ENCLOSURE 3

WISCONSIN RADIATION PROTECTION SECTION NARRATIVE

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I. HISTORY AND OVERVIEW

Introduction

The State of Wisconsin seeks to enter into an Agreement with the Nuclear Regulatory Commission (NRC) for the purpose of assuming regulatory authority over reactor-produced (byproduct) radioactive materials, source materials and special nuclear materials in quantities not sufficient to form a critical mass. The following Radiation Protection Section (RPS) history and overview has been developed to provide supporting information for the application to become an 'Agreement State'. Wisconsin proposes to become the 33rd Agreement State in July, 2003.

History of Wisconsin Radiation Protection Section

In 1963, the Wisconsin Legislature enacted Chapter 325, Laws of 1963 (known as the Radiation Protection Act) which provided authority to the State Board of Health and the Industrial Commission to regulate sources of radiation. This statute lead to the creation of the Radiation Protection Section in the State Board of Health. Initially, authority to regulate sources of radiation was a cooperative arrangement between the State Board of Health and the Industrial Commission. The Radiation Protection Act provided the authority to promulgate radiation protection rules and develop necessary policies and programs, plus established the requirement to register radiation sources (machine produced radiation and non-AEA radioactive materials) with the Board of Health. The Act provided both agencies the authority to impound sources of ionizing radiation in the possession of a person who failed to observe safety standard established by rule and established penalties ranging from $10 - $500/day for violation of statute or rule. In addition, the Act created an Advisory Radiation Protection Council to advise the fledgling radiation control agencies and consult in carrying out the administration of statutes and in the development of rules. The State Board of Health, with the assistance of the Radiation Protection Council, subsequently promulgated the first radiation protection code (Chapter H 57, WI Administrative Code) developed under the authority of the 1963 Radiation Protection Act. The original code became effective in 1966.

The principal activities of the Radiation Protection Section during its initial years consisted of environmental monitoring to determine the radiological impact of atmospheric weapons testing on Wisconsin's environment and milk supply; review and approval of shielding plans for radiation installations; registration and inspection of x-ray equipment; and location and inspection of radium sources. In 1967, a major reorganization of state government reorganized the State Board of Health and the Industrial Commission into the Department of Health and Social Services (DHSS) and the Department of Industry, Labor and Human Relations (DILHR), respectively. The legislature concurrently passed Chapter 366, Laws of 1969 which provided DHSS the authority to develop a radiation protection code and enforce the rules pertaining to ionizing radiation in establishments principally engaged in furnishing medical, surgical, chiropractic and other health services to persons and animals. The Radiation Protection

Section was placed in DHSS. DILHR was provided authority to enforce the radiation protection code in industrial establishments. The Radiation Protection Council was retained to provide DHSS and the RPS with technical assistance in the administration of statutes, assist in the development of rules and help resolve jurisdictional problems between the two departments.

In 1973, the Radiation Protection Section added to its environmental monitoring activities by joining in the new Environmental Radiation Ambient Monitoring System (ERAMS) established by the Environmental Protection Agency (EPA). This network of air and precipitation sampling stations was established in many states, including Wisconsin, to assess the radiological impact of weapons tests and radiological accidents on the United States. The RPS was responsible for routine sample collection, preliminary analysis and distribution of samples to a designated EPA lab for further analysis.

Also in the 1970's, the RPS began participating with the Food and Drug Administration (FDA)/Bureau of Radiological Health in numerous programs for the nationwide evaluations of x-ray trends (NEXT) to determine patient exposure from various radiological examinations. The compiled national data was used to establish exposure limits for various diagnostic examinations. In 1975, the RPS began conducting compliance inspections of newly installed x-ray systems under contract to the FDA/Bureau of Radiological Health.

Uranium exploration in Wisconsin became a significant legislative issue in the late 1970's. At the direction of a Wisconsin Senate Subcommittee, the Radiation Protection Section developed and implemented a radiological monitoring study at two uranium exploration sites in northern Wisconsin to determine the health and environmental impact of uranium exploration on drill operators and the public. Monitoring began in August, 1980 and continued through January, 1981. The results of the study were published in a 1982 document entitled "Radiological Monitoring of Uranium Exploration Drilling in Northern Wisconsin; WI Dept. of Health and Social Services, Section of Radiation Protection; 1982".

In response to the 1979 Three Mile Island accident, the RPS worked with the state emergency management agency to develop a radiological emergency preparedness and response (REP) capability to address incidents at the five nuclear power plants in or adjacent to WI. This new capability included the creation of a State Radiological Coordinator in the RPS to coordinate the state technical response to radiological incidents and advise the Governor (or designee) on appropriate protective actions. The RPS also established and trained a network of field monitoring teams (first responders) located in proximity to all the power plant sites. The radiological emergency preparedness capability of the RPS was first exercised in 1979. In response to a legislative action directing the DHSS to conduct environmental monitoring within 20 miles of any nuclear power plant impacting Wisconsin, the RPS further expanded the scope of its environmental monitoring activities to include the areas around the 5 nuclear plants impacting Wisconsin. The legislative mandate requiring environmental monitoring around nuclear plants also authorized DHSS to assess an annual fee to the operating

utilities to support the program. Later, the RPS entered into a contract with the NRC to conduct split-sample monitoring around the in-state nuclear plants. The RPS also developed and submitted for promulgation a major revision of the radiation protection code incorporating the newest changes to federal radiation protection regulations. The new HSS 157 was approved by the legislature and became effective in 1982.

During the mid-1980's, the Radiation Protection Section expanded its REP capability to include a mobile radiological laboratory, increased field instrumentation, multi-agency ingestion sampling teams trained to sample the food supply after a radiological incident and an in-house germanium analysis system. In addition, the legislature authorized DHSS to begin providing radon information and public outreach to Wisconsin citizens and approved a standing appropriation that allowed creation of a Radon Information Center in each of the two counties with the highest natural radon levels in the state.

Between 1984 and 1986, nuclear plants in the states of Wisconsin and Minnesota began shipping spent reactor fuel to a reclamation facility in Morris, IL. RPS staff received training at the Morris facility to help prepare for potential problems and become familiar with shipment procedures, personnel involved and packaging. Program staff were responsible for independently monitoring spent fuel shipments originating in Wisconsin to determine if contamination and radiation levels were within allowable limits prior to shipment. As spent fuel shipments from Minnesota entered Wisconsin, staff from the RPS were stationed along the designated route to monitor the shipments and be available to respond quickly in the event of an incident. Local government officials were alerted to all shipments.

During 1990, the RPS applied for and was awarded one of the first State Indoor Radon Grants from the Environmental Protection Agency. This grant allowed expansion of the regional Radon Information Center concept to cover most counties of the state and allowed for increased public outreach, advisory assistance and radon related research by the RPS. Also in 1990, the RPS began participating in the Health Care Finance Administration (HCFA) mammography certification program. The HCFA program was superseded by the federal Mammography Quality Standards Act of 1992. The RPS subsequently entered into a contract with the Food and Drug Administration to conduct annual inspections of all mammography facilities in Wisconsin.

In 1992, the RPS initiated a Radioactive Materials Disposal Project designed to reduce the inventory of unwanted radioactive materials believed to be in the possession of Wisconsin schools. In collaboration with the State Dept. of Public Instruction, schools were notified of the opportunity to dispose of unwanted materials at a reduced cost. The RPS negotiated an agreement with a radioactive materials broker who collected the materials from participating schools and effected disposal. This initiative resulted in 254 separate radioactive items (primarily NARM) being sent for disposal.

In response to an increased use of radiation monitoring by the scrap industry, the RPS began to conduct incident response training (upon request) for scrap yards, local emergency responders, hazmat teams, and police and fire departments statewide

beginning in 1993. During that same year, the DILHR was reorganized into the Dept. of Commerce and radiation statutes modified to reflect the change.

During 1997, the Wisconsin legislature evaluated the abundance of state boards and advisory councils and voted to sunset a number of long-standing groups, including the Radiation Protection Council. That same year, the RPS initiated a second waste disposal initiative targeting schools, scrap yards and state agencies. 284 separate radioactive items (primarily NARM) were identified and sent for disposal. In 1998, DHSS was reorganized into the current Department of Health and Family Services (DHFS). The RPS was retained in DHFS.

In early 1998, staff from the RPS met with representatives of the radiation regulated community to gauge support for Wisconsin pursuing agreement state status with the Nuclear Regulatory Commission. The positive response from these meetings allowed the RPS to propose statutory, organizational, fiscal and position changes needed to pursue agreement state status. The Governor signed a letter of intent in September, 1998 requesting NRC assistance in pursuing agreement state status. In 1999, the Wisconsin legislature passed 1999 Wisconsin Act 9 that approved the proposed agreement state enabling legislation and expanded DHFS statutory authority to regulate sources of radiation.

Radiation statutes were expanded to authorize the following: Wisconsin's governor on behalf of the state to enter into an agreement with NRC to assume regulatory authority over byproduct, source and special nuclear materials; DHFS to annually assess a fee of 36% of the U.S. Nuclear Regulatory Commission license application fee and materials license annual fee for any NRC licensee (excluding nuclear power plants and federal facilities) in the state to support agreement state program development; licensing and registration of radioactive materials; substantial expansion of the penalties assessed by the department for violation of statute, rule, license condition or registration to a range of $100 to $100,000; assignment of the DHFS as the state radiation protection agency and removal of the authorization for the Dept. of Commerce to regulate sources of radiation. Wisconsin Act 9 also contained the initial budget and position authority to begin development of a DHFS radioactive materials licensing and inspection program located in the Radiation Protection Section.

In January, 1999, the RPS proposed creation of a new radiation protection code and repeal of the version last updated in 1982. Utilizing the assistance of a 40 member, ad-hoc advisory group representing a cross-section of the regulated community, the RPS developed a new radiation protection code (called HFS 157) modeled after the Suggested State Regulations for the Control of Radiation (SSRCR) developed by the Conference of Radiation Control Program Directors (CRCPD). The proposed code was developed to make the Wisconsin radiation protection code current and compatible with applicable federal regulations. *Attachment 5* contains a cross-reference list that shows the federal requirement and corresponding WI Rule. The new HFS 157 was submitted for promulgation in November, 2000.

The prescribed promulgation process for adopting and amending radiation control rules entails 1) obtaining approval of the Department of Health and Family Services; 2) submitting the proposed rule to a legislature support agency called the Legislative Reference Bureau (LRB) – Rules Clearinghouse for review and comment; 3) presenting the proposed rules for public review and comment including scheduled public hearings; 4) responding to each public and LRB comment in a report provided to the legislature; 5) modifying the rule language to reflect public and LRB comments, as appropriate; 6) submitting the rule to the appropriate legislative standing committee for deliberation and legislative hearing, if scheduled 7) obtaining approval of the Wisconsin legislature; and 8) publishing the legislatively approved rule action in the Wisconsin Administrative Register for adoption as law.

II. RADIATION PROTECTION SECTION DESCRIPTION

Organization, Mission, Staff Education & Experience, Training Activities and Overview

The Radiation Protection Section is located in the Department of Health and Family Services (DHFS). The Secretary of DHFS, Phyllis Dubé, was appointed by Governor Scott McCallum. The Division of Public Health Administrator, John Chapin, reports to Secretary Dubé. The Bureau Director for Environmental Health, Tom Sieger, reports to John Chapin. The Radiation Protection Section Chief, Paul Schmidt, reports to Tom Sieger. Organizational charts for these administrative levels within DHFS are presented in *Attachment 1*.

The mission of the WI Radiation Protection Section (RPS) is to protect the public - both occupationally exposed and general – from unnecessary exposure to sources of radiation. To help accomplish this mission, the Radiation Protection Section has a staff of well-qualified personnel from a variety of academic and professional backgrounds. Currently, the RPS employs 20 people with the following academic distribution:

- 1 staff with a PhD degree in Physics
- 2 staff with Master's degrees in scientific disciplines
- 9 staff with Bachelor's degrees in various disciplines, including mathematics, chemistry, environmental science, geology and radiologic technology
- 4 staff with Associate's degrees or equivalent in scientific specialties

Radiation Protection Section staff have wide ranging and extensive expertise in the areas of occupational health and safety, nuclear power plant operation, health physics, radon, training, environmental monitoring, radiochemistry, physics, emergency preparedness planning, geology, radiological incident response, dose assessment and radiation control. Staff members have published papers in well-known journals, such as the Health Physics Journal, Journal of Physics and the Wisconsin Medical Journal. In addition, the staff are actively involved in the CRCPD and other national organizations. The current radiation control program director was CRCPD Chairperson from 2000 – 2001. The staff also frequently present papers at national conferences, including the National Radon Conference, National REP Conference and the National Conference on Radiation Control

(CRCPD annual meeting). The RPS hosted the National Conference on Radiation Control in 1985 and again in 2002.

Training activities are a significant component of RPS activities. A full-time training coordinator is responsible for coordinating, developing and conducting training for local emergency responders, state agency staff, RPS staff, county emergency government staff and utility personnel. In 2001, four two hour training sessions covering the 'new' 10 CFR 20 were presented to the RPS staff. Capability has been expanded in recent years to include training for other areas. Currently, multiple staff are involved in developing and conducting general radiation and incident response training for police and fire departments, Level A Hazmat teams (8 located by region in the state) and scrap yard personnel, among others. The recent heightened awareness of possible need to respond to a terrorist threat involving radioactive materials will present additional opportunities to provide training to regional and local emergency responders.

The primary responsibilities of the Radiation Protection Section are listed below and are discussed in further detail in subsequent sections:

- Environmental radiation monitoring
- Radon public information and outreach
- Radiological emergency preparedness and response
- X-ray, NARM, and tanning registration and inspection; mammography facility inspection
- Radioactive materials licensing and inspection (developing)
- Radiological incident response

Environmental Radiation Monitoring

The RPS currently conducts environmental surveillance around each of the five nuclear power plants in or near Wisconsin – three in Wisconsin, one in Illinois and one in Minnesota. The Kewaunee and Point Beach plants are the only two operational, pressurized water reactors (PWR) in the state and are located within 3 miles of each other on the Wisconsin shore of Lake Michigan. The Lacrosse Boiling Water Reactor is a shutdown facility located in southwest Wisconsin. The Prairie Island plant is an operating PWR on the Minnesota side of the state's western border. The Zion plant is a shutdown PWR facility three miles south of the Wisconsin/Illinois border.

The most extensive monitoring activities are conducted around the operational Point Beach/ Kewaunee plants and include the following:

1. Passive TLD System

   The passive TLD monitoring system utilizes thermo-luminescent dosimeters (TLDs) to measure the cumulative level of radiation around the plant sites. They are placed in 31 locations within 20 miles of the plant sites. They are also located around the boundary of the Interim Spent Fuel Storage Installation (ISFSI) constructed at Point Beach. TLDs are changed quarterly and then sent to a NVLAP accredited dosimeter

processor to determine the amount of radiation the device received at that location during the monitoring period.

2. Environmental sampling (milk, water, vegetation, fish, soil, air particulate/air iodine, shoreline sediment)

   Environmental sampling is conducted to monitor the air, terrestrial and aquatic environments for radioactivity content. Continuous air sampling is performed by air samplers placed in multiple locations around the plant sites. Terrestrial and aquatic samples of milk, vegetation, potable water, soil, lake water, fish and shoreline sediments are routinely collected, and analyzed by the WI State Laboratory of Hygiene for radioactivity. Sampling activities have been conducted continuously since 1968.

3. Environmental Monitoring Reports

   The Radiation Protection Section compiles the analysis results of all environmental samples and TLDs collected around the plant sites into an annual report. Annual environmental monitoring reports are routinely provided to county, state and federal agencies and to public libraries, and other interested groups or individuals, upon request.

The RPS no longer conducts separate milk monitoring or participates in the ERAMS. Milk monitoring ended in June, 1996. The ERAMS site was transferred to a larger population center in eastern Wisconsin in January, 2000.

Radon Public Information and Outreach

The RPS has annually applied for and received a State Indoor Radon Grant from the EPA since the first grant award in 1990. This grant has been used to support a statewide network of twelve Radon Information Centers, trained staff and on-going research projects. RPS staff are responsible for all aspects of grant management, including contracting with local agencies to provide services. Staff also provide technical assistance to local public health agency staff, conduct training for local public health and radon industry staff, and respond to public questions about methods to measure and mitigate radon levels in existing and new construction. The radon program is also coordinating with the state Dept. of Natural Resources to implement the new radon in water standards and the multi-media mitigation option contained in recent revisions to the EPA Safe Drinking Water Act.

Radiological Emergency Preparedness and Response

The Radiation Protection Section is responsible for maintaining the state's technical response capability to an incident at a nuclear power facility impacting Wisconsin. Routine staff responsibilities consist of:

a) training annually and equipping a network of state field sampling teams (first responders) located near each of the 5 nuclear plants impacting the state;

b) periodically training multi-agency ingestion sampling teams to sample the food supply for radiological contamination;

c) ensuring the operational readiness of a mobile radiological laboratory, radio-equipped response vehicles and field instrumentation;

d) providing radiation related training to local volunteer, state and county government, utility, hospital and ambulance service staff;

e) calibrating and maintaining an intrinsic germanium analysis system used in the mobile laboratory to quantify radioactive content in environmental samples; and

f) participating in all scheduled REP exercises or real events.

Staff also routinely interact with WI Emergency Management (WEM) to maintain the State Radiological Incident Response Plan and develop the technical portion of nuclear plant exercise scenarios. Three staff from the RPS are trained to function as the State Radiological Coordinator responsible for coordinating the state technical response during the emergency phase of a power plant incident, developing protective action recommendations based on dose assessment and providing technical advice to the Governor or designee during all phases of the incident. Radiation Protection Section staff have participated in over 50 REP exercises since the first exercise was held in 1979.

The RPS's mobile radiological laboratory is equipped to prepare and analyze environmental samples collected by state field teams during a power plant incident or exercise. Staff are trained to operate, maintain and calibrate a intrinsic germanium counting system used for radiological sample analysis. The mobile laboratory also functions as a communications center between the SRC and the field teams. A more detailed description of the Radiation Control Program's mobile laboratory is contained in *Attachment 10, Appendix A.*

X-ray, NARM, Tanning Registration; Mammography Inspection: The RPS is responsible for annually registering radiation producing devices, Naturally Occurring and Accelerator Produced Radioactive Materials (NARM) and tanning facilities. Staff conduct routine inspections of statewide x-ray facilities, periodic inspections of NARM users, and tanning facility inspections upon receipt of medical complaint.

During CY 2001, the RPS processed over 4,900 x-ray facility registrations, 130 NARM registrations and 1,400 tanning facility registrations. Staff also conducted inspections of 1,500 x-ray facilities statewide. X-ray devices are inspected at least once every 3 years.

Staff continue to conduct inspections of portable x-ray service suppliers certified by the Health Care Finance Administration.

The RPS has participated in the annual Nationwide Evaluation of X-ray Trends (NEXT) continuously for over 25 years. During CY 2001, staff attended the training offered for the 2001 pediatric chest NEXT and participated in the inspections.

Since 1992, the RPS has been under contract with the Food and Drug Administration to conduct annual inspections of all 250 mammography facilities in Wisconsin. The RPS has consistently met contractual obligation to inspect all mammography facilities in the state each year of the contract.

Radioactive Materials Licensing and Inspection: The RPS is responsible for developing the radioactive materials regulatory structure needed for Wisconsin to become an agreement state with the Nuclear Regulatory Commission. Currently, program staff are:

a) attending NRC training courses required for personnel who will license and inspect the use of radioactive materials;

b) accompanying the NRC during their inspections in Wisconsin (40);

c) conducting inspections of NARM users in Wisconsin (40); and

d) developing the application needed for Wisconsin to become an agreement state with the Nuclear Regulatory Commission.

Two Nuclear Engineers have spent a week in NRC's Region III Office for hands-on licensing training. Staff also assisted with the inspection of a university broad scope licensee in a neighboring agreement state. The Radioactive Materials Program staff resumes and individual training programs are shown in *Attachment 2.* Position descriptions for each staff member in the Radioactive Materials Program are located in *Attachment 3.*

The new Radioactive Materials Program (RMP) being developed for this purpose is described in greater detail in Section III.

Radiological Incident Response

The Radiation Protection Section routinely responds to all types of incidents within Wisconsin involving radioactive materials not of nuclear power plant origin. The three RPS staff trained to function as State Radiological Coordinator are available on a 24-hour, rotating on-call basis to augment local resources and help safeguard public health and safety in the event of a radiological incident. Additional RPS staff are also trained and experienced in responding to radiological incidents.

From 1995 through January, 2002, RPS staff responded to approximately 100 incidents involving radioactive materials. These incidents ranged from the detection of radioactive material at scrap facilities to a CY 2000 transportation accident that closed a portion of an

interstate highway. A copy of the event report and photos for this incident is located in *Attachment 7, Appendix A.*

III. RADIOACTIVE MATERIALS PROGRAM

As mentioned earlier, the Wisconsin legislature approved significant changes to radiation protection statutes in 1999 and minor changes in 2001 (*Enclosure 2).* These changes have allowed the RPS to begin development of a radioactive materials licensing, inspection and enforcement program necessary to become an agreement state with the NRC.

Accomplishments

1. All NRC licensees in Wisconsin have been informed of DHFS agreement state program development activities.

2. Operating funds to support program development are supplied by a statutorily mandated annual surcharge fee assessed to each NRC licensee in Wisconsin (excluding power plants and federal facilities). Beginning in 1999, all NRC licensees in WI pay an annual fee to the state amounting to 36% of their most recent annual license or application fee(s) paid to the NRC. The RPS is responsible for invoicing the licensees. This revenue source is dedicated and will adequately fund development of a materials licensing and inspection program in the RPS, including salary and fringe expenses, travel, training, observation of NRC inspections, incident response, printing, equipment and administrative costs. The surcharge fee is authorized only until Wisconsin becomes an agreement state. At that point, license and registration fees will fund program operation. The revenue and budget for FY 2002-2005 is located in *Attachment 12.*

3. A new Materials Licensing and Inspection Unit with a separate supervisor has been authorized for the Radiation Protection Section and will be referred to hereafter as the Radioactive Materials Program (RMP).

4. The RMP receives periodic updates of NRC licenses in Wisconsin from NRC Region III. A database has been compiled which contains all by-product material users in Wisconsin, including all NRC licensees/licenses and current NARM registrants. This database contains basic information such as facility name, NRC license and/or NARM registration, location of material use, contact, license number, license type, fee code, and inspection priority. Currently, the database is being used for billing purposes and to determine future inspection and licensing workload. At present, the RMP estimates there are about 420 future Wisconsin licensees which includes both the NRC licensees and the WI NARM registrants.

5. The materials program is scheduled to have a total of 9.5 FTE staff including 8.0 FTE Nuclear Engineering staff and 1.5 program assistants. 7.25 FTE staff have already been hired including the new materials program supervisor. 2.0 FTE additional

Nuclear Engineers will be added in SFY 2002. The final .25 FTE (program assistant) will be added in SFY 2004.

Staff Designated for Training, Procedure & Regulation Development

The Radiation Materials Program intends to utilize the Nuclear Engineers assigned to the materials licensing, inspection and enforcement program in all aspects of the program. The initial staff will be trained to conduct licensing reviews, perform inspections and participate in enforcement activities. They will also be knowledgeable in medical, industrial and academic license applications plus incident response. During the implementation phase, individuals who have completed the appropriate Nuclear Regulatory Commission training courses will be the lead staff during inspections with newer, less trained staff participating as observers to receive on-the-job experience. The Materials Program Supervisor will perform accompaniments in order to qualify staff for each type of inspection. Ultimately, all full-time Nuclear Engineers will receive the appropriate training for each of the various types of license inspections.

Program Management

The Materials Program Supervisor (MPS) will:

- Inform the Radiation Protection Section Chief on a quarterly basis concerning the status of overdue inspections, licensing actions which exceed the assigned 30-60-90 day time-frames, and staffing and training needs.

- Conduct supervisory accompaniments annually for all Nuclear Engineers conducting radioactive materials inspections (see *Attachment 8, Appendix A* for Accompaniment Inspection Review Checklist).

- Ensure that survey instruments utilized by the RMP are calibrated annually.

- Ensure that notifications are made of reportable incidents to the NRC Operations Center and Region III Office for immediate and 24-hour reports, or the Region III Office and NMED for 30 day reports.

Licensing, Inspection & Enforcement, and Allegations & Incident Response Program Description

The Radioactive Materials Program will perform license reviews, conduct inspections and enforcement activities, and respond to allegations and incidents involving radioactive materials. The routine activities for each aspect of the program are detailed in the Radioactive Materials Program Procedures (*Attachments 5-9)*. An overview of the conduct of program activities is provided below.

License reviews will be conducted using the NUREG 1556 guidance documents or a version modified to show WI Rule requirements. The RMP has currently developed

Wisconsin regulatory guides or 'WISREGs' for Portable Gauges and XRFs, Fixed Gauges, Commercial Radiopharmacy, Risk from Occupational Exposure and Prenatal Radiation Exposure. These guides are located in *Attachment 5, Appendix B.* Application forms have been developed for eight specific license categories as follows:

- Portable Gauge and XRF Device
- Industrial Radiography
- Fixed Gauge Device
- Self Shielded Irradiator
- Academic, Research & Development and Other Licenses of Limited Scope
- Medical Use
- Commercial Radiopharmacy
- Broad Scope

The close correlation between the application form and the NUREG 1556 guidance, or adapted WISREG, will facilitate submittal of the needed information for renewals and new applications. The RMP has developed an expedited renewal form for each license category that can be used when insignificant changes have occurred in the licensee's program. Other forms including checklists, a Notice to Employees and information summaries have also been developed to assist licensees and registrants. The forms developed by the RMP are located in *Attachment 5, Appendix A.*

Inspection checklists/reports have been developed for the categories of Portable Gauges and XRF Devices, Fixed Gauges, and Commercial Radio-pharmacies (*Attachment 6, Appendix A).* Inspections will be performance based, therefore, if any area on the checklist was not covered during the inspection the report will state 'not reviewed'. The RMP will use the inspection checklists/reports to document the inspection findings for all license categories except broad-scope licensees for which a narrative report format will be used. Inspection checklists/reports will be based on the information discussed in NRC's Manual Chapter 2800, Inspection Procedures and modified as needed to reflect WI Rule and license conditions.

Field and laboratory equipment resources are located in *Attachment 10.* The RMP has purchased an Eberline RO-20 ion chamber, and an additional survey meter (Eberline E-600) with two 'smart' probes (pancake and energy compensated) that can be transported in a single suitcase for routine inspections. The other survey meters shown on the field equipment list are primarily emergency response equipment, but may be used by the RMP as needed. Contamination wipes may be counted on the intrinsic germanium system (*Attachment 10, Appendix A),* that is routinely stored in a sample preparation and counting room located in the same building as RPS office space. Alternatively, the wipes may be sent to the State Laboratory of Hygiene, (*Attachment 11),* and analyzed for a fee.

Response to allegations or incidents involving radioactive materials will be based on the guidance provided in the Radioactive Material Program Procedures (*Attachment 7).* These procedures will cover the entire Radiation Protection Section. The allegations procedure will be used by the x-ray and radioactive materials program staff to respond to

allegations of impropriety or wrongdoing by licensees or registrants. The incident response procedure will draw upon available trained staff, as needed, from the entire RPS. A goal of the RPS is to increase the number of staff who have attended the Radiological Emergency Response Operations (RERO) course. Currently there are ten professional staff who have attended this course. An additional resource is the five regional field teams (13 people) who are trained to take radiation measurements and environmental samples as part of nuclear power plant emergency response. The RPS routinely responds to incidents involving radioactive material and maintains a storage facility that can be used for impounded radiation sources that could present a danger to the public.

Administrative Tracking and Processing

The RMP has developed an Access database of license files. A hard copy file system has been created that is organized by a WI Radioactive Materials License Number. The computer database will permit identification of licenses up for renewal, inspections due, and tracking on-going licensing and inspection activities. Administrative procedures have been developed to track licensing actions and correspondence associated with completed inspections (*Attachment 9).* Licenses will be generated either using the Access database or by selecting 'word' templates for each specific license type.

Radioactive Materials Program Procedures

The Radioactive Materials Program Procedures (RMPP) are organized and located as follows:

- Licensing — Attachment 5
- Inspection and Enforcement — Attachment 6
- Incidents and Allegations — Attachment 7
- Qualifications and Training — Attachment 8
- Administrative — Attachment 9

A summary listing of each procedure is provided below. Radioactive Material Program Forms are not currently included as Attachments to the Procedures, but are located in *Attachment 5, Appendix A.*

Licensing:

2.02-Review of Initial Application for License or an Amendment Request
2.03-Renewal of Licenses
2.05-License Termination: This procedure addresses actions that need to be taken for different types of licenses including the close-out survey and decommissioning plan.
2.06-Prioritization of Licensing Actions

Inspections & Enforcement:

3.01-Scheduling of Inspections: This procedure addresses license priority and corresponding inspection frequency. Range: Priority I (annually) to V (every 5 years). The MPS may extend the next inspection date immediately after an inspection for a positive program review.
3.02-Inspection Preparation
3.03-Performance Based Inspection-requires Inspection Plan for all initial inspections and Priority I-III routine inspections.
3.04-Documentation of Inspection Results
3.05-Enforcement, Escalated Enforcement and Administrative Actions

Incidents and Allegations:

4.01-Management of Allegations
4.02-Radiological Incident Response

Administrative:

5.01-Receipt and Tracking of Licensing Actions
5.02-Renewal Notices, Tracking Inspection Reports and Correspondence

Qualifications and Training:

6.01-Qualifications and Training

Staff Needs Analysis

A Staff Needs Analysis was performed to confirm that the current and planned staff of 9.5 FTEs [6.0 FTE Nuclear Engineers, 1.0 FTE Nuclear Engineering Specialist Supervisor, 1.5 FTE Program Assistants, 1.0 FTE Nuclear Engineer Sr. (0.5 FTE each of two individuals)] matches projected workload as detailed below.

Assumptions:

420 licensees (Byproduct and NARM)
- Priority I- 29
- Priority II - 9
- Priority III- 96
- Priority V- 286

35 reciprocity licensees (inspections only)
- Service (HDR/Gamma Knife) 3
- Ind. Rad. (I) 10
- Well Logging (II) 3
- Mobile Nuc. Med. (II) 3
- Portable Gauge/XRF 16

6.5 FTE available for Inspections & Licensing
0.5 FTE available for Rule & Procedures development
1848 hrs/FTE/yr (2088 work hrs./yr-240 hrs for Vac., Hol., SL = 1848 hrs/FTE/yr)
230 staff days/FTE/yr
1495 total staff days (230 staff days x 6.5 FTE)

Inspections performed at NRC frequency, i.e., annually for Priority I's
License renewals performed every 5 years

Licensing:
The staff needs analysis projects 243 licensing actions per year. The NRC Region III Office has recently averaged (2001 data) 18 licensing actions/month. With the addition of about 100 NARM licenses and the more frequent 5 year renewal period for licenses, an average of about 20 actions/month is reasonable for the Wisconsin Radioactive Materials Program. Each qualified Nuclear Engineer will need to annually perform about 40 licensing actions, including 14 renewal or new application reviews. During the time period required to qualify new staff to perform licensing functions, each qualified nuclear engineer may be responsible for up to 80 licensing actions/year. A second review will routinely be performed, and documented, by another qualified reviewer or the Materials Program Supervisor for all licensing actions, with the exception of administrative actions such as "corrected copy" for minor editorial changes.

Inspections:
The staff needs analysis projects 137 inspections per year. This includes about 12 reciprocity inspections. Each qualified Nuclear Engineer would annually perform 36 inspections. During the time period required to qualify new inspectors, more inspections will need to be performed by the qualified staff in order to provide training and qualification opportunities for the new staff. It is likely that each inspector will need to perform up to 72 inspections a year until the full complement of qualified inspectors is attained. The annual total of inspections, classified by Priority, for WI licensees is as follows: I-29, II-5, III-33, V-58. Each qualified Nuclear Engineer would annually:

- Participate in 4 Broad Scope inspections
- Conduct 6 Industrial Radiography inspections
- Conduct 1 Service (HDR/Gamma Knife) inspection
- Conduct 1 Nuclear Pharmacy inspection
- Conduct 2 Priority II inspections (Well logging, Mobile Nuclear Medicine)
- Conduct 7 Priority III inspections
- Conduct 15 Priority V inspections

Although not directly addressed in the staff needs analysis, 0.5 FTE is planned for the on-going development of: Wisconsin Rule, professional training program(s), radioactive material program procedure updates, investigation of allegations, escalated enforcement activities, and other unplanned events such as emergency response to non nuclear power plant incidents. The General Licenses will be handled through the administrative process of registration and annual self-audits. If it becomes necessary, (such as when the annual self-audits are not performed/returned), follow-up inspections would be added to the workload, however, they are not addressed in the staff needs analysis.

STAFF NEEDS ANALYSIS

License Category	Number of Licenses	Times (x) # Actions	Licensing actions / yr	Staff days per action	Licensing Staff days	Times (x) Frequency	Inspections per year	Staff days / Inspection	Inspection staff days
Broadscope – Medical (I)	3	6	18	4	72	1	3	25	75
Broadscope – Academic (I)	3	6	18	4	72	1	3	25	75
Industrial Radiography (I)	16	1	16	2	32	1	16	10	160
Nuclear Pharmacy (I)	6	2	12	2	24	1	6	19	114
HDR (I)	1	1	1	2	2	1	1	10	10
Mobile Nuc-Med (II)	9	1	9	2	18	.50	5	8	40
Gamma Knife – Teletherapy (III)	1	1	1	2	2	.33	1	6	6
Medical – Diagnostic (III)	27	1	27	2	54	.33	9	6	54
Medical – Therapy (III)	66	1	66	2	132	.33	22	6	132
Manufacturing with Distribution (III)	2	1	2	2	4	.33	1	6	6
IN-Vitro Testing (V)	4	.25	1	2	2	.20	1	2	2
Fixed Gauges (V)	51	.25	13	2	26	.20	10	4	40
Portable Gauges (V)	135	.25	34	2	68	.20	27	4	108
Research & Development (V)	31	.25	8	2	16	.20	6	5	30
Self Shielded Irradiators (V)	8	.25	2	2	4	.20	2	4	8
Source Material (V)	1	1	1	2	2	.20	1	3	3
Other – NARM (V)	16	.25	4	2	8	.20	3	3	9
Other (V)	40	.25	10	2	20	.20	8	3	24
Reciprocity	35					Varies	12	16	38
TOTALS	455		243	40	558		137	165	934

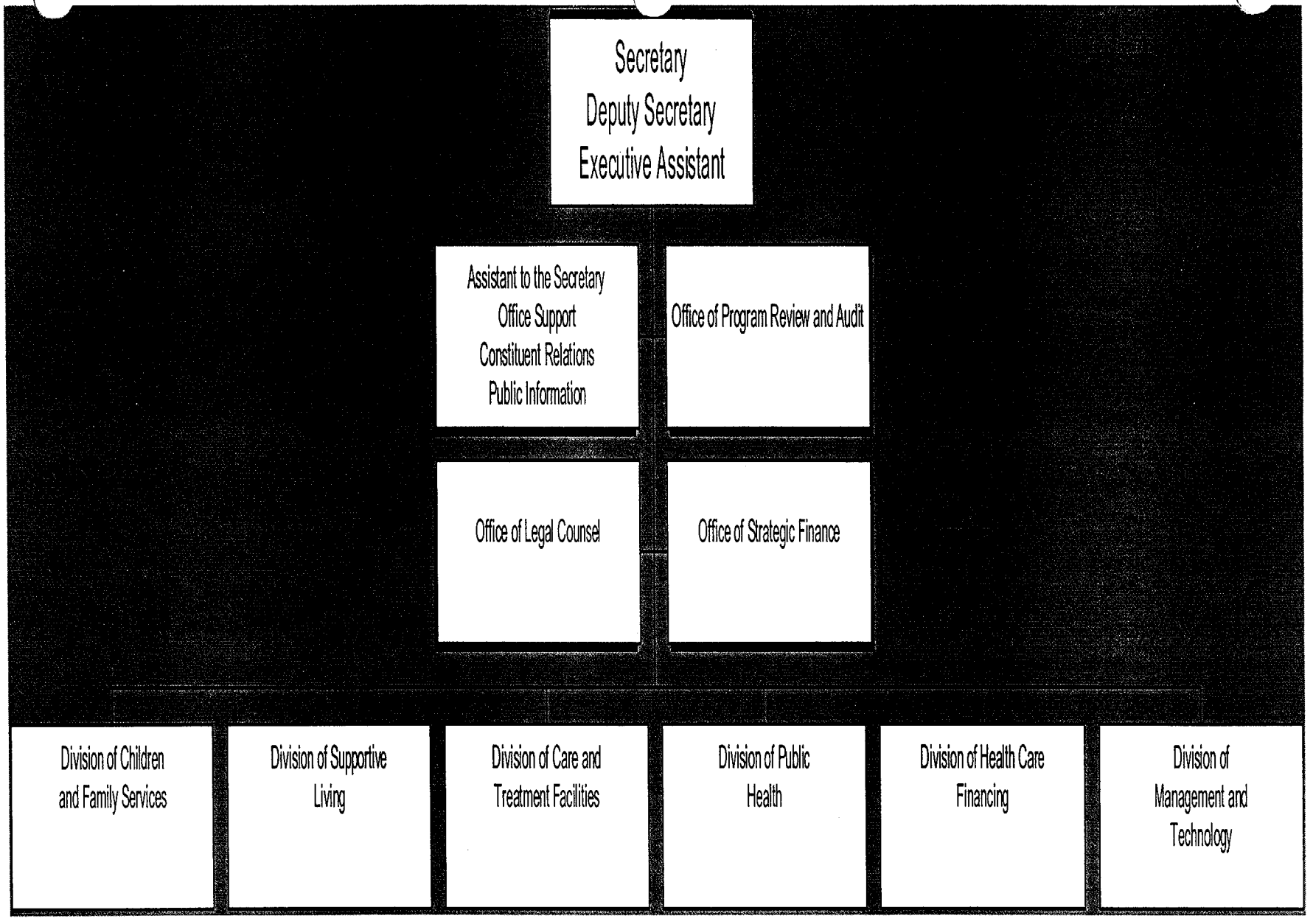
STAFF RESOURCE ANALYSIS

Staff Member	Jason		Paul		Mike		NE#1		NE#2		NE#3		NE#4		TOTAL	TOTAL
License Category	Insp	Lic	Insp	Lic	Insp	Lic	Insp	Lic	Insp	Lic	Insp	Lic	Insp	Lic	Insp	Lic
Broadscope – Medical (I)	11	12	12	12	12		10	12	10	12	10	12	10	12	75	72
Broadscope – Academic (I)	12	12	11	12	12		10	12	10	12	10	12	10	12	75	72
Industrial Radiography (I)	20	6	20	6	20		25	5	25	5	25	5	25	5	160	32
Nuclear Pharmacy (I)	19	4	19	4			19	4	19	4	19	4	19	4	114	24
HDR (I)	1	1	1	1			2	0	2	0	2	0	2	0	10	2
Mobile Nuc-Med (II)	6	3	6	3			7	3	7	3	7	3	7	3	40	18
Gamma Knife – Teletherapy (III)	1	1	1	1			1	0	1	0	1	0	1	0	6	2
Medical – Diagnostic (III)	9	9	9	9			9	9	9	9	9	9	9	9	54	54
Medical – Therapy (III)	22	22	22	22			22	22	22	22	22	22	22	22	132	132
Manufacturing with Distribution (III)	1	0	1	0		4	1	0	1	0	1	0	1	0	6	4
IN-Vitro Testing (V)	1	1	1	1			0	0	0	0	0	0	0	0	2	2
Fixed Gauges (V)	5	4	5	4	6	2	6	4	6	4	6	4	6	4	40	26
Portable Gauges (V)	14	7	14	7	40	2	10	13	10	13	10	13	10	13	108	68
Research & Development (V)	5	4	5	4	4		4	2	4	2	4	2	4	2	30	16
Self Shielded Irradiators (V)	2	0	2	0			1	1	1	1	1	1	1	1	8	4
Source Material (V)	0	1	0	1	3		0	0	0	0	0	0	0	0	3	2
Other – NARM (V)	3	2	3	2	3		0	1	0	1	0	1	0	1	9	8
Other (V)	3	0	3	0	2		4	5	4	5	4	5	4	5	24	20
Reciprocity	6		6		6		5		5		5		5		38	
TOTAL	141	89	141	89	108	8	136	93	136	93	136	93	136	93	934	558

STAFF BALANCE ANALYSIS

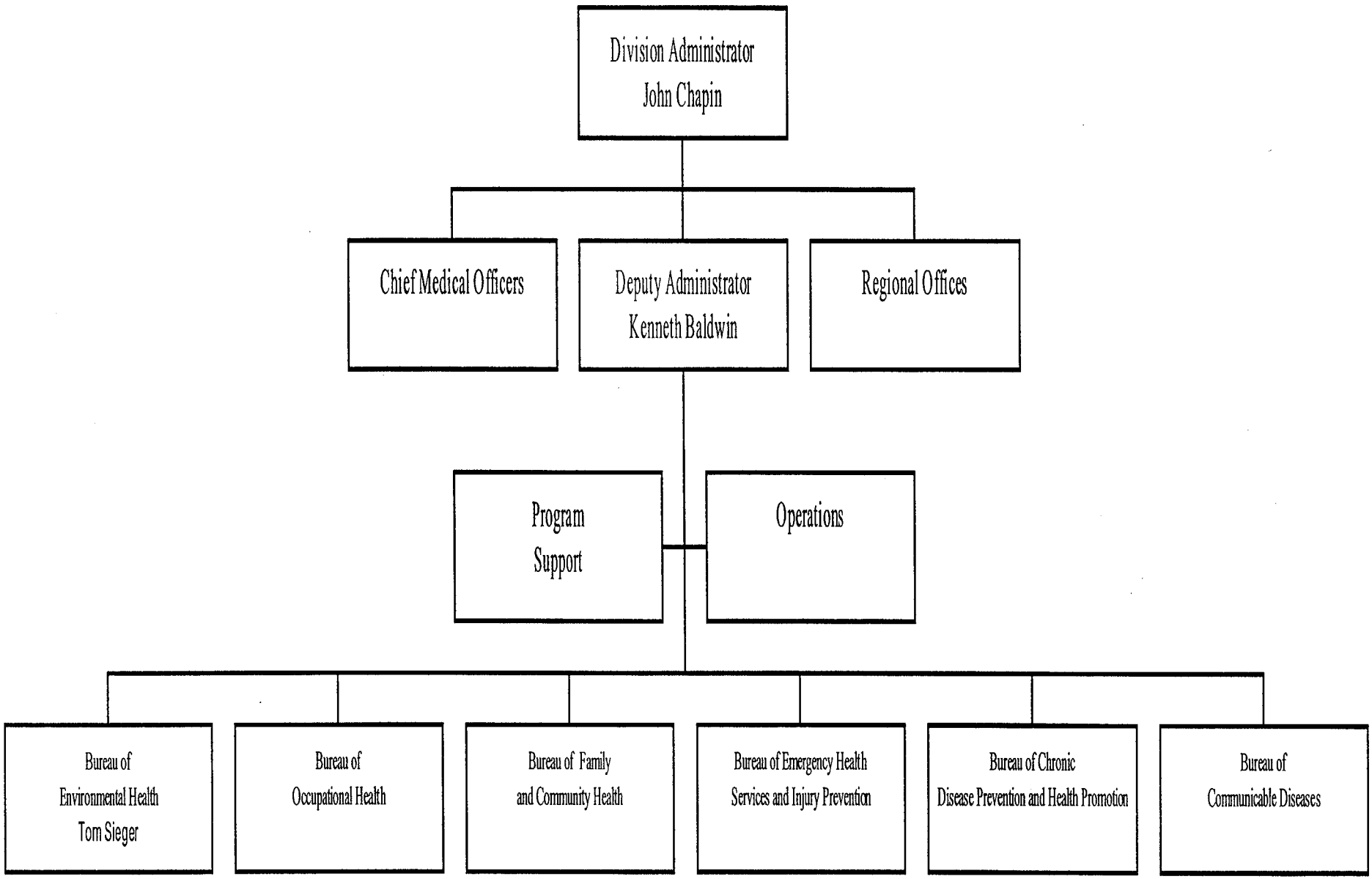
License Category	Inspection staff days			Licensing staff days		
	Needed	Available		Needed	Available	
		Current Staff	Planned 4 FTE's		Current Staff	Planned 4 FTE's
Broadscope – Medical (I)	75	35	40	72	24	48
Broadscope – Academic (I)	75	35	40	72	24	48
Industrial Radiography (I)	160	60	100	32	12	20
Nuclear Pharmacy (I)	114	38	76	24	8	16
HDR (I)	10	2	8	2	2	0
Mobile Nuc-Med (II)	40	12	28	18	6	12
Gamma Knife – Teletherapy (III)	6	2	4	2	2	0
Medical – Diagnostic (III)	54	18	36	54	18	36
Medical – Therapy (III)	132	44	88	132	44	88
Manufacturing with Distribution (III)	6	2	4	4	4	0
IN-Vitro Testing (V)	2	2	0	2	2	0
Fixed Gauges (V)	40	16	24	26	10	16
Portable Gauges (V)	108	68	40	68	16	52
Research & Development (V)	30	14	16	16	8	8
Self Shielded Irradiators (V)	8	4	4	4	0	4
Source Material (V)	3	3	0	2	2	0
Other – NARM (V)	9	9	0	8	4	4
Other (V)	24	8	16	20	0	20
Reciprocity (V)	38	18	20			
Total	934	390	544	558	186	372

Table of Contents


Secretary
Deputy Secretary
Executive Assistant
Assistant to the Secretary
Office Support
Constituent Relations
Public Information
Office of Program Review and Audit
Office of Legal Counsel
Office of Strategic Finance
Division of Children and Family Services
Division of Supportive Living
Division of Care and Treatment Facilities
Division of Public Health
Division of Health Care Financing
Division of Management and Technology

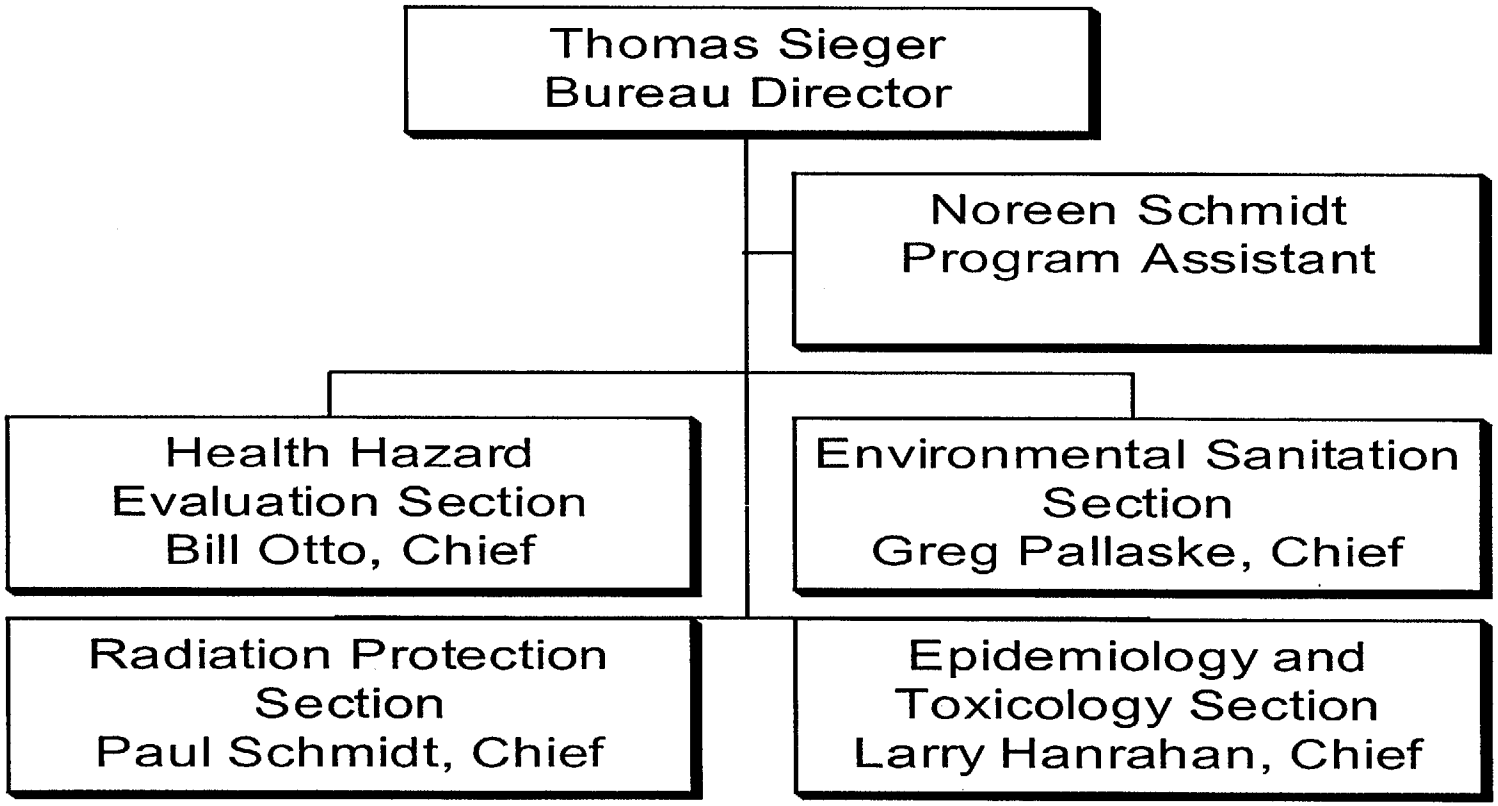
3/02

Division of Public Health



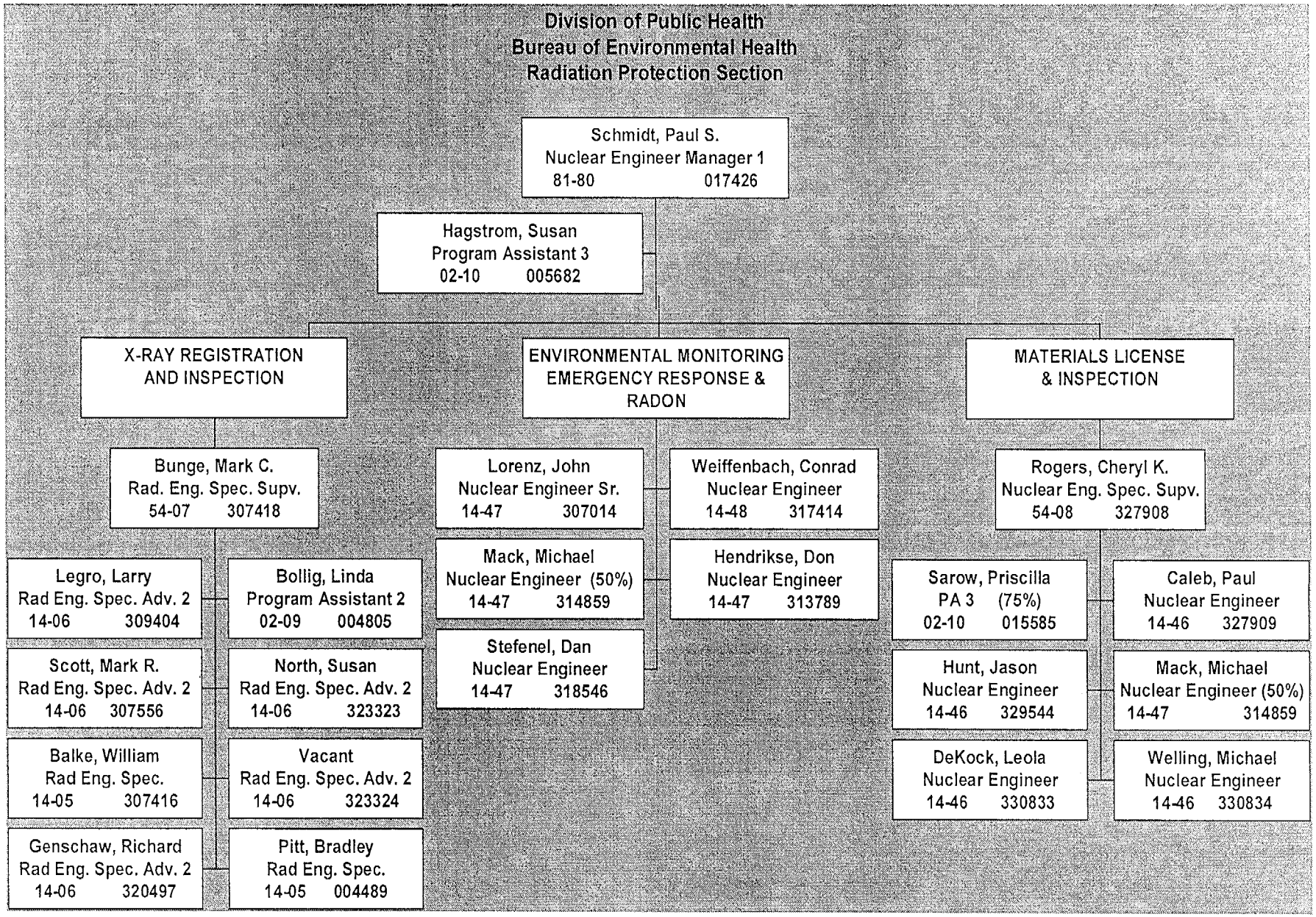
3/02

Bureau of Environmental Health
Division of Public Health



Henry Anderson, M.D.
Chief Medical Officer

3/07


Division of Public Health
Bureau of Environmental Health
Radiation Protection Section
Schmidt, Paul S.
Nuclear Engineer Manager 1
81-80 017426
Hagstrom, Susan
Program Assistant 3
02-10 005682
X-RAY REGISTRATION AND INSPECTION
ENVIRONMENTAL MONITORING EMERGENCY RESPONSE & RADON
MATERIALS LICENSE & INSPECTION
Bunge, Mark C.
Rad. Eng. Spec. Supv.
54-07 307418
Lorenz, John
Nuclear Engineer Sr.
14-47 307014
Weiffenbach, Conrad
Nuclear Engineer
14-48 317414
Rogers, Cheryl K.
Nuclear Eng. Spec. Supv.
54-08 327908
Legro, Larry
Rad Eng. Spec. Adv. 2
14-06 309404
Bollig, Linda
Program Assistant 2
02-09 004805
Mack, Michael
Nuclear Engineer (50%)
14-47 314859
Hendrikse, Don
Nuclear Engineer
14-47 313789
Sarow, Priscilla
PA 3 (75%)
02-10 015585
Caleb, Paul
Nuclear Engineer
14-46 327909
Scott, Mark R.
Rad Eng. Spec. Adv. 2
14-06 307556
North, Susan
Rad Eng. Spec. Adv. 2
14-06 323323
Stefenel, Dan
Nuclear Engineer
14-47 318546
Hunt, Jason
Nuclear Engineer
14-46 329544
Mack, Michael
Nuclear Engineer (50%)
14-47 314859
Balke, William
Rad Eng. Spec.
14-05 307416
Vacant
Rad Eng. Spec. Adv. 2
14-06 323324
DeKock, Leola
Nuclear Engineer
14-46 330833
Welling, Michael
Nuclear Engineer
14-46 330834
Genschaw, Richard
Rad Eng. Spec. Adv. 2
14-06 320497
Pitt, Bradley
Rad Eng. Spec.
14-05 004489

3/02

PAUL S. SCHMIDT
CURRICULUM VITAE

EDUCATION:

Master of Science, Plant Taxonomy – Botany 1978
Iowa State University, Ames, Iowa

Bachelor of Science, Botany 1974
Iowa State University, Ames, Iowa

HONORS:

Chairperson, Conference of Radiation Control Program Directors (CRCPD)
May, 2000 – May, 2001

Board of Directors, Conference of Radiation Control Program Directors (CRCPD)
May, 1999 – May, 2002

WORK HISTORY:

Nuclear Engineer Manager, Radiation Protection Section, State of Wisconsin
March, 1992 - Present

Responsible for technical direction and leadership of statewide programs that minimize risk to citizens of the state from exposure to radiation hazards and management of all operations of the Radiation Protection Section. Specific duties include: oversee development of program budgets, statutes and rules; oversee development of a radioactive materials licensing and inspection program required to become an agreement state with the NRC; provide technical direction and oversight to radiological emergency response planning and preparedness activities associated with off-site activities around nuclear power plants in or bordering WI; function as the primary State Radiological Coordinator for response to incidents at nuclear power plants, during emergency response exercises and for incidents involving radioactive materials not of power plant origin; interact with and advise other state agencies on radiation issues; monitor radiation issues impacting WI and recommend/implement program, legislative or other changes required; provide direct supervision to program supervisors, Section office manager, radiological emergency preparedness, environmental monitoring and radon program staff.

Nuclear Engineer Supervisor, Radiation Protection Unit, State of Wisconsin
October, 1989 – March, 1992

Responsible for management and direction of the emergency response, environmental monitoring and radon programs within the unit, including supervision of 7 staff. Specific responsibilities included: lead technical planner for radiological portion of State Emergency Response Plan; development of radiological portions of nuclear plant REP exercise scenarios; budget and work program development and implementation; function as primary back-up State Radiological Coordinator. From May, 1990 – March, 1992, functioned as interim Unit Supervisor. Additional areas of involvement: statewide

radiation issues such as low and high-level radioactive waste storage and disposal; BRC; contaminated sites; legislative interaction.

Dosimetry Supervisor, Duane Arnold Energy Center, Iowa Electric Light and Power March, 1985 – September, 1989.

Responsible for administration of the nuclear plant personnel exposure monitoring and in-vivo bioassay programs; development and administration of the department budget; supervision of 2-32 people during routine operation and plant outages; development and instruction of training materials in program areas; coordination with other plant departments to ensure efficient outage and routine personnel processing; active participation in emergency response organization and exercises; tracking and reporting of personnel exposure, training and qualification status; implementation of the plant dosimetry quality control program; conduct chemistry and environmental department audits; maintenance of the plant hard copy and computerized exposure records systems. Managed operation and maintenance of the plant whole body counting system. Knowledgeable of the PRISM records management system. Participated in development of the INDEX utility shared database and implemented program at Duane Arnold.

Health Physics Technician, Duane Arnold Energy Center, Iowa Electric Light and Power; February, 1982 – March, 1985.

Performed and documented radiation and contamination surveys, health physics job coverage, instrument calibrations, and personnel and equipment decontamination; refuel floor lead technician during 1985 refueling outage; participated in emergency preparedness exercises; operated count room equipment and whole body counter; performed shift chemistry analyses.

PROFESSIONAL AFFILIATIONS:

American Nuclear Society
Conference of Radiation Control Program Directors (CRCPD)
Health Physics Society (national)
North Central Chapter – Health Physics Society

Resumé of

Cheryl K. Rogers

Education:

B. A. in Geology	Wellesley College, Wellesley, Ma.	1975
M. A. in Geology	University of Nebraska, Lincoln	1994

Nuclear Regulatory Commission Courses-(selected):

Oak Ridge Radiation Protection & Health Physics-5 weeks
Medical Uses of Radioactive Materials
Inspections of Radioactive Materials Licensees
Licensing of Radioactive Materials Users
Industrial Radiography

Professional Affiliations:

Health Physics Society Plenary Member, 1985-present
Mid-America Chapter of the Health Physics Society, 1985-present
Conference of Radiation Control Program Directors, 1985-present
National Registry of Radiation Protection Technologists, 1996
State of Nebraska Water Well Monitoring Supervisor, 1996
Sigma Xi, 1998

Summary:

Seventeen years experience with management of regulatory programs involving Agreement State radioactive material licensees and licensing review for a LLRW disposal facility, development and implementation of radiological assessment programs for medical and commercial users, participation in Emergency Response activities for nuclear power incidents. Previous experience working as a geologist in uranium mine.

Experience:

Materials Program Supervisor: January, 2001 to present
State of Wisconsin

Supervise development and implementation of an Agreement State Radioactive Materials Program for all licensing, inspection, and enforcement activities;

Radioactive Materials Program Manager: May, 1998 to December, 2000
State of Nebraska

Supervise an Agreement State Radioactive Materials Program for all licensing, inspection, and enforcement activities;

Develop and implement procedures for the Radioactive Materials Program;

Emergency Response Program Manager for radiological incidents;

Low Level Radioactive Waste Program Manager: May 1995-May 1998
State of Nebraska

Supervise license evaluation process for Central Interstate Compact's Low Level Radioactive Waste disposal application;

Develop and implement radiological environmental surveillance program for proposed radioactive waste disposal site;

Supervise environmental surveillance around nuclear power plants;

Emergency Response Manager for radiological incidents.

Health Physics Section Chief: July, 1990 to April, 1995
State of Nebraska

Supervise the review and evaluation activities of the State of Nebraska Low Level Radioactive Waste Program and Emergency Response team member.

Health Physicist: November, 1983 to June, 1990
State of Nebraska

Responsible for licensing and inspections of radioactive materials users and Emergency Response team member.

Shift Boss I-Church Rock I Mine: December, 1980 to November, 1982
Kerr McGee Corporation

Responsible for safety and production for 15-30 miners in an underground uranium mine including radon, explosives, ventilation, ore grade and safe working practices.

Uranium Geologist IV-Minerals Department: January, 1978 to November, 1980
The Navajo Tribe

Responsible for minerals inventory and evaluation program for uranium on the Navajo Reservation.

Mine Geologist-Church Rock I Mine: June 1975 to January, 1978
Kerr McGee Corporation

Responsible for the produced ore grade of the mine.

Additional Training:

NRC Courses: Performance Assessment, Transportation, Cobalt Teletherapy, HP Technology, Response Technical Manual (RTM), Inspecting for Performance

FEMA Courses: Dose Assessment, Radiological Emergency Response Operations (RERO)

EPA: Radiation Risk Assessment, Training on Manual of Protective Action Guides (Ingestion), Reducing Radon in Structures Training

Supervisory: Interaction Management Program, Fundamentals of Supervision, Risk Communication

Mathematics: Completed 3rd semester Calculus

AGREEMENT STATE TRAINING PROGRAM

Name: Michael Mack Date of Hire: 08/10/81

Training Areas	Date Planned	Date Completed	Initials/Signature	Comments
BASIC TRAINING				
Basic Health Physics				
Degree in Health Physics or 5 Week course equivalent	MET			
Overall program orientation				
Review of State Regulations				
Standards, Subch III.		5/01		
RM & X-ray, Subch. I, IV, X, XI, XII	6/02			
RM only, subch. II, IV, V, VI, XIII	6/02			
X-ray only, Subch. VIII, IX	6/02			
Water, Subch XIV	6/02			
Review of Reading file and Information Notices				
Essentials of Inspection	3/02	3/02		
Essentials of Licensing				
Essentials of Transportation	6/01	6/01		
SPECIALIZED TRAINING				
Elements of Nuclear Medicine				
Elements of Medical Therapy				
Elements of Indust. Radiography	4/02	4/02		
Performance Based Inspections	3/02	3/02		
ADVANCED TRAINING				
Advanced Health Physics				
Elements of Investigations/Root Cause Analysis				
OTHER				
Radiological Emergency Response Operations (RERO)		4/82		
National Registry of Radiation Protection Technologists (NRRPT)		1/85		

Michael Mack

WORK EXPERIENCE

Radiation Protection Section

- Act as State Radiological Coordinator for the State of Wisconsin Radiation Protection Section
- Coordinate and implement medical and other emergency needs for local government agencies adjacent to nuclear power plants
- Write procedures and train local response personnel
- Act as the state's technical spokesperson at the Joint Public Information Center for radiation related exercises or events
- Directly responsible for incidents or inquiries involving radioactive material problems and their handling and disposition.
- Help salvage yards and manufacturing facilities design their waste streams and train their personnel to respond to problems involving radioactive materials.
- Inspect and assist in planning medical and industrial facilities to ensure compliance with state regulations.
- Develop training and operating procedures for local responders or local medical facilities.
- Responsible for training Regional Hazmat Teams and doing presentations at Hazmat related regional or national conferences.

Shore Intermediate Maintenance Activity (Norfolk, VA)

- Responsible for replacement and rebuilding of shipboard mechanical equipment
- Developed expertise with all types of precision instruments and machine shop related equipment.

USS South Carolina

- Supervised and directed division personnel in the performance of their duties
- Supervised all radiation/contamination-related activity and operational concerns for two onboard nuclear reactors.
- Trained and instructed occupational and non-occupational workers.
- Certified as mechanical reactor operator for D2G nuclear plant.

Uss Hunley (AS-31)

- Worked with all phases of radiation control including waste packing and waste disposal, personnel decontamination, surveying and designing stay times for high radiation areas, supervision and control of maintenance

activities in controlled surface areas, chemical and mechanical decontamination of vital equipment, etc.

- Responsible for training of radiation workers and general crew members when they must deal with jobs or problems involving radioactive materials.
- Assist in writing work procedures for jobs involving radioactive materials and supervise their implementation.

WORK HISTORY

1980 – present	Radiation Protection Section	Madison, WI
1979 – 1980	Maintenance and quality control in machine shop	Norfolk, VA
1975 – 1979	Leading Engineering Laboratory Technician	USS South Carolina
1973 – 1975	Radiation Control Supervisor	USS Hunley
1971 – 1973	Naval Nuclear Propulsion School and Prototype Training	

EDUCATION AND QUALIFIVATIONS

- University of Wisconsin – Madison WI Senior standing nuclear engineering
- Certified as Mechanical Operator Naval Nuclear Reactors
- Certified as Engineering Lab Technician and Leading Engineering Lab Technician for Naval Nuclear Reactors
- Certified as Radiation Monitor and Radiation Monitor Supervisor for Naval Nuclear Program
- Completed Naval Nuclear Power School, Naval Prototype Training, and Engineering Laboratory Technician Training
- Active member of National Registry of Radiation Protection Technologists
- Member of National Registry of Emergency Medical Technicians and Certified EMT through 2000.
- Certified firefighter and Level A Hazmat responder.

Note: I have also attended training programs at REAC in Oak Ridge, REERO in Los Vegas, FEMA training center in Rockville, Maryland, and the FDA center in Emmittsburg, Maryland.

AGREEMENT STATE TRAINING PROGRAM

Name: Paul Caleb Date of Hire: 08/26/91

Training Areas	Date Planned	Date Completed	Initials/Signature	Comments
BASIC TRAINING				
Basic Health Physics		7/00		
Degree in Health Physics or 5 Week course equivalent	3/02	4/02		
Overall program orientation				
Review of State Regulations				
Standards, Subch III.		5/01		
RM & X-ray, Subch. I, IV, X, XI, XII	6/02			
RM only, subch. II, IV, V, VI, XIII	6/02			
X-ray only, Subch. VIII, IX	6/02			
Water, Subch XIV	6/02			
Review of Reading file and Information Notices				
Essentials of Inspection		12/00		
Essentials of Licensing		9/00		
Essentials of Transportation		4/01		
SPECIALIZED TRAINING				
Elements of Nuclear Medicine		8/00		
Elements of Medical Therapy	8/02			
Elements of Indust. Radiography	8/02			
Performance Based Inspections		3/01		
ADVANCED TRAINING				
Advanced Health Physics				
Elements of Investigations/Root Cause Analysis				
OTHER				
Radiological Emergency Response Operations (RERO)		12/92		
National Registry of Radiation Protection Technologists (NRRPT)	1/02	1/02		

CURRICULUM VITAE

Paul J. Caleb
3230 Oakridge Avenue
Madison, WI 53704
608-249-1381 (Home)
608-266-8336 (Work)

EDUCATION:

PURDUE University, West Lafayette, Indiana
Graduate work in Education Administration and Supervision

CORNELL University, Ithaca, New York
Bachelor of Science – Degree Awarded, June 1974
Major in Animal Science, Minor in Marketing

COATESVILLE HOSPITAL School of X-ray technology, Coatesville, Pennsylvania

EMPLOYMENT

4/2000 - Present WISCONSIN AGREEMENT STATE MATERIALS PROGRAM INVESTIGATOR, Wisconsin Division of Public Health, Bureau of Environmental Health, Radiation Protection Section, Madison, Wisconsin. DUTIES: Develop and maintain familiarity with the agreement state enabling statutes (s.254.31-.45, stats) and the new HFS Chapter 157 "Radiation Protection" rules. Develop a familiarity with current and proposed federal regulations of radioactive material regulations, including applicable parts of 10 CFR 49 (Transportation of Radioactive Materials). Become familiar with sources of current agreement state technical, regulatory and training available. Attend formal Nuclear Regulatory Commission (NRC) courses and other training leading to qualification in radioactive materials licensing and inspection. Participate in statewide compliance inspections and other opportunities with NRC. Participate in development of Wisconsin agreement state program procedures, regulatory guides, and other documents. Participate in incidents response activities and investigations involving radioactive materials. Conduct inspections of industrial facilities with x-ray and radioactive material devices. Participate in nuclear plant emergency preparedness exercise in a Madison or field locations. Perform as state Health team leader for Algoma reception Center during the Kewaunee and Point Beach Nuclear power plant exercises.

1991 – 4/2000 RADIATION COMPLIANCE INVESTIGATOR,
Wisconsin Division of Public Health, Bureau of Environmental Health, Radiation Protection Section, Madison, Wisconsin. DUTIES: Statewide inspection of facilities which operate ionizing radiation producing equipment to ensure compliance with Wisconsin Administrative Code. Participate in the contract with the FDA to inspect recent assembled diagnostic x-ray units in the state. Inspections and control of natural and accelerator produced radioactive material. Perform as State Health Team Leader for Algoma Reception center during nuclear power plant Emergency Response exercises. Lead investigator of tanning facilities upon receipt of complaint of medically treated injury. Public and professional education and

response to requests for radiological information. Participation in the development of radiation protection regulations.

1989-1991	STAFF RADIOLOGIC TECHNOLOGIST, Meriter Hospital, Madison, Wisconsin 7/1990-8/1991 Interim Supervisor for the Radiography Section
1983-1989	SENIOR EDUCATION PROGRAM MANAGER/RADIOLOGY SUPERVISOR, Veterinary Medical Teaching Hospital, School of Veterinary Medicine, University of Wisconsin, Madison.
1974-1983	PROFESSIONAL ASSISTANT, Radiology Department, Small and Large Animal Clinics, College of Veterinary Medicine, Purdue University, West Lafayette, Indiana.
1964-1970	RESEARCH ASSISTANT, Department of Radiology, Small and Large Animal Clinics, New York State College of Veterinary Medicine, Cornell University, Ithaca, New York.
1963-1964	STAFF TECHNOLOGIST, Radiology Department, Bingham General Hospital, Binghamton, New York.

MEMBERSHIPS

1999-2000	Health Physics Society (HPS)
1998-Present	Conference of Radiation Control Program Directors, Inc., (CRCPD)
1983-2000	Wisconsin Society of Radiologic Technologists (WSRT)
1991-1998	American Society of Radiologic Technologists (ARST)
1964-2000	American Registry of Radiologic Technologists (ARRT)

PRESENTATIONS

1988	"Radiology of the Equine Hindlimb", Workshop, School of Veterinary Medicine, University of Wisconsin, Madison.
1984	"Veterinary Radiographs", Speaker, WSRT District III, Green Bay, Wisconsin.
1984	"Radiographing Animals, Large and Small", Scientific Paper, District III, Wisconsin Society of Radiologic Technologists, Green Bay, Wisconsin.
1984	"Veterinary Radiography", Scientific Paper, UWEX, Radiography, Wisconsin Center, Madison, Wisconsin.
1984	"Veterinary Radiology, The 80's", Scientific Paper, The Fifty-second Annual State Meeting, Wisconsin Society of Radiologic Technologists, Madison, Wisconsin.

1980	"Special Radiographic Procedures with the use of Contrast Media", Workshop, Fourth Annual Fall Conference for Veterinary Technicians, Purdue Veterinary College, Purdue University, West Lafayette, Indiana.
1980	"Radiographic Position with use of Topographical landmarks", Scientific Paper, Fifth Annual IAVTA Convention, Illinois Association of Veterinary Technicians and Assistants, College of Veterinary Medicine, university of Illinois, Urbana, Illinois.

SEMINARS

1980	"Radiation Safety in a Veterinary Practice", VM-113 Special Seminar, Veterinary College, Purdue University, West Lafayette, Indiana.

PUBLICATIONS

1983	"Use of a Rare earth Image-Intensifying System", Caleb, P.J., Modern Veterinary Practice, 64(6)503.
	"Radiography Corner", Caleb, P.J. and Tanner, L.D., Veterinary Technician, July/August.
	"Radiography Corner", Tanner, L.D. and Caleb, P.J., The Animal Health Technician, May/June, pg.138-139.
	"Radiography Corner", The Animal Health Technician, March/April, pg.78.
	"Veterinary Radiography – Part II. Caleb, P.J., Common Causes of Unsatisfactory Radiographs", The Animal Health Technician, January/February, pg. 33-39.
1982	"Veterinary Radiography-Part I", Caleb, P.J., The Animal Health Technician, September/October, pg.259-264.
1980	"Darkroom Equipment and Practice", Caleb, P.J., Tech Tales, Newsletter of the Indiana Veterinary Technicians Association, Volume 2.

TEACHING RESPONSIBILITIES

Veterinary Radiology, University of Wisconsin-Madison.
Surgical Sciences 938-638
Radiology Clinics (Electives) 938-742

Annual Technology Programs, Purdue University.
Radiography VM102 and VM102L

Veterinary Medical Programs, Purdue University.
Radiographic Technique Seminars
Radiology Clerkships VM 485

AWARDS

1976 "Exellence in Teaching", Veterinary Technology, Purdue University.

GRANT

1985, June Academic Staff Professional Development

COMMITTEES

1999 X-ray Rules Committee, Agreement State activities, State of Wisconsin.

1988 Equity Action Committee, School of Veterinary Medicine, University of Wisconsin, Madison.

1983-1985 Veterinary Medical Teaching Hospital Operations, University of Wisconsin, Madison.

1975-1983 Veterinary Technology Admissions Committee

Veterinary Technology

1975-1978 Purdue Veterinary Technicians Association Faculty Advisor

1975 Search Committee for Veterinary Technology Program Director.

AGREEMENT STATE TRAINING PROGRAM

Name: Jason Hunt Date of Hire: 07/17/00

Training Areas	Date Planned	Date Completed	Initials/Signature	Comments
BASIC TRAINING				
Basic Health Physics				
Degree in Health Physics or 5 Week course equivalent	4/02	4/02		
Overall program orientation				
Review of State Regulations				
Standards, Subch III.		5/01		
RM & X-ray, Subch. I, IV, X, XI, XII	6/02			
RM only, subch. II, IV, V, VI, XIII	6/02			
X-ray only, Subch. VIII, IX	6/02			
Water, Subch XIV	6/02			
Review of Reading file and Information Notices				
Essentials of Inspection		3/01		
Essentials of Licensing		9/00		
Essentials of Transportation		4/01		
SPECIALIZED TRAINING				
Elements of Nuclear Medicine	8/02			
Elements of Medical Therapy	8/02			
Elements of Indust. Radiography		8/00		
Performance Based Inspections		12/00		
ADVANCED TRAINING				
Advanced Health Physics				
Elements of Investigations/Root Cause Analysis				
OTHER				
Radiological Emergency Response Operations (RERO)	6/02			
National Registry of Radiation Protection Technologists (NRRPT)	1/02	1/02		

Jason Hunt

Ridgewood Country Club Apt. 307 • 2308 High Ridge Trail • Madison, WI 53713 • 608-298-0690

Work Experience:

7/17/00 to Present: State of Wisconsin Radiation Protection Section, Madison, WI -Nuclear Engineer
Presently participating on agreement state activities in order for the State of Wisconsin to become an agreement state, such as the development of specific license application forms and regulatory guidance material, along with attending NRC training, NRC inspections, and participating in emergency response activities, etc. Once the State of Wisconsin becomes an agreement state will inspect and license facilities under state jurisdiction using NARM and by-product radioactive material.

8/31/98 to 6/30/00: Scripps Research Institute, La Jolla, CA - Safety Technician
Calibrated instruments, monitored laboratories for compliance with agreement state regulations, received and processed radioactive isotope packages, surveyed labcoats for contamination, received and processed control substances, conducted quarterly air samples for iodine, developed a institutional safety glove guide, maintained an injury and illness database, created a occupational injury and illness employee form, received and processed radioactive waste, received and processed chemical waste, presented training pertaining to instrument calibration to department, maintained environmental health and safety supplies, participated in emergency response activities, trained/coached three new employees as safety technicians.

Spring of 1998: State of Wisconsin Radiation Protection Section, Madison, WI- Internship
Created radon maps for the State of Wisconsin. Participated in the radiological emergency program and environmental monitoring program.

Education:

December of 1998 – Present University of Phoenix, San Diego, CA
Curriculum: Business Management
Degree Upon Completion: Bachelors of Science
Courses take: Critical thinking and Decision making, Employment Law, Organizational Communication, Organizational Behavior, Financial Analysis for Managers, Human Resources Management, Total Quality Management, Project Management, Marketing, Public Relations, Business Research Applications.

August of 1996 - May of 1998 Lakeshore Technical College, Cleveland, WI
Curriculum: Health Physics Technician
Degree: Associate Degree in Applied Science
Courses: Radiological Emergencies, Radiation Shielding, Radioactive Materials, Radiochemistry, Radiation Biology, Advanced Instrument/ Calibration, Applied Health Physics, Radiation Physics, Health Physics Calculations, Nuclear Tech & Reg., Nuclear Systems
Internship: State of Wisconsin Radiation Protection Office

Professional Memberships: American Nuclear Society, Conference of Radiation Control Program Directo

Other Health Physics Related Courses and Certificates:
40 Hour Hazardous Waste Site Worker (HAZWOPER)
Nuclear Regulatory Commission – Inspection Procedure Course (G-108)
Nuclear Regulatory Commission – Safety Aspects of Industrial Radiography (H-305)
Nuclear Regulatory Commission – Inspecting for Performance Course – Materials Version (G-304)
Nuclear Regulatory Commission – Licensing & Procedures Course (G-109)
Nuclear Regulatory Commission – Transportation Course (H-308)
Emergency Management Institute – Radiological Emergency Response (IS-301)

References: Available upon request.

AGREEMENT STATE TRAINING PROGRAM

Name: Leola DeKock Date of Hire: 01/28/2002

Training Areas	Date Planned	Date Completed	Initials/Signature	Comments
BASIC TRAINING				
Basic Health Physics				
Degree in Health Physics or 5 Week course equivalent	MET			
Overall program orientation				
Review of State Regulations				
Standards, Subch III.	6/02			
RM & X-ray, Subch. I, IV, X, XI, XII	6/02			
RM only, subch. II, IV, V, VI, XIII	6/02			
X-ray only, Subch. VIII, IX	6/02			
Water, Subch XIV	6/02			
Review of Reading file and Information Notices				
Essentials of Inspection	9/02			
Essentials of Licensing	9/02			
Essentials of Transportation	6/02			
SPECIALIZED TRAINING				
Elements of Nuclear Medicine	3/02	3/02		
Elements of Medical Therapy	3/02	3/02		
Elements of Indust. Radiography	4/02	4/02		
Performance Based Inspections	3/02	3/02		
ADVANCED TRAINING				
Advanced Health Physics				
Elements of Investigations/Root Cause Analysis				
OTHER				
Radiological Emergency Response Operations (RERO)	MET			
National Registry of Radiation Protection Technologists (NRRPT)				

CURRICULUM VITAE
NAME: Leola M. DeKock
DATE OF PREPARATION: February 7, 2002

Personal Data

Birthplace: Clinton, Iowa Citizenship: United States Citizen
Maiden Name: Leola Fatchett

Education

January 1975 - August 1977	University of Iowa, Iowa City, Iowa. Bachelor of Science degree, Nuclear Medicine Technology.
June 1973 - January 1975	Eastern Iowa Community College, Clinton Campus, Clinton, Iowa. Associate of Science degree, General Science.
July 1968 - May 1970	Jane Lamb Hospital School of Radiologic Technology, Clinton, Iowa.
June 1968	Clinton High School, Clinton, Iowa.

Positions Held

January 2002 to Present	Wisconsin Department of Health and Family Services, Radiation Protection Section, Nuclear Engineer, full-time.
June 2001 – January 2002	University of Wisconsin - Madison Safety Department, Radiation Safety Section, Health Physicist Advanced, full-time.
September 2000 – Present	Portable Scanning Services, LLC, Madison, WI, Consultant, part-time.
May 1988 – June 2001	University of Wisconsin - Madison Safety Department, Radiation Safety Section, Health Physicist Senior, full-time.
June 1986 - May 1988	University of Wisconsin - Madison Safety Department, Radiation Safety Section, Health Physicist I, full-time.

December 1983 - June 1986	University of Wisconsin - Madison Safety Department, Radiation Safety Section, Lab Tech III, Health Physics Technician, full-time.
November 1982 - December 1983	University of Wisconsin - Madison, Safety Department, hazardous Waste Section, Lab Tech III, Waste Technician, full-time.
July 1982	Lakeland Hospital, Elkhorn, Wisconsin. Nuclear Medicine Technologist, vacation replacement.
April 1979 - April 1981	University of Iowa Hospitals and Clinics, Dept. of Radiology, Division of Nuclear Medicine, Iowa City, IA. Staff Nuclear Medicine Technologist and Clinical Instructor, full-time.
September 1977 - March 1979	Finley Hospital, Dubuque, Iowa. Nuclear Medicine Technologist, full-time.
September 1975 - July 1977	University of Iowa Hospitals and Clinics, Dept. of Radiology, Iowa City, Iowa. Staff Radiologic Technologist, part-time.
September 1971 - January 1973	Jackson County Public Hospital, Maquoketa, Iowa. Staff Radiologic Technologist, full-time.
May 1970 - August 1971	DeWitt Community Hospital, DeWitt, Iowa. Staff Radiologic Technologist, Lab Technician, and ECG Tech, full-time.

Certifications

American Registry of Radiologic Technologists,
R.T.R., Diagnostic Technology, #71500
R.T.N., Nuclear Medicine Technology, #71500

American Society of Clinical Pathologists,
N.M., Nuclear Medicine Technologist, #1124

Nuclear Medicine Technology Certification Board,
CNMT, Nuclear Medicine Technologist, #002972

Professional Affiliations

North Central Chapter, Health Physics Society

American Society of Radiologic Technologists

Professional Educational Experience

Nuclear Medicine Technology
University of Iowa Hospitals & Clinics, Department of Radiology,
Nuclear Medicine Division, Iowa City, Iowa.

Diagnostic Radiologic Technology
Jane Lamb Hospital School of Radiologic Technology, Clinton, Iowa.

Teaching Activities

University of Wisconsin – Madison, Safety Department, Radiation Safety section.
Short Course, taught as needed: Use of portable nuclear gauges. Instruction for faculty, staff and students who will use and transport radioactive gauges. Class covers principles of radiation physics, radioactive measurements, required record keeping, radiation protection specific to nuclear gauge use, emergency response, and procedures to ensure personnel exposures are ALARA. A hands-on demonstration of gauge use is also included. Two hours classroom.

University of Wisconsin - Madison, Safety Department, Radiation Safety section.
Weekly course, taught as needed: Radiation Training for Radiation Workers. Training designed to insure all "radiation workers" have a basic understanding of radiation safety and specific procedures used at the University. Laboratory sessions cover portable survey meter use, record keeping, contamination surveying by LSC counter, and decontamination techniques. Four hours classroom.

University of Wisconsin - Madison, Safety Department, Radiation Safety section,
Short course: Mathematics review sessions for recently hired Health Physics techs and individual training in the theory and operation of sample counting equipment equipment. Duration to continue as long as required.

University of Iowa School of Nuclear Medicine Technology, Iowa City, Iowa.
Short course: Basics of Mathematics Review for Nuclear Medicine Technology Students. Ten hours classroom.

Finley Hospital School of Radiologic Technology, Dubuque, Iowa.
Short course: Basics of Nuclear Medicine for Radiologic Technology Students. Eighty hours clinical experience, ten hours didactic.

Additional Education and Training

General Electric Medical Systems, two week course, "Nuclear Medicine", July 1977.

Wisconsin Department of Emergency Preparedness, Reactor Emergency Drill, Zion, Illinois - Racine, Wisconsin area, March 1985.

Big 10 Radiation Safety Officers Annual Meeting, Madison, WI, August 1986.

North Central Chapter, Health Physics Society, Fall meeting, October 1986.

North Central Chapter, Health Physics Society, Fall meeting, October 1987.

North Central Chapter, Health Physics Society, Technical meeting, October 1988.

Federal Emergency Management Agency - Department of Energy two week course, "Radiological Emergency Response and Organization", Nevada Test Site, Mercury, Nevada, September 1989.

Wisconsin Department of Emergency Preparedness, Reactor Emergency Response Drill, Kewaunee Nuclear Power Plant, October 1989.

Big 10 Radiation Safety Officers Annual Meeting, July 1990.

Wisconsin Department of Emergency Preparedness, Radiological Emergency Field Team Training Session, December 1990.

Medical Sciences Division, Oak Ridge Associated Universities, "Health Physics in Radiation Accidents". Oak Ridge, TN, January 1992.

McCormick Continuing Professional Development, "Radiation Safety, the New Part 20 Regulations". Northwestern University, Evanston, IL, April 1992.

Health Physics Society Annual Meeting, Columbus Ohio. PEP Course: Health Physics Consideration in Radiology, June 1992.

Big 10 Radiation Safety Officers Annual Meeting, November 1992.

Health Physics Society Summer School – "Hospital Health Physics", Atlanta, GA, July 1993.

Health Physics Society Annual Meeting, PEP course - Status of NRC's Quality Management Rule, July 1995.

UW-Madison Division of Information Technology (DoIT), Computing Education Resource Course - World Wide Web Publishing-HTML, January 1996.

UW-Madison DoIT, Computing Education Resource Course - Imaging for the World Wide Web, June 1996.

UW-Madison DoIT, Computing Education Resource Course – Introduction to Front Page, Jan. 1997.

Troxler Electronic Laboratories, Inc. training course – "Nuclear Gauge Safety Training Program", February 1997.

Big 10 Radiation Safety Officers Conference, Sept. 1997.

UW-Madison DoIT, Computing Education Resource Course – Website Wow! (Advanced WEB Publishing for Windows) Dec. 1997.

UW-Madison DoIT, Computing Education Resource Course - Front Page 97 for Windows 95 Introduction, Feb. 1998.

Wisconsin Department of Emergency Preparedness, Reactor Emergency Response Drill, Prairie Island Nuclear Power Plant, July 1998.

Health Physics Society Mid-Year Meeting, Albuquerque, NM, Jan. 1999.

Access 97: Level 1, Inacom, Inc., Madison, WI, December 1999.

Access 97: Data Design/Automation, Inacom, Inc., Madison, WI, January 2000.

Access 97: Advanced/Macros, Inacom, Inc., Madison, WI, February 2000.

Access 97: Introduction to Application Development, Inacom, Inc., Madison, WI, February 2000.

Wisconsin Department of Emergency Preparedness, Reactor Emergency Response Drill, Prairie Island Nuclear Power Plant, September 2000.

North Central Chapter, Health Physics Society - Minneapolis, MN, October 2000.

Dangerous Goods Shipping Seminar and Radioactive Materials Shippers Seminar, Federal Express, Seattle, WA, June 2001.

Midwest College/University Environmental Health and Safety Officers Conference, Purdue University, September 2001.

AGREEMENT STATE TRAINING PROGRAM

Name: Michael Welling Date of Hire: 02/11/2002

Training Areas	Date Planned	Date Completed	Initials/Signature	Comments
BASIC TRAINING				
Basic Health Physics				
Degree in Health Physics or 5 Week course equivalent	4/02	4/02		
Overall program orientation				
Review of State Regulations				
Standards, Subch III.	6/02			
RM & X-ray, Subch. I, IV, X, XI, XII	6/02			
RM only, subch. II, IV, V, VI, XIII	6/02			
X-ray only, Subch. VIII, IX	6/02			
Water, Subch XIV	6/02			
Review of Reading file and Information Notices				
Essentials of Inspection	9/02			
Essentials of Licensing	9/02			
Essentials of Transportation	6/02			
SPECIALIZED TRAINING				
Elements of Nuclear Medicine	8/02			
Elements of Medical Therapy	8/02			
Elements of Indust. Radiography	8/02			
Performance Based Inspections				
ADVANCED TRAINING				
Advanced Health Physics				
Elements of Investigations/Root Cause Analysis				
OTHER				
Radiological Emergency Response Operations (RERO)				
National Registry of Radiation Protection Technologists (NRRPT)				

MICHAEL WELLING

1833 Northwestern Avenue
Madison, Wisconsin 53704

(608) 244-9884
mkwelling@tds.net

SUMMARY: Solid quality, data management, and production experience in a manufacturing environment. Expertise in supervision, in-process and final inspections, vendor audits, and project management.

EXPERIENCE:

2000 to 2001 — LINDBERG/BLUE M: Watertown, Wisconsin
(Manufacturer of industrial heat treating equipment)

Quality Supervisor

Responsible for overseeing machinery testing. Supervised five quality testers.
- Performed final machinery inspections prior to shipping.
- Conducted vendor audits and coordinated defective material returns.
- Handled in-process inspections.
- Wrote quality documents and procedures.

2000 — ROWLEY-SCHLIMGEN: Madison, Wisconsin
(Office furniture design/installation)

Project Coordinator

Responsible for coordinating project installations and planning installation checks.
- Reviewed parts orders.
- Performed field installations.
- Worked with customers to ensure acceptance of installation.

1999 to 2000 — SUB-ZERO, INC.: Madison, Wisconsin
(Manufacturer of freezers and refrigerators)

Data Management/Engineering

Responsible for the administration of the MAPICS system. Trained employees.
- Entered, audited, and reported data and bills of material.

1994 to 1999 — MARQUIP, INC.: Madison, Wisconsin
(Manufacturer of cardboard industry machinery)

Product Data Management (1997-1999)

Responsible for overseeing and managing the entry and upkeep of part number databases. Provided training and support.
- Worked with engineering and manufacturing to ensure correct and timely entry of data.
- Performed monthly queries and reports on the MAPICS database.
- Instituted and maintained work instructions to adhere to ISO 9000 standards.

MICHAEL WELLING

(608) 244-9884
mkwelling@tds.net

MARQUIP, INC.: continued

Quality Systems Technician (1995-1997)

Responsible for inspecting incoming vendor products, inventory control of defective material, and weekly, monthly, quarterly, and yearly reports.

- Performed in-process inspection of manufactured products.
- Created and updated policies, procedures, and work instructions.

Production Assistant (1994-1995)
Responsible for assembling and wiring cabinets and panels. Supervised six part time employees, including conducting performance reviews.

- Assisted engineering with the design and review of cabinets and panels.
- Performed final inspections of completed product.

MILITARY:

1988 to 1994 — UNITED STATES NAVY: USS South Carolina (CGN-37)

Electrical Control Shutdown Reactor Operator/Supply Petty Officer
Responsible for watchstanding, troubleshooting, and repairing generators, motors, and controllers. Supervised 10 electricians.

- Maintained a supply budget of $100,000.
- Participated in the overhaul of two nuclear reactors.

EDUCATION:

LAKELAND COLLEGE: Madison, Wisconsin
Currently enrolled in Business Administration program

MADISON AREA TECHNICAL COLLEGE: Madison, Wisconsin
Associate Degree, Mid-Business Management

Qualified Nuclear Power Plant Operator, S3G Naval Nuclear Prototype

Graduate, Naval Nuclear Power School
Nuclear Theory, Chemistry, Physics, Radiation, Electrical Theory

Graduate, Naval "A" School
Basic Electrical Theory, Motors, Generators

REFERENCES: Available on Request

CAUTION: NOT TO BE USED FOR IDENTIFICATION PURPOSES

THIS IS AN IMPORTANT RECORD. SAFEGUARD IT.

ANY ALTERATIONS IN SHADED AREAS RENDER FORM VOID

CERTIFICATE OF RELEASE OR DISCHARGE FROM ACTIVE DUTY 33622/512

1. NAME (Last, First, Middle)	2. DEPARTMENT, COMPONENT AND BRANCH	3. SOCIAL SECURITY NO.
WELLING, MICHAEL ALAN	NAVY-USN	394 | 90 | 2159

4.a GRADE, RATE OR RANK	4.b. PAY GRADE	5. DATE OF BIRTH (YYMMDD)	6. RESERVE OBLIG. TERM. DATE
12	E5	68AUG09	Year 95 | Month 07 | Day 13

7.a. PLACE OF ENTRY INTO ACTIVE DUTY	7.b. HOME OF RECORD AT TIME OF ENTRY (City and state, or complete address if known)
MILWAUKEE, WI	104 STARRY AVE MADISON, WI 53716

8.a. LAST DUTY ASSIGNMENT AND MAJOR COMMAND	8.b. STATION WHERE SEPARATED
USS SOUTH CAROLINA CGN-37	USS SOUTH CAROLINA CGN-37

9. COMMAND TO WHICH TRANSFERRED	10. SGLI COVERAGE
NAVAL RESERVE PERSONNEL CENTER, NEW ORLEANS, LA 70149	☐ None Amount: $ 200,000.00

11. PRIMARY SPECIALTY (List number, title and years and months in specialty. List additional specialty numbers and titles involving periods of one or more years.)

EM-3384 SURFACE SHIP NUCLEAR PROPULSION PLANT OPERATOR-ELECTRICAL.
4 YEARS 4 MONTHS.

XX XX XX XX

XX XX XX

12. RECORD OF SERVICE	Year(s)	Month(s)	Day(s)
a. Date Entered AD This Period	88	APR	04
b. Separation Date This Period	94	APR	01
c. Net Active Service This Period	06	00	00
d. Total Prior Active Service	00	00	00
e. Total Prior Inactive Service	00	00	00
f. Foreign Service	00	00	00
g. Sea Service	04	03	20
h. Effective Date of Pay Grade	93	OCT	16

13. DECORATIONS, MEDALS, BADGES, CITATIONS AND CAMPAIGN RIBBONS AWARDED OR AUTHORIZED (All periods of service)

NATIONAL DEFENSE SERVICE MEDAL, SEA SERVICE DEPLOYMENT RIBBON, SOUTHWEST ASIA SERVICE MEDAL, NAVY UNIT COMMENDATION, JOINT MERITORIOUS UNIT AWARD, COAST GUARD SPECIAL OPERATIONS SERVICE RIBBON, GOOD CONDUCT MEDAL.

14. MILITARY EDUCATION (Course title, number of weeks, and month and year completed)

NUCLEAR FIELD CLASS EM "A" SCHOOL 16 WEEKS 88OCT, NAVAL NUCLEAR POWER SCHOOL 24 WEEKS 89 APR NUCLEAR POWER PLANT OPERATION ON PROTOTYPE S36 24 WEEKS 89NOV, NADSAP 1 WEEK 88JUN.

15. MEMBER CONTRIBUTED TO POST-VIETNAM ERA VETERANS' EDUCATIONAL ASSISTANCE PROGRAM	Yes	No	15.b. HIGH SCHOOL GRADUATE OR EQUIVALENT	Yes	No	16. DAYS ACCRUED LEAVE PAID
	X			X		

17. MEMBER WAS PROVIDED COMPLETE DENTAL EXAMINATION AND ALL APPROPRIATE DENTAL SERVICES AND TREATMENT WITHIN 90 DAYS PRIOR TO SEPARATION ☐ Yes ☐ No

18. REMARKS

"THE INFROMATION CONTAINED HEREIN IS SUBJECT TO COMPUTER MATCHING WITHIN THE DEPARTMENT OF DEFENSE OR WITH OTHER AFFECTED FEDERAL OR NON-FEDERAL AGENCY FOR VERIFICATION PURPOSES AND TO DETERMINE ELIGIBILITY FOR, AND/OR CONTINUED COMPLIANCE WITH, THE REQUIREMENTS OF A FEDERAL BENEFIT PROGRAM".

"EXTENSION OF SERVICE WAS AT THE REQUEST AND FOR THE CONVIENCE OF THE GOVERNMENT".

XX XX XX XX XX XX

XX XX XX XX XX

19.a. MAILING ADDRESS AFTER SEPARATION (Include Zip Code)	19.b. NEAREST RELATIVE (Name and address - include Zip Code)
417 N. FAIR OAKS AVE MADISON, WI. 53714	KATHERINE A. WELLING 724 SPOONER RD VIRGINIA BEACH, VA. 23462

20. MEMBER REQUESTS COPY 6 BE SENT TO DIR. OF VET AFFAIRS	Yes	No	22. OFFICIAL AUTHORIZED TO SIGN (Typed name, grade, title and signature)
21. SIGNATURE OF MEMBER BEING SEPARATED Michael Alan Welling			M. L. HURT, PNC(SW), USN, PERSOFF BY DIR

DD Form 214, NOV 88 S/N 0102-LF-006-5500 *Previous editions are obsolete.* MEMBER - 1

DANIEL G. STEFENEL

PERSONAL RÉSUMÉ

EXPERIENCE

During the past 21 years, I have accomplished the following in the designated areas:

SUPERVISION/ADMINISTRATION

- Presently serving as Training Coordinator for the State of Wisconsin Radiation Protection Section (Dept. Of Health & Family Services) having oversight for all aspects of radiological emergency response training under the cognizance of the Section.

- Served as working supervisor of an extensive written examination development project. The project duration was 17 months, with a scope that included the development of 700 performance-based objectives, 1300 written examination questions, and 55 nuclear power plant control room simulator audit scenarios.

- Certified as Senior Reactor Operator on a Westinghouse nuclear utility control room simulator and licensed as Senior Reactor Operator on the Westinghouse Nuclear Training Reactor (10 kW pool reactor).

- Served as program coordinator and lead instructor for multiple nuclear utility training programs.

- While serving in the US Navy, assigned for one year as Training Coordinator for officer students at Navy nuclear training facility, and served two years as technical library supervisor aboard ship. Also qualified as engine room and control room supervisor for multiple naval nuclear propulsion plants.

TECHNICAL TRAINING

- Served as staff instructor at naval nuclear power training facility. Primary tasks included on-the-job training of propulsion plant operators for the Navy Nuclear Power Program.

- Developed lesson plans, texts, and examinations to support commercial nuclear facility training programs. Examination development includes both written exams and control room simulator audit scenarios. All material developed in accordance with ISD model for Systematic Approach to Training.

- Delivered over 2000 hours of classroom training to commercial nuclear utility personnel. Subjects taught include basic nuclear reactions, reactor physics, thermodynamics, material science, electrical science, steam/reactor plant systems, radiological control, instrumentation/control, operational professionalism, and instructional skills/methods. Conducted over 200 hours of control room simulator training for nuclear utility reactor operator license candidates.

- Performed task analysis and developed training materials for program to train state and local offsite responders to a nuclear power plant radiological accident.

- Delivered over 100 hours of classroom and hands-on training to personnel involved in state and local government offsite response to a nuclear power plant radiological accident.

TECHNICAL WRITING

- Developed an electrical sciences text, Applied Electrical Technology for Power Plant Operators, to support an 80 hour classroom training program for nuclear utility plant personnel. This text covered topics ranging from basic electrical concepts to electrical transmission system operation. Development also included drawing and placement of supporting diagrams. This course was designed to teach the application of generic electrical concepts and principles to the operation of a commercial electrical generating facility.

- Served as member of a maintenance and test procedure upgrade team for a commercial nuclear utility. Tasks included the development of procedure writing guidelines, development of approximately 100 maintenance and test procedures for plant electrical, instrumentation/control, and mechanical systems, and field validation of procedures.

- Developed initial proposal, marketing description, and syllabus for a 40-hour course concerning procedure development. The major course topics included the principles and practices of technical writing, the application of human factors to procedures, and regulatory and guidance documents for commercial nuclear plant procedures.

- Edited quarterly newsletter serving local radiological emergency response personnel for the State of Wisconsin.

ACADEMIC TEACHING

- Taught basic chemistry and biology as a part time instructor for Blackhawk Technical College (at Monroe Center, Monroe, WI).

- Taught Environmental Biology and Quantitative Methods for Upper Iowa University extension program.

COMPUTER SKILLS

- Very competent with IBM compatible computers using Microsoft Windows.

- Extensive experience with various word processing programs. Good familiarity with various CAD, data base, presentation graphics, and spreadsheet programs.

EDUCATION

- A.A. in Engineering, Gulf Coast Junior College, Panama City, FL, 1972.

- B.S. in Geology, University of the State of New York, Albany, NY, 1983.

- Twenty-eight graduate level credits in Vocational Education, University of Illinois, Champaign, IL.

- Presently enrolled in Masters of Biology program at Concordia University Wisconsin (4 out of 12 courses completed).

PERSONAL DATA

Address: 8415 Postville Road
Blanchardville, WI 53516

Phone: Home: (608)527-5287
Work: (608)266-0468

E-mail: lacey@madison.tds.net

DANIEL G. STEFENEL

WORK HISTORY

07/92-Present — WI DEPARTMENT OF HEALTH & FAMILY SERVICES (Madison, WI)

Training coordinator for the Radiation Protection Section. Develop and oversee all training provided to offsite state and county radiological emergency responders.

03/91-07/92 — TRAINING CONSULTANT

Self-employed as a training consultant serving the nuclear utility industry. Provided services to Commonwealth Edison's Zion Nuclear Plant in Illinois and to Northern States Power Company's Prairie Island Nuclear Plant in Minnesota.

06/90-03/91 — NEW GLARUS FOODS, INC. (New Glarus, WI)

Maintenance technician tasked with repair and maintenance of food processing and electrical equipment.

11/88-06/90 — KEWAUNEE NUCLEAR POWER PLANT (Kewaunee, WI)

Assigned with Westinghouse, under contract to Kewaunee Plant, as the project supervisor of a team tasked with the development of licensed reactor operator requalification exam items.

06/88-11/88 — WESTINGHOUSE NUCLEAR TRAINING CENTER (Zion, IL)

Staff instructor, primarily involved in new course development and delivery of "Workplace Professionalism" course.

06/86-06/88 — SEQUOYAH NUCLEAR PLANT (Hixson, TN)

Assigned with Westinghouse, under contract to Sequoyah Plant, as a member of the maintenance and test procedure upgrade project.

11/83-06/86 — WESTINGHOUSE NUCLEAR TRAINING CENTER (Zion, IL)

Staff instructor, with primary duties including development, instruction, and administration of the Westinghouse series of Nuclear Engineering Principles courses for nuclear utility operators and engineers. Additional tasks included simulator training, utility training program coordination, and text, test, and lesson plan development.

06/75-10/83 — UNITED STATES NAVY

Nuclear propulsion plant operator and Electrician's Mate. Navy experience included both shipboard duty and naval nuclear prototype training staff position.

MAINTENANCE & TEST PROCEDURE DEVELOPMENT

The attached maintenance instruction is one example of approximately 100 that I developed as part of a procedure upgrade team at Sequoyah Nuclear Plant. I wrote maintenance and testing procedures that covered mechanical, electrical, and instrumentation/control systems for the plant. I also developed a procedure writing guideline for this project. The development process required:

- Procedure "walkdown" with maintenance personnel to ensure what was written matched the actual system,
- Assurance that procedure was in compliance with all safety analysis documentation,
- Validation that procedure would accomplish the intent, and
- Defense of procedure before an approval panel composed of senior plant management and Nuclear Regulatory personnel.

RADIOLOGICAL EMERGENCY RESPONSE PROCEDURE DEVELOPMENT

The attached procedure describing portal monitor operation is an example of the type of procedures I develop as part of the Wisconsin Radiation Protection Unit. This procedure is part of the off-site response program in the event of a nuclear power plant or radiological HAZMAT incident in Wisconsin. This procedure is used by personnel who will not be intimately familiar with the equipment and is, therefore, relatively simple and straightforward.

Other types of procedures developed include:

- Radiological monitoring & decontamination,
- Emergency medical response and HAZMAT response to a radiological incident, and
- Hospital response to a radiological incident.

POSITION DESCRIPTION
DER-PERS-10 (Rev. 07/97)
State of Wisconsin
Department of Employment Relations

1. Position No.	2. Cert/Reclass Request No.	3. Agency No.
327908	UPDATE	435

4. NAME OF EMPLOYEE
Cheryl Rogers

5. DEPARTMENT, UNIT, WORK ADDRESS
Department of Health and Family Services
Division of Public Health, Bureau of Environmental Health, Radiation Protection Section,
1 W. Wilson, Rm 144
P.O. Box 2659
Madison, WI 53701-2659

6. CLASSIFICATION TITLE OF POSITION
Nuclear Engineering Specialist Supervisor

7. CLASS TITLE OPTION *(to be filled out by Personnel Office)*

8. NAME AND CLASS OF FORMER INCUMBENT
N/A

9. AGENCY WORKING TITLE OF POSITION
Agreement State Program Supervisor

10. NAME AND CLASS OF EMPLOYEES PERFORMING SIMILAR DUTIES Mark Bunge
Radiation Engineering Specialist Supervisor

11. NAME AND CLASS OF FIRST-LINE SUPERVISOR
Paul Schmidt
Nuclear Engineer - Manager

12. FROM APPROXIMATELY WHAT DATE HAS THE EMPLOYEE PERFORMED THE WORK DESCRIBED BELOW?

13. DOES THE POSITION SUPERVISE SUBORDINATE EMPLOYEES IN PERMANENT POSITIONS? ☒ Yes ☐ No
IF YES, COMPLETE AND ATTACH A SUPERVISORY POSITION ANALYSIS FORM (DER-PERS-84).

14. POSITION SUMMARY- PLEASE DESCRIBE BELOW THE MAJOR GOALS OF THIS POSITION:

(See Attached)

15. DESCRIBE THE GOALS AND WORKER ACTIVITIES OF THIS POSITION *(Please see sample format and instructions)*

GOALS: Describe the major achievements, outputs, or results. List them in descending order of importance.
WORKER ACTIVITIES: Under each goal, list the work activities performed to meet that goal.
TIME %: Include for goals and major work activities.

TIME %	GOALS AND WORKER ACTIVITIES
	(See Attached)

16. SUPERVISORY SECTION - TO BE COMPLETED BY THE FIRST LINE SUPERVISOR OF THIS POSITION. *(See Instructions)*

a. The supervision, direction and review given to the work of this position is ☐ close ☐ limited ☒ general.
b. The statements and time estimates above and on attachments accurately describe the work assigned to the position. *(Please initial and data attachments.)*

Signature of first-line supervisor Date

17. EMPLOYEE SECTION - TO BE COMPLETED BY THE INCUMBENT OF THIS POSITION.

I have read and understand that the statements and time estimates above and on attachments are a description of the functions assigned my position. *(Please initial and date attachments.)*

Signature of employee Date

18. Signature of Personnel Manager Date

P-File | Department of Employment Relations | Employee | Department File | Cert Request Copy

10/10/01

pd-supv (6/98)

CLASSIFICATION TITLE- SUB-TITLE
Nuclear Engineering Specialist Supervisor

POSITION SUMMARY
Under general supervision of the Section manager, supervises the development and operation of a radioactive materials regulatory program and related activities within the Radiation Protection Section. Maintains the radioactive materials program so that it meets U.S. Nuclear Regulatory Commission adequacy and compatibility requirements as an agreement state program. Coordinates with supervisor, Nuclear Regulatory Commission regional and national staff, and other state programs to develop necessary statutes, rules, procedures, regulatory guides, forms, records, reports and training needed for an agreement state materials program. Reviews state, CRCPD and federal radioactive material regulations, guidance documents, policies, standards and practices and recommends, develops and implements appropriate revisions to statutes, rules and program operations to increase effectiveness and efficiency. Evaluates the quality of licensing, inspection and incident response activities and recommends improvements. Conducts and participates in license reviews, inspections and investigations. Develops and conducts training and presentations to program staff, regulated facilities and interested groups. With other staff, responds to statewide incidents involving radioactive materials. Coordinates disposition of radioactive materials in possession of the Section. Reports to Nuclear Engineer Manager within the Section of Radiation Protection.

(Rated PD Only) TR1	TR2	TIME %	GOALS AND WORKER ACTIVITIES

A. Supervision of the development and operation of a materials licensing and inspection program.

A1. Develop and maintain an agreement state radioactive materials regulatory program that meets all NRC adequacy and compatibility requirements, enforces Wisconsin radiation statutes and rules, and meets all department policies, procedures, goals and target dates.

A2. Coordinate and consult with the Nuclear Regulatory Commission, supervisor and other state personnel to develop and maintain necessary procedures, regulatory guidance, forms, reports and any other documents needed for an agreement state materials licensing, registration and inspection program.

A3. Coordinate and consult with the Nuclear Regulatory Commission and Organization of Agreement States on program operation and issues.

A4. Evaluate the quality of program licensing, inspection and incident response operations by reviewing reports, statistical data, conferring with staff, observing license reviews and inspections, and by reviewing information from radioactive material users to identify problem areas and to determine what improvements are needed.

A5. Provide technical direction and oversight to all materials program activities and staff, including setting licensing and inspection priorities.

A6. Maintain a detailed working knowledge of state and federal radiation protection regulations, including Wisconsin Stats 254.31-.45, Wisconsin Administrative Code Chapter HFS 157 and Title 10 and 49 of the Code of Federal Regulations.

A7. Be familiar with standards of the Conference of Radiation Control Program Directors (CRCPD) and the National Council on Radiation Protection and Measurements (NCRP).

A8. Routinely review and evaluate other state radiation statutes and rules, NRC regulations, guidance documents, policies, standards and practices and recommend changes to program to increase effectiveness and efficiency.

A9. Develop statutory and rule language and promulgate necessary revisions to Wisconsin radiation statutes and rules.

A10. Periodically inform supervisor of program status, including progress toward goals and timelines, identify problem areas and recommend any needed improvements.

A11. Attend conferences, workshops, meetings and other forums to maintain awareness of issues relevant to the agreement state program and radioactive materials regulation.

A12. Prepare and compile necessary reports, documents and application materials, and maintain program records required by the Nuclear Regulatory Commission to meet agreement state requirements.

A13. Develop estimates of personnel and equipment needs for use by Section manager in budget projections.

A14. Conduct regular PPD sessions with supervised staff at least once per year.

A15. Review and approve work schedules and requests for leave time, and coordinate work schedules to ensure effective program operation.

A16. In consultation with section manager, direct personnel actions associated with recruitment and selection of staff.

B. Licensing, site inspection and materials investigation.

B1. Conduct complex review of all categories of materials license applications, amendments, renewals, terminations and application for reciprocal recognition.

B2. Coordinate and participate in field inspections of complex radioactive material licenses, including new applications, renewals, terminations and amendments.

B3. Perform environmental monitoring, radiation and contamination surveys, personnel interviews and record review, as necessary, to determine site compliance with license conditions, registration requirements and radiation protection regulations.

B4. Function as team leader during complex investigations of licensee non-conformance to radiation protection regulations or license conditions.

B5. Oversee the clean up of contaminated facilities or grounds required for license termination.

B6. Maintain statistical data of license inspections and findings of non-compliance to license conditions or regulations.

C. Training and public communication.

C1. Design and maintain a staff training, record-keeping and sign-off system that ensures materials staff are adequately trained and qualified to perform licensing, inspection and incident response activities.

C2. Develop and conduct presentations to licensees, professional organizations, conferences , management and other interested groups on the subject of radioactive materials and state regulatory requirements.

C3. Function as a mentor to less experienced materials staff.

C4. In cooperation with the section training coordinator, develop training programs and materials, including lesson plans, and conduct training sessions for staff, radioactive material users and other interested groups.

C5. Provide consultation and rules interpretation in response to licensee and public inquiries about radioactive material regulations, licensing and inspection issues, radiation and radioactive materials.

C6. Function as the primary contact for licenses, media, management and the public on materials and related issues.

D. Response to radioactive material incidents.

D1. Establish and maintain a radiological incident response capability for non-nuclear power plant incidents, including response procedures, material impoundment guidelines, DOT scrap and waste exemptions, NRC reporting requirements and waste disposal criteria for materials in possession of the section or other groups.

D2. Function as a back-up state radiological coordinator on a rotation, 24-hour on-call status responsible for coordinating and responding to incidents involving radioactive materials.

D3. Determine the root cause of incidents involving licensed radioactive materials and recommend appropriate corrective actions.

D4. Document incident response activities, root cause analysis and regulatory response to specific radioactive material incidents.

D5. Oversee the clean up of transportation or fixed site accidents involving radioactive materials under state regulatory authority.

D6. Coordinate the disposal of radioactive materials in possession of the Section, according to regulatory requirements.

D7. Participate in nuclear power plant radiological emergency preparedness drills, exercises and real events.

E. Special projects and studies

E1. Develop and conduct complex studies of the impact of specific radioactive material regulations on the health and safety of the public and the operations of material users.

E2. Develop, coordinate and participate in complex field surveys and investigations involving radiation and radioactive materials when a threat to public health exists, as directed by supervisor and in cooperation with other Section staff.

E3. Perform complex engineering evaluations of radiation sources and devices to determine compliance with requirements for inclusion in the national sealed source and device registry.

F. Affirmative Action and Safety.

F1. Ensure that department affirmative action/civil rights goals are used during the hiring process for new materials program staff.

F2. Ensure that employees are provided information on how to safely conduct their jobs, identify job hazards and minimize exposure that might result in injury.

F3. Ensure that all materials program staff are aware of and have received training on the department's workplace violence policy.

As defined by the Americans with Disabilities act, any employee, or applicant for employment, must be able to perform the essential job functions as outlined in the position description, with or without a reasonable accommodation.

KR1 KR2 **KNOWLEDGE AND SKILLS**

1. Extensive knowledge of the health physics aspects of radiation, its use, control, hazards and measurement.
2. Strong knowledge of the requirements for an agreement state with the Nuclear Regulatory Commission.
3. Strong knowledge of radiation biological health effects, risk analysis, environmental and biological exposure pathways and dose calculations.
4. Strong knowledge of physical sciences, including mathematics (algebra, geometry, calculus, statistics), physics, chemistry and data analysis.
5. Practical and theoretical knowledge of radiation detectors and measurement instrumentation, including intrinsic germanium, NaI, pressurized ion chamber, geiger, SRD and TLD.
6. Knowledge of radiation safety procedures and practices and their application to radiation emergencies, radioactive material contamination incidents and radioactive waste disposal.
7. Knowledge of state and federal regulations, procedures and practices relating to radiation protection, regulation of radioactive materials and enforcement.
8. Knowledge of supervisory principles and practices.
9. Familiarity with the Wisconsin Radiological Incident Response Plan.
10. Working knowledge of environmental sampling techniques and the section's environmental monitoring program.
11. Engineering knowledge of nuclear reactor design, key reactor systems, the impact of damage and ultimate ability of engineering barriers to contain hazards.
12. Familiarity with Federal Emergency Management Agency radiological response requirements.
13. Working knowledge of personal computer systems used by state personnel for routine and emergency operations.
14. Knowledge of instructional techniques and principles.
15. Knowledge of the principles of oral and written communications and skill in their practice.

SUPERVISORY EXCLUSION ANALYSIS

This information is to be provided by the position's supervisor and reviewed by the agency central office personnel representative for both filled and vacant positions and must be submitted as part of any Position Description (PD) for a position performing supervisory responsibilities (i.e., if # 13 of the PD is checked YES). This information will be used to determine (1) if the position if performing supervisory functions and thus should be allocated to a supervisory classification and (2) what supervisory classification is appropriate based on the total duties of the position.

According to s. 111.81(19), Wis. Stats., a supervisor is any individual "who has authority, in the interest of the employer, to hire, transfer, suspend, lay off, recall, promote, discharge, assign, reward, or discipline employes, or to adjust their grievances, or to authoritatively recommend such actions" and "whose principle work is different from that of the subordinates". The criteria used by the Wisconsin Employment Commission (WERC) to apply this definition include: the authority to effectively recommend the hiring, promotion, transfer, discipline, or discharge of employes; the authority to direct and assign the workforce; the number of employees supervised (typically a minimum of 3 FTE permanent employes); the amount of time spent supervising; the number of other persons exercising greater, similar, or lesser degrees of authority over the same employes; the level of pay, including an evaluation of whether the supervisor is paid for skill or supervision of employes; whether the supervisor is primarily supervising an activity or is primarily supervising employes performing the activity; whether the supervisor is a working supervisor or whether he/she spends a substantial majority of his/her time supervising employee; and the amount of independent judgment and discretion exercised in the supervision of employes. The WERC ultimately determines the appropriateness of supervisory exclusions.

POSITION IDENTIFICATION DATA

1. Name of Employee (if filled) Cheryl Rogers	2. Civil Service Classification Nuclear Engineering Specialist Supervisor
3. Department and Division Department of Health and Family Services Division of Public Health	4. Bureau, Section and Unit (or comparable) Bureau of Environmental Health, Radiation Protection Section, Materials Licensing and Inspection Unit
5. Name and Classification of Supervisor Paul Schmidt Nuclear Engineer - Manager	6. Name and Complete Civil Service Title of Former Incumbent (if any) N/A

7. SUPERVISORY RESPONSIBILITIES

a. In view of the definition statement and criteria listed in the second paragraph of this form, does the incumbent of this position:

	Yes	No
(1) have the responsibility for directly supervising the activities of other classified employees?	☒	☐
(2) have the responsibility for supervising the activities of lower level supervisors?	☐	☒
(3) meet the definition state and criteria?	☒	☐

b. List the official classification titles and number of permanent classified employes (full or part-time) directly supervised by the incumbent. If this position supervises lower level supervisors, indicate the number of employes supervised by the lower level position(s) in parentheses after the classification title of the position. (NOTE: LTE, student, patient/inmate, volunteer, and unclassified employees should be specifically identified since the direction of these individuals is not considered to warrant supervisory status.)

3 Nuclear Engineer Senior
3 Nuclear Engineer
1 Program Assistant II

c. What percentage of this position's total time is allocated to each of the following:

1) Supervisory functions (i.e., hiring, dismissal, disciplining employees, performance evaluation, settling grievances)?	10%
2) Activities relating to supervisory responsibilities (i.e., establishing operating procedures, reviewing work of subordinates, counseling subordinates on performance, training and orienting new employees, performing related administrative functions, etc.)?	15%
3) Performance of other work activities similar to those of the employees supervised?	35%
4) Performance of other non-supervisory work activities different from those of the employees supervised (including program administration)?	40%
* NOTE: The totals of c.1), 2), 3) and 4) should equal 100%. TOTAL	*100%

8. **ORGANIZATIONAL RELATIONSHIPS**

List (in order of descending authority) the names and classification titles of all other positions in the employing unit in the chain of command over the employees listed in 7.b.

John Chapin, Administrator, Division of Public Health
Kenneth Baldwin, Deputy Administrator, Division of Public Health
Thomas Sieger, Director, Bureau of Environmental Health
Paul Schmidt, Chief, Radiation Protection Section

A copy of the organizational chart must be attached for the immediate work unit (i.e., the organizational unit which includes the employees supervised) including the names and classes of all employees.

9. **SUPERVISORY ACTIVITIES**

Is this position identified as a formal step in the employee grievance procedure? ☒ Yes ☐ No (If no, list below the name and class of the first formal step in the grievance procedures for the employees listed in 7.b.)

A signature below means the position has been reviewed and you have concluded it meets the definition of supervisor found in s. 111.81 (19), Wis. Stats.

SIGNATURE - Supervisor	Date Signed

SIGNATURE - Personnel Representative	Date Signed

To be completed by incumbent (for filled positions):

☐ I agree with the preceding statements.

☐ I do not feel that the preceding statements are accurate for the reasons indicated below.

☐ No comment

SIGNATURE - Employee	Date Signed

POSITION DESCRIPTION
DER-PERS-10 (Rev. 07/97)
State of Wisconsin
Department of Employment Relations

1. Position No.	2. Cert/Reclass Request No.	3. Agency No.
314859	Update	435

4. NAME OF EMPLOYEE
Michael L. Mack

5. DEPARTMENT, UNIT, WORK ADDRESS
Department of Health and Family Services
Division of Public Health
Bureau of Environmental Health
Radiation Protection Section
1 West Wilson Street, Room 150
Madison, WI 53701-2659

6. CLASSIFICATION TITLE OF POSITION
Nuclear Engineer Senior

7. CLASS TITLE OPTION *(to be filled out by Personnel Office)*

8. NAME AND CLASS OF FORMER INCUMBENT

9. AGENCY WORKING TITLE OF POSITION
Radiation Information Specialist

10. NAME AND CLASS OF EMPLOYEES PERFORMING SIMILAR DUTIES

11. NAME AND CLASS OF FIRST-LINE SUPERVISOR
Paul S. Schmidt
Nuclear Engineer Manager

12. FROM APPROXIMATELY WHAT DATE HAS THE EMPLOYEE PERFORMED THE WORK DESCRIBED BELOW?
1/2001

13. DOES THE POSITION SUPERVISE SUBORDINATE EMPLOYEES IN PERMANENT POSITIONS? ☐ Yes ☒ No
IF YES, COMPLETE AND ATTACH A SUPERVISORY POSITION ANALYSIS FORM (DER-PERS-84).

14. POSITION SUMMARY- PLEASE DESCRIBE BELOW THE MAJOR GOALS OF THIS POSITION:

(See Attached)

15. DESCRIBE THE GOALS AND WORKER ACTIVITIES OF THIS POSITION *(Please see sample format and instructions)*

GOALS: Describe the major achievements, outputs, or results. List them in descending order of importance.
WORKER ACTIVITIES: Under each goal, list the work activities performed to meet that goal.
TIME %: Include for goals and major work activities.

TIME %	GOALS AND WORKER ACTIVITIES
	(See Attached)

16. SUPERVISORY SECTION - TO BE COMPLETED BY THE FIRST LINE SUPERVISOR OF THIS POSITION. *(See Instructions)*

a. The supervision, direction and review given to the work of this position is ☐ close ☐ limited ☒ general.
b. The statements and time estimates above and on attachments accurately describe the work assigned to the position. *(Please initial and data attachments.)*

Signature of first-line supervisor — Date

17. EMPLOYEE SECTION - TO BE COMPLETED BY THE INCUMBENT OF THIS POSITION.

I have read and understand that the statements and time estimates above and on attachments are a description of the functions assigned my position. *(Please initial and date attachments.)*

Signature of employee — Date

18. Signature of Personnel Manager — Date

P-File | Department of Employment Relations | Employee | Department File | Cert Request Copy

10/10/01

pd_only (6/98)

CLASSIFICATION TITLE- SUB-TITLE
Nuclear Engineer - Senior - 314859

POSITION SUMMARY
Provides technical consultation to state and local personnel involved in implementation of the state's emergency response plan for nuclear power incidents. Reviews federal guidance documents in the area of radiological emergency response, and recommends changes to the state response plan. With other section staff, maintains the mobile radiological laboratory and tow vehicle, communication equipment and other response instruments. Develops and presents technical training programs, as directed by supervisor. Participates in nuclear power plant drills, exercise and real events. Reports to Nuclear Engineer Manager within the Radiation Protection Section.

Performs license/program reviews and inspections of the production, use, storage, processing, release and disposal of radioactive materials. Develops or assists with developing reports of evaluations performed at licensed/regulated facilities. Develops, or assists with developing, and reviews procedures, regulatory guides and other program documents. In coordination with Radioactive Materials Program Supervisor and with other staff, responds to statewide incidents involving radioactive materials; investigates potential radiological problems and recommends the proper management, including confiscation and disposition, of orphaned or unwanted radioactive materials; and maintains the storage and control of radioactive materials in possession of the Section.

(Rated PD Only) TR1	TR2	TIME %	GOALS AND WORKER ACTIVITIES
			A. Provision of technical consultation and expertise in the development and implementation of the state's radiological emergency response plan.
			A1. With other Section staff, develop training programs and materials and conduct training for state and local personnel involved in responding to radiological accidents. Training covers radiation detection and measurement, radiation health effects and standards, protective actions to minimize exposure, control of radioactive contamination, decontamination procedures, reception center operation and setup, ambulance, hospital and fire department procedures, and state field team operations and procedures. Coordinate activities with local government and emergency response personnel.
			A2. Consult with hospital and ambulance service personnel in radiological emergency response planning and coordination with government agencies.
			A3. Function as the State Radiological Coordinator (SRC), if necessary, when the lead SRC is not available. Develop protective action recommendations, such as sheltering or evacuation, to protect the public and present these recommendations to the governor or their designee.
			A4. Review federal guidance in the area of nuclear power plant emergency response and make recommendations to supervisor as to incident response plan/program changes.
			A5. Perform complex calculations of radiological dose projections and provide advice to the SRC during drills, or in the event of an accident involving potential or actual radiological health consequences.
			A6. Design and recommend the physical layout and flow path of emergency reception centers which process and decontaminate potentially large numbers of public members and vehicles.
			A7. As directed by supervisor, and in accordance with experience and training, serve as backup for other Section responsibilities in radiological emergency response preparation and implementation, including exercise scenario development and supervision and conduct of radiological health monitoring of public members who have been evacuated from a contaminated area.

A8. As directed by supervisor, develop changes to the technical portions of the state radiological incident response plan.

B. Response to radioactive material incidents.

B1. Respond to incidents involving radioactive materials at licensed/registered facilities or other locations, in cooperation with other Section staff.

B2. Perform environmental monitoring, radiation and contamination surveys, personnel interviews and record reviews, as necessary, to characterize materials and determine the most appropriate response to an incident.

B3. With other Section staff, develop, maintain and implement procedures for safe handling, storage, impoundment and disposal of radioactive materials. Maintain materials storage facility in compliance with state and federal safety regulations. If radioactive material disposal is authorized, coordinate the necessary arrangements for transportation and disposal, obtain necessary permits and ensure that the disposal process is done in accordance with state and federal regulations.

B4. At direction of supervisor, and with other Section staff, evaluate facilities that possess radioactive materials, identify and inventory the materials and recommend alternatives available for managing the materials, including storage or disposal.

C. Program reviews, site inspection, materials investigation and documentation.

C1. Participate in evaluations of sites where radioactive materials are produced, used, released, stored, disposed or processed, and review registrant and/or licensee radiation protection programs (program reviews).

C2. Develop and recommend methods of improving registrant conformance with radiation protection regulations or registration requirements. With concurrence of materials program supervisor, communicate recommendations verbally at exit interviews and subsequently in writing.

C3. Develop reports of the compliance of facilities evaluated/inspected based on applicable sections of the WI Administrative Code.

C4. As directed by supervisor, develop procedures, regulatory guides and other documents needed for the radioactive materials program.

C5. Review draft regulatory guides, reports or documents written by others for accuracy, completeness and applicability to radiation protection.

C6. Maintain a working knowledge of state and federal radiation protection regulations, including s.254.31-.34 WI Stats, WI Administrative Code chapters HSS 157 and HFS 157 (draft), and Titles 10 and 49, Code of Federal Regulations.

D. Calibration and readiness of radiation measurement equipment used by Section staff and state and local emergency response and monitoring personnel, including a mobile radiological laboratory and emergency communication equipment.

D1. With other Section staff, develop and maintain calibration procedures for all radiological equipment used by REP and radioactive materials program staff and state field teams.

D2. Maintain the working order of all field instruments and radiological emergency measurement and calibration equipment used by REP and radioactive materials program staff and state field teams.

D3. Make recommendations to supervisor regarding new or additional equipment to improve measurement capabilities.

D4. Design and maintain a radio communication system for the mobile laboratory and field teams which functions under expected environmental and topographic conditions.

"As Defined by the Americans with Disabilities Act, Employee must be able to perform the essential job functions as outlined in the position description, with or without a reasonable accommodation."

KR1 **KR2** **KNOWLEDGE AND SKILLS**

1. Good Working knowledge of radiation measurements and techniques.
2. Working knowledge of computer systems as used by state emergency response personnel.
3. Knowledge of nuclear power plant operations and engineering processes.
4. Knowledge of environmental sampling techniques, decontamination, waste control, and shipping and handling of radioactive materials.
5. Strong mathematics, physics, and health physics background.
6. Working knowledge of state and federal radiation regulations in HSS 157, HFS 157(draft), 10 CFR and 49 CFR.
7. Knowledge of plant EAL's to determine plant safety status.
8. Instructional techniques of technical subjects.
9. Familiarity with Federal Emergency Management Agency radiological response requirements as stated in NUREG 0654/FEMA-REP-1.
10. Knowledge of dose assessment methods as defined in EPA 520, Estimates PB 191482.
11. Working knowledge of electronic and electrical circuitry of instrumentation used in radiation measurements.
12. Interpretation of complex radiological measurements and application to dose assessment.

POSITION DESCRIPTION
DER-PERS-10 (Rev. 07/97)
State of Wisconsin
Department of Employment Relations

1. Position No.	2. Cert/Reclass Request No.	3. Agency No.
327909	UPDATE	435

4. NAME OF EMPLOYEE
aleb, Paul J.

5. DEPARTMENT, UNIT, WORK ADDRESS
Department of Health and Family Services
Division of Public Health
Bureau of Environmental Health

6. CLASSIFICATION TITLE OF POSITION
Nuclear Engineer

Radiation Protection Section
1 West Wilson Street, Room 150
Madison, WI 53701-2659

7. CLASS TITLE OPTION *(to be filled out by Personnel Office)*

8. NAME AND CLASS OF FORMER INCUMBENT
N/A

9. AGENCY WORKING TITLE OF POSITION
Agreement State Materials Inspector

10. NAME AND CLASS OF EMPLOYEES PERFORMING SIMILAR DUTIES

11. NAME AND CLASS OF FIRST-LINE SUPERVISOR

12. FROM APPROXIMATELY WHAT DATE HAS THE EMPLOYEE PERFORMED THE WORK DESCRIBED BELOW?

13. DOES THE POSITION SUPERVISE SUBORDINATE EMPLOYEES IN PERMANENT POSITIONS? ☐ Yes ☒ No
IF YES, COMPLETE AND ATTACH A SUPERVISORY POSITION ANALYSIS FORM (DER-PERS-84).

14. POSITION SUMMARY- PLEASE DESCRIBE BELOW THE MAJOR GOALS OF THIS POSITION:

(See Attached)

15. DESCRIBE THE GOALS AND WORKER ACTIVITIES OF THIS POSITION *(Please see sample format and instructions)*

GOALS: Describe the major achievements, outputs, or results. List them in descending order of importance.
WORKER ACTIVITIES: Under each goal, list the work activities performed to meet that goal.
TIME %: Include for goals and major work activities.

TIME %	GOALS AND WORKER ACTIVITIES
	(See Attached)

16. SUPERVISORY SECTION - TO BE COMPLETED BY THE FIRST LINE SUPERVISOR OF THIS POSITION. *(See Instructions)*

a. The supervision, direction and review given to the work of this position is ☐ close ☒ limited ☐ general.
b. The statements and time estimates above and on attachments accurately describe the work assigned to the position. *(Please initial and data attachments.)*

Signature of first-line supervisor Cheryl K Rogers Date 9-11-01

17. EMPLOYEE SECTION - TO BE COMPLETED BY THE INCUMBENT OF THIS POSITION.
I have read and understand that the statements and time estimates above and on attachments are a description of the functions assigned my position. *(Please initial and date attachments.)*

Signature of employee Paul Caleb Date 9/14/01

18. Signature of Personnel Manager Jan L. Legler Date 11/29/01

F-File Department of Employment Relations Employee Department File Cert Request Copy

BPER 11/29/01

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CLASSIFICATION TITLE- SUB-TITLE
Nuclear Engineer - 327909

POSITION SUMMARY
Under limited supervision of the Agreement State Program Supervisor, assists more experienced staff in performing license review and inspections of the production, use, storage, processing, release and disposal of radioactive materials. Examines devices, equipment, facilities, records and reports; conducts personnel interviews; performs precise and accurate measurements of radiation levels and concentrations of radioactive material; and collects samples for radiological analysis as part of an evaluation/inspection. Develops or assists with developing reports of evaluations performed at licensed facilities. Communicates with or interviews staff at licensed facilities or residential occupants where radiological survey work is being performed. With other staff, responds to statewide incidents involving radioactive materials. Reports to Nuclear Engineering Specialist Supervisor within the Radiation Protection Section.

(Rated PD Only)

TR1	TR2	TIME %	GOALS AND WORKER ACTIVITIES
		50%	A. License review, site inspection and materials investigation.
			A1. Review all categories of material license applications, amendments, renewals, terminations and application for reciprocal recognition, in consultation with senior staff. Provide evaluation of license application to supervisor or designated senior staff to determine licensing action.
			A2. Participate in license related evaluations of sites where radioactive materials are produced, used, released, stored, disposed or processed.
			A3. Perform environmental monitoring, radiation and contamination surveys, personnel interviews and record reviews, as necessary, to determine compliance with license conditions, registration requirements and radiation protection regulations. Submit work to designated senior staff to review for accuracy and completeness.
			A4. Participate in complex investigations of licensee non-conformance to radiation protection regulations or license conditions.
			A5. Participate in overseeing the clean up of contaminated facilities or grounds required for license termination.
			A6. Develop and recommend methods of improving licensee conformance with radiation protection regulations, license conditions or registration requirements. Communicate recommendations directly to licensees or registrants.
			A7. Communicate with and interview medical, industrial or residential occupants where radiological survey work is being performed.
			A8. Conduct licensing and inspection work in close association with assigned Section mentor.
		30%	B. Documentation of license application reviews, amendments, reciprocal recognition reviews, facility inspections and investigations.
			B1. In cooperation with senior staff, develop reports of license application, and amendment reviews, and compliance of facilities evaluated/inspected based on applicable sections of the Wisconsin Administrative Code and license conditions. Provide reports to supervisor or designated senior staff for review and concurrence prior to dissemination.
			B2. As directed by supervisor or senior staff, review reports or documents written by others for accuracy, completeness and applicability to radiation protection.

CKR 9-11-01 PK 9/14/01

B3. Maintain a working knowledge of state and federal radiation protection regulations, including Wisconsin Stats. 254.31 - .45, Wisconsin Administrative Code Chapter HFS 157 and Title 10 and 49 of the Code of Federal Regulations.

B4. Be familiar with standards of the Conference of Radiation Control Program Directors (CRCPD) and the National Council on Radiation Protection and Measurements (NCRP).

15% C. Response to radioactive material incidents.

C1. Respond to incidents involving radioactive materials at licensed facilities or other locations, in cooperation with other section staff.

C2. Perform environmental monitoring, radiation and contamination surveys, personnel interviews and record reviews, as necessary, to characterize materials and determine the most appropriate response to the incident.

C3. Determine the root cause of incidents involving licensed materials and recommend appropriate corrective actions.

C4. Participate in documenting incident response activities, root cause analysis and regulatory response to specific radioactive material incidents.

C5. With other section staff, oversee the cleanup of transportation or fixed site accidents involving radioactive materials under state regulatory authority.

C6. Participate in nuclear power plant radiological emergency preparedness drills, exercises and real events.

5% D. Special projects and studies.

D1. Participate in complex studies of the impact of specific radioactive material regulations on the health and safety of the public and the operations of material users.

D2. Participate in complex field surveys and investigations involving radiation and radioactive materials when a threat to public health exists, as directed by supervisor and in cooperation with other Section staff.

Any employee, or applicant for employment, with a disability as defined by the Americans with Disabilities Act, must be able to perform the physical requirements outlined herein.

CKR
9-11-01
PJ 9/14/01

KR1 KR2 **KNOWLEDGE AND SKILLS**

1. Knowledge of the health physics aspects of radiation, its use, control, hazards and measurement.
2. Strong knowledge of the requirements for an agreement state with the Nuclear Regulatory Commission.
3. Knowledge of radiation health effects, risk analysis, environmental and biological pathways and dose calculations.
4. Good knowledge of physical sciences, including mathematics (algebra, geometry, calculus, statistics), physics, chemistry and data analysis.
5. Practical and theoretical knowledge of radiation detectors and measurement instrumentation, including intrinsic germanium, NaI, pressurized ion chamber, geiger, SRD and TLD.
6. Knowledge of radiation safety procedures and practices and their application to radiation emergencies, radioactive material contamination incidents and radioactive waste disposal.
7. Knowledge of state and federal regulations, procedures and practices relating to radiation protection, regulation of radioactive materials and enforcement.
8. Familiarity with the Wisconsin Radiological Incident Response Plan.
9. Working knowledge of environmental sampling techniques and the section's environmental monitoring program.
10. Engineering knowledge of nuclear reactor design, key reactor systems, the impact of damage and ultimate ability of engineering barriers to contain hazards.
11. Familiarity with Federal Emergency Management Agency radiological response requirements.
12. Working knowledge of personal computer systems used by state personnel for routine and emergency operations.

CKR 9-11-01
PJC 9/14/01

POSITION DESCRIPTION
DER-PERS-10 (Rev. 07/97)
State of Wisconsin
Department of Employment Relations

1. Position No.	2. Cert/Reclass Request No.	3. Agency No.
329544	UPDATE	435

NAME OF EMPLOYEE
unt, Jason H.

5. DEPARTMENT, UNIT, WORK ADDRESS
Department of Health and Family Services
Division of Public Health
Bureau of Environmental Health
Radiation Protection Section
1 West Wilson Street, Room 150
Madison, WI 53701-2659

6. CLASSIFICATION TITLE OF POSITION
Nuclear Engineer

7. CLASS TITLE OPTION *(to be filled out by Personnel Office)*

8. NAME AND CLASS OF FORMER INCUMBENT
N/A

9. AGENCY WORKING TITLE OF POSITION
Agreement State Materials Inspector

10. NAME AND CLASS OF EMPLOYEES PERFORMING SIMILAR DUTIES

11. NAME AND CLASS OF FIRST-LINE SUPERVISOR
Cheryl K. Rogers, Materials PRogram Superviso
Radiation Protection Section

12. FROM APPROXIMATELY WHAT DATE HAS THE EMPLOYEE PERFORMED THE WORK DESCRIBED BELOW?

13. DOES THE POSITION SUPERVISE SUBORDINATE EMPLOYEES IN PERMANENT POSITIONS? ☐ Yes ☒ No
IF YES, COMPLETE AND ATTACH A SUPERVISORY POSITION ANALYSIS FORM (DER-PERS-84).

14. POSITION SUMMARY- PLEASE DESCRIBE BELOW THE MAJOR GOALS OF THIS POSITION:

(See Attached)

15. DESCRIBE THE GOALS AND WORKER ACTIVITIES OF THIS POSITION *(Please see sample format and instructions)*

GOALS: Describe the major achievements, outputs, or results. List them in descending order of importance.
WORKER ACTIVITIES: Under each goal, list the work activities performed to meet that goal.
TIME %: Include for goals and major work activities.

TIME %	GOALS AND WORKER ACTIVITIES
	(See Attached)

16. SUPERVISORY SECTION - TO BE COMPLETED BY THE FIRST LINE SUPERVISOR OF THIS POSITION. *(See Instructions)*

a. The supervision, direction and review given to the work of this position is ☐ close ☒ limited ☐ general.
b. The statements and time estimates above and on attachments accurately describe the work assigned to the position. *(Please initial and data attachments.)*

Signature of first-line supervisor Cheryl K Rogers Date 9-11-01

17. EMPLOYEE SECTION - TO BE COMPLETED BY THE INCUMBENT OF THIS POSITION.
I have read and understand that the statements and time estimates above and on attachments are a description of the functions assigned my position. *(Please initial and date attachments.)*

Signature of employee Jason Hunt Date 9-11-01

18. Signature of Personnel Manager Jan L. Zeigler Date 11/29/01

P-File | Department of Employment Relations | Employee | Department File | Cert Request Copy

pd_only (6/98)

CLASSIFICATION TITLE- SUB-TITLE
Nuclear Engineer - 329544

POSITION SUMMARY
Under limited supervision of the Agreement State Program Supervisor, assists more experienced staff in performing license review and inspections of the production, use, storage, processing, release and disposal of radioactive materials. Examines devices, equipment, facilities, records and reports; conducts personnel interviews; performs precise and accurate measurements of radiation levels and concentrations of radioactive material; and collects samples for radiological analysis as part of an evaluation/inspection. Develops or assists with developing reports of evaluations performed at licensed facilities. Communicates with or interviews staff at licensed facilities or residential occupants where radiological survey work is being performed. With other staff, responds to statewide incidents involving radioactive materials. Reports to Nuclear Engineering Specialist Supervisor within the Radiation Protection Section.

(Rated PD Only)

TR1	TR2	TIME %	GOALS AND WORKER ACTIVITIES
		50%	A. License review, site inspection and materials investigation.
			A1. Review all categories of material license applications, amendments, renewals, terminations and application for reciprocal recognition, in consultation with senior staff. Provide evaluation of license application to supervisor or designated senior staff to determine licensing action.
			A2. Participate in license related evaluations of sites where radioactive materials are produced, used, released, stored, disposed or processed.
			A3. Perform environmental monitoring, radiation and contamination surveys, personnel interviews and record reviews, as necessary, to determine compliance with license conditions, registration requirements and radiation protection regulations. Submit work to designated senior staff to review for accuracy and completeness.
			A4. Participate in complex investigations of licensee non-conformance to radiation protection regulations or license conditions.
			A5. Participate in overseeing the clean up of contaminated facilities or grounds required for license termination.
			A6. Develop and recommend methods of improving licensee conformance with radiation protection regulations, license conditions or registration requirements. Communicate recommendations directly to licensees or registrants.
			A7. Communicate with and interview medical, industrial or residential occupants where radiological survey work is being performed.
			A8. Conduct licensing and inspection work in close association with assigned Section mentor.
		30%	B. Documentation of license application reviews, amendments, reciprocal recognition reviews, facility inspections and investigations.
			B1. In cooperation with senior staff, develop reports of license application, and amendment reviews, and compliance of facilities evaluated/inspected based on applicable sections of the Wisconsin Administrative Code and license conditions. Provide reports to supervisor or designated senior staff for review and concurrence prior to dissemination.
			B2. As directed by supervisor or senior staff, review reports or documents written by others for accuracy, completeness and applicability to radiation protection.

JH 9-11-01

CKR 9-11-01

B3. Maintain a working knowledge of state and federal radiation protection regulations, including Wisconsin Stats. 254.31 - .45, Wisconsin Administrative Code Chapter HFS 157 and Title 10 and 49 of the Code of Federal Regulations.

B4. Be familiar with standards of the Conference of Radiation Control Program Directors (CRCPD) and the National Council on Radiation Protection and Measurements (NCRP).

15% C. Response to radioactive material incidents.

C1. Respond to incidents involving radioactive materials at licensed facilities or other locations, in cooperation with other section staff.

C2. Perform environmental monitoring, radiation and contamination surveys, personnel interviews and record reviews, as necessary, to characterize materials and determine the most appropriate response to the incident.

C3. Determine the root cause of incidents involving licensed materials and recommend appropriate corrective actions.

C4. Participate in documenting incident response activities, root cause analysis and regulatory response to specific radioactive material incidents.

C5. With other section staff, oversee the cleanup of transportation or fixed site accidents involving radioactive materials under state regulatory authority.

C6. Participate in nuclear power plant radiological emergency preparedness drills, exercises and real events.

5% D. Special projects and studies.

D1. Participate in complex studies of the impact of specific radioactive material regulations on the health and safety of the public and the operations of material users.

D2. Participate in complex field surveys and investigations involving radiation and radioactive materials when a threat to public health exists, as directed by supervisor and in cooperation with other Section staff.

Any employee, or applicant for employment, with a disability as defined by the Americans with Disabilities Act, must be able to perform the physical requirements outlined herein.

9-11-01

CKR
9-11-01

KR1 KR2 **KNOWLEDGE AND SKILLS**

1. Knowledge of the health physics aspects of radiation, its use, control, hazards and measurement.
2. Strong knowledge of the requirements for an agreement state with the Nuclear Regulatory Commission.
3. Knowledge of radiation health effects, risk analysis, environmental and biological pathways and dose calculations.
4. Good knowledge of physical sciences, including mathematics (algebra, geometry, calculus, statistics), physics, chemistry and data analysis.
5. Practical and theoretical knowledge of radiation detectors and measurement instrumentation, including intrinsic germanium, NaI, pressurized ion chamber, geiger, SRD and TLD.
6. Knowledge of radiation safety procedures and practices and their application to radiation emergencies, radioactive material contamination incidents and radioactive waste disposal.
7. Knowledge of state and federal regulations, procedures and practices relating to radiation protection, regulation of radioactive materials and enforcement.
8. Familiarity with the Wisconsin Radiological Incident Response Plan.
9. Working knowledge of environmental sampling techniques and the section's environmental monitoring program.
10. Engineering knowledge of nuclear reactor design, key reactor systems, the impact of damage and ultimate ability of engineering barriers to contain hazards.
11. Familiarity with Federal Emergency Management Agency radiological response requirements.
12. Working knowledge of personal computer systems used by state personnel for routine and emergency operations.

CKR
9-11-01

POSITION DESCRIPTION
DER-PERS-10 (Rev. 07/97)
State of Wisconsin
Department of Employment Relations

1. Position No.	2. Cert/Reclass Request No.	3. Agency No.
330833	1002033	435

4. NAME OF EMPLOYEE

Leola DeKock

5. DEPARTMENT, UNIT, WORK ADDRESS
Department of Health and Family Services
Division of Public Health
Bureau of Environmental Health

6. CLASSIFICATION TITLE OF POSITION
Nuclear Engineer

Radiation Protection Section
1 W. Wilson St., Rm 150
Madison, WI 53702

7. CLASS TITLE OPTION *(to be filled out by Personnel Office)*

8. NAME AND CLASS OF FORMER INCUMBENT
N/A

9. AGENCY WORKING TITLE OF POSITION
Agreement State Materials Inspector

10. NAME AND CLASS OF EMPLOYEES PERFORMING SIMILAR DUTIES

11. NAME AND CLASS OF FIRST-LINE SUPERVISOR
Cheryl Rogers, Nuclear Engineer
Specialist Sup

12. FROM APPROXIMATELY WHAT DATE HAS THE EMPLOYEE PERFORMED THE WORK DESCRIBED BELOW?

13. DOES THE POSITION SUPERVISE SUBORDINATE EMPLOYEES IN PERMANENT POSITIONS? ☐ Yes ☒ No
IF YES, COMPLETE AND ATTACH A SUPERVISORY POSITION ANALYSIS FORM (DER-PERS-84).

14. POSITION SUMMARY- PLEASE DESCRIBE BELOW THE MAJOR GOALS OF THIS POSITION:

(See Attached)

15. DESCRIBE THE GOALS AND WORKER ACTIVITIES OF THIS POSITION *(Please see sample format and instructions)*

GOALS: Describe the major achievements, outputs, or results. List them in descending order of importance.
WORKER ACTIVITIES: Under each goal, list the work activities performed to meet that goal.
TIME %: Include for goals and major work activities.

TIME %	GOALS AND WORKER ACTIVITIES
	(See Attached)

16. SUPERVISORY SECTION - TO BE COMPLETED BY THE FIRST LINE SUPERVISOR OF THIS POSITION. *(See Instructions)*

a. The supervision, direction and review given to the work of this position is ☐ close ☒ limited ☐ general.
b. The statements and time estimates above and on attachments accurately describe the work assigned to the position. *(Please initial and data attachments.)*

Signature of first-line supervisor Date

17. EMPLOYEE SECTION - TO BE COMPLETED BY THE INCUMBENT OF THIS POSITION.

I have read and understand that the statements and time estimates above and on attachments are a description of the functions assigned my position. *(Please initial and date attachments.)*

Signature of employee Date

18. Signature of Personnel Manager Date

P-File | Department of Employment Relations | Employee | Department File | Cert Request Copy

pd_only (6/98)

CLASSIFICATION TITLE- SUB-TITLE
Nuclear Engineer

POSITION SUMMARY
Under limited supervision of the Agreement State Program Supervisor, assists more experienced staff in performing license review and inspections of the production, use, storage, processing, release and disposal of radioactive materials. Examines devices, equipment, facilities, records and reports; conducts personnel interviews; performs precise and accurate measurements of radiation levels and concentrations of radioactive material; and collects samples for radiological analysis as part of an evaluation/inspection. Develops or assists with developing reports of evaluations performed at licensed facilities. Communicates with or interviews staff at licensed facilities or residential occupants where radiological survey work is being performed. With other staff, responds to statewide incidents involving radioactive materials. Reports to Nuclear Engineering Specialist Supervisor within the Radiation Protection Section.

(Rated PD Only)

TR1	TR2	TIME %	GOALS AND WORKER ACTIVITIES
		50%	A. License review, site inspection and materials investigation.
			A1. Review all categories of material license applications, amendments, renewals, terminations and application for reciprocal recognition, in consultation with senior staff. Provide evaluation of license application to supervisor or designated senior staff to determine licensing action.
			A2. Participate in license related evaluations of sites where radioactive materials are produced, used, released, stored, disposed or processed.
			A3. Perform environmental monitoring, radiation and contamination surveys, personnel interviews and record reviews, as necessary, to determine compliance with license conditions, registration requirements and radiation protection regulations. Submit work to designated senior staff to review for accuracy and completeness.
			A4. Participate in complex investigations of licensee non-conformance to radiation protection regulations or license conditions.
			A5. Participate in overseeing the clean up of contaminated facilities or grounds required for license termination.
			A6. Develop and recommend methods of improving licensee conformance with radiation protection regulations, license conditions or registration requirements. Communicate recommendations directly to licensees or registrants.
			A7. Communicate with and interview medical, industrial or residential occupants where radiological survey work is being performed.
			A8. Conduct licensing and inspection work in close association with assigned Section mentor.
		30%	B. Documentation of license application reviews, amendments, reciprocal recognition reviews, facility inspections and investigations.
			B1. In cooperation with senior staff, develop reports of license application, and amendment reviews, and compliance of facilities evaluated/inspected based on applicable sections of the Wisconsin Administrative Code and license conditions. Provide reports to supervisor or designated senior staff for review and concurrence prior to dissemination.
			B2. As directed by supervisor or senior staff, review reports or documents written by others for accuracy, completeness and applicability to radiation protection.
			B3. Maintain a working knowledge of state and federal radiation protection regulations, including Wisconsin Stats. 254.31 - .45, Wisconsin Administrative Code Chapter HFS 157 and Title 10 and 49 of the Code of Federal Regulations.

B4. Be familiar with standards of the Conference of Radiation Control Program Directors (CRCPD) and the National Council on Radiation Protection and Measurements (NCRP).

15% C. Response to radioactive material incidents.

C1. Respond to incidents involving radioactive materials at licensed facilities or other locations, in cooperation with other section staff.

C2. Perform environmental monitoring, radiation and contamination surveys, personnel interviews and record reviews, as necessary, to characterize materials and determine the most appropriate response to the incident.

C3. Determine the root cause of incidents involving licensed materials and recommend appropriate corrective actions.

C4. Participate in documenting incident response activities, root cause analysis and regulatory response to specific radioactive material incidents.

C5. With other section staff, oversee the cleanup of transportation or fixed site accidents involving radioactive materials under state regulatory authority.

C6. Participate in nuclear power plant radiological emergency preparedness drills, exercises and real events.

5% D. Special projects and studies.

D1. Participate in complex studies of the impact of specific radioactive material regulations on the health and safety of the public and the operations of material users.

D2. Participate in complex field surveys and investigations involving radiation and radioactive materials when a threat to public health exists, as directed by supervisor and in cooperation with other Section staff.

As defined by the Americans with Disabilities Act, any employee, or applicant for employment, must be able to perform the essential job functions as outlined in the position description, with or without a reasonable accomodation.

KR1 KR2 **KNOWLEDGE AND SKILLS**

1. Knowledge of the health physics aspects of radiation, its use, control, hazards and measurement.
2. Strong knowledge of the requirements for an agreement state with the Nuclear Regulatory Commission.
3. Knowledge of radiation health effects, risk analysis, environmental and biological pathways and dose calculations.
4. Good knowledge of physical sciences, including mathematics (algebra, geometry, calculus, statistics), physics, chemistry and data analysis.
5. Practical and theoretical knowledge of radiation detectors and measurement instrumentation, including intrinsic germanium, NaI, pressurized ion chamber, geiger, SRD and TLD.
6. Knowledge of radiation safety procedures and practices and their application to radiation emergencies, radioactive material contamination incidents and radioactive waste disposal.
7. Knowledge of state and federal regulations, procedures and practices relating to radiation protection, regulation of radioactive materials and enforcement.
8. Familiarity with the Wisconsin Radiological Incident Response Plan.
9. Working knowledge of environmental sampling techniques and the section's environmental monitoring program.
10. Engineering knowledge of nuclear reactor design, key reactor systems, the impact of damage and ultimate ability of engineering barriers to contain hazards.
11. Familiarity with Federal Emergency Management Agency radiological response requirements.
12. Working knowledge of personal computer systems used by state personnel for routine and emergency operations.

POSITION DESCRIPTION
DER-PERS-10 (Rev. 07/97)
State of Wisconsin
Department of Employment Relations

1. Position No.	2. Cert/Reclass Request No.	3. Agency No.
330834	1002032	435

4. NAME OF EMPLOYEE

Michael Welling

5. DEPARTMENT, UNIT, WORK ADDRESS
Department of Health and Family Services
Division of Public Health
Bureau of Environmental Health

6. CLASSIFICATION TITLE OF POSITION
Nuclear Engineer

Radiation Protection Section
1 W. Wilson St., Rm 150
Madison, WI 53702

7. CLASS TITLE OPTION *(to be filled out by Personnel Office)*

8. NAME AND CLASS OF FORMER INCUMBENT
N/A

9. AGENCY WORKING TITLE OF POSITION
Agreement State Materials Inspector

10. NAME AND CLASS OF EMPLOYEES PERFORMING SIMILAR DUTIES

11. NAME AND CLASS OF FIRST-LINE SUPERVISOR
Cheryl Rogers, Nuclear Engineer
Specialist Sup

12. FROM APPROXIMATELY WHAT DATE HAS THE EMPLOYEE PERFORMED THE WORK DESCRIBED BELOW?

13. DOES THE POSITION SUPERVISE SUBORDINATE EMPLOYEES IN PERMANENT POSITIONS? ☐ Yes ☒ No
IF YES, COMPLETE AND ATTACH A SUPERVISORY POSITION ANALYSIS FORM (DER-PERS-84).

14. POSITION SUMMARY- PLEASE DESCRIBE BELOW THE MAJOR GOALS OF THIS POSITION:

(See Attached)

15. DESCRIBE THE GOALS AND WORKER ACTIVITIES OF THIS POSITION *(Please see sample format and instructions)*

GOALS: Describe the major achievements, outputs, or results. List them in descending order of importance.
WORKER ACTIVITIES: Under each goal, list the work activities performed to meet that goal.
TIME %: Include for goals and major work activities.

TIME %	GOALS AND WORKER ACTIVITIES
	(See Attached)

16. SUPERVISORY SECTION - TO BE COMPLETED BY THE FIRST LINE SUPERVISOR OF THIS POSITION. *(See Instructions)*

a. The supervision, direction and review given to the work of this position is ☐ close ☒ limited ☐ general.
b. The statements and time estimates above and on attachments accurately describe the work assigned to the position. *(Please initial and data attachments.)*

Signature of first-line supervisor Date

17. EMPLOYEE SECTION - TO BE COMPLETED BY THE INCUMBENT OF THIS POSITION.

I have read and understand that the statements and time estimates above and on attachments are a description of the functions assigned my position. *(Please initial and date attachments.)*

Signature of employee Date

18. Signature of Personnel Manager Date

P-File | Department of Employment Relations | Employee | Department File | Cert Request Copy

pd_only (6/98)

CLASSIFICATION TITLE- SUB-TITLE
Nuclear Engineer

POSITION SUMMARY
Under limited supervision of the Agreement State Program Supervisor, assists more experienced staff in performing license review and inspections of the production, use, storage, processing, release and disposal of radioactive materials. Examines devices, equipment, facilities, records and reports; conducts personnel interviews; performs precise and accurate measurements of radiation levels and concentrations of radioactive material; and collects samples for radiological analysis as part of an evaluation/inspection. Develops or assists with developing reports of evaluations performed at licensed facilities. Communicates with or interviews staff at licensed facilities or residential occupants where radiological survey work is being performed. With other staff, responds to statewide incidents involving radioactive materials. Reports to Nuclear Engineering Specialist Supervisor within the Radiation Protection Section.

(Rated PD Only)

TR1	TR2	TIME %	GOALS AND WORKER ACTIVITIES
		50%	A. License review, site inspection and materials investigation.
			A1. Review all categories of material license applications, amendments, renewals, terminations and application for reciprocal recognition, in consultation with senior staff. Provide evaluation of license application to supervisor or designated senior staff to determine licensing action.
			A2. Participate in license related evaluations of sites where radioactive materials are produced, used, released, stored, disposed or processed.
			A3. Perform environmental monitoring, radiation and contamination surveys, personnel interviews and record reviews, as necessary, to determine compliance with license conditions, registration requirements and radiation protection regulations. Submit work to designated senior staff to review for accuracy and completeness.
			A4. Participate in complex investigations of licensee non-conformance to radiation protection regulations or license conditions.
			A5. Participate in overseeing the clean up of contaminated facilities or grounds required for license termination.
			A6. Develop and recommend methods of improving licensee conformance with radiation protection regulations, license conditions or registration requirements. Communicate recommendations directly to licensees or registrants.
			A7. Communicate with and interview medical, industrial or residential occupants where radiological survey work is being performed.
			A8. Conduct licensing and inspection work in close association with assigned Section mentor.
		30%	B. Documentation of license application reviews, amendments, reciprocal recognition reviews, facility inspections and investigations.
			B1. In cooperation with senior staff, develop reports of license application, and amendment reviews, and compliance of facilities evaluated/inspected based on applicable sections of the Wisconsin Administrative Code and license conditions. Provide reports to supervisor or designated senior staff for review and concurrence prior to dissemination.
			B2. As directed by supervisor or senior staff, review reports or documents written by others for accuracy, completeness and applicability to radiation protection.
			B3. Maintain a working knowledge of state and federal radiation protection regulations, including Wisconsin Stats. 254.31 - .45, Wisconsin Administrative Code Chapter HFS 157 and Title 10 and 49 of the Code of Federal Regulations.

B4. Be familiar with standards of the Conference of Radiation Control Program Directors (CRCPD) and the National Council on Radiation Protection and Measurements (NCRP).

15% C. Response to radioactive material incidents.

C1. Respond to incidents involving radioactive materials at licensed facilities or other locations, in cooperation with other section staff.

C2. Perform environmental monitoring, radiation and contamination surveys, personnel interviews and record reviews, as necessary, to characterize materials and determine the most appropriate response to the incident.

C3. Determine the root cause of incidents involving licensed materials and recommend appropriate corrective actions.

C4. Participate in documenting incident response activities, root cause analysis and regulatory response to specific radioactive material incidents.

C5. With other section staff, oversee the cleanup of transportation or fixed site accidents involving radioactive materials under state regulatory authority.

C6. Participate in nuclear power plant radiological emergency preparedness drills, exercises and real events.

5% D. Special projects and studies.

D1. Participate in complex studies of the impact of specific radioactive material regulations on the health and safety of the public and the operations of material users.

D2. Participate in complex field surveys and investigations involving radiation and radioactive materials when a threat to public health exists, as directed by supervisor and in cooperation with other Section staff.

As defined by the Americans with Disabilities Act, any employee, or applicant for employment, must be able to perform the essential job functions as outlined in the position description, with or without a reasonable accomodation.

KR1 KR2 **KNOWLEDGE AND SKILLS**

1. Knowledge of the health physics aspects of radiation, its use, control, hazards and measurement.
2. Strong knowledge of the requirements for an agreement state with the Nuclear Regulatory Commission.
3. Knowledge of radiation health effects, risk analysis, environmental and biological pathways and dose calculations.
4. Good knowledge of physical sciences, including mathematics (algebra, geometry, calculus, statistics), physics, chemistry and data analysis.
5. Practical and theoretical knowledge of radiation detectors and measurement instrumentation, including intrinsic germanium, NaI, pressurized ion chamber, geiger, SRD and TLD.
6. Knowledge of radiation safety procedures and practices and their application to radiation emergencies, radioactive material contamination incidents and radioactive waste disposal.
7. Knowledge of state and federal regulations, procedures and practices relating to radiation protection, regulation of radioactive materials and enforcement.
8. Familiarity with the Wisconsin Radiological Incident Response Plan.
9. Working knowledge of environmental sampling techniques and the section's environmental monitoring program.
10. Engineering knowledge of nuclear reactor design, key reactor systems, the impact of damage and ultimate ability of engineering barriers to contain hazards.
11. Familiarity with Federal Emergency Management Agency radiological response requirements.
12. Working knowledge of personal computer systems used by state personnel for routine and emergency operations.

POSITION DESCRIPTION
DER-PERS-10 (Rev. 07/97)
State of Wisconsin
Department of Employment Relations

1. Position No.	2. Cert/Reclass Request No.	3. Agency No.
318546	Updated	435

4. NAME OF EMPLOYEE
Daniel G. Stefenel

5. DEPARTMENT, UNIT, WORK ADDRESS
Department of Health and Family Services
Division of Public Health
Bureau of Environmental Health
Radiation Protection Section
1 West Wilson Street, Room 150
Madison, WI 53701-2659

6. CLASSIFICATION TITLE OF POSITION
Nuclear Engineer - Senior

7. CLASS TITLE OPTION *(to be filled out by Personnel Office)*

8. NAME AND CLASS OF FORMER INCUMBENT

9. AGENCY WORKING TITLE OF POSITION
Training Coordinator

10. NAME AND CLASS OF EMPLOYEES PERFORMING SIMILAR DUTIES

11. NAME AND CLASS OF FIRST-LINE SUPERVISOR
Paul S. Schmidt
Nuclear Engineer Manager

12. FROM APPROXIMATELY WHAT DATE HAS THE EMPLOYEE PERFORMED THE WORK DESCRIBED BELOW?

13. DOES THE POSITION SUPERVISE SUBORDINATE EMPLOYEES IN PERMANENT POSITIONS? ☐ Yes ☒ No
IF YES, COMPLETE AND ATTACH A SUPERVISORY POSITION ANALYSIS FORM (DER-PERS-84).

14. POSITION SUMMARY- PLEASE DESCRIBE BELOW THE MAJOR GOALS OF THIS POSITION:

(See Attached)

15. DESCRIBE THE GOALS AND WORKER ACTIVITIES OF THIS POSITION *(Please see sample format and instructions)*

GOALS: Describe the major achievements, outputs, or results. List them in descending order of importance.
WORKER ACTIVITIES: Under each goal, list the work activities performed to meet that goal.
TIME %: Include for goals and major work activities.

TIME %	GOALS AND WORKER ACTIVITIES
	(See Attached)

16. SUPERVISORY SECTION - TO BE COMPLETED BY THE FIRST LINE SUPERVISOR OF THIS POSITION. *(See Instructions)*

a. The supervision, direction and review given to the work of this position is ☐ close ☐ limited ☒ general.
b. The statements and time estimates above and on attachments accurately describe the work assigned to the position. *(Please initial and data attachments.)*

Signature of first-line supervisor — Date

17. EMPLOYEE SECTION - TO BE COMPLETED BY THE INCUMBENT OF THIS POSITION.
I have read and understand that the statements and time estimates above and on attachments are a description of the functions assigned my position. *(Please initial and date attachments.)*

Signature of employee — Date

18. Signature of Personnel Manager — Date

P-File | Department of Employment Relations | Employee | Department File | Cert Request Copy

10/10/01

pd_only (6/98)

CLASSIFICATION TITLE- SUB-TITLE
Nuclear Engineer - Senior - 318546

POSITION SUMMARY
Function as Section training coordinator with primary oversight responsibility for the development of Section training programs and materials, and for the conduct of training sessions for state and local personnel involved in responding to radiological incidents. Coordinates and consults with Wisconsin Emergency Management, nuclear utility emergency planning staff, hospitals and ambulance services, fire department and hazmat response agencies, Section supervisors and county emergency management directors to develop necessary training courses. As directed by supervisor, develops and reviews procedures and other documents for the radioactive materials program and other Section programs. Develops and presents other training programs, as directed by supervisor. Provides technical consultation to state and local personnel involved in implementation of the state radiological incident response plan. Reviews federal guidance documents in the area of radiological emergency response, and other radiological issues, to maintain current technical knowledge and to ensure Section procedures are in compliance with federal guidance. Assists in the implementation of the state's radiological response plan by developing technical portion of exercise scenarios, functioning as the primary contact with designated county emergency management and utility REP staff, and by participating in nuclear plant emergency response drills, exercises and real events. With other section staff, responds to statewide non-nuclear power plant incidents involving radioactive materials. Reports to Nuclear Engineer Manager within the Section of Radiation Protection.

(Rated PD Only) TR1	TR2	TIME %	GOALS AND WORKER ACTIVITIES

A. As Section training coordinator, assume primary oversight responsibility for coordinating, developing and conducting training sessions for state and local radiological emergency responders, local government staff, utility personnel and other interested parties.

A1. Develop task lists and performance objectives for each of the various areas of radiological response under the cognizance of the Section. Based upon the task lists/performance objectives, develop training programs and other materials, including lesson plans, and conduct training sessions for state and local personnel involved in responding to radiological incidents. Training covers radiation detection and measurement, radiation health effects and standards, instrumentation, protective actions to minimize radiation exposure, control of radioactive contamination, decontamination procedures, reception center setup and operation, ambulance, hospital and fire department procedures, state field team operation and procedures, and ingestion sampling team operation and procedures.

A2. Coordinate and consult with Wisconsin Emergency Management REP planning staff, nuclear utility emergency planners, hospitals and ambulance services, and county emergency management directors in the development and presentation of training courses.

A3. With other Section staff, consult with hospital and ambulance service staff in radiological emergency response planning and coordination with government agencies.

A4. Develop, maintain and update a schedule of training courses instructed by the Section, including those done in cooperation with Wisconsin Emergency Management.

A5. Develop and maintain an organized record keeping system for Section sponsored training, including attendance records, to ensure that the Section complies with regulatory requirements for annual REP training.

A6. Make recommendations to supervisor regarding new or additional equipment or materials to improve Section training capabilities.

A7. As directed by supervisor, develop and present other technical or program-related training programs or presentations to interested groups, such as hazmat/emergency response groups, local government agencies, radioactive material users and state agency personnel. Develop and conduct workshops on instructional skills and methods, in conjunction with other agencies or groups.

A8. As directed by supervisor, represent the Section of Radiation Protection on committees or groups dealing with training or related issues.

A9. Provide recommendations to other Section staff to improve training development and instructional skills.

A10. Evaluate radiological training provided by vendors and provide written analysis and recommendations to the appropriate agencies.

A11. Using various presentation software, develop overhead transparencies, slides and computer graphics to support Section training programs and presentations.

B. Provide technical consultation and expertise in the implementation of the state's radiological incident response plan, and during response to other radiation incidents.

B1. Review and evaluate federal guidance in the area of nuclear power plant emergency response, and make recommendations to supervisor regarding changes to Section training programs and procedures to ensure compliance with federal guidance.

B2. During an exercise or real event, as appropriate, serve as an exercise controller, a radiological technical advisor in the Joint Public Information center (JPIC) or the radiological health team leader in the reception center associated with the affected nuclear power plant.

B3. Coordinate with Wisconsin Emergency Management and utility staff in the development of exercise objectives and associated extent-of-play agreements for nuclear power plant exercise scenarios, and develop the technical portion of scenarios to ensure adequate exercising of the state radiological incident response plan.

B4. Conduct pre-exercise briefings, covering logistics, extent-of-play and state-utility interaction, for exercise personnel from other state agencies, FEMA, county government and utilities.

B5. In cooperation with other staff, develop annual contracts, program budgets and quarterly activity reports for the REP program.

B6. As directed by supervisor, and in accordance with experience and training, serve as backup for all other Section responsibilities in emergency response preparation and implementation, such as mobile laboratory support, field radiation monitoring and personnel monitoring.

B7. As directed by supervisor, and in cooperation with ofther section staff, conduct other field surveys and investigations involving radiation and radioactive materials when a threat to public health exists.

C. Participate in development of a radioactive materials licensing, inspection investigation and enforcement program.

C1. With other Section staff, develop and review procedures, regulatory guides, reports, forms and other documents needed for the radioactive materials program.

C2. In cooperation with materials program supervisor, develop and maintain an emergency response training program for materials licensing and inspection staff.

As defined by the Americans with Disabilities act, Employee must be able to perform the essential job functions as outlined in the position description, with or without a reasonable accommodation.

KR1 KR2 KNOWLEDGE AND SKILLS

1. Strong knowledge of radiation, radiation measurement and instrumentation.
2. Strong knowledge of instructional techniques and principles.
3. Engineering knowledge of nuclear reactor design, key reactor systems, the impact of damage and ultimate ability of engineering barriers to contain hazards.
4. Strong knowledge of radiation health effects, risk analysis, and environmental and biological exposure pathways.
5. Good knowledge of physical sciences, including mathematics (algebra, geometry, calculus, statistics), physics and chemistry.
6. Practical and theoretical knowledge of radiation detectors and measurement instrumentation, including intrinsic germanium, NaI, pressurized ion chamber, geiger, TLD and electrometer.
7. Familiarity with FEMA radiological response requirements as stated in NUREG 0654/FEMA REP-1.
8. Familiarity with the State of Wisconsin Radiological Emergency Response Plan.
9. Familiarity with federal radiological emergency response guidance documents and memoranda, promulgated by agencies such as FEMA and EPA, including GM IN-1, GM MS-1, and FEMA REP-13.
10. Understanding of radioactive materials ingestion pathways. Familiarity with reactor core isotopic inventory.
11. Working knowledge of environmental sampling techniques and the Section's environmental monitoring program.
12. Working knowledge of personal computer systems used by state emergency response personnel.

10 CFR/HFS 157 COMPARISON

CONTENTS

10 CFR	HFS 157	TITLE	COMMENTS
10 CFR 19			
19.1	.01	Authority and purpose	
19.2	.02	Applicability	
19.3	.03	Definitions	All definitions in s. HFS 157.03
19.4	Deleted	~~Interpretations~~	
19.5	Deleted	~~Communications~~	
19.8	Deleted	~~Information collection~~	
19.11	.88 (1)	Posting of notices to workers	
19.12	.88 (2)	Instructions to workers	
19.13	.88 (3)	Notifications and reports to individuals	
19.14	.06 (2) .89 (1) .89 (2)	Inspections Access by department inspectors Presence of representatives of licensee or registrant during inspection	
19.15	.89 (3)	Consultation with workers during inspection	
19.16	.89 (4) .89 (5)	Request by workers for an inspection Inspection warranted	
19.17	.89 (6)	Inspections not warranted	
19.18	Deleted	~~Sequestration of witnesses and exclusion of counsel in interviews conducted under subpoena~~	
19.20	.89 (4)(b)	Request by workers for an inspection	
19.30	.90 - .91	Enforcement	Additional enforcement authority provided in s. 254.37 (2) – (4), Stats.
19.31	.04 (1)	Exemptions from the regulatory requirements (1) General	
19.32	Deleted	~~Discrimination prohibited~~	Executive Order 63 and other state laws and DHFS policy prohibit sexual and other discrimination to customers.
19.40	Deleted	~~Criminal penalties~~	
10 CFR 20			
20.1001	.01	Authority and purpose	
20.1002	.02	Applicability	
20.1003	.03	Definitions	All definitions in s. HFS 157.03
20.1004	.06 (4)	Units of exposure and dose	

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10 CFR	HFS 157	TITLE	COMMENTS
20.1005	.06 (5)	Units of activity	
20.1006	Deleted	~~Interpretations~~	
20.1007	Deleted	~~Communications~~	
20.1008	.20	Implementation	
20.1009	Deleted	~~Information collection~~	
20.1101	.21	Radiation protection programs	
20.1201	.22 (1)	Occupational dose limits for adults	
20.1202	.22 (2)	Compliance with requirements for summation of external and internal doses	
20.1203	.22 (3)	Determination of external doses from airborne radioactive material	
20.1204	.22 (4)	Determination of internal exposure	
20.1205	Deleted	~~Reserved~~	
20.1206	.22 (6)	Planned special exposures	
20.1207	.22 (7)	Occupational dose limit for a minor	
20.1208	.22 (8)	Dose to an embryo or fetus	
20.1301	.23 (1)	Dose limits for individual members of the public	
20.1302	.23 (2)	Compliance with dose limits for individual members of the public	
20.1401	.33 (1)	Radiological criteria for license termination (1) General	
20.1402	.33 (2)	Radiological criteria for unrestricted use	
20.1403	Deleted	~~Criteria for license termination under restricted conditions~~	Deleted due to potential state liability with terminating a license under restricted use conditions.
20.1404	.33 (3)	Alternate criteria for license termination	
20.1405	.33 (4)	Public notification and public participation	
20.1406	.13 (2) (b)	General requirements for the issuance of specific licenses	s. HFS 157.13 (2) (b) will allow the department to address the contamination and waste minimization criteria of 10 CFR 20.1406 during the license application and review process.
20.1501	.25 (1)	General requirements	
20.1502	.25 (2)	Conditions requiring individual monitoring of external and internal occupational dose	
20.1601	.26 (1)	Control of access to high radiation areas	
20.1602	.26 (2)	Control of access to very high radiation areas	

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10 CFR	HFS 157	TITLE	COMMENTS
20.1701	.27 (1)	Use of process or other engineering controls	
20.1702	.27 (2)	Use of other controls	
20.1703	.27 (3)	Use of individual respiratory protection equipment	
20.1704	.13 (9)	Issuance of specific licenses	s. HFS 157.13 (9) will allow the department to impose further restrictions on the use of respiratory equipment that meet the requirements of 10 CFR 20.1704.
20.1705	.27 (4)	Application for use of higher assigned protection factors	
20.1801	.28 (1)(a)	Security and control of licensed or registered radioactive materials	
20.1802	.28 (1)(b)	Security and control of licensed or registered radioactive materials	
20.1901	.29 (1)	Caution signs	
20.1902	.29 (2)	Posting requirements	s. HFS 157.29 (2)(c) provides for posting of very high radiation areas with a sign stating "EXTREME DANGER, VERY HIGH RADIATION AREA" or "GRAVE DANGER, VERY HIGH RADIATION AREA". Extreme and grave are considered equivalent terms.
20.1903	.29 (3)	Exceptions to posting requirements	
20.1904	.29 (4)	Labeling containers and radiation machines	
20.1905	.29 (5)	Exemptions to labeling requirements	
20.1906	.29 (6)	Procedures for receiving and opening packages	
20.2001	.30 (1)	Waste management (1) General requirements	
20.2002	.30 (2)	Method for obtaining approval of proposed disposal procedures	
20.2003	.30 (3)	Disposal by release into sanitary sewerage	
20.2004	.30 (4)	Treatment or disposal by incineration	
20.2005	.30 (5)	Disposal of specific wastes	
20.2006	.30 (6)	Transfer for disposal and manifests	
20.2007	.30 (7)	Compliance with environmental and health protection regulations	
20.2101	.31 (1)	Records (1) General provisions	HFS 157.31 (1) requires use of SI units, or SI and standard units, in records required by Subchapter III.
20.2102	.31 (2)	Records of radiation protection programs	

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10 CFR	HFS 157	TITLE	COMMENTS
20.2103	.31 (3)	Records of surveys	
20.2104	.22 (5) .31 (5)	Determination of prior occupational dose Records of prior occupational dose	
20.2105	.31 (6)	Records of planned special exposures	
20.2106	.31 (7)	Records of individual monitoring results	
20.2107	.31 (8)	Records of dose received by individual members of the public	
20.2108	.31 (9)	Records of waste disposal	
20.2109	Deleted	~~Reserved~~	
20.2110	.32 (11)	Forms of records	
20.2201	.32 (1)	Reports of stolen, lost or missing licensed or registered sources of radiation	
20.2202	.32 (2)	Notification of radiation incidents	
20.2203	.32 (3)	Reports of exposures, radiation levels and concentrations of radioactive material exceeding the limits	
20.2204	.32 (4)	Reports of planned special exposures	
20.2205	.32 (6)	Notifications and reports to individuals	
20.2206	.32 (5)	Reports of individual monitoring	
20.2301	.04 (1)	Exemptions from the regulatory requirements (1) General	
20.2302	.13 (9)(b)	Issuance of specific licenses	
20.2401	.90 - .91	Enforcement	Additional enforcement authority provided in s. 254.37 (2) – (4), Stats.
20.2402	Deleted	~~Criminal penalties~~	
Appendices			
Appendix A	Appendix D	Protection factors for respirators	
Appendix B	Appendix E	Annual limits on intake (ALI) and derived air concentrations (DAC) of radionuclides for occupational exposure; effluent concentrations; concentrations for release to sanitary sewerage	
Appendix C	Appendix F	Quantities of licensed or registered material requiring labeling	
Appendix D	Deleted	~~United States Nuclear Regulatory Commission Regional Offices~~	

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10 CFR	HFS 157	TITLE	COMMENTS
Appendix E – F	Deleted	~~Reserved~~	
Appendix G	Appendix G	Requirements for transfer of low-level radioactive waste for disposal at land disposal facilities and manifests	
10 CFR 30			
30.1	.01 .02	Authority and purpose Applicability	
30.2	Deleted	~~Resolution of conflict~~	
30.3	Deleted	~~Activities requiring license~~	Primary statement on activities requiring a license provided in s. 254.365 (1), Stats.
30.4	.03	Definitions	All definitions in s. HFS 157.03
30.5	Deleted	~~Interpretations~~	
30.6	Deleted	~~Communications~~	
30.7	.89 (4) (b)	Request by workers for an inspection	Statement prohibiting worker discrimination
30.8	Deleted	~~Information collection requirements; OMB approval~~	
30.9	Deleted	~~Completeness and accuracy of information~~	
30.10	.03; .05 (2)	Deliberate misconduct	s. HFS 157.03 contains the definition of deliberate misconduct
30.11	.04 (1)	Exemptions from the regulatory requirements (1) General	
30.12	.04 (2)	Exemptions from the regulatory requirements (2) U.S. DOE and NRC contractors	
30.13	.92 (2)	Exemptions	
30.14	.09 (2) (a)	*Exempt concentrations*	
30.15	.09 (2) (c)	*Exempt items*	
30.16	.09 (2) (c)	*Exempt items*	
30.18	.09 (2) (b)	*Exempt quantities*	
30.19	.09 (2) (c)	*Exempt items*	
30.20	.09 (2) (c)	*Exempt items*	
30.21	.09 (2) (c) 15.	*Exempt items* (Radioactive drug capsules containing carbon-14 urea for "in vivo" diagnostic use for humans)	
30.31	.10 (1)	Types of licenses	
30.32	.13 (1) Appendix P	Filing application for specific licenses	

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10 CFR	HFS 157	TITLE	COMMENTS
	Appendix Q		
30.33	.13 (2)	General requirements for the issuance of specific licenses	
30.34	.13 (9)(b) and (10)	Specific terms and conditions of licenses	
30.35	.15	Financial assurance and records for decommissioning	
30.36	.13 (11)	Expiration and termination of licenses and decommissioning of sites and separate buildings or outdoor areas	
30.37	.13 (12)	Renewal of licenses	
30.38	.13 (13)	Amendment of licenses at request of licensee	
30.39	.13 (14)	Department action on applications to renew or amend	
30.41	.13 (15)	Transfer of material	
30.50	.13 (17)	Event reporting	
30.51	.06 (1); .13 (18)	Records	
30.52	.06 (2); .89 (1)	Inspections; Access by department	
30.53	.06 (3)	Tests	
30.55	Deleted	~~Tritium reports~~	
30.61	.13 (16)	Modification, suspension and revocation of licenses	
30.62	Deleted	~~Right to cause the withholding or recall of byproduct material~~	s. 254.38, Stats. authorizes the department to impound or order the sequestration of radioactive materials and issue emergency orders.
30.63	.90 - .91	Enforcement	Additional enforcement authority provided in s. 254.37 (2) – (4), Stats.
30.64	Deleted	~~Criminal penalties~~	
30.70	Appendix A	Exempt concentrations	
30.71	Appendix B	Exempt quantities	
30.72	Appendix P	Quantities of radioactive materials requiring consideration of the need for an emergency plan for responding to a release	No Wisconsin byproduct, source or snm material licenses currently require an emergency plan.
Appendix A	Deleted	~~Criteria relating to use of financial tests and parent company guarantees for providing reasonable assurance of funds for decommissioning~~	

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10 CFR	HFS 157	TITLE	COMMENTS
Appendix B	Appendix F	Quantities of licensed or registered material requiring labeling	
Appendix C	Deleted	~~Criteria relating to use of financial tests and self guarantees for providing reasonable assurance of funds for decommissioning~~	
Appendix D	Deleted	~~Criteria relating to use of financial tests and self guarantee for providing reasonable assurance of funds for decommissioning by commercial companies that have no outstanding rated bonds~~	
Appendix E	Deleted	~~Criteria relating to use of financial tests and self guarantee for providing reasonable assurance of funds for decommissioning by non-profit colleges, universities and hospitals~~	
10 CFR 31			
31.1	Deleted	~~Purpose and scope~~	
31.2	.02	Applicability	
31.3	.11 (2) (a)	*General license relating to certain devices and equipment*	
31.4	Deleted	~~Information collection requirements; OMB approval~~	
31.5	.11 (2) (b)	General license relating to certain measuring, gauging or controlling devices	
31.6	.14 (2)	Licenses of byproduct, source and special nuclear material in quantities not sufficient to form a critical mass	
31.7	.11 (2) (c)	*General license relating to luminous safety devices for aircraft*	
31.8	.11 (2) (e)	*General license relating to calibration and reference sources*	
31.9	.11 (2) (d)	*General license relating to ownership of radioactive material*	
31.10	.11 (2) (g)	*General license relating to ice detection devices*	
31.11	.11 (2) (f)	*General license for use of radioactive material for certain in vitro clinical or laboratory testing*	
31.12	.31 (11)	Form of records	

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10 CFR	HFS 157	TITLE	COMMENTS
31.13	.90 - .91	Enforcement	Additional enforcement authority in s. 254.37 (2) – (4), Stats.
31.14	Deleted	~~Criminal penalties~~	
10 CFR 32			
32.1	Deleted	~~Purpose and scope~~	
32.2	.03	Definitions	All definitions in s. HFS 157.03
32.3	.31 (11)	Form of records	
32.8	Deleted	~~Information collection requirements; OMB approval~~	
32.11	.13 (4) (a)	*Licensing the introduction of radioactive material into products in exempt concentrations*	
32.12	.13 (4) (a) 2.	*Licensing the introduction of radioactive material into products in exempt concentrations*	
32.13	.09 (2) (a)	*Exempt concentrations*	
32.14	Deleted	~~Certain items containing byproduct material; requirements for license to apply or initially transfer~~	Note under HFS 157.13 (4) (a) 2. specifies that authority to transfer possession or control of any item containing byproduct material to any person exempt from regulatory requirements may only be obtained from NRC.
32.15	Deleted	~~Certain items containing byproduct material; Quality assurance, prohibition of transfer, and labeling~~	
32.16	Deleted	~~Certain items containing byproduct material; Records and reports of transfer~~	
32.17	.09 (2) (c) 14 .13 (1) - (2)	*Exempt items* * Specific licenses * Addresses "Resins containing scandium-46 and designed for sand-consolidation in oil wells: requirements for license to manufacture, or initially transfer for sale or distribution " in 10 CFR 32.17	s. HFS 157.13 (2) provides the general requirements for issuance of a specific license. s. HFS 157.13 (1) authorizes the department to request information, consistent with the requirements of 10 CFR 32.17, to issue a license for manufacture, or initial transfer for sale or distribution of, resins containing scandium 46 and designed for sand consolidation in oil wells.
32.18	Deleted	~~Manufacture, distribution and transfer of exempt quantities of byproduct material: Requirements for license~~	
32.19	Deleted	~~Same: Conditions of licenses~~	
32.20	Deleted	~~Same: Records and material transfer reports~~	

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10 CFR	HFS 157	TITLE	COMMENTS
32.21	Deleted	~~Radioactive drug: Manufacture, preparation or transfer for commercial distribution of capsules containing carbon-14 urea each for "in vivo" diagnostic use for humans to persons exempt from licensing; Requirements for a license~~	
32.21a	Deleted	~~Same: Conditions of license~~	
32.22	Deleted	~~Self luminous products containing tritium, krypton-85 or promethium-147: Requirements for license to manufacture, process, produce or initially transfer~~	
32.23	Deleted	~~Same: Safety criteria~~	
32.24	.13 (4) (d)	*Licensing the manufacture and distribution of devices to persons generally licensed under s. HFS 157.11 (2) (b)*	Equivalent to requirement under 10 CFR 32.51
32.25	Deleted	~~Conditions of licenses issued under 32.22: Quality control, labeling and reports of transfer~~	
32.26	Deleted	~~Gas and aerosol detectors containing byproduct material: Requirements for license to manufacture, process, produce or initially transfer~~	
32.27	Deleted	~~Same: Safety criteria~~	
32.28	Deleted	~~Same: Table of organ doses~~	
32.29	Deleted	~~Conditions of licenses issued under 32.26: Quality control, labeling and reports of transfer~~	
32.40	Deleted	~~Schedule A Prototype tests for automobile lock illuminators~~	
32.51	.13 (4) (d)	*Licensing the manufacture and distribution of devices to persons generally licensed under s. HFS 157.11 (2) (b)*	
32.51a	.13 (4) (d)	*Licensing the manufacture and distribution of devices to persons generally licensed under s. HFS 157.11 (2) (b)*	
32.52	.13 (4) (d)	*Licensing the manufacture and distribution of devices to persons generally licensed under s. HFS 157.11 (2) (b)*	
32.53	.13 (4) (e)	*Special requirements for the manufacture, assembly or repair of luminous safety devices for use in aircraft*	
32.54	.13 (4) (e)	*Special requirements for the manufacture, assembly or repair of luminous safety devices for use in aircraft*	

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10 CFR	HFS 157	TITLE	COMMENTS
32.55	.13 (4) (e)	*Special requirements for the manufacture, assembly or repair of luminous safety device for use in aircraft*	
32.56	.13 (4) (e)	*Special requirements for the manufacture, assembly or repair of luminous safety devices for use in aircraft*	
32.57	.13 (4) (f)	*Special requirements for license to manufacture calibration or reference sources containing americium-241, plutonium or radium-226 for distribution to persons generally licensed under s. HFS 157.11 (2) (e)*	
32.58	.13 (4) (f)	*Special requirements for license to manufacture calibration or reference sources containing americium-241, plutonium or radium-226 for distribution to persons generally licensed under s. HFS 15.11 (2) (e)*	
32.59	.13 (4) (f)	*Special requirements for license to manufacture calibration or reference sources containing americium-241, plutonium or radium-226 for distribution to persons generally licensed under s. HFS 157.11 (2) (e)*	
32.60	Deleted	~~Reserved~~	
32.61	.13 (4) (h)	*Licensing the manufacture and distribution of ice detection devices*	
32.62	.13 (4) (h)	*Licensing the manufacture and distribution of ice detection devices*	
32.71	.13 (4) (g)	*Manufacture and distribution of radioactive material for certain in vitro clinical or laboratory testing under general license*	
32.72	.13 (4) (i)	*Manufacture, preparation or transfer for commercial distribution of radioactive drugs containing radioactive material for medical use under subchapter VI*	
32.74	.13 (4) (j)	*Manufacture and distribution of sources or devices containing radioactive material for medical use*	
32.101	.13 (4) (e)	*Special requirements for the manufacture, assembly or repair of luminous safety devices for use in aircraft*	
32.102	.13 (4) (f)	*Special requirements for license to manufacture*	

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10 CFR	HFS 157	TITLE	COMMENTS
		calibration sources containing americium-241, plutonium or radium-226 for distribution to persons generally licensed under s. HFS 157.11 (2) (e)	
32.103	.13 (4) (h)	*Licensing the manufacture and distribution of ice detection devices*	
32.110	.13 (4) (e) .13 (4) (h)	*Special requirements for the manufacture, assembly or repair of luminous safety devices in aircraft* *Licensing the manufacture and distribution of ice detection devices*	
32.210	Deleted	~~Registration of product information~~	WI is not requesting authority to conduct SSD reviews.
32.301	.90 - .91	Enforcement	Additional enforcement authority provided in s. 254.37 (2) - (4), Stats.
32.303	Deleted	~~Criminal penalties~~	
10 CFR 33			
33.1	.13 (3) (a)	Special requirements for specific licenses of broad scope	
33.8	Deleted	~~Information collection requirements: OMB approval~~	
33.11	.13 (3) (b)	Special requirements for specific licenses of broad scope	
33.12	.13 (1)	Filing application for specific licenses	
33.13	.13 (3) (c)	Special requirements for specific licenses of broad scope	
33.14	.13 (3) (d)	Special requirements for specific licenses of broad scope	
33.15	.13 (3) (e)	Special requirements for specific licenses of broad scope	
33.16	Deleted	~~Application for other specific licenses~~	
33.17	.13 (3) (f)	Special requirements for specific licenses of broad scope	
33.21	.90 - .91	Enforcement	Additional enforcement authority provided in s. 254.37 (2) – (4), Stats.
33.23	Deleted	~~Criminal penalties~~	
33.100	Appendix C	Limits for broad licenses	
10 CFR 34			
34.1	.01 .02	Authority and purpose Applicability	
34.3	.03	Definitions	All definitions in s. HFS 157.03

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10 CFR	HFS 157	TITLE	COMMENTS
34.5	Deleted	~~Interpretations~~	
34.8	Deleted	~~Information collection requirements: OMB approval~~	
34.11	.13 (1)	Filing application for specific licenses	
34.13	.13 (6)	Special requirements for a specific license to conduct industrial radiography operations	
34.20	.36	Performance requirements for industrial radiography equipment	
34.21	.37 (1)	Maximum exposure rate limits	
34.23	.37 (2)	Locking	
34.25	.38 .45 (3)	Radiation survey instruments Records of radiation survey instruments	
34.27	.39	Leak testing and replacement of sealed sources	
34.29	.40	Quarterly inventory	
34.31	.41	Inspection and maintenance of radiation machines, radiographic exposure devices, transport and storage containers, associated equipment, source changers and survey instruments	
34.33	.42	Permanent radiographic installations	
34.35	.43	Labeling, transportation and storage	
34.41	.44 (1)	Conducting industrial radiographic operations	
34.42	.44 (2)	Radiation safety officer	
34.43	.44 (3)	Training	
34.45	.44 (4)	Operating and emergency procedures	
34.46	.44 (5)	Supervision of radiographer's assistants	
34.47	.44 (6)	Personnel monitoring	
34.49	.44 (7)	Radiation surveys	
34.51	.44 (8)	Surveillance	
34.53	.44 (9)	Posting	
34.61	.45 (1)	Records for industrial radiography	
34.63	.45 (2)	Records of receipt and transfer of sources of radiation	
34.65	.45 (3)	Records of radiation survey instruments	
34.67	.45 (4)	Records of leak testing of sealed sources and devices containing DU	

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10 CFR	HFS 157	TITLE	COMMENTS
34.69	.45 (5)	Records of quarterly inventory	
34.71	.45 (6)	Utilization logs	
34.73	.45 (7)	Records of inspection and maintenance of radiation machines, radiographic exposure devices, transport and storage containers, associated equipment, source changers and survey instruments	
34.75	.45 (8)	Records of alarm system and entrance control checks at permanent radiographic installations	
34.79	.45 (9)	Records of training and certification	
34.81	.45 (10)	Copies of operating and emergency procedures	
34.83	.45 (11)	Records of personnel monitoring	
34.85	.45 (12)	Records of radiation surveys	
34.87	.45 (13)	Form of records	
34.89	.45 (14)	Location of documents and records	
34.101	.46	Notifications	
34.111	.04 (1)	Exemptions from the regulatory requirements (1) General	
34.121	.90 - .91	Enforcement	Additional enforcement authority provided in s. 254.37 (2) – (4), Stats.
34.123	Deleted	~~Criminal penalties~~	
Appendix A	.47 (2)	Reciprocity (2) Certification	
10 CFR 35 (new)			
35.1	.01 .02	Authority and purpose Applicability	
35.2	.03	Definitions	All definitions in s. HFS 157.03
35.5	.59 (1)	Maintenance of records	
35.6	.59 (2)	Provisions for research involving human subjects	
35.7	.59 (2) (c)	Provisions for research involving human subjects	Contains requirements equivalent to 10 CFR 35.7 noting need for compliance with FDA, other federal and state requirements
35.8	Deleted	~~Information collection requirements: OMB approval~~	
35.10	.59 (3)	Implementation	
35.11	Deleted	License required	Primary statement on activities requiring a license provided in

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10 CFR	HFS 157	TITLE	COMMENTS
			s. 254.365 (1), Stats.
35.12	.13 (1) .13 (5)(a) .13 (12) .13 (13)	Filing application for specific licenses *License application* Renewal of licenses Amendment of license at request of licensee	
35.13	.13 (5)(b)	*License amendment*	
35.14	.13 (5)(c)	*Notifications*	
35.15	.13 (5)(d)	*Exemptions for Type A broad scope licensees*	
35.18	.13 (5)(a)	*License application*	
35.19	.04 (1)	Exemptions from the regulatory requirements (1) General	
35.24	.61 (1)	Authority and responsibilities for the radiation protection program	
35.26	.61 (2)	Radiation protection program changes	
35.27	.61 (3)	Supervision	
35.40	.61 (4)	Written directives	
35.41	.61 (5)	Procedures for administrations requiring a written directive	
35.49	.61 (6)	Suppliers for sealed sources or devices for medical use	
35.50	.61 (7)	Training for radiation safety officer	
35.51	.61 (8)	Training for an authorized medical physicist	
35.55	.61 (9)	Training for an authorized nuclear pharmacist	
35.57	.61 (10)	Training for experienced radiation safety officer, teletherapy or medical physicist, authorized user and nuclear pharmacist	
35.59	.61 (11)	Recentness of training	
35.60	.62 (1)	Possession, use and calibration of instruments to measure the activity of unsealed radioactive materials	The requirements of HFS 157.62 (1) apply to alpha, beta and photon emitting radionuclides.
35.61	.62 (2)	Calibration of survey instruments	
35.63	.62 (3)	Determination of dosages of unsealed radioactive material for medical use	
35.65	.62 (4)	Authorization for calibration and reference sources	
35.67	.62 (5)	Requirements for possession of sealed sources and brachytherapy sources	

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10 CFR	HFS 157	TITLE	COMMENTS
35.69	.62 (6)	Labeling of vials and syringes	
35.70	.62 (7)	Surveys for ambient radiation exposure rate	
35.75	.62 (8)	Release of individuals containing radioactive drugs or implants containing radioactive material	
35.80	.62 (9)	Provision of mobile medical service	
35.92	.62 (10)	Decay-in-storage	
35.100	.63 (1)	Use of unsealed radioactive material for uptake, dilution and excretion studies for which a written directive is not required	
35.190	.63 (4)	Training for uptake, dilution and excretion studies	
35.200	.63 (2)	Use of unsealed radioactive material for imaging and localization studies for which a written directive is not required	
35.204	.63 (3)	Permissible molybdenum-99 concentration	
35.290	.63 (5)	Training for imaging and localization studies	
35.300	.64 (1)	Use of unsealed radioactive material for which a written directive is required	
35.310	.64 (2)	Safety instruction	
35.315	.64 (3)	Safety precautions	
35.390	.64 (4)	Training for use of unsealed radioactive material for which a written directive is required	
35.392	.64 (5)	Training for the oral administration of sodium iodide I-131 requiring a written directive in quantities less than or equal to 1.22 gigabecquerels (33 millicuries)	
35.394	.64 (6)	Training for the oral administration of sodium iodide I-131 requiring a written directive in quantities greater than 1.22 gigabecquerels (33 millicuries)	
35.400	.65 (1)	Use of sealed sources for manual brachytherapy	
35.404	.65 (2)	Source implant and removal requirements	
35.406	.65 (3)	Brachytherapy sources inventory	
35.410	.65 (4)	Safety instruction	
35.415	.65 (5)	Safety precautions	
35.432	.65 (6)	Calibration measurements of brachytherapy sealed sources	

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10 CFR	HFS 157	TITLE	COMMENTS
35.433	.65 (6) (b) 1.-2.	Calibration measurements of brachytherapy sealed sources	
35.457	.65 (7)	Therapy-related computer systems	
35.490	.65 (8)	Training for use of manual brachytherapy sources	
35.491	.65 (9)	Training for ophthalmic use of strontium-90	
35.500	.66 (1)	Use of sealed sources for diagnosis	
35.590	.66 (2)	Training for use of sealed sources for diagnosis	
35.600	.67 (1)	Use of a sealed source in a remote afterloader, teletherapy of gamma stereotactic radiosurgery unit	
35.604	.67 (2)	Surveys of patients and human research subjects treated with a remote afterloader unit	
35.605	.67 (3)	Installation, maintenance, adjustment and repair	
35.610	.67 (4)	Safety procedures and instructions for remote afterloader, teletherapy and gamma stereotactic radiosurgery units	
35.615	.67 (5)	Safety precautions for remote afterloader, teletherapy and gamma stereotactic radiosurgery units	
35.630	.67 (6)	Dosimetry equipment	
35.632	.67 (7)	Full calibration measurements on teletherapy units	
35.633	.67 (8)	Full calibration measurements on remote afterloader units	
35.635	.67 (9)	Full calibration measurements on gamma stereotactic radiosurgery units	
35.642	.67 (10)	Periodic spot-checks for teletherapy units	
35.643	.67 (11)	Periodic spot-checks for remote afterloader units	
35.645	.67 (12)	Periodic spot-checks for gamma stereotactic radiosurgery units	
35.647	.67 (13)	Additional technical requirements for mobile remote afterloader units	
35.652	.67 (14)	Radiation surveys	
35.655	.67 (15)	Five-year inspection for teletherapy and gamma stereotactic radiosurgery units	
35.657	.67 (16)	Therapy-related computer systems	
35.690	.67 (17)	Training for use of remote afterloader, teletherapy and gamma stereotactic radiosurgery units	
35.900	Deleted	~~Radiation safety officer~~	Adopted 10 CFR 35.50 in HFS 157.61 (7)

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10 CFR	HFS 157	TITLE	COMMENTS
35.910	Deleted	~~Training for uptake, dilution and excretion studies~~	Adopted 10 CFR 35.190 in HFS 157.63 (4)
35.920	Deleted	~~Training for imaging and localization studies~~	Adopted 10 CFR 35.290 in HFS 157.63 (5)
35.930	Deleted	~~Training for therapeutic use of unsealed byproduct material~~	Adopted 10 CFR 35.390 in HFS 157.64 (4)
35.932	Deleted	~~Training for treatment of hyperthyroidism~~	Adopted 10 CFR 35.390 in HFS 157.64 (5)
35.934	Deleted	~~Training for treatment of thyroid carcinoma~~	Adopted 10 CFR 35.390 in HFS 157.64 (6)
35.940	Deleted	~~Training for use of brachytherapy sources~~	Adopted 10 CFR 35.490 in HFS 157.65 (8)
35.941	Deleted	~~Training for ophthalmic use of strontium-90~~	Adopted 10 CFR 35.490 in HFS 157.65 (9)
35.950	Deleted	~~Training for use of sealed sources for diagnosis~~	Adopted 10 CFR 35.590 in HFS 157.66 (2)
35.960	Deleted	~~Training for use of therapeutic medical devices~~	Adopted 10 CFR 35.690 in HFS 157.67 (17)
35.961	Deleted	~~Training for authorized medical physicist~~	Adopted 10 CFR 35.51 in HFS 157.61 (8)
36.980	Deleted	~~Training for an authorized nuclear pharmacist~~	Adopted 10 CFR 35.55 in HFS 157.61 (9)
35.981	Deleted	~~Training for experienced nuclear pharmacists~~	Adopted 10 CFR 35.57 in HFS 157.61 (10)
35.1000	.70	Other medical uses of radioactive material or radiation from radioactive material	
35.2024	.71 (1)	Records of authority and responsibilities for radiation protection programs	
35.2026	.71 (2)	Records of radiation protection program safety changes	
35.2040	.71 (3)	Records of written directives	
35.2041	Deleted	~~Records for procedures for administrations requiring a written directive~~	
35.2060	.71 (6)	Records of instrument calibrations	
35.2061	.71 (7)	Records of radiation survey instrument calibrations	
35.2063	.71 (8)	Records of dosages of unsealed radioactive material for medical use	
35.2067	.71 (9)	Records of possession of sealed sources and brachytherapy sources	
35.2070	.71 (10)	Records of surveys for ambient radiation exposure rate	
35.2075	.71 (11)	Records of the release of persons containing radioactive drugs or implants containing radioactive material	
35.2080	.71 (12)	Records of administrative and technical requirements that apply to the provision of mobile services	
35.2092	.71 (13)	Records of decay-in-storage	

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10 CFR	HFS 157	TITLE	COMMENTS
35.2204	.71 (14)	Records of molybdenum-99 concentrations	
35.2310	.71 (15)	Records of instruction and training	
35.2404	.71 (16)	Records of radiation surveys of patients and human research subjects	
35.2406	.71 (17)	Records of brachytherapy source inventory	
35.2432	.71 (18)	Records of calibrations on brachytherapy sources	
35.2433	.71 (28)	Records of decay of strontium-90 sources for ophthalmic treatments	
35.2605	.71 (19)	Records of installation, maintenance adjustment and repair	
35.2610	Deleted	~~Records of safety procedures~~	
35.2630	.71 (20)	Records of dosimetry equipment	
35.2632	.71 (21)	Records of teletherapy, remote afterloader and gamma stereotactic radiosurgery full calibrations	
35.2642	.71 (22)	Records of periodic spot-checks for teletherapy units	
35.2643	.71 (23)	Records of periodic spot-checks for remote afterloader units	
35.2645	.71 (24)	Records of periodic spot-checks for gamma stereotactic radiosurgery units	
35.2647	.71 (25)	Records of additional technical requirements for mobile remote afterloader units	
35.2652	.71 (26)	Records of surveys of therapeutic treatment units	
35.2655	.71 (27)	Records of 5-year inspection for teletherapy and gamma stereotactic radiosurgery units	
35.3045	.72 (1)	Reports of medical events	
35.3047	.72 (2)	Report of a dose to an embryo/fetus or a nursing child	
35.3067	.73 (3)	Reports of leaking sources	
35.4001	.90 - .91	Enforcement	Additional enforcement authority provided in s. 254.37 (2) – (4), Stats.
35.4002	Deleted	~~Criminal penalties~~	

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10 CFR	HFS 157	TITLE	COMMENTS
10 CFR 36			
36.1	.01 .02	Authority and purpose Applicability	
36.2	.03	Definitions	All definitions in s. HFS 157.03
36.5	Deleted	~~Interpretations~~	
36.8	Deleted	~~Information collection requirements: OMB approval~~	
36.11	.13 (1)	Filing application for specific licenses	
36.13	.13 (7) (a)	Special requirements for a specific license to conduct irradiator operations	
36.15	.13 (7) (b) 1.	Special requirements for a specific license to conduct irradiator operations	
36.17 (a)	.04 (1)	Exemptions from the regulatory requirements	
36.17 (b)	.13 (7) (b) 2.	Special requirements for a specific license to conduct irradiator operations	
36.19 (a)	.13 (1) (a)	Filing application for specific licenses	
36.19 (b)	.13 (7) (b) 3.	Special requirements for a specific license to conduct irradiator operations	
36.21	.73 (1)	Performance criteria for sealed sources	
36.23	.73 (2)	Access control	
36.25	.73 (3)	Shielding	
36.27	.73 (4)	Fire protection	
36.29	.73 (5)	Radiation monitors	
36.31	.73 (6)	Control of source movement	
36.33	.73 (7)	Irradiator pools	
36.35	.73 (8)	Source rack protection	
36.37	.73 (9)	Power failures	
36.39	.73 (10)	Design requirements	
36.41	.73 (11)	Construction monitoring and acceptance testing	
36.51	.73 (12)	Training	
36.53	.73 (13)	Operating and emergency procedures	
36.55	.73 (14)	Personnel monitoring	
36.57	.73 (15)	Radiation surveys	
36.59	.73 (16)	Detection of leaking sources	

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10 CFR	HFS 157	TITLE	COMMENTS
36.61	.73 (17)	Inspection and maintenance	
36.63	.73 (18)	Pool water purity	
36.65	.73 (19)	Attendance during operation	
36.67	.73 (20)	Entering and leaving the radiation room	
36.69	.73 (21)	Irradiation of explosive or flammable materials	
36.81	.73 (22)	Records and retention periods	
36.83	.73 (23)	Reports	
36.91	.90 - .91	Enforcement	Penalty authority provided in s. 254.37 (2) – (4), Stats.
36.93	Deleted	~~Criminal penalties~~	
10 CFR 39			
39.1	.01 .02	Authority and purpose Applicability	
39.2	.03	Definitions	All definitions in s. HFS 157.03
39.5	Deleted	~~Interpretations~~	
39.8	Deleted	~~Information collection requirements: OMB approval~~	
39.11	.13 (1)	Filing application for specific licenses	
39.13	.13 (8)	Special requirements for a specific license to conduct wireline operations and subsurface tracer studies	
39.15	.51 (1)	Wireline	
39.17	.13 (1) (b)	Filing application for specific licenses	
39.31 (a)	.52 (11) .52 (1)	Labeling Limits on levels of radiation	
39.31 (b)	.52 (2) .52 (3)	Storage precautions Transport precautions	
39.33	.52 (4)	Radiation survey instruments	
39.35	.52 (5) .52 (6) .52 (7)	Leak testing of sealed sources Leaking or contaminated sources Exemptions	
39.37	.52 (8)	Quarterly inventory	Inventory requirement increased to quarterly from semi-annually
39.39	.52 (9)	Utilization records	
39.41	.52 (10)	Design, performance and certification criteria for sealed	

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10 CFR	HFS 157	TITLE	COMMENTS
		sources used in wellbore operations	
39.43	.52 (12)	Inspection and maintenance	
39.45	.54 (3)	Subsurface tracer studies	
39.47	Deleted	~~Radioactive markers~~	
39.49	.52 (11) (c)	Labeling	
39.51	Deleted	~~Use of a sealed source in a well without a surface casing~~	
39.53	.52 (10) (e)	Design, performance and certification criteria for sealed sources used in wellbore operations	
39.55	.52 (10) (f)	Design, performance and certification criteria for sealed sources used in wellbore operations	
39.61	.53 (1)	Training requirements	
39.63	.53 (2)	Operating and emergency procedures	
39.65	.53 (3)	Personnel monitoring	
39.67	.55 (1)	Radiation surveys	
39.69	.56 (2)	Initial actions	
39.71	.54 (1)	Security	
39.73	.55 (2)	Documents and records required at field stations	
39.75	.55 (3)	Documents and records required at temporary job sites	
39.77	.56	Notification of incidents, abandonment and lost sources	
39.91	.04 (1)	Exemptions from the regulatory requirements (1) General	
39.101	.90 - .91	Enforcement	Penalty authority provided in s. 254.37 (2) – (4), Stats.
39.103	Deleted	~~Criminal penalties~~	
10 CFR 40			
40.1	.01	Authority and purpose	
40.2	.02	Applicability	
40.2a	Deleted	~~Coverage of inactive tailings sites~~	
40.3	Deleted	~~License requirements~~	License requirement contained in s. 254.365 (1), Stats.
40.4	.03	Definitions	All definitions contained in s. HFS 157.03
40.5	Deleted	~~Communications~~	
40.6	Deleted	~~Interpretations~~	
40.7	.89 (4) (b)	Request by workers for an inspection	

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10 CFR	HFS 157	TITLE	COMMENTS
40.8	Deleted	~~Information collection requirements: OMB approval~~	
40.9	Deleted	~~Completeness and accuracy of information~~	
40.10	.05 (2)	Deliberate misconduct	
40.11	.04 (2)	U.S. DOE and NRC contractors	
40.12	.04 (1) .92 (2)	Exemptions from the regulatory requirements (1) General Exemptions	
40.13	.09 (1)	Exemptions of source material	
40.14	.04 (1)	Exemptions from the regulatory requirements (1) General	
40.20	.10 (1)	Types of licenses	
40.21	.11 (1) (b) .11 (2) (d)	*General license authorizing receipt of title to source material without regard to quantity* *General license relating to ownership of radioactive material*	
40.22	.11 (1) (a)	*General license for certain organizations to use and transfer limited amounts of source material*	
40.23	Deleted	~~General license for carriers of transient shipments of natural uranium other than in the form of ore or ore residue~~	
40.24	Deleted	~~Reserved~~	
40.25	.11 (1) (c)	*General license relating to depleted uranium in industrial products and devices*	
40.26	Deleted	~~General license for possession and storage of byproduct material as defined in this part~~	
40.27	Deleted	~~General license for custody and long-term care of residual radioactive material disposal sites~~	
40.28	Deleted	~~General license for custody and long-term care of uranium or thorium byproduct materials disposal sites~~	
40.31	.13 (1)	Filing application for specific licenses	
40.32	.13 (2)	General requirements for the issuance of specific licenses	
40.33	Deleted	~~Issuance of a license for a uranium enrichment facility~~	
40.34	.13 (4) (k)	*Requirements for license to manufacture and distribute industrial products containing depleted uranium for mass-volume applications*	

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10 CFR	HFS 157	TITLE	COMMENTS
40.35	.13 (4) (k)	*Requirements for license to manufacture and distribute industrial products containing depleted uranium for mass-volume applications*	
40.36	.15	Financial assurance and records for decommissioning	
40.38	Deleted	~~Ineligibility of certain applicants~~	
40.41	.13 (9) .13 (10)	Issuance of specific licenses Specific terms and conditions of licenses	
40.42	.13 (11)	Expiration and termination of licenses and decommissioning of sites and separate buildings or outdoor areas	
40.43	.13 (12)	Renewal of licenses	
40.44	.13 (13)	Amendment of licenses at request of licensee	
40.45	.13 (14)	Department action on applications to renew or amend	
40.46	.13 (10) (b)	Specific terms and conditions of licenses	
40.51	.13 (15)	Transfer of material	
40.60	.32	Reports	
40.61	.06 (1) .31	Records Records	
40.62	.06 (2)	Inspections	
40.63	.06 (3)	Tests	
40.64	Deleted	~~Reports~~	
40.65	Deleted	~~Effluent monitoring reporting requirements~~	
40.66	Deleted	~~Requirements for advance notice of export shipments of natural uranium~~	
40.67	Deleted	~~Requirement for advance notice for importation of natural uranium from countries that are not party to the Convention on the Physical Protection of Nuclear Materials~~	
40.71	.13 (16)	Modification, suspension and revocation of licenses	
40.81	.90 - .91	Enforcement	Additional enforcement authority provided in s. 254.37 (2) – (4), Stats.
40.82	Deleted	~~Criminal penalties~~	
Appendix A	Deleted	~~Criteria relating to the operation of uranium mills and the~~	

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10 CFR	HFS 157	TITLE	COMMENTS
		~~disposition of tailings or wastes produced by the extraction or concentration of source material from ores processed primarily for their source material content~~	
10 CFR 61	Deleted	~~Licensing requirements for land disposal of radioactive waste~~	Wisconsin is not requesting regulatory authority over land disposal of radioactive waste.
10 CFR 70			
70.1	.01	Authority and purpose	
70.2	.02	Applicability	
70.3	Deleted	~~License requirements~~	Equivalent authority provided in s. 254.365 (1), Stats.
70.4	.03	Definitions	All definitions in s. HFS 157.03
70.5	Deleted	~~Communications~~	
70.6	Deleted	~~Interpretations~~	
70.7	.89 (4)(b)	Request by workers for an inspection	
70.8	Deleted	~~Information collection requirements: OMB approval~~	
70.9	Deleted	~~Completeness and accuracy of information~~	
70.10	.05 (2)	Deliberate misconduct	
70.11	.04 (2)	U.S. DOE and NRC contractors	
70.12	.04 (1) .92 (2)	Exemptions from the regulatory requirements (1) General Exemptions	
70.13	Deleted	~~Department of Defense~~	
70.13a	Deleted	~~Foreign military aircraft~~	
70.14	.04 (1)	Exemptions from the regulatory requirements (1) General	
70.18	.10 (1)	Types of licenses	
70.19	.11 (2) (e)	*General license relating to calibration and reference sources*	
70.20	.11 (2) (d)	*General license relating to ownership of radioactive material*	
70.20a	Deleted	~~General license to possess special nuclear material for transport~~	
70.20b	Deleted	~~General license for carriers of transient shipments of formula quantities of strategic special nuclear material,~~	

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10 CFR	HFS 157	TITLE	COMMENTS
		~~special nuclear material of moderate strategic significance, special nuclear material of low strategic significance, and irradiated reactor fuel~~	
70.21	Deleted	~~Filing~~	
70.22	Deleted	~~Contents of applications~~	
70.23	.13 (2)	General requirements for the issuance of specific licenses	
70.23a	Deleted	~~Hearing required for uranium enrichment facility~~	
70.24	Deleted	~~Criticality accident requirements~~	
70.25	.15	Financial assurance and records for decommissioning	
70.31	.13 (9)	Issuance of specific licenses	
70.32	.13 (10)	Specific terms and conditions of licenses	
70.33	.13 (12)	Renewal of licenses	
70.34	.13 (13)	Amendment of licenses at request of licensee	
70.35	.13 (14)	Department action on applications to renew or amend	
70.36	.10 (b)	Specific terms and conditions of licenses	
70.37	Deleted	~~Disclaimer of warranties~~	
70.38	.13 (11)	Expiration and termination of licenses and decommissioning of sites and separate buildings or outdoor areas	
70.39	.13 (4) (f)	*Special requirements for license to manufacture calibration or reference sources containing americium-241, plutonium or radium-226 for distribution to persons generally licensed under s. HFS 157.11 (2) (e)*	
70.40	Deleted	~~Ineligibility of certain applicants~~	
70.41	.13 (10)	Specific terms and conditions of licenses	
70.42	.13 (15)	Transfer of material	
70.44	Deleted	~~Creditor regulations~~	
70.50	.32	Reports	
70.51	.06 (1)	Records	Physical inventory of snm can be required by the department as a condition of a snm license, consistent with 10 CFR 70.51.
70.52	Deleted	~~Reports of accidental criticality or loss or theft or attempted theft of special nuclear material~~	
70.53	Deleted	~~Material status reports~~	

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10 CFR	HFS 157	TITLE	COMMENTS
70.54	Deleted	~~Nuclear material status reports~~	
70.55	.06 (2)	Inspections	
70.56	.06 (3)	Tests	
70.57	Deleted	~~Measurement control programs for special nuclear materials control and accounting~~	
70.58	Deleted	~~Fundamental nuclear material controls~~	
70.59	Deleted	~~Effluent monitoring reporting requirements~~	
70.61	.13 (16)	Modification, suspension and revocation of licenses	
70.62	Deleted	~~Suspension and operation in war or national emergency~~	
70.71	.90- .91	Enforcement	Additional enforcement authority provided in s. 254.37 (2) – (4), Stats.
70.72	Deleted	~~Criminal penalties~~	
10 CFR 71			
71.0	.01 .02	Authority and purpose Applicability	
71.1	Deleted	~~Communications and records~~	Record quality addressed in sections, for example s. HFS 157.31 (11)
71.2	Deleted	~~Interpretations~~	
71.3	.92 (1)	Requirement for license	
71.4	.03	Definitions	All definitions in s. HFS 157.03
71.5	.92 (3)	Transportation of licensed material	
71.6	Deleted	~~Information collection requirements: OMB approval~~	
71.7	Deleted	~~Completeness and accuracy of information~~	
71.8	.04 (1)	Exemptions from the regulatory requirements (1) General	
71.9	.92 (2) (c)	Exemptions	
71.10	.92 (2)	Exemptions	
71.11	.05 (2)	Deliberate misconduct	
71.12	.93 (4)	General licenses (4) Nuclear regulatory commission approved packages	
71.13	.93 (5)	General licenses (5) Previously approved package	
71.14	.93 (6)	General licenses (6) US Department of transportation specification containers	

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10 CFR	HFS 157	TITLE	COMMENTS
71.16	.93 (7)	General licenses (7) Use of foreign approved package	
71.18	Deleted	~~General license: Fissile material, limited quantity per package~~	
71.20	Deleted	~~General license: Fissile material, limited moderator per package~~	
71.22	Deleted	~~General license: Fissile material, limited quantity, controlled shipment~~	
71.24	Deleted	~~General license: Fissile material, limited moderator, controlled shipment~~	
71.31	Deleted	~~Contents of application~~	
71.33	Deleted	~~Package description~~	
71.35	Deleted	~~Package evaluation~~	
71.37	Deleted	~~Quality assurance~~	
71.38	Deleted	~~Renewal of a certificate of compliance or quality assurance program approval~~	
71.39	Deleted	~~Requirement for additional information~~	
71.41	Deleted	~~Demonstration of compliance~~	
71.43	Deleted	~~General standards for all packages~~	
71.45	Deleted	~~Lifting and tie-down standards for all packages~~	
71.47	Deleted	~~External radiation standards for all packages~~	
71.51	Deleted	~~Additional requirements for Type B packages~~	
71.53	Deleted	~~Fissile material exemptions~~	
71.55	Deleted	~~General requirements for fissile material packages~~	
71.57	Deleted	~~Reserved~~	
71.59	Deleted	~~Standards for arrays of fissile material packages~~	
71.61	Deleted	~~Special requirements for irradiated nuclear fuel shipments~~	
71.63	Deleted	~~Special requirements for plutonium shipments~~	
71.64	Deleted	~~Special requirements for plutonium air shipments~~	
71.65	Deleted	~~Additional requirements~~	
71.71	Deleted	~~Normal conditions of transport~~	
71.73	Deleted	~~Hypothetical accident conditions~~	
71.74	Deleted	~~Accident conditions for air transport of plutonium~~	
71.75	Deleted	~~Qualification of special form radioactive material~~	

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10 CFR	HFS 157	TITLE	COMMENTS
71.77	Deleted	~~Qualification of LSA-III material~~	
71.81	.92 (3)	Transportation of licensed material	
71.83	.94 (7)	Assumptions as to unknown properties of fissile material	
71.85	.94 (8)	Preliminary determinations	
71.87	.94 (1)	Routine determinations	
71.88	.94 (2)	Air transport of plutonium	
71.89	.92 (3)	Transportation of licensed material	
71.91	.94 (3)	Shipment records	
71.93	.06 (2) .06 (3)	Inspections Tests	
71.95	.94 (4)	Reports	
71.97	.94 (5)	Advance notification of transport of nuclear waste	
71.99	.90 - .91	Enforcement	Additional enforcement authority contained in s. 254.37 (2) – (4), Stats.
71.100	Deleted	~~Criminal penalties~~	
71.101	.96 (6)	Quality assurance requirements	
71.103	Deleted	~~Quality assurance organization~~	
71.105	Deleted	~~Quality assurance program~~	
71.107	Deleted	~~Package design control~~	
71.109	Deleted	~~Procurement document control~~	
71.111	Deleted	~~Inspections, procedures and drawings~~	
71.113	Deleted	~~Document control~~	
71.115	Deleted	~~Control of purchased material, equipment and services~~	
71.117	Deleted	~~Identification and control of materials, parts and components~~	
71.119	Deleted	~~Control of special processes~~	
71.121	Deleted	~~Internal inspection~~	
71.123	Deleted	~~Test control~~	
71.125	Deleted	~~Control of measuring and test equipment~~	
71.127	Deleted	~~Handling, storage and shipping control~~	
71.129	Deleted	~~Inspection, test and operating status~~	
71.131	Deleted	~~Nonconforming materials, parts or components~~	
71.133	Deleted	~~Corrective action~~	

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10 CFR	HFS 157	TITLE	COMMENTS
71.135	.94 (6)	Quality assurance requirements	
71.137	Deleted	~~Audits~~	
Appendix A	Appendix O	Determination of A_1 and A_2	
10 CFR 150			
150.1	Deleted	~~Purpose~~	
150.2	Deleted	~~Scope~~	
150.3	.03	Definitions	All definitions in s. HFS 157.03
150.4	Deleted	~~Communications~~	
150.5	Deleted	~~Interpretations~~	
150.7	Deleted	~~Persons in offshore waters not exempt~~	
150.8	Deleted	~~Information collection requirements: OMB approval~~	
150.10	Deleted	~~Persons exempt~~	
150.11	.03	Definitions	
150.14	Deleted	~~Commission regulatory authority for physical protection~~	
150.15	Deleted	~~Persons not exempt~~	
150.15a	Deleted	~~Continued Commission authority pertaining to byproduct material~~	
150.16	Deleted	~~Submission to Commission of nuclear material transfer reports~~	
150.17	Deleted	~~Submission to Commission of source material reports~~	
150.17a	Deleted	~~Compliance with requirements of US/IAEA safeguards agreement~~	
150.19	Deleted	~~Submission to Commission of tritium reports~~	
150.20	.14	Reciprocity	
150.21	Deleted	~~Transportation of special nuclear material by aircraft~~	
150.30	.90 - .91	Enforcement	Additional enforcement authority provided in s. 254.37 (2) – (4), Stats.
150.31	Deleted	~~Requirements for agreement state regulation of byproduct material~~	
150.32	Deleted	~~Funds for reclamation or maintenance of byproduct material~~	
150.33	Deleted	~~Criminal penalties~~	

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Rev. 3/11/02

New 10 CFR 35 revised 5/10/02