, 12,13,20,31,32,33**
2	**Practical Aspects of Radiation Detection**	**Scintillating Courses Ltd.**	**50**
3	**Radiation Safety Officer Level 1**	**Ion and Beam Management Corp.**	**All Sections**

Portfolio Submission for Mr. Gamma Beam

11	**Program Administration** Manage a safety program that provides effective control of radiation protection activities in accordance with Federal and Provincial regulations.	
11.1	Manage radiation safety staff and operational budgets	
11.2	Ensure the role of a Radiation Safety Committee is incorporated in the organizational structure.	
11.3	Advise management and workers regarding issues related to the institute's use of radioisotopes and radiation emitting devices.	
11.4	Prepare corporate policies and procedures to assist management and workers to implement effective radiation safety practices.	**CRPA**
11.5	Develop administrative controls or procedures to ensure departments and individuals comply with radiation safety and regulatory requirements;	**Approved Course**
11.6	Initiate revisions to corporate and department policies and procedures based on changes to license conditions or regulations.	**#1**
11.7	Conduct an annual review of the radiation safety program.	**Certificate of Completion attached**
11.8	Prepare an annual report of each licensed activity.	
11.9	Authorize the use, work procedures, and locations of use for radioactive material.	
11.10	Represent the Radiation Safety Program on committees and work groups.	
11.11	Maintain good relations with federal and provincial regulators and inspectors.	

50	**Instrumentation and Equipment**	
50.1	Ensure equipment is assessed to determine that it is appropriate for its intended use.	
50.2	Administer the use, and maintenance of personnel monitoring devices and instruments.	**CRPA**
50.3	Ensure radiation survey instruments are calibrated and serviced as required.	**Approved**
50.4	Perform efficiency tests and document count rates corresponding to contamination levels for each isotope likely to be used with that instrument.	**Course #2**
50.5	Document results of equipment calibration and service.	**Certificate of**
50.6	Analyze equipment results for trends that indicate sub-optimal performance.	**Completion attached**
50.7	Advise on the use of personnel protective equipment.	
50.8	Assess personal monitoring devices and assess new devices, as they become available.	

90	**Emergency Procedures**	
90.1	Develop procedures for dealing with emergencies involving radioactive material.	See 'A' Preparing for Emergencies
90.2	Advise on the handling of contaminated individuals to the Emergency Department.	See 'A' Preparing for Emergencies
90.3	Advise departments on the handling of deceased patients who have had recent treatment and are a potential radiation source.	See 'A' Preparing for Emergencies
90.4	Act as a resource for those responding to transport or other accidents involving radioactive material.	See 'A' Preparing for Emergencies
90.5	Establish an emergency response team and conduct practice drills.	See 'A' Preparing for Emergencies

A. "Basic Preparation for Radiation Emergencies" (Completion certificate attached)

Provider: EmergPro Inc., 123 Beta Street, Remtown.
Instructor: Millie Beck phone (555) 123-4567 Email:m.beck@scint.net
Dates Taken: March 14, 2003
Course Outline: **Part 1**

8:00-9:00 Fundamentals of Classifying Emergencies
9:00-10:00 Types of Radiation Emergencies
10:00-10:30 BREAK
10:30-11:45 Basic Response to Radiation Emergencies
11:45-12:00 Available Resources
12:00-13:00 BREAK

Part 2

13:00-14:00 Regulations Relating to Reporting Emergencies
14:00-14:30 The Response Team
14:30-14:45 BREAK
14:45-17:00 Emergency Response Practice

Mr. Beam could also submit job descriptions that explain day to day responsibilities relating to each of the competencies or include samples of policies or material created which demonstrates an understanding of the competency. He should interpret the competencies as he sees fit and relate them to any area of prior learning even if specific courses do not appear to cover the material.

APPENDIX 1– CORE LEVEL COMPETENCY PROFILE

http://www.crps-acrp.ca/english/core competencies e.asp http://www.crps-acrp.ca/francais/core competencies f.asp

APPENDIX 2– CORE LEVEL CURRICULUM GUIDE

http://www.crps-acrp.ca/english/curriculum e.asp

http://www.crps-acrp.ca/francais/core curriculum f.asp

APPENDIX 3– SPECIALTY AREA OUTLINE/GUIDE

UNDER DEVELOPMENT