Staffing Plan

OHIO DEPARTMENT OF HEALTH
BUREAU OF RADIATION PROTECTION

In support of the
Agreement State Application
State of Ohio
and the
U.S. NRC
letter dated
18 June 1998

INTRODUCTION

In early 1998, the State of Ohio submitted a draft of the *Application for Agreement State Status* to the United States Nuclear Regulatory Commission. Included in this draft application was a section regarding the staffing of the Bureau of Radiation Protection with an adequate number of qualified staff personnel to perform the duties and tasks of the regulatory oversight of byproduct material, source material, and special nuclear material in quantities insufficient to form a critical mass. This section was developed using the Commission's policy statement "Criteria for Guidance of States and NRC in Discontinuance of NRC Regulatory Authority and Assumption Thereof by States Through Agreement" as published in the Federal Register, 23 January 1981,as corrected and amended in 1994[1]. This policy establishes the criteria of a State agency who desires to become an Agreement State and assume those authorities discontinued by the NRC under this agreement. Included in this criteria is the requirement that a State "have sufficient staff qualified to carry out the range of licensing, inspection, and other related regulatory responsibilities that would be assumed."

On June 18, 1998, the NRC responded to this draft application with a letter that addressed two significant issues taken by the NRC with the application. The first issue, Decommissioning, has been addressed under a separate cover from the Bureau to the NRC. The second issue, Staffing, shall be discussed in this document. Basically, the NRC has made two assertions. First, the staff that is on hand is not sufficient to address the statutory requirements of Agreement State and second, the qualifications of staff that are present may be inadequate to address these issues.

It is the objective of the State of Ohio to ensure, prior to the signing of the Agreement between the U.S. NRC and the state, that there will be a sufficient number of trained, qualified staff assigned to the necessary job functions within the Bureau of Radiation Protection to ensure that all tasks and activities associated with the Agreement State Program can be completed in a timely manner without effect to the license applicants or licensees of the State of Ohio. At this time, the Department has employed a sufficient number of trained, qualified staff to complete the workloads currently assigned and to ensure that an increase in this workload, due to assumption of Agreement State activities, will not create a backlog of activities in the program. The Department has developed a detailed Position Description for each position within the Agreement State. These Position Descriptions are linked to the criteria for training and qualifications as delineated in the Bureau *Training Program for Health Physicist* and associated qualification procedures for all positions which provide definitive qualifications required for the professional staff that is identified to particular assignments and work areas. The staff currently employed by the Department meet and exceed these Position Descriptions and training and qualification areas at this time.

To this end, the Department has developed and is implementing a proactive staffing plan to ensure

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[1] Draft OSP Internal Procedure - *Reviewing State Guidance to Submitting Staff Reviews*, Procedure D.7, April 18, 1997; and *Final Policy Statement on Adequacy and Compatibility of Agreement State Programs*, Policy Issue, SECY-95-112, May 3, 1995; and Final Statement of Policy, [7590-01-P], *Adequacy and Compatibility for Agreement State Radiation Control Programs; Final Statement of Policy.*

that the Licensing, Inspection, and Decommissioning sections are staffed with personnel whose training, education, and experience are compatible with the training, education, and experience of the U.S. NRC staff involved in similar activities. To ensure that the Department can maintain this level of expertise, the Department has developed and has implemented a detailed Training and Qualification Program for the initial training, continuing training, and retraining of professional staff employed in the Agreement State Program. While it may be difficult to train every staff member for all positions within the Agreement State Program, it is the goal of the Department to ensure that each area identified in this Staffing Plan has a minimum of one primary and one secondary professional staff member who is fully trained and qualified for the position activities associated with that phase of the Agreement State Program at the time the Agreement is approved and signed.

To assist the Department in this endeavor, a Qualification Matrix has been developed which indicates those areas of expertise by training, education, or experience that will identify the license reviews completed, inspections performed, and incident response activities conducted. Although some staff may be required to be qualified on an interim basis until such time as the training and experience level is achieved for full qualification, this interim basis qualification is not anticipated by the Department to be long-term.

RESPONSE TO U.S. NRC DIRECTED STATEMENTS IN THE 18 JUNE 1998 LETTER

The NRC provided the following interrogatories in the 18 June 1998 letter from P. Lohaus to R. Suppes:

"...This staff must be in place when the Agreement is signed, and most should be in place when the formal Request for an Agreement is submitted. Please provide an analysis that demonstrates the number of FTE's necessary to complete the licensing, inspection, incident response, and continued program development and maintenance (training, procedures, rulemaking, response to allegations, etc.) activities of the Ohio program."

And,

"...Further, it is noted that your staffing plan has a number of vacancies. We understand that additional staff are being recruited. Please describe your plans to ensure that an adequate number of staff members will complete the training and experience requirements and be qualified to maintain the program on the projected date the Agreement is signed. ..."

STAFFING SUMMARY

> "...This staff must be in place when the Agreement is signed, and most should be in place when the formal Request for an Agreement is submitted. Please provide an analysis that demonstrates the number of FTE's necessary to complete the licensing, inspection, incident response, and continued program development and maintenance (training, procedures, rulemaking, response to allegations, etc.) activities of the Ohio program."

In summary, the Agreement State staffing plan requires the following staffing complement:

Position	Status
Bureau Chief	Filled: Suppes
Manager, Technical Services	Filled: Owen
Technical Services Staff	Two positions filled: HP-III, Goodwin; HP-II, Von Ahn
Supervisor, Decommissioning	Filled
Decommissioning Staff	Three positions filled; HP-III, Webb, McCracken; HP-II, Crombie three positions vacant
Program Administrator, Nuclear Materials Safety	Filled: Howard
Supervisor, Medical Inspection	Filled: Light
Medical Inspection Staff	Three positions filled: HP-III, Reid; HP-II, Stephens, Cosner one vacant
Supervisor, Non-medical Inspection	Vacant
Non-medical Inspection Staff	Three positions filled: HP-III, Talbot; HP-II, Hutchison; HP-I, Fortkamp two vacant
Supervisor, Licensing	Vacant
Licensing staff	Three positions filled: HP-III, Snee, Cicotte, Rogers two vacant

Agreement State Staffing Summary, status

The staffing plan as determined by our analysis requires 29 professional staff:

- one Bureau Chief;
- one Technical Services manager,
- one program administrator,
- four supervisors and
- 22 health physicist.

19 of the 29 necessary positions who meet the Ohio Qualifications Plan criteria for the area assigned to them are currently employed. Staff qualifications are detailed in the following text.

- While not all staff involved in the Agreement State Program will be qualified for all activities to be performed at the time the Agreement is signed, there will be sufficient, qualified staff to ensure that assigned Agreement State activities can be completed without the development of a backlog of work.

The Qualification Matrix attached to this Staffing Plan identifies the qualification level of staff members in the Agreement State Program staff at this date. Current job openings are posted and interviews for these positions are in process. Staff who will be hired from this process will begin training and qualifications as delineated in the Department Training and Qualification Program. By the date the Agreement is signed, a sufficient number of qualified staff shall be employed by the Agreement State Program to ensure that scheduled activities within the Agreement State Program can be completed without development of a backlog.

This is further defined as follows:

Technical Services section

In the Technical Services section, the Technical Services Manager has two FTE staff that meet all training and qualifications required including:

- providing technical assistance to the Licensing, Inspection and Decommissioning sections;
- review of technical documents;
- development of rules pertaining to the Agreement State Program, nuclear material safety and decommissioning, and operational programs;
- development and implementation of implementing procedures;
- review of recently released NRC rules and regulations for incorporation into the Agreement State rules, policies, programs, and procedures;
- providing oversight of the Sealed Source and Device Review and Evaluation Program

including selection of contractual assistance for certain SS&D reviews and evaluations;

- Quality Assurance and Quality Control for the overall Agreement State Program;
- oversight of radioactive waste activities within the state, including high-level and low-level radioactive waste activities;
- development and implementation of training activities within the Bureau;
- preparation of work instructions and inspection checklists; and
- development, testing, implementation, and updating other necessary documents to assist in an orderly, effective program for the regulatory oversight of radioactive materials.

The Technical Services staff will be trained and qualified by a formal *Training Program for Health Physicists* and the "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure" as detailed later in this document. Currently, the full staff compliment for the Technical Services section are employed and qualified. This staff shall ensure no backlog of activities under their purview develop, based on the current workload.

Licensing section

In the Licensing Program, one supervisor and five FTE staff are required.

1 Supervisor, five Health Physicists to perform licensing activities on:

- 608 NRC licenses to be turned-over to the State of Ohio;
- 172 State of Ohio Registrations for NARM to be re-issued as State of Ohio licenses for radioactive material;
- 300 previous NRC General Licenses to be re-issued by the State of Ohio as Specific Licenses; and
- initial reviews, renewals, and amendments of all licenses.

The Licensing staff will be trained and qualified by a formal *Training Program for Health Physicists* and the "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure" as detailed later in this document. Currently, an adequate number of qualified staff are employed to ensure no backlog of license reviews are developing, based on the current workload. New staff shall be trained and qualified as indicated above immediately upon reporting to work.

Inspection section

In the Inspection Program, two supervisors and seven FTE staff are required.

Two supervisors (one designated as Medical Inspections Supervisor, one designated as Non-

medical Inspections Supervisor), seven Health Physicist to perform 294 inspections per year at an average time of three days per inspection plus preparation and report generation time including:

- 24 Broad Scope licenses requiring 108.58 man-days[2] per year;
- 279 Medical licenses requiring 315.58 man-days per year;
- 623 Gauge licenses requiring 264.25 man-days per year;
- 21 Well logging/Industrial Radiography licenses requiring 33 man-days per year;
- 35 Irradiator licenses requiring 60.70 man-days per year;
- 29 Source material/Special Nuclear Material licenses requiring 17.04 man-days per year; and
- 69 other licenses requiring 39.47 man-days per year.

The Inspection staff will be trained and qualified by a formal *Training Program for Health Physicists* and the "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure" as detailed later in this document. Currently, the Inspection section has an adequate number of qualified staff to complete scheduled inspections in a timely manner. New staff shall immediately enter the Training and Qualification Program upon reporting for work.

Decommissioning section

In the Decommissioning Section, one supervisor and six FTE staff are required. This is predicated upon statements made by the US NRC assessment of their Decommissioning staffing commitments for contaminated sites in Ohio as indicated in a meeting with NRC staff held in Ohio on May 14, 1998.

The Decommissioning staff will be trained and qualified by a formal *Training Program for Health Physicists* and the "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure" as detailed later in this document. Decommissioning inspectors will also receive specialized training directed toward decommissioning activities. The Decommissioning section is currently at an adequate staffing level to maintain activities scheduled for completion. New employees to this section shall enter the Training and Qualification Program upon employment.

Table of Organization

A copy of the Table of Organization identifying the positions that are filled or vacant is

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[2] The man-days referenced here are for the inspection activity only. This does not include time spent in preparation for the inspection, report generation following the inspection, or in re-inspection or deficiency correction follow-up.

attached to this document. Work Expectations of all health physics positions, HP I, HP II, and HP III are attached to this document. Additionally, the Job Descriptions of Supervisory and Management staff of the Bureau are attached. A copy of the "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure" is also attached.

Vacant positions

All vacant positions are scheduled to be filled in a timely manner that will permit staff training and qualification for the Agreement State Program (see additional information about this later in this document). Currently, all staff positions that are vacant are posted in the State-wide Job Positions announcements and advertising has been prepared for a number of publications of general interest to Health Physics, Radiation Protection and State employees for both intra- and interstate dissemination.

Analysis of positions and workload

Given the previous analysis of licensing, inspection, and decommissioning staff, it is the position of Ohio that the Bureau of Radiation Protection has the majority of the staff required to complete the anticipated workload in place and qualified in the licensing and inspection area and at least 50% of the decommissioning staff required for formerly NRC licensed decommissioning activities in place and qualified.

TRAINING SUMMARY

> "...Further, it is noted that your staffing plan has a number of vacancies. We understand that additional staff is being recruited. Please describe your plans to ensure that an adequate number of staff members will complete the training and experience requirements and be qualified to maintain the program on the projected date the Agreement is signed. ..."

As specified above, the Bureau's training program to qualify staff consists of the following four elements:

- Completion of the in-house Core-training courses specified in this document;
- Completion of all required qualifications as outlined in the "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure" as these qualifications apply to each position within the Agreement State Program;
- Completion of on-the-job training in license reviews and/or inspections by category

including accompaniment with a mentor and/or NRC inspector. There is no expectation that NRC accompaniment in and of itself will result in supervisory sign-off or lead to an interim qualification.

Typically, at least three inspections must be reviewed by the mentor in each category prior to submission to the supervisor. In a similar manner, three licenses in each category must be reviewed and/or analyzed before submission to the supervisor for sign off. In an inspection situation the supervisor typically accompanies the inspector in the field for the purpose of category sign-off. Individuals may be accelerated through the qualification program with a demonstration of superior experience; and

- Completion of NRC training courses. Particular emphasis is placed on the completion of inspection and licensing courses. NRC Training is divided into courses that are required for all Agreement State staff personnel (Core Training) and courses that would supplement a staff members education and training level (supplemental training). Core training courses that are suggested for State of Ohio Agreement State Program staff include:

  - G-108, *Inspection Procedures*;
  - G-109, *Licensing Practices and Procedures*;
  - G-205, *Root Cause/Incident Investigation Workshop*;
  - G-304, *Inspecting for Performance - Materials Version*;

  Supplemental courses that are suggested for Licensing (L), Inspection (I) and Decommissioning (D) staff within the Agreement State Program include:

  - H-120, *Radiological Surveys in Support of Decommissioning* (D);
  - H-121, *Multi-Agency Radiation Survey and Site Investigation Manual (D)*;
  - H-304, *Diagnostic and Therapeutic Nuclear Medicine* (L/I);
  - H-305, *Safety Aspects of Industrial Radiography* (I);
  - H-312, *Internal Dosimetry and Whole Body Counting* (D/L/I);
  - H-313, *Teletherapy and Brachytherapy* (L/I);
  - H-314, *Safety Aspects of Well Logging* (I);
  - H-315, *Irradiator Technology* (L/I).

Professional staff in the Agreement State Program are required to meet the qualifications listed in their position descriptions prior to employment. In addition, staff must also meet additional training and qualification requirements as specified in the Bureau of Radiation Protection *Training Program for Health Physics Personnel* and the "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure" specified in the application for Agreement State status.

It is the ultimate goal of the Bureau to ensure that staff involved in the Agreement State,

which includes the staff members outlined in the attached Table of Organization under the Licensing Supervisor, the Medical Inspection Supervisor, the Non-medical Inspection Supervisor, and the Decommissioning Supervisor will meet the criteria of these four elements as outlined above to be qualified for signature authority for license issue, inspections and inspection report generation and for decommissioning activities. At the signing of the Agreement, a sufficient number of trained, qualified staff shall be employed by the Department to ensure that all assigned Agreement State Program activities are conducted in a timely manner that would preclude any backlog of activities from developing.

QUALIFICATIONS SUMMARY

The Agreement State Program area personnel are required to understand the facilities, equipment, processes, and activities of the programs they are tasked with licensing or inspecting, as well as the criteria, techniques, and mechanics of inspection and licensing. The training and qualification process, as outlined in the attached "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure", is intended to provide inspectors, license reviewers and decommissioning staff who must also qualify as an inspector or license reviewer, with sufficient information to conduct inspections and license reviews that are technically correct and in accordance with State of Ohio statutes, rules, policies, orders and procedures.

Professional staff assigned as inspectors or license reviewers in the Agreement State Program area shall successfully complete the requirements for their individual inspection or licensing areas as indicated in the attached "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure". Individuals who inspect facilities being decommissioned must qualify as a Decommissioning Inspector in accordance with the aforementioned document. In addition to the formal requirements of the "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure", professional staff shall also successfully complete the Core-Training program outlined in the details section of this *Staffing Plan* as well as other training criteria specified in the *Training Program for Health Physics Personnel*.

Staff will, on an as-needed basis only receive an interim qualification issued by the Bureau Chief, Radiation Protection, to qualify that person for license review, inspections of facilities or handlers or decommissioning based on education, experience, training and a review of accomplishments as indicated in the Bureau of Radiation Protection Qualification Matrix which is attached to this document.

The types of licenses and facilities eligible for inspection by staff are specified in the attached "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure" and Staff Qualification Matrix. Interim qualifications for these duties are specified in that Matrix.

DETAILS OF THE STAFFING PLAN

Staffing Analysis and Requirements

Section responsibilities

The Bureau of Radiation Protection is the agency within the Department of Health that has been tasked with development of the Agreement, and which will ultimately manage and administer this program.

The Bureau is divided into three separate sections, with responsibilities that affect all areas of regulatory oversight for radioactive materials:

- Technical Services;
- Nuclear Materials Safety, which includes the areas of licensing and inspections; and
- Decommissioning.

Each of the sections listed above has definitive tasks and assignments, with several of the sections having overlapping responsibilities for the Agreement State Program.

The Radiological Assistance section is also mentioned in this document, however the Radiological Assistance section is not responsible for any aspect of the overall Agreement State Program.

The **Technical Services** section consists of three staff members, including the Manager of Technical Services as the Radiation Safety Officer and two staff health physicists.

The Technical Services section interfaces with the Agreement State Program by providing:

- technical assistance;
- review of technical documents;
- development of rules pertaining to the Agreement State Program, nuclear material safety and decommissioning, and operational programs;
- development and implementation of implementing procedures;
- review of recently released NRC rules and regulations for incorporation into the Agreement State rules, policies, programs, and procedures;
- review and evaluation of sealed sources and devices for inclusion in the NRC Sealed

Source and Device Registration database. The Technical Services section shall also be tasked with review and evaluation for approval of any contractual assistance required in this area;

- preparation of work instructions and inspection checklists; and

- development, testing, implementation, and updating other necessary documents to assist in an orderly, effective program for the regulatory oversight of radioactive materials.

The Technical Services section also provides oversight of the radioactive waste program (low-level radioactive waste, high level radioactive waste, and all radioactive materials transportation issues as well as any special projects requested by Bureau management or the Radiation Advisory Council).

At this time, Ohio will not site and regulate a regional low-level radioactive waste disposal facility; however, Ohio has requested the authority to do so in the Agreement State application. If a commercial low-level radioactive disposal facility is to be sited, Ohio estimates that four Health Physicist III positions plus a program supervisor will be required to staff the regulatory aspects of that facility. The fee rule (OAC 3701-38-021) already provides for this funding capacity through full cost recovery for a facility of this type.

Radiological Instrumentation is also the responsibility of Technical Services, requires staff to be responsible for:

- the inventory;
- maintenance;
- calibration; and
- issuance of instruments

used by technical professional health physicists in their day-to-day activities. Other RSO functions include personnel dosimetry, and the control of sources possessed by the Bureau. The Technical Services section also provides training materials development, trainers, and other support functions for in-house training.

Finally, the Technical Services section houses the Quality Assurance and Quality Control functions for the Bureau. This area of responsibility includes, but is not limited to, the planning and conduct of:

- audits;
- inspections;
- surveillances;
- reviews; and

- observations of activities involving the licensing and inspections areas of the Agreement State Program.

The **Nuclear Materials Safety** section consists of several areas all of which are involved directly in the Agreement State Program. These areas are licensing of radioactive materials, inspection of facilities and handlers of radioactive materials, enforcement of statutes and rules, and incident response.

A necessary step in determining the manpower requirements for the Agreement State Program is the determination of the available man-year[3] for conducting field and licensing activities. This available man-year is the basis for determining Full-Time Equivalents (FTEs) in the licensing, inspection, and decommissioning programs.

Licensing - the Licensing Section is composed of a licensing supervisor (currently vacant), three Health Physicist III (all filled positions) and two Health Physicist II professional staff members (both vacant). A high priority has been placed on filling the licensing supervisor position. Until this position is filled, the initial supervisory review of licenses following peer review at the staff level is being performed by the Medical Inspection Supervisor at the direction of the Bureau Chief. The majority of license reviews to date have been completed in this manner. The Program Administrator provides a final review of all licenses for final signature by the Director of Health. This current method provides five FTE's for the purpose of reviewing license applications, license amendments, and license renewals.

To ensure adequate qualifications, four professional staff members are being sent to NRC - Region 3, one each during the months of July, August, September, and October for on-the-job training with NRC staff for license review. These staff have requested license training assistance with:

- irradiators;
- manufacturing and distribution broad scope;
- broad scope research and development;
- industrial radiography fixed and temporary job sites;
- well logging;
- teletherapy;
- high dose rate afterloaders; and
- mobile high dose rate afterloader licenses with NRC staff.

Specific requests have been made to NRC for individual staff members to receive various

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3 A Man-year is determined by reducing a 52-week year for holidays(2 weeks), average vacation(2 weeks), sick leave(2 weeks), personal leave(0.8 weeks), and training(3.2 weeks). This leaves 42 weeks /year for conducting field and licensing-related activities.

types of license review experience to provide the Bureau with an overall adequate base of knowledge in the licenses categories specified in this paragraph. The existing Licensing staff have collectively reviewed more than 100 license applications and, will be qualified on an interim basis to review:

- broad scope licenses (all categories);
- medical applications (all categories);
- gauges;
- source material and special nuclear material;
- irradiators; and
- well logging operations/industrial radiography,

by completion of the requirements of the appropriate sections of the attached "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure" combined with selected NRC training courses, Ohio radioactive material license application review and issuance, NRC license review in Region 3, and specific in-house training.

New staff will be qualified by completion of the appropriate training areas as delineated in the attached "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure and by being mentored by a qualified Health Physicist III in gauges and non-QMP medical operations. This will allow these staff members to be qualified in those two areas by the time the agreement is signed.

The Licensing staff is also responsible for incident response activities. It is calculated that 150 person-days are committed to incident response with Licensing responsible for a total of 65 person-days response time (averaged over a period of one year with a calculated 75 incidents per year at 2 person-days per incident response which includes the development and issuance of an Incident Report).

The Licensing staff is responsible for on-site inspection activities to accompany the issuance of a license. This inspection responsibility enables each Licensing staff member to inspect the license applicant's facility to ensure the information provided in the license application is correct and accurate, particularly where radiation levels may impact the general public. As anticipated, more than one inspection could be conducted in a day if the facilities are in the same geographical area. Therefore, a man-hour estimate of 5 hours per inspection per license is anticipated for each new license issued. It is anticipated that the inspection activities will require a time expenditure of 145 person-hours per staff member per annum.

Inspections - The Inspection Section is divided into two groups: Medical Inspections and Non-Medical Inspections. In addition to assuming that the agreement becomes effective January 31, 1999, the assumptions for the Inspection Program are detailed in the attached spreadsheet titled "Numbers of Licenses for Inspection". Each group has a designated

supervisor, however, until a Non-Medical Supervisor is hired, the Inspection section is under the leadership of the Medical Inspection Supervisor serving in an interim position. The Inspection section is staffed as follows: Medical Inspections includes two Health Physicist III (one position vacant) and two Health Physicist II (one position filled and the second to report for work during July). The Non-Medical Section has one Health Physicist III, two Health Physicist II (one vacant), and two Health Physicist I staff members (one vacant).

Ohio has determined that we need the equivalent of two qualified inspectors for broad scope license inspection, including a primary inspector and a second inspector as back-up. This requirement is partially met (the medical broad scopes) and will be completely met through NRC accompaniment, in-house training, and subsequent ODH supervisory sign-off in the intervening period before signing of the agreement.

The Medical Inspection area is estimated to require the equivalent of four qualified inspectors which includes two primary inspectors and two additional inspectors as back-up. Ohio believes that the equivalent of two staff are fully qualified today with an additional two staff being qualified through NRC accompaniment, in-house training, and ODH supervisory sign-off in the intervening period before signing of the agreement.

Gauges are estimated to require the equivalent of two inspectors which includes a primary inspector and one additional inspector qualified as back-up. This requirement is met and will be expanded through NRC accompaniment in the period of time between submission of the application and signing of the agreement.

Well logging inspection will require two inspectors, including a primary inspector and one additional inspector as back-up. This requirement is currently met. Additional emphasis will be placed on this area to assure that inspection, as well as Licensing staff, are qualified in well logging through staff accompaniment and in-house training.

The staffing qualification is currently partially met for irradiators by a primary inspector. The staffing complement of two inspectors (one primary and one backup) will be met through a combination of NRC accompaniment plus on-the-job training at an irradiator in the Central Ohio area prior to signing of the agreement.

The inspectors for the remaining license types will be qualified through in-house training and on-the job training prior to the signing of the agreement as detailed in the attached "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure".

Staff who are hired between the submission of the final application and the signing of the agreement will be given the Ohio Core-Training program as outlined in a later section of this staffing plan document and by successful completion of NRC sponsored training courses, with emphasis on the licensing and inspection courses.

The Inspection staff is committed to performing 294 inspections per year, with an average man-day commitment of three days per inspection. This leads to a total commitment of 882 person-days per year for the Inspections staff.

In addition, the Inspection staff has committed (1) to perform reinspection at approximately 25% of all facilities due to deficiency reporting, unscheduled inspections, etc. (2) to supporting incident response with inspection staff for a calculated 150 person-days, a total of 65 person-days response time responsibility (averaged over a period of one year with a calculated 75 incidents per year at 2 person-days per response.)

Enforcement actions are also the responsibility of this section of the Bureau, however, no definite staff member is assigned for enforcement since this activity will be the purview of the Bureau as a whole, with final assignment of enforcement actions the responsibility of the Director of the Department of Health.

The **Decommissioning** Section consists of several independent sections including those facilities licensed under the Agreement State Program, Sites Decommissioning Management Plan (SDMP) facilities, Formerly Utilized Sites Remediation Action Program (FUSRAP) facilities, Formerly Utilized Defense Sites(FUDS), and Agreement in Principle (AIP) facilities. Although Ohio does not know of any sites contaminated with byproduct material as defined in Section 3748.01(A)(2) of the Revised Code (11.e.2 sites), staff in the Decommissioning Program would be called on to manage those sites if the need presented itself.

Decommissioning - The Decommissioning section is under the guidance of a Supervisor of Decommissioning. This supervisor has four Health Physicist III (two vacant positions) and two Health Physicist II (one vacant). Of these staff members, two HP III's are also responsible for work efforts involving U.S. DOE/U.S. EPA Superfund sites with partial support from another HP II. The three existing vacant positions are to be posted and filled by end of August or mid-September. This staffing level of six Health Physicists is predicated on the U.S. NRC assessment of their Decommissioning staffing commitments for contaminated sites in Ohio as indicated in a meeting with NRC staff held in Ohio on May 14, 1998.

All decommissioning staff, in addition to the Core-Training program outlined in a later section of this staffing plan, and the equivalent training for Decommissioning inspectors outlined in the "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure" will also be provided with training in MARSSIM, decommissioning, and an approved radiological environmental sampling course. In addition, we plan to prepare staff through successful completion of the Core-Training program as outlined in a later section of this staffing plan, US EPA/DOE sponsored training courses and other NRC-training courses. Through these mechanisms, we will qualify all staff in the decommissioning program by the time the agreement is signed.

The **Radiological Assistance** section consists of three separate programs, the Indoor Radon Program, Emergency Response for Fixed Nuclear Facilities (Nuclear Power Stations), and administration of emissions program for fixed nuclear power facilities in the State of Ohio. At this time, the Radiological Assistance section is not a part of the Agreement State Program and staff training and qualification for this section is not included in this *Staffing Plan.*

Bureau Organization

The Bureau organization consists of a Bureau Chief, a Manager of Technical Services, a Program Administrator for the Nuclear Materials Safety Section which consists of three supervisors (one licensing, two inspections - medical and non-medical), Supervisor of Decommissioning and Supervisor of Radiological Assistance. Each area has a designated number of full-time professional staff members and two administrative support staff.

The Bureau of Radiation Protection, under the advisement of the State of Ohio Radiation Advisory Council (RAC) has made a determination that the number of Full Time Employees necessary to complete the licensing, inspection, incident response, and continued program development and maintenance (i.e., training, procedure development, rule making, response to allegations, etc.) to support the primary Agreement State status preparation activities stated. This determination is as follows:

Staffing determinations:

Management and Supervision - The Bureau is under the direction of the Bureau Chief (Roger Suppes), who reports to the Chief, Division of Prevention, who, in turn, reports to the Director of Health. The Bureau Chief is supported by the following management staff: a Manager of Technical Services (Bob Owen) who has a technical staff of two professional health physicists and a Program Administrator (Marcia Howard) who provides day-to-day management of the Agreement State inspection and licensing process. Under the direction of the Program Administrator are three supervisors, one licensing and two inspection (medical - Mark Light) and non-medical (vacant). Each supervisor is responsible for a staff of professional health physicists. The Bureau Chief also supports the Supervisor of Decommissioning (Ruth Vandegrift) and the Decommissioning Staff of professional health physicists. With the addition of the Radiological Assistance Supervisor (Harvey Brugger) and staff, this completes the Management and Supervision section. Each of the above areas, except for the Radiological Assistance section, which is not part of the Agreement State Program, will be discussed in detail in the next section.

Technical Services Staff Requirements and Criteria

Technical Services - the Technical Services Section is under the direction of the Technical Services

Manager (Manager of Technical Services) who is also the Bureau Radiation Safety Officer (RSO). The Manager of Technical Services has two professional staff, an Health Physicist III and an Health Physicist II who are responsible for support of the Agreement State Program as required. In addition to the tasks previously outlined for the Technical Services section, this staff is expected to provide the remaining 20 person-days per year for incident response that are not allocated to Nuclear Materials Safety staff.

Manager of Technical Services - Owen
(1) HP III - Goodwin
(1) HP II - Von Ahn

Licensing staff Requirements Criteria

At the time the Agreement is signed, the NRC predicts it will provide approximately 608 licenses to the State. These licenses will be in varying phases of activity and will expire in one to ten years from the time they are surrendered to the State of Ohio. To review and process these licenses it is expected to require an estimated 4 hours/license or 304 person-days (61 days per Licensing staff person).

278 previous NRC licenses will include licensees who also hold current or predicted State of Ohio licenses for NARM materials. Processing priority will be given to (1) NRC licenses that are modified as the result of the licensee requesting an amendment[4] to incorporate NARM material State issued licenses into their former NRC license, (2) other amendments of their license, or (3) a renewal of their former NRC license. This prioritized approach is not expected to result in the conversion of all NRC licenses to Ohio licenses in 1999, and the remaining conversion will be done in the years following the Agreement.

After processing the previously-mentioned priority licenses, there will be approximately 330 Agreement State materials-only licenses to be processed. Therefore, the total man-power requirement for NRC license conversion will not be required in 1999 and staffing to meet this latter processing can be conducted over the course of the license term.

The Department currently maintains approximately 450 "registrations[5]" for radionuclides not under the regulatory control of Federal agencies. These registrations are not NRC licenses. Following the passage of State rules regarding licensing of radioactive materials, a large number of "registrations"

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4 Under existing State Rules, a licensee must formally request that the State amend a State of Ohio license for radioactive material to include materials that were previously only Agreement State materials (i.e., byproduct, source or special nuclear materials), with materials covered under a State of Ohio radioactive materials license that provides regulatory oversight for NARM.

5 Of the 450 registrations, an estimated 278 are facilities with both NARM and Atomic Energy Act (AEA) material while 172 are facilities with only NARM material.

have been extended until 1999. These registrations are being converted to licenses as they expire. Other state registrations that have not been extended that expire after the year 1999 will not require converting to a license until the stated expiration date. This transition from "registrations" to licenses will be complete by May, 1999. A number of these registrations may choose to not apply for a license for the radioactive materials that were previously registered. These registrants will choose instead to terminate their registrations by return or disposal of the radioactive materials. During this transition from a registration status to a licensing status, the Nuclear Materials Safety Section anticipates a minimum of 278 of the registrations mentioned above will become licensees for radioactive material. As this transition will be in process when the Agreement is effective, some of the registration transitions may be completed as amendments to former NRC licenses. In addition, there are 172 licenses that will contain NARM only. A portion of these have been converted to licenses at this time. It is anticipated that at the effective date of the Agreement, approximately half of these NARM registrations will remain to be completed.

Additionally, the State has performed an analysis of NRC-issued General License materials within the State where radioactive quantities are greater than that allowed by existing State rule. As a result, approximately 300 NRC General Licenses will be reissued as State of Ohio Specific Licenses.

In summary, then, the total license activity predicted for the State of Ohio is:

- 608 previously held NRC licenses;
- 172 registration to State of Ohio licenses for NARM only; and
- 300 previously issued NRC General Licenses to State of Ohio Specific Licenses

for an anticipated total of 1080 licenses to the State for regulatory oversight, licensing, inspection and enforcement activities[6].

For the next two years, the following assumptions have been established regarding licensing application, amendment, and renewal processing:

- All licensing requirements assume that the Agreement is effective by January 31, 1999, and that no license renewal activities for the Agreement State licensees are required during the first quarter of 1999 except for those activities that are presented to the State by the NRC.

- License amendments and new applications may be received in the first quarter of the agreement. An assumption of 1.0 amendment per license annually and twenty percent of the licenses renewed annually has been made, making a working level of 43 license renewals annually per staff member and 216 amendments per staff member (at currently planned staff levels of five FTEs assigned to licensing).

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6 The most recent information from NRC indicates that 608 licenses will become Ohio responsibility with the effective date of the agreement. Ohio estimates that 278 of these facilities have NARM and AEA material and 330 facilities (NRC-only) have only AEA materials.

- In 1999, there will be additional licensing activity resulting from the processing and/or amendment of 608 NRC licenses to Ohio licenses.

The Licensing staff is also responsible for the review and issuance of Reciprocity Agreements. Currently, five Reciprocity Agreement reviews and subsequent issuances have been made by the Licensing staff this calendar year. A standard Reciprocity Agreement review is estimated to typically require 12 person-hours for review and preparation. During any given year we expect 10 reciprocity agreement requests and we predict this activity to require 15 person-days/year.

The State of Ohio provides the following analysis for the year 1999 as a requirement for staffing levels for the licensing program:

• Typical licensing renewal/issuance and amendment	392 person-days
• NRC license Conversion	100 person-days[7]
• Conversion of GL's to specific licenses	450 person-days
• Reciprocity Agreements	15 person-days
• Incident Response	65 person-days
• Licensing verification Inspections	91 person-days
Total	**1,113 person-days**

The 0.06 "excess" man-years for the licensing activities is minimal over the five license staff and is not expected to impact the ability of the staff to meet the requirements outlined above. Of the 1,113 person-days, the 450 person-days for the conversion of the General Licenses to Specific Licenses is not expected to re-occur.

Following 1999, in a typical year, the State provides the following analysis:

• License renewal/issuance(216+10 new licenses)	339 person-days
• Amendments(1,080/year)	540 person-days
• Reciprocity Agreements	15 person-days
• Incident Response	65 person-days
• Licensing Verification Inspections	91 person-days
Total	**1,050 person-days**

During a typical year, the staffing is adequate at five FTE's based on the above analysis.

Current Staffing Levels

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7 The 100 person-days is an estimate of the amount of time that will be spent on license conversion during 1999.

(1) Licensing Supervisor - vacant (this position is a very high priority for the Bureau and is anticipated to be filled and the person qualified before the agreement is signed)

(3) HP III - licensing - Snee, Cicotte, Rogers
(2) HP II - licensing - vacant, vacant (these positions are posted and should be filled and qualified prior to the agreement being signed.)

Inspection Staff Requirements and Criteria:

NOTE: A spread sheet delineating the estimates of staffing levels for the Inspection staff is attached to this document.

Presently, the Bureau has five staff inspection positions filled. In the time between submission of the final application and signing of the agreement, Ohio plans to fill two more inspection positions for a total of seven qualified inspectors at the time the agreement becomes effective. Based on the assumptions for licensing requirements based on the analysis above for licenses and a comparative analysis of inspection priorities for the license types expected, and as specified on the attached spread sheet, seven FTE staff positions should be adequate to perform the tasks including the additional inspection of the 300 current general licenses that are expected to become specific licenses. This additional inspection work load is expected to require an additional 135 inspection days/year (60 inspections/year) beginning in the year 2000. Some positions will be held open for a period to allow for an area for promotion for current staff unless workload demands require filling of the position immediately.

Current Staffing Levels

Medical Inspections Supervisor - Light
(2) HP III - Reid, vacant
(2) HP II - Stephens, Cosner

Non-medical Inspections Supervisor - Vacant
(1) HP III - Talbot
(2) HP II - Hutchison, vacant
(1) HP I - Fortkamp, vacant

Decommissioning Staff criteria and requirements

The Decommissioning staff must meet the qualification criteria specified in the "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure" criteria for Decommissioning staff and shall also be qualified in all aspects of the Agreement State Program as delineated for licensing reviewers and inspectors in the same document. The Decommissioning Staff are committed by management to support both the licensing effort and the inspections effort on an as-needed basis in the event the work-load becomes untenable.

Current Staffing Levels

Supervisor of Decommissioning - Vandegrift
(4) HP III - (devoted to NRC operations) - Webb, McCracken, vacant, vacant (these vacancies will be filled and the staff qualified prior to the agreement being signed)
(2) HP III - (devoted to other decommissioning efforts) - Lipp, Colleli
(2) HP II - (devoted to NRC operations) - Crombie, vacant (this vacancy is planned to be filled and the person qualified prior to the agreement being signed)

Administrative Support staff - The Administrative section is under the direction of an Administrative Assistant III who has four secretaries (one vacant), one clerk II, and a librarian (degreed full time). An analysis of administrative needs indicate that the Administrative staff is adequate for administrative support as this work is now recognized.

Administrative Assistant III - D'huyvetter
Clerk II - Hall
Librarian - Ostrove
(4) Secretaries - Harber, Traylor, Managan, vacant

During the time remaining between the submission of the final application and the signing of the agreement, Ohio expects to employ the Licensing Supervisor, two more inspectors, two more Licensing staff, and three more decommissioning staff. With the current staff that are already on-board, plus this additional staff, Ohio believes we will have an adequate staff to perform all agreement State activities. As the Agreement State Program develops, we will modify staffing as requirements dictate.

DETAILS OF THE TRAINING PLAN

Training Analysis and Requirements

It is the objective of the Bureau management to ensure that the Agreement State Program is adequately staffed by trained and qualified professionals with an adequate administrative support staff. To this end, the Bureau has developed a complete *Training Program for Health Physics Personnel* and a *Licensing, Inspection, and Decommissioning Technical Professional Staff Training And Qualification Procedure* to delineate in detail the criteria for training and qualification of all staff within the Bureau.

The Department is mandated by State statute to ensure that radioactive materials are used and handled in a manner that is acceptable and safe so that the health and safety of the public, workers, and the environment are not adversely affected as a result of unnecessary exposure to radioactive sources. As the Agreement State Program is implemented, the primary objective of the program is, of course, the protection of the public health and safety. To accomplish this objective, the Bureau considers the following attributes of the Agreement State Program to be essential:

- Technically capable staff;
- Necessary statutory authority;
- Effective and technically sound, efficient rules, programs, procedures and working documents;
- Technical resources;
- Adequate emergency and incident response capabilities;
- Necessary radiation measuring instrumentation and laboratory support;
- Adequate funding;
- Administrative support, including records and information capability;
- Quality Assurance and quality control;
- Cooperative attitudes and a working relationship with Federal and State agencies.

A major portion of a successful program is to ensure that the staffing of the bureau is complete, comprehensive and adequate. In addition to utilizing the U.S. NRC offer of allowing staff accompaniments and to work with the NRC staff to augment their experience, the Bureau is conducting a full training program for staff health physicists. This program is centered on the developed, approved programs and procedures for Agreement State as submitted in the draft Agreement State package.

Included in this document is an outline of the Core-Training program for all Agreement State Program staff. This Core-Training program is designed to ensure that all staff in the Agreement State Program have received the same initial training requirements that will provide an overall understanding of the License Program, Inspection Program, Incident Response Program, Radiation Protection Program and other areas and programs that are a part of the Agreement State.

An outline of the State Core-Training program courses for all Agreement State staff is as follows:

CORE-TRAINING PROGRAM –

the following program is a requirement for all staff members.

Training Course Title	Duration (hours)	Developed course materials	Purpose and Scope of the Training evolution
Rules and Regulations	16	yes	This course covers two consecutive days and is a detailed analysis of the State of Ohio statutes and administrative rules and the ways these laws and rules interface with the Federal Code of Regulations. Also covered during this training are selected sections of the Atomic Energy Act as it relates to State responsibilities for Agreement State, the licensing and inspection of users of radioactive material.
Licensing Program	8	yes	This course covers eight hours and is a detailed training program devoted to the Ohio Licensing Program for Radioactive Materials and developed and approved implementing procedures.
Inspection Program	8	yes	This course covers eight hours and is a detailed training program devoted to the Ohio Inspection Program for handlers and facilities of radioactive materials and developed and approved implementing procedures. The course also has a section devoted to Inspection for Performance based on the NRC training course.
Incident Response	16	yes	This course covers two consecutive days and provides an in-depth overview of the State of Ohio Incident Response Program and implementing procedures.
Enforcement Program	8	Yes	This course is a detailed training program devoted to the Ohio Enforcement Policy for

			assessing enforcement actions against facilities and handlers of radioactive materials who violate State statute, rules, or license conditions. This course also covers implementing procedures that support the enforcement program.
Other Programs	16	Yes	This course is a detailed training program covering several Ohio Programs for handlers and facilities of radioactive materials, including the Radiation Protection program, Quality Assurance Program, and Quality Sampling program for Radiological Sampling and Analysis evolutions. The course also addresses developed and approved implementing procedures.
Decontamination and Decommissioning	8	Yes	This course covers eight hours and is a detailed training program devoted to the Ohio Decontamination and Decommission Policy for radioactive material license terminations.
Hazardous Communications Right-to-Know	8	Yes	This program is a developed approved program offered for Hazmat workers and involves Hazcom and Right-to-Know laws

Other in-house Training programs offered will include Transportation of Radioactive and other Hazardous Materials in accordance with 10CFR71 and 49CFR parts 100 - 199 (16 hours); RCRA/CERCLA Overview (16 hours); and general Health Physics and Radiation Protection.

In addition, it is currently planned to develop specialized training programs based on certain select U.S. NRC-offered training programs covering topics as diverse as:

- Fundamentals of Inspection,
- Irradiator Technology,
- Well Logging,
- Tele/Brachytherapy,
- Radioactive Waste Management Technology,
- Inspecting for Performance,
- Introductory Health Physics,
- Radiological Surveys in Support of Decommissioning, and
- Safety aspects of Industrial Radiography.

Additional specific training for staff members in licensing, inspection, and decommissioning is outlined in the "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure" attached to this document. The State of Ohio reserves the right to develop certain training courses that mirror similar courses offered by the NRC for use as in-house training by the State for Agreement State Program staff. These courses would mirror the following NRC training courses:

- G-108, *Inspection Procedures*;
- G-109, *Licensing Practices and Procedures*;
- G-205, *Root Cause/Incident Investigation Workshop*;
- G-304, *Inspecting for Performance - Materials Version*;
- H-120, *Radiological Surveys in Support of Decommissioning*;
- H-121, *Multi-Agency Radiation Survey and Site Investigation Manual*;
- H-304, *Diagnostic and Therapeutic Nuclear Medicine*;
- H-305, *Safety Aspects of Industrial Radiography*;
- H-312, *Internal Dosimetry and Whole Body Counting*;
- H-313, *Teletherapy and Brachytherapy*;
- H-314, *Safety Aspects of Well Logging*;
- H-315, *Irradiator Technology*.

It is the objective of the State of Ohio to ensure, prior to the signing of the Agreement between the U.S. NRC and the state, that there will be a sufficient number of trained, qualified staff assigned to the necessary job functions within the Bureau of Radiation Protection to ensure that all tasks and activities associated with the Agreement State Program can be completed in a timely manner without effect to the license applicants or licensees of the State of Ohio. At this time, the Department has employed a sufficient number of trained, qualified staff to complete the workloads currently assigned and to ensure that an increase in this workload, due to assumption of Agreement State activities, will not create a backlog of activities in the program.

New staff that are employed prior to the agreement being signed will also complete this training regimen prior to the signing of the Agreement. The completion of this training is the minimum training for all staff in the agreement State Program. Additional training is required for approval to conduct particular inspections or license reviews. Much of this additional training is on-the-job through accompaniment and/or side-by-side reviews.

During an accompaniment, the Department staff person is expected to:

- observe all aspects of the inspection under the supervision of the mentor or NRC inspector, including the use of check sheets and instructions,

- participate in the review of some documents, at the discretion of the inspector,

- conduct radiation measurements at the discretion of the inspector, and

- independently write up the conclusions, observations and violations that were noted during the inspection.

This report is then reviewed by the ODH supervisor. A similar practice occurs with license review where the license analysis is written by the observer and the report is reviewed by the ODH supervisor. It is the sole responsibility of the ODH supervisor to initially determine the adequacy of the inspector or license reviewer.

This training qualification program is detailed in Ohio's draft application but, essentially, the simpler types of inspections and license reviews are conducted by Health Physicist I's (e.g., gauges and non-QMP medical operations). The more complex operations including most medical operations, industrial radiography, and some industrial operations are conducted by the Health Physicist II, while the broad-scope operations, research and development facilities, complex industrial operations, most irradiators, and similar operations are managed by Health Physicist III's. Lower Level Health Physicists assist the senior staff in conducting inspections and license reviews and may serve as members of an inspection team that is under the direction of the Health Physicist III.

Upon completion of the training identified as Core-Training, and Specific Training, and the completion of the qualifications requirements of the "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure", the license reviewer's, inspector's or decommissioning inspector's understanding of the materials required for the position will be evaluated by an Oral Qualifications Board which shall be convened for this purpose. It should be noted, this requirement is delineated in both the *Training Program for Health Physicist* and the "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure".

License reviewers, inspectors and decommissioning inspectors may perform license application reviews, inspections or decommissioning site activities under the direction of a qualified staff member. In situations where qualification is delayed as a result of the unavailability of required formal training courses, or other compelling reasons, the Bureau Chief may provide interim qualification for those categories in which the license reviewer, inspector or decommissioning inspector is considered qualified. Interim qualification includes license signature authority for select categories in accordance with written delegation.

In the event a staff member changes discipline, i.e., from licensing to inspection or from decommissioning to licensing, that staff professional's supervisor shall ensure that all training and qualification criteria for the new position are met prior to issuing a qualification statement to the staff professional. Bureau professional staff shall meet the same qualification requirements as their NRC counterparts in education and experience. Training, retraining and continuing training and qualifications requirements are provided in the Ohio *Training Program for Health Physicist* and the "Licensing, Inspection, and Decommissioning Technical Professional Staff Training and Qualification Procedure". These qualifications and requirements are delineated in the separate

Licensing, Inspection and Training Programs for the State.

Staff who are part of the Licensing, Inspection, and/or Decommissioning sections shall have as a minimum, the education and experience as delineated in 46 FR 7540, 1/23/81 as amended in 46 FR 36969 and 48 FR 33376. Although it is recognized that staff levels are not at maximum, all positions are posted, advertising has been placed to attract qualified staff and interviews are conducted on an on-going basis to bring in new staff in a timely manner. As new staff come on-board, they shall immediately enter the *Training Program for Health Physicist* and the qualifications procedures. New inspectors must meet the standards and qualifications specified in the State Inspection Program. All staff health physics personnel will be cross-trained and qualified for all staff positions where applicable.

In addition, each staff member is scheduled to attend the NRC training courses offered on an as-needed basis based on the staff member's previous work experience and education. The attached Qualification Matrix indicates those training courses that have been completed by staff. Included in these training courses are other courses that are considered as applicable and effective training, such as the U.S. DOT Hazardous Materials required training of 49CFR172 Subpart H, RCRA/CERCLA overview, and Hazwoper certification.

Each in-house training session is conducted using approved student text and handouts, an instructor's guide and text, audio-visual aids including multimedia presentations, and an examination to measure progress and teaching effectiveness. Each training session is built using such tools as job-task analysis (JTA) and teaching objectives (enabling and terminal).

QUALIFICATION MATRIX

The Bureau has developed a Qualification Matrix to provide an indication of the training, education and qualifications of staff members involved in the Agreement State Program. Developed as a major database, the matrix can provide a spreadsheet-style report, individual status reports, and other user-specified reports, as needed. The database matrix is divided into several areas including position, education which includes degree and major, total years health physics experience, health physics and related training, license application packets reviewed by Ohio category code, inspections performed (medical, non-medical and other) by Ohio category code, incident response delineations including those on which the individual served as team leader, certifications and registrations, and a statement that the State of Ohio has qualified the named individual to perform designated license reviews and inspections.

The matrix will be updated on a quarterly basis and all information contained in the matrix will be validated by hard copies, such as license review packages, incident reports, inspection reports etc. The information for all staff will be maintained by Bureau management using the MS Access database. In addition to the requirements to maintain the data-base, each staff member shall be responsible to ensure that a copy of all training certificates are placed in the staff training records, and that as each staff completes reviews of license applications whether for new issue, renewal, or

amendment, that documented information is also placed in the personnel training files. The matrix reports can be generated upon request. Quarterly, a printout will be produced in the spreadsheet format and shall be made available for public review.

ATTACHMENTS

Attachment 1 - Qualification Matrix
Attachment 2 - Table of Organization - Bureau of Radiation Protection
Attachment 3 - Inspections Spread Sheet
Attachment 4 - Work Expectations for HP I, HP II, and HP III

ATTACHMENT 1

QUALIFICATION MATRIX

Qualification Summary

All staff in the Agreement State program have at least a baccalaureate and several have graduate degrees as demonstrated by review of their resumes. The qualification of staff is based on an assessment of their work experience, completion of core training sponsored by the Bureau of Radiation Protection, inspection performance and accompaniment, license review, and completion of NRC core and supplemental training. Based on the internal assessment of staff preparation in accordance with the Bureau's training program, the Bureau asserts that the following staff are qualified to perform the identified Agreement State activities.

1. George Cicotte–Mr. Cicotte is a HP 3 in the licensing program. He has 23 years of health physics experience in a variety of settings including government, radiological laboratory, radiation safety officer, nuclear power plants, and the military. Mr. Cicotte has completed the following NRC training courses: G-108(inspection procedures),G-109(Licensing Practices and Procedures), H-111 (Environmental Monitoring for Radioactivity), H-120(Radiological Surveys in Support of Decommissioning), H-201 (Health Physics Technology), H-308 (Transportation of Radioactive Materials), H-312 (Internal Dosimetry And Whole Body Counting), R-104P, R-106B plus DOT courses in transportation of hazardous/radioactive materials and several other hazardous materials courses. Mr. Cicotte has completed Part 1 of the Certified Health Physicist examination. Mr. Cicotte has also completed Bureau training courses in rules and regulation, inspection, licensing, enforcement, incident response, and radiation protection. Mr. Cicotte has completed a substantial number of license reviews for medical applications, gauges and analytical instruments. Mr. Cicotte is qualified to perform license reviews for gauges and analytical instruments and medical applications other than broad scope. Based on his overall experience he is qualified to conduct incident response investigations. At the signing of the agreement we expect Mr. Cicotte to be qualified to review all licenses in all types of applications that Ohio is expected to receive as an Agreement State .

2. Jim Collelli–Mr. Collelli is a HP3 in the decommissioning section. Mr. Collelli has four years of experience in health physics. Mr. Collelli has completed the following NRC sponsored training courses: H-117 (Introductory Health Physics), H-119 (Air Sampling For Radioactive Materials). He has completed Bureau training in rules and regulation, licensing, inspection, enforcement, radiation protection and incident response. Mr. Collelli has completed DOT training in hazardous/radioactive materials transportation and shipment. Mr. Collelli has completed part 1 of the Certified Health Physicist examination. Mr. Collelli has had extensive involvement in providing lead oversight of DOE decontamination/decommissioning activities at the Fernald site in Ohio. This requires extensive document review, on site health physics analysis and report preparation. Mr. Collelli has reviewed and analyzed hundreds of documents in the course of his experience at Fernald. Mr. Collelli is qualified in decommissioning-particularly the review and analysis of proposed decommissioning approaches. Prior to the signing of the agreement, Mr. Collelli

is expected to complete additional training in license review and inspection and conduct incident response as a team leader.

3. Doug Cosner–Mr. Cosner is a HP 2 in the medical inspection section. Mr. Cosner has eight years of experience in diagnostic and therapeutic nuclear medicine technology plus two years of conducting training of nuclear medicine technology students. Mr. Cosner is a new employee. He will be entering the Bureau training program as specified in the staffing and training document and will be focusing on medical applications. He is expected to be qualified in all medical inspections except broad scope by the signing of the agreement.

4. Joseph Crombie–Mr. Crombie is a HP 2 in the decommissioning section. Mr. Crombie has twelve and one half years of experience including experience in a radioliogical laboratory setting, medical applications, and the university arena. Mr. Crombie has completed Part 1 of the Certified Health Physics examination. Mr. Crombie has completed the following NRC sponsored courses: H-119 (Air Sampling For Radioactive Materials), H-304 (Diagnostic and Therapeutic Nuclear Medicine). Mr. Crombie has completed the Bureau-sponsored training in rules and regulations, licensing, inspection, enforcement, radiation protection and incident response. Mr. Crombie has conducted several reviews of various decommissioning modeling approaches including multiple applications of RESRAD in multiple settings and configurations. Currently, Mr. Crombie is qualified to support decommissioning issues and incident response. At the signing of the Agreement, Mr. Crombie is expected to be qualified in decommissioning and incident response.

5. Jonathan Fortkamp-Mr. Fortkamp is a HP 1 in the non-medical inspection section. He has four years of experience in health physics. At the conclusion of the summer quarter, he will have completed his course work and all dissertation requirements for his Ph.D. in Nuclear Engineering. Mr. Fortkamp has completed most of the Bureau-sponsored training including rules and regulations, licensing, and inspection. Mr. Fortkamp is scheduled to attend the NRC sponsored teletherapy and brachytherapy (H-313) and H-304 (Diagnostic and Therapeutic Nuclear Medicine) courses in August. Mr. Fortkamp has performed several accompaniments for gauges and analytical instruments and is ready for qualification. Currently, Mr. Fortkamp is qualified to support incident response investigations. At the signing of the agreement, Mr. Fortkamp will at least be qualified in gauges and analytical instruments, medical other than therapy and broad scope, and incident response.

6. Ronald Goodwin–Mr. Goodwin is a HP 3 in the technical services section. Mr. Goodwin has approximately thirty years of experience in health physics including nuclear power plants, the military, radiological laboratory, and various commercial settings. He has completed NRC sponsored courses including H-201 (Health Physics Technology), H-308 (Transportation of Radioactive Materials), G-108(Inspection Procedures), G-109(Licensing Practices and Procedures), and the Sealed Source and Device Workshop. Mr. Goodwin serves as the trainer for the Core training program in the Bureau for rules and regulations, licensing, inspection, enforcement, radiation protection and incident response. Mr. Goodwin

has completed multiple training courses in hazardous /radioactive materials transportation and shipment and numerous other health physicist hazardous materials training evolutions as well as HAZWOPER, and RCRA/CERCLA. Mr. Goodwin has a substantial amount of experience in low-level radioactive waste, research and development applications, gauges and analytical instruments, and general health physics applications in all settings. Mr. Goodwin is qualified in sealed source and device review, incident response, research and development applications, gauges and analytical instruments, decommissioning, low-level radioactive waste and waste treatment, quality assurance and quality control, and well logging and industrial radiography.

7. Celeste Lipp–Ms. Lipp is a HP 3 in the decommissioning section. She has eight years of experience is various health physics settings including nuclear power plants, radiological laboratories, and the university setting. She has completed the following NRC sponsored courses: H-120(Radiological Surveys in Support of Decommissioning), H-305(Industrial Radiography), and H-314(Safety Aspects of Well Logging). In addition, she has completed the Bureau-sponsored core training in rules and regulations, licensing, inspection, enforcement, radiation protection and incident response. Ms. Lipp has done several accompaniments with NRC personnel at sites in Ohio. Ms. Lipp is currently qualified to perform incident response activities. By the time the agreement is signed, she is expected to be qualified in decommissioning.

8. Charles McCracken–Mr. McCracken is a HP 3 in the decommissioning section. He has thirteen years of health physics-primarily in nuclear power plants. He is registered with the National Registry of Radiation Protection Technologists. Mr. McCracken has completed the following NRC-sponsored courses: H-120 (Radiological Surveys in Support of Decommissioning), H-314 (Safety Aspects of Well-Logging), H-305 (Safety Aspects of Industrial Radiography), H-304 (Diagnostic and Therapeutic Nuclear Medicine), H-308 (Transportation of Radioactive Materials), G-109 (Licensing Practices and Procedures), and G-108 (Inspection Procedures). He has also completed the Bureau-sponsored core training in rules and regulations, inspection, licensing, enforcement, incident response, and radiation protection. He has completed multiple inspections in medical applications and gauge and analytical instrument inspection. Mr. McCracken is qualified to review license applications for gauges and analytical instruments and all medical license applications except broad scope. Mr. McCracken is qualified to conduct medical application inspections except broad scope and therapy. He is qualified to conduct gauge and analytical instrument inspections. He is qualified in incident response. He is considered to have qualification through NRC training in well logging and industrial radiography. At the time the agreement is signed, Mr. McCracken will also be qualified in decommissioning.

9. Robert Reid–Mr. Reid is a HP 3 in the medical inspection section. Mr. Reid has twenty-five years experience in health physics including nuclear medicine. He was the director of nuclear medicine training at the Ohio State University, a radiation safety officer, and has performed consulting for medical facilities. Mr. Reid has completed the following NRC-sponsored

training courses: H-304 (Diagnostic and Therapeutic Nuclear Medicine), G-108 (Inspection Procedures). Mr. Reid has also completed the core training sponsored by the Bureau including rules and regulations, licensing, inspection, enforcement, incident response, and radiation protection. Mr. Reid is qualified to conduct incident response investigations, inspections in all medical applications including broad scope and therapy applications, gauges and analytical instruments inspection, research and development application inspection, and laboratory application inspection. At the signing of the agreement, Mr. Reid will also be qualified in academic broad scope applications and irradiators.

10. Brent Rogers–Mr. Rogers is a HP 3 in the licensing section. He has fifteen years of experience in health physics including the military and nuclear power plants. He is registered with the National Registry of Radiation Protection Technologists. He has completed several NRC-sponsored training courses including G-108 (Inspection Procedures), G-109 (Licensing Practices and Procedures), H-119 (Air Sampling For Radioactive Materials), H-201 (Health Physics Technology), H-304 (Diagnostic and Therapeutic Nuclear Medicine), H-305 (Safety Aspects of Industrial Radiography), and H-308 (Transportation of Radioactive Materials). Mr. Rogers has also completed training in hazardous/radioactive materials shipping and transportation as well as radiological emergency response. Mr. Rogers has also completed the core training sponsored by the Bureau including rules and regulations, licensing, inspection, enforcement, incident response, and radiation protection. Mr. Rogers is qualified to conduct license reviews in gauges and analytical instruments, industrial radiography (through NRC training), all medical applications except broad scope, and support incident response operations. At the signing of the agreement, Mr. Rogers will be additionally qualified to conduct license reviews in all broad scope applications, irradiators, and incident response.

11. Mike Snee–Mr. Snee is a HP 3 in the licensing section. Mr. Snee has thirteen years of health physics with the majority coming from nuclear power plants and the military. He is fregistered with the National Registry of Radiation Protection Technologists. Mr. Snee has completed the following NRC sponsored training courses: G-108 (Inspection Procedures), G-109 (Licensing Practices and Procedures), H-201 (Health Physics Technology), H-304 (Diagnostic and Therapeutic Nuclear Medicine), H-305 (Safety Aspects of Industrial Radiography), H-308 (Transportation of Radioactive Materials), H-313 (Teletherapy and Brachytherapy), H-314 (Safety Aspects of Well Logging), and Sealed Source and Device Workshop. Mr. Snee has also completed the core training sponsored by the Bureau including rules and regulations, licensing, inspection, enforcement, incident response, and radiation protection. Mr. Snee has also completed training in radiological emergency response. Mr. Snee has completed a wide array of inspections and license reviews. He is qualified to conduct inspections of all types of medical applications, gauges and analytical instruments, and industrial applications. He is qualified to conduct license reviews of all medical applications, gauges and analytical instruments, industrial radiography and well logging (through NRC training), and conduct incident response investigations. At the signing of the agreement, he will additionally be qualified to conduct license reviews and inspections in

research and development and irradiators.

12. Lorraine Stephens–Ms. Stephens is a HP 2 in the medical inspection section. She has twenty six years of experience nuclear medicine including experience as a program director, assistant radiation safety officer, and training coordinator. Ms. Stephens is a new employee. She will be entering the Bureau training program as specified in the staffing and training document this fall. At the time of the agreement she will have completed the core training program sponsored by the Bureau, and be qualified to conduct incident response investigations, gauges and analytical instruments inspections, and medical inspections except broad scope and therapy, and gauges and analytical instruments.

13. Frank Talbot–Mr. Talbot is a HP 3 in the non-medical inspection section. He has nine years of experience in health physics. He has completed the following NRC-sponsored training courses: G-108 (Inspection Procedures), G-109 (Licensing Practices and Procedures), H-109 (Applied Health Physics) , H-119 (Air Sampling for Radioactive Materials), H-305 (Safety Aspects of Industrial Radiography), H-308 (Transportation of Radioactive Materials) , and H-313 (Teletherapy and Brachytherapy). He has completed the Bureau sponsored core training in rules and regulations, inspection, licensing, enforcement, radiation protection and incident response. He has completed a significant number of medical inspections, gauge and analytical instrument inspections, and decommissioning inspections. He is qualified to perform all types medical inspections except broad scope. He is qualified to perform inspections of gauges and analytical instruments and conduct incident response investigations. He is qualified to support decommissioning activities. At the signing of the agreement he will be qualified in research and development, industrial radiography, and irradiators

14. Carl Von Ahn-- Mr. Von Ahn is a HP 2 in the technical services section. Mr. Von Ahn is a new employee and has nine years of experience in health physics with concurrent assignments as a Radiation Control Technician and Assistant Radiation Safety Officer at Case Western Reserve University (CWRU). Mr. Von Ahn has four years experience as an Assistant Radiation Safety Officer for a Broad Scope Type A Research and Development and Medical Research License. This experience resulted in inspections in radioisotope laboratories, irradiators, and low-level radioactive waste. Mr. Von Ahn drafted the CWRU response to the NRC in pursuit of their broad scope application. He is registered with the National Registry of Radiation Protection Technologists. He will be entering the Bureau training program as specified in the staffing and training document this fall. Mr Von Ahn, by virtue of his prior experience is qualified to perform inspections and license reviews of research and development and broad scope medical licenses. He is qualified to conduct inspections of irradiator facilities, support decommissioning activities, and support incident response investigations.

15. Jim Webb–Mr. Webb is a HP 3 in the decommissioning section. Mr. Webb has more than twenty years of health physics experience with the great majority of his experience being

with nuclear power plants. Mr. Webb Has completed the NRC-sponsored inspection procedures course (G-108) and the Bureau-sponsored training in rules and regulations, licensing, inspection, enforcement, radiation protection, and incident response. Mr. Webb has performed through accompaniment medical inspections and gauge and analytical instrument inspections. Mr. Webb has had extensive involvement in providing lead oversight of DOE decontamination/decommissioning activities at the Mound site in Ohio. This requires extensive document review, on-site health physics analysis, and report preparation. Mr. Webb has reviewed and analyzed hundreds of documents in the course of his experience at Mound. Mr. Webb has been the lead Bureau staff person at Shieldalloy and coordinated the slag return project at Shieldalloy that involved the Cyprus Foote Corporation. In addition, Mr. Webb has coordinated much of the Bureau's involvement at the Advanced Medical Services facility as well as the Shelwell site. Mr. Webb is qualified in decommissioning-particularly the review and analysis of proposed decommissioning approaches.

Ohio Department of Health, Bureau of Radiation Protection: Qualification Statement

Last Name	First Name	Title	Eduction/ Degree(s)	..tal Years of HP Experience	HP Related Training	License Application/Packets Reviewed	Inspections Performed	Incident Response	Certifications/ Regulations	State Qualification Statement
Cicotte	**George**	HP-3	BS	GOV (5) IRL (5) RSO (1) NPP (6) MIL (6)	G-108 G-109 H-111 H-120 H-201 H-308 H-312 R-104P R-106B DOT HAZ HAZ (8) BRP-005 BRP-006	MED-2120 (1) MED-2121 (12) MED-2201 (6) MED-2220 (3) MED-2500 (1) MSP-3121 (5) MSP-3122 (1) MAD-3124 (2)	MED-2120 (2) MED-2121(2) MED-2201 (2) MED-2220 (1) MSP-3121.1 (1) OTH-2515 (13) OTH-2515 (37) {NPP} OTH-2514 (3) {NPP pre-op} OTH-2400 (3) {production fac} OTH-2513 (1) {Test Rx} OTH-2500 (2) {Weapons} DEC-2515 (3) {NPP}	MAD-3213 (1) Allegation of unlicensed RAM OTH-2400 (1) Medical waste in municipality OTH-2400 (1) Off Normal, Plutonium Plant OTH-2515 (1) Alert, Davis Besse	CHP (Part 1)	See Attached Qualification Description
Colleli	**Jim**	HP-3	BS, MS	GOV(4)	BRP-001 BRP-002 BRP-003 BRP-004 BRP-005 h-117 H-119 DOT		DECxxxx NRCxxxx		CHP (Part 1)	
Cosner	**Doug**	HP-2	BA	Diagnostic and Theraputic NMT (6) Training of NMT students (2)					C.N.M.T. (N) A.R.R.T	
Crombie	**Joseph**	HP-2	BS, MS	GOV (3.5) UNI (3.0) IRL (4.0) MED (2.0)	H-119 H-304 BRP-001 BRP-002 BRP-003 BRP-004 BRP-005		MED-2120 (4) MED-2121 (4) MSF-3220 (2) MAD-3124 (2)	Scrap Run (3) Airport Nuclear Medicine package opened (1)	CHP (Part 1)	
Fortkamp	**Jonathan**	HP-1	BS, MS, PhD	GOV (2) UNV (2)	BRP-001 BRP-002 BRP-003 RMD-XRF	MED-2201 (2) MSP-3122 (2) MSP-3250 (1)	MED-2120 (2) MSF-3120 (3) MSP-3121 (1) MSP-3122 (2)	Scrap Run (2)		

Last Name	First Name	Title	Eduction/ Degree(s)	Total Years of HP Experience	HP Related Training	License Application/Packets Reviewed	Inspections Performed	Incident Response	Certifications/ Regulations	State Qualification Statement
Goodwin	**Ronald**	HP-3	BS	GOV (3.5) NPP (21) MIL (4.5) IRL (2) COM* (1.5) *COM = Commercial Industry	16 Week H-201 H-308 G-108 G-109 USN - Art 108 USN - Art 109 DOT HAZ (40) (T) HAZ (8) (T) HMRTK (T) CERCLA (D) RCRA (D) BRP-001 (D,T) BRP-002 (D,T) BRP-003 (D,T) BRP-004 (D,T) BRP-005 (D,T) BRP-006 (D,T) BRP-007 (D,T) EP (D,T)	OTH-NPP (Tech Spec, FSAR, EP, LLRW) OTH-ODH - Licensing Program (D)	LLRW (Beatty) (36) #30 NPP (30+) WLF-3110 MSF 3120.1 MED 2120 WSD 3231 WSD 3234 RAD 3610	EP-NPP (Numerous) Scrap alarm (10) #10 Landfill alarm (10) #10 Lost Source (1) #1		
Lipp	**Celeste**	HP-3	BS	NPP (3) IRL (5) GOV (2) UNV (1)	H-120 H-305 H-314 HAZ BRP-001 BRP-002 BRP-003 BRP-004 BRP-005	MED-2500 (1) MAD-xxxx (1) IRS-xxxx (1) DEC-xxxx (11) #11		source recovery (1) Verify closeout (1) Respond to alarm (5)		
McCracken	**Charles**	HP-3	BS	NPP (12) GOV (1)	H-120 H-314 H-305 H-304 H-308 G-108 G-109 BRP-001 BRP-002 BRP-003 BRP-004 BRP-005 BRP-006	MED-2201 (4) MED-2121 (9) MED-2120 (1) MSP-3122 (5) MSP-3121 (1) MSP-OH004 (5)	MED-2121 (4) MED-2201 (4) #2 MED-2500 (1) RAD-3612 (1) DEC (7)	Investigation of unidentified RAM (1) Investigation of Radiation Monitor Alarms (7)	NRRPT	

Last Name	First Name	Title	Eduction/Degree(s)	Total Years of HP Experience	HP Related Training	License Application/Packets Reviewed	Inspections Performed	Incident Response	Certifications/Regulations	State Qualification Statement
Reid	**Robert**	HP-3	BS, MS	MED (16) OTH (Program Director, Nuclear Medicine) (4) RSO (3) OTH (Consultant) (1) GOV (1)	H-304 G-108 BRP-001 BRP-002 BRP-003 BRP-005	OTH-1129 (Academic) (1) MED 2201 (2) MED 2120 (1) MED 2500 (1) MED 2220 (1) MED 2230 (1) MSP 3121 (1)	MED 2230 (3) MED 2300 (5) MED 2500 (2) MED 2400 (1) MED 2110 (2) MED 2120 (12) #5 MED 2121 (14) #4 MED 2200 (1) MED 2201 (8) #3 MSP 3121 (5) RAD 3610 (2) IRS 3320 (1) IRR 3510 (1) OTH (Brachytherapy) (2)	Landfills (3) Scrap Alarms (2) Allegations (1) Gauges (2) NPP Drills (2)	ARRT (N) NMTCB	
Rogers	**Brent**	HP-3	BS	MIL (6) NPP (5) OTH (2) GOV (2)	USN-Art 108 DOT H-119 H-201 H-304 H-305 H-308 G-108 G-109 HAZ HAZ-8 (2) RERO BRP-001 BRP-002 BRP-005 OSU-RSO	MSP-OH 004 (1) OTH-1100 (1) (Academic) OTH-1120 (1) (Academic) MED-2120 (3) MED-2121 (10) MED-2201 (3) MED-2500 (3) MAD-3120 (2) MAD-3124	MED-2201 (4) MED-2121 (2) OTH-1110 (Academic) (1) SURVEYS: OEPA (1) NRC (1)	Investigation of Unidentified RAM (3) #2 Investigation of Radiaton Monitor Alarms (4) #3	NRRPT	
Snee	**Michael**	HP-3	BS	NPP (5) GOV (2) MIL (6)	H-120 H-201 H-304 H-305 H-308 H-313 H-314 G-108 G-109 SS&D WORKSHOP BRP-001 BRP-002 BRP-003 BRP-004 BRP-005 BRP-006 RERO	MED2201 (6) MED2121 (13) MSP 3122 (5) MAD2511 (1)	MED 2201 (7) # 7 MED 2121 (25) # 25 MSP 3122 (15) # 15 MSP 3121 (6) # 6 MSF 3120 (1) # 1 RAD 3620 (1)D OTH 22120 (1) OTH 2500 (3) # 3 DEC (4)	Investigation of unidentified RAM (16) Investigation of monitor alarm (10) Allegations of Illegal use of RAM (4)	NRRPT	

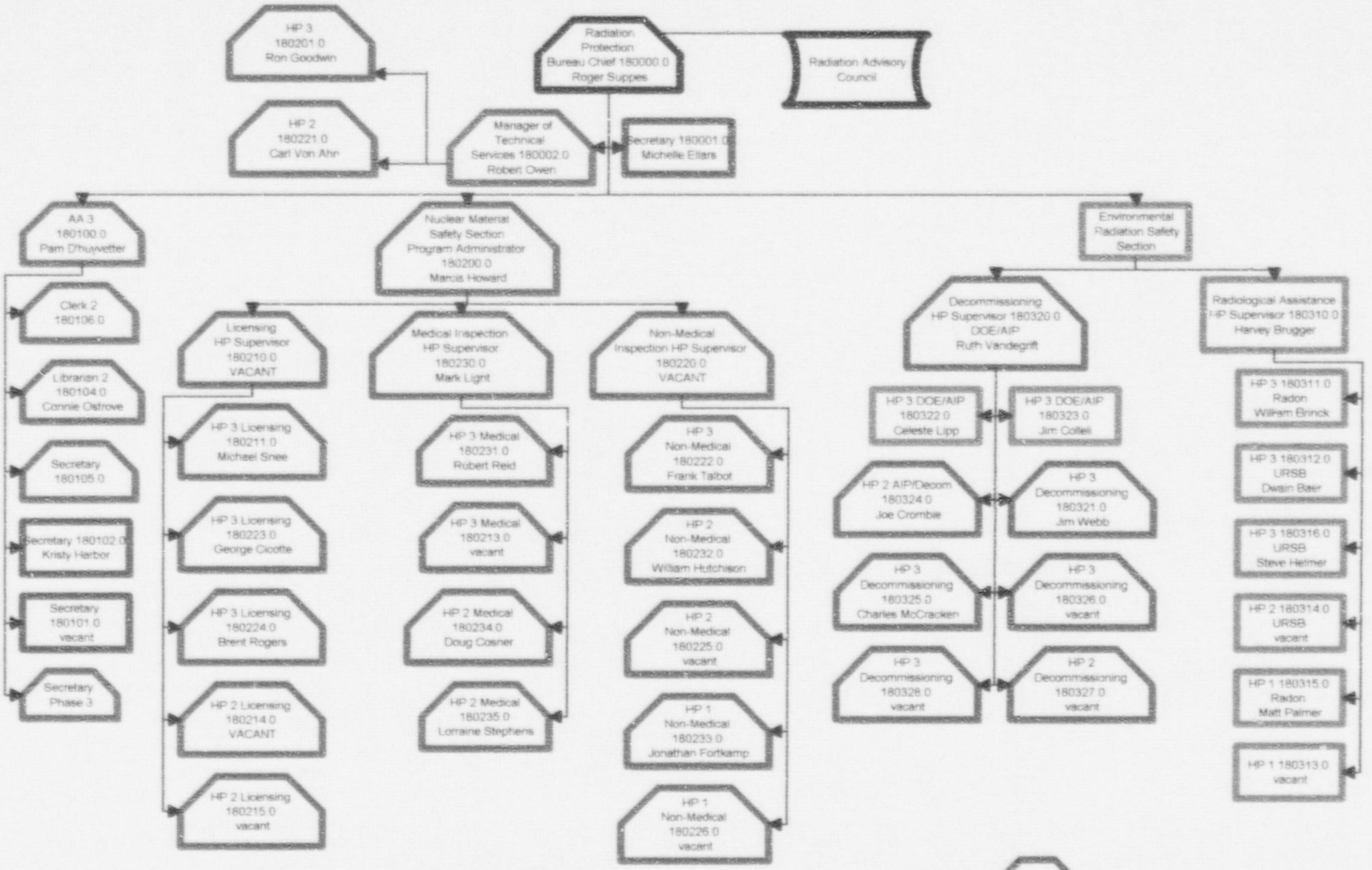
Last Name	First Name	Title	Eduction/ Degree(s)	Total Years of HP Experience	HP Related Training	License Application/Packets Reviewed	Inspections Performed	Incident Response	Certifications/ Regulations	State Qualification Statement
Stephens	**Lorraine**	HP-2	BS, BSW, MSW	MED (26) Program Director (5) Asst RSO (5) Training (5) Diagnostic Xray ,5) Nuc Med Tech (6)					AART Ohio Counseler/Social Work Board	
Talbot	**Frank**	HP-3	BSA	GOV (5.5) MED (3.5)	H-109 G-109 G-108 H-305 H-308 H-313 DOT BRP-001 BRP-002 BRP-003 BRP-004 BRP-005 HAZ HAZ-8 RERO ARIO	MED 2201 (2) MED 2121 (2) MSP 3121 (1)	MED 2201 (12) #7 MED 2121 (13) #8 MAD 2500 (1) MAD 2511 (1) #1 MSF (1) #1 MSP 3122 (3) #2 NRC 2506 (1) NRC 2230 (1) DEC (23) #16	Landfill Scrap Alarms (2) Scrap Metal Dealer alarms (6) Abandonded/Discoverd Sources (2)	NMTCB ARRT RMD LPA (P
VonAhn	**Karl**	HP-2	B.S. Biomed	MED, UNV, R+D (9) ARSO (4)	DOT HAZ HAZ(8)	OTH 3610 OTH 3511 OTH DEC 11200 OTH DEC 22120	OTH -3610 (R+D A Broad) OTH -3511(IRRAD)	OTH (Fires) (3) OTH (Explosions) (2) OTH (Spills) (2)	NRRPT	
Webb	**Jim**	HP-3	BS, MBA	NPP - 15.42 GOV - 3.17 UNV - 1.83	G-108 BRP-001 BRP-002 BRP-003 BRP-004 BRP-005		MED-2120 (2) MED-3122 (2) MED-2400 (1) OTH-3800 (1) DEC-3900 (3) DEC-11900 (3)	H3 release (1) Scrap (1) NPP Alert (1) Co-60 source (1) Flood of licensee (1)	CHP Part 1	

ATTACHMENT 2

TABLE OF ORGANIZATION

BUREAU OF RADIATION PROTECTION

BUREAU OF RADIATION PROTECTION
TABLE OF ORGANIZATION



7/17/1998 9:40

ATTACHMENT 3

INSPECTIONS SPREADSHEET

NUMBERS OF LICENSES FOR INSPECTION

ohio lic	BROAD SCOPE	insp freq	NRC only	NARM only	Total Licenses	insp/yr	Man Days Per Insp	Man Days Required Per YR	# OF QUALIFIED INSPECTORS DESIRED FOR SPECIALTY AREA
1100	Academic Type A Broad	2	2		2	1.00	7.50	7.50	
1110	Academic Type B Broad	3	0		0	0.00	4.00	0.00	
1120	Academic Type C Broad	5	2		2	0.40	2.50	1.00	
2110	Medical Institution Broad	1	7		7	7.00	7.50	52.50	
3211	Mfrg Distrib Type A Broad	1	4		4	4.00	7.50	30.00	
3212	Mfrg Distrib Type B Broad	3	2		2	0.67	4.00	2.67	
3213	Mfrg Distrib Type C Broad	5	1		1	0.20	2.50	0.50	
3610	R & D Type A Broad	2	3		3	1.50	7.50	11.25	
3611	R & D Type B Broad	3	2		2	0.67	4.00	2.67	
3612	R & D Type C Broad	5	1		1	0.20	2.50	0.50	
				Sub Total	24	15.63		108.58	2.00
	MEDICAL								
2120	Med Inst QMP Req	3	119		119	39.67	3.75	148.75	
2121	Med Inst QMP Not Req	5	19		19	3.80	2.00	7.60	
2200	Med Priv Prac	3	17		17	5.67	2.75	15.58	
2201	Med Priv Prac QMP Not Rqd	5	37	15	52	10.40	1.75	18.20	
oh2999	Med Instit lmtd scope <1000 PROCEDURES/YR	3	0	25	25	8.33	1.75	14.58	
2210	Eye Applicators	3	0		0	0.00	1.25	0.00	
2220	Mobile Nuclear MEdicine Service	2	3	3	6	3.00	2.00	6.00	
2230	High Dose Remote Afterloader	1	6		6	6.00	1.75	10.50	
2231	Mobile High Dose Remote Aftrldr	1	0		0	0.00	1.75	0.00	
2240	Mobile Therapy	2	0		0	0.00	2.00	0.00	
2300	Teletherapy	3	13		13	4.33	2.00	8.67	
2400	Veterinary Non Human	5	2	1	3	0.60	2.00	1.20	
2410	In vitro Test Labs	5	4		4	0.80	2.50	2.00	
2500	Nuclear Pharmacies	1	3	12	15	15.00	5.50	82.50	
				Sub Total	279.00	97.60		315.58	4.00
	GAUGES								
3120	Meas Sys Fixed Gauges 3-10	5	88		88	17.60	2.00	35.20	
	Meas Sys Fixed Gauges11-25	5	0	3	3	0.60	2.50	1.50	
	Meas Sys Fixed Gauges 26+	5	0		0	0.00	3.00	0.00	
oh3120	Category 3120 < 3 Fixed	5	0	24	24	4.80	2.00	9.60	
oh3121	Category 3121 < 3 Portable	5	0	56	56	11.20	2.00	22.40	
	General License Conversions	5	300	0	300	60.00	2.25	135.00	
3121	Meas Sys Portable Gauges	5	107	3	110	22.00	2.25	49.50	
3122	Meas Sys Analytical Instruments	5	11	0	11	2.20	1.50	3.30	
3123	Meas Sys Gas Chromatographs	5	13	0	13	2.60	1.25	3.25	
3124	Measuring Systems - Other	5	2	16	18	3.60	1.25	4.50	
				Sub Total	623.00	124.60		264.25	2.00

NUMBERS OF LICENSES FOR INSPECTION

ohio lic	OTHER LICENSES	insp freq	NRC only	NARM only	Total Licenses	insp/yr	Man Days Per Insp	Man Days Required Per YR	# OF QUALIFIED INSPECTORS DESIRED FOR SPECIALTY AREA
oh1129	Academic classroom only	5	0	2	2	0.40	1.50	0.60	
3214	Mfgr Distrib Other	3	10	2	12	4.00	2.50	10.00	
3220	Leak TEsting Service	5	3	2	5	1.00	3.00	3.00	
3221	Instr Calib Service Only Self Shield	5	3		3	0.60	2.00	1.20	
3222	Inst Calib Service Only Other	3	1		1	0.33	1.75	0.58	
3240	Gen Lic Distrib 32.51	5	4		4	0.80	1.75	1.40	
3242	Gen Lic Distrib 32.57	5	1		1	0.20	1.75	0.35	
3251	Exmpt Distr 32.14 Certain Items	5	4		4	0.80	1.75	1.40	
3253	Exmpt Distr 32.18 Small Qty	5	1		1	0.20	1.75	0.35	
3255	Exmpt Distr 32.26 Smoke Detectors	5	1		1	0.20	1.75	0.35	
3620	R & D Other	5	31		31	6.20	2.50	15.50	
3710	Civil Defense	5	1		1	0.20	2.00	0.40	
3800	By Product material - possession	3	2		2	0.67	3.50	2.33	
3900	Decom of Byprdt Mat Facil	1	1		1	1.00	2.00	2.00	
				Sub Total	69.00	16.60		39.47	1.00
	WELL LOGGING/INDUST. RADIOGRAPHY								
3110	Well Log/SNM Src Trcr	3	1		1	0.33	3.00	1.00	
3111	Well Log/SNM Src only	3	4		4	1.33	3.00	4.00	
3320	Industr Radiography Temp Job Sites	1	8		8	8.00	1.75	14.00	
3310	Indstr Radiography Fixed location	1	6	2	8	8.00	1.75	14.00	
				Sub Total	21	17.67		33.00	1.00
	IRRADIATORS								
3510	Irradiators Self Shield <10kCi	5	8		8	1.60	4.50	7.20	
3511	Irradiators Other <10kCi	3	3		3	1.00	5.50	5.50	
3520	Irradiators Self Shield > 10kCi	3	2		2	0.67	4.50	3.00	
3521	Irradiators Other >10kCi	1	3		3	3.00	5.50	16.50	
3225	Other Service Teleth, Irrad, Gauge	3	13	6	19	6.33	4.50	28.50	
				Sub Total	35	12.60		60.70	2.00

NUMBERS OF LICENSES FOR INSPECTION

SOURCE AND SNM

ohio lic		insp freq	NRC only	NARM only	Total Licenses	insp/yr	Man Days Per Insp	Man Days Required Per YR	# OF QUALIFIED INSPECTORS DESIRED FOR SPECIALTY AREA
11200	Source Mtl Other <150 Kilograms	5	3		3	0.60	2.00	1.20	
11230	Source Mtl GL Distrib 40.34	5	10		10	2.00	2.00	4.00	
11700	Rare Earth Extraction Processing	3	1		1	0.33	1.75	0.58	
21130	Hot Cell Operations	0.33	1		1	3.03	2.00	6.06	
22111	SNM U 2235 U 233 Unsealed <CM	2	1		1	0.50	full	0.00	
22120	SNM Plut Neutron Srcs <200Grams	5	9		9	1.80	2.00	3.60	
22140	SNM Plut Sealed Srcs in Devices	5	1		1	0.20	2.00	0.40	
22160	Pacemaker, SNM Med Inst	5	3		3	0.60	2.00	1.20	
			-						
				Sub Total	29	9.06		17.04	1.00
			908	172	1080	294		838.63	

TOTAL AVAILABLE MAN DAYS PER YEAR =	1470
TOTAL INSPECTION MAN DAYS PER YEAR =	-839
REINSPECTION OF FACILITIES @25% OF ANNUAL INSPECTIONS	-73
INSPECTION SHARE OF INCIDENT RESPONSE	-64.29
REMAINING MAN DAYS PER YEAR	493.65

MAN DAYS CALCULATION: 52 WEEKS X 5 DAYS = 260 DAYS
MINUS 10 DAYS VACATION
MINUS 10 DAYS SICK LEAVE
MINUS 10 DAYS HOLIDAY
MINUS 4 DAYS PERSONAL
MINUS 16 DAYS TRAINING
210 MAN DAYS

INCIDENT RESPONSE =75 INCIDENTS PER YEAR @ 2 MAN DAYS PER RESPONSE = 150 MAN DAYS
Man-Days per year = 42 weeks X 5 days = 210 Days X 7 Inspectors = 1470 Man Days

Data based on the NRC print out 2/6/98

Revised 07/21/96

ATTACHMENT 4

POSITION DESCRIPTIONS AND WORK EXPECTATIONS

HP-I

HP-II

HP-III

POSITION DESCRIPTION

OHIO DEPARTMENT OF ADMINISTRATIVE SERVICES

PERSONNEL DIVISION

AGENCY: DEPARTMENT OF HEALTH

DIVISION OR INSTITUTION: BUREAU OF RADIATION PROTECTION

UNIT OR OFFICE: NUCLEAR MATERIALS SAFETY

POSITION CONTROL NUMBER: 180213.0

CLASS TITLE: HEALTH PHYSICIST 3

CLASS NUMBER: 84643

✓	State Agency		County Agency		New Position	✓	Change	COUNTY OF: FRANKLIN

USUAL WORKING TITLE OF POSITION: HEALTH PHYSICIST 3

POSITION NO. AND TITLE OF IMMEDIATE SUPERVISOR: HEALTH PHYSICS SUPERVISOR 180230.0

NORMAL WORKING HOURS (Explain unusual or rotating shift)

FROM: 7:45 A.M. TO: 4:30 P.M.

JOB DESCRIPTION AND WORKER CHARACTERISTICS

%	Job Duties in order of Importance	Minimum Acceptable Characteristics
50	Performs independent complex and/or non-repetitive evaluations and inspections (e.g. special investigations, technical evaluations and inspections, reports of hazardous situations and complaints, research projects) of the production, use, release, disposal, and/or presence of ionizing radiation from radioactive materials at or in the environs of: nuclear power plants, federal project sites, licensed nuclear facilities, waste generators, contaminated sites, medical facilities, and any other location where radioactivity may be present, including residential, industrial, commercial and public properties. Evaluate complex, special or unusual use of radioactive materials, license applications for the production, use, release, disposal, and/or presence of ionizing radiation from radioactive materials to assure that the application meets Bureau license requirements for public health and safety. Provides quality control for data management aspects of investigations, evaluations, inspections, and license reviews. Acts as a team leader for team inspections. Participates in incident response. Acts as lead worker for lower level health physicists to insure compliance and conformance with criteria, standards, policies, objectives, procedures, and evaluation/inspection and license review methods. Records accurately and/or assists lower level health physicists in recording inspection data obtained through performance of tests, observations, interviews and reasoning. Develop, write and/or edit reports of evaluations performed of radiological operations. Communicate with medical, industrial, or residential occupants where radiological survey work is being performed. (8/16/96)	RANK 1: Knowledge of: 5, 7, 8, 9.a (in order to plan and inspect facilities, and to assist in training other staff), 10(safety practices for radiation protection of workers and the public), 11.a(in order to interact with the public during inspections, emergency response activities, and on the telephone), 13.b(programmatic evaluative procedures, standards, guides, and recommendations), 14(regulatory authority of various state and federal agencies over radiation), 15(ability to counsel facilities on radiation protection practices and procedures), 20(general physics, radiation physics, biological effects of radiation, investigation and survey procedures, biology, environmental radiation), 22(use a computer for report-writing, statistical analysis, and data entry), 23(knowledge of and ability to apply the Code of Federal Regulations to applicable radiation situations, knowledge of and ability to enforce Ohio Revised Code and Ohio Administrative Code provisions as they relate to radiation). Skill in: 25(use of computer keyboard for report generation, statistical analysis, and data entry), 29(use of and understanding of the analytical output of a wide range of radiation detection instrumentation and associated equipment, able to use a scientific calculator for radiation decay and dose calculations)

List Position Numbers and Class Titles of positions directly supervised	SIGNATURE OF AGENCY REPRESENTATIVE	DATE
none		

POSITION DESCRIPTION

OHIO DEPARTMENT OF ADMINISTRATIVE SERVICES

PERSONNEL DIVISION

AGENCY: DEPARTMENT OF HEALTH

DIVISION OR INSTITUTION: BUREAU OF RADIATION PROTECTION

UNIT OR OFFICE: NUCLEAR MATERIALS SAFETY

POSITION CONTROL NUMBER: 180213.0

CLASS TITLE: HEALTH PHYSICIST 3

CLASS NUMBER: 84643

✓ State Agency		County Agency		New Position	✓ Change	COUNTY OF: FRANKLIN

USUAL WORKING TITLE OF POSITION: HEALTH PHYSICIST 3

POSITION NO. AND TITLE OF IMMEDIATE SUPERVISOR: HEALTH PHYSICS SUPERVISOR, 180230.0

NORMAL WORKING HOURS (Explain unusual or rotating shift)

FROM: 7:45 A.M. TO: 4:30 P.M.

JOB DESCRIPTION AND WORKER CHARACTERISTICS

%	Job Duties in order of Importance	Minimum Acceptable Characteristics
30	Write reports on compliance of facilities evlauated/inspected based on applicable Ohio Revised Code and Ohio Administrative Code. Maintain a working knowledge of applicable state and federal regulations and be able to cite applicable codes from such agencies (e.g., US NRC, US DOE, US DOT, US EPA, and US FDA). Knows standards of the Conference of Radiation Control Program Directors (CRCPD), National Council on Radiation Protection and Measurements (NCRP), and the American National Standards Institute (ANSI). Formulates recommendations on the facility quality assurance program concerning radiation protection, radiation control and radiation safety of both workers and the general public. Evaluates and reviews radiation protection plans, both architectural and procedural, and documents for compliance with radiation protection criteria and standards; reports findings; recommends approval, disapproval, or modification as required. Evaluates documents written by others for applicability to radiation protection. Writes reports of document evaluation. Provides inspection/evaluation reports on compliance for supervisory review. Maintains knowledge of current issues in radiation protection and safety through review of professional publications. Maintains technical files and data bases on facilities evaluated. Participates in sealed source and device review. Makes recommendations for supervisor approval for adding the new sealed source and/or device to the NRC SS&D data bank. Evaluates complex or unusual radiation problems in the medical, industrial and academic uses of radiation sources and recommend appropriate action.	Ability to: 30.r(deal with many variables & determine specific action - determine compliance with regulations during inspections and emergency response situations involving large facilities with a wide range of radiation sources), 31.g(deal with complicated equations for determining radioactive decay, dose estimation, and a variety of potential exposure situations), 32.i(complete routine forms - inspection forms, license review forms, daily itineraries, travel forms, etc.), 32.j(maintain accurate records - inspection, license review, laboratory analysis reports), 32.l(write routine business letters reflecting standard procedures - compliance letters to facilities must use proper grammar, punctuation, and spelling), 32.n(understand manuals and verbal instructions technical in nature), 32.p(proofread technical materials, recognize errors in text and calculations and make corrections-review of HP 1&2 survey reports, license reviews, architectural, QA, and procedural radiation safety plans), 32.q(use proper research methods in gathering data - inspections and license reviews require the same type of documentation as research), 32.r(prepare and deliver speeches before specialized audiences & general public), 32.u(develop complex reports & position papers), 34.b(work alone and independently on most tasks, works well in field situations on his/her own),

List Position Numbers and Class Titles of positions directly supervised

none

SIGNATURE OF AGENCY REPRESENTATIVE

DATE

POSITION DESCRIPTION

OHIO DEPARTMENT OF ADMINISTRATIVE SERVICES

PERSONNEL DIVISION

AGENCY: DEPARTMENT OF HEALTH

DIVISION OR INSTITUTION: BUREAU OF RADIATION PROTECTION

UNIT OR OFFICE: NUCLEAR MATERIALS SAFETY

POSITION CONTROL NUMBER: 180213.0

CLASS TITLE: HEALTH PHYSICIST 3

CLASS NUMBER: 84643

✓ State Agency		County Agency		New Position	✓ Change	COUNTY OF
						FRANKLIN

USUAL WORKING TITLE OF POSITION: HEALTH PHYSICIST 3

POSITION NO. AND TITLE OF IMMEDIATE SUPERVISOR: HEALTH PHYSICS SUPERVISOR, 180230.0

NORMAL WORKING HOURS (Explain unusual or rotating shift)

FROM: 7:45 A.M. TO: 4:30 P.M.

JOB DESCRIPTION AND WORKER CHARACTERISTICS

%	Job Duties in order of Importance	Minimum Acceptable Characteristics
10	Uses and explains the use to others of a wide variety of radiation survey instrumentation for detection of alpha, beta, and gamma radiation. Maintains, calibrates and inventories this equipment. Maintains records of use, calibration and maintenance of equipment. Makes presentations to professional organizations, government entities, and public groups regarding nuclear safety issues; provides technical assistance to practitioners, scientists and officials of private and government organizations. Assists the supervisor in training lower level health physicists and new staff. Acts as trainer for the section and prepares lesson plans, student hand-outs, exams, and conducts training courses for staff. Recommends special license conditions indicating limitations or restrictions on licensed operations based on a review of the special case indicated in the license application. Prepares technical instructions, notices, and bulletins relating to current standards/problems found for dissemination to licensees. Evaluates unusual radiation quality assurance and patient care problems where new criteria and policy must be established. Outlines the necessary changes in a position paper as preparation for supervisory revision of policy.	34.c(cooperate with co-workers on group projects), 34.d(answer routine telephone inquiries from the public - on radiation issues), 34.f(handle sensitive inquiries from & contacts with officials & general public), 34.i(resolve complaints from angry citizens & governrnent officials), 34.j(resolve complaints from angry citizens and government officials), 35.a(demonstrate physical fitness - inspection, environmental monitoring, and emergency response require working out-of-doors in all weather conditions and an ability to traverse uneven terrain, an ability to climb such structures as oil storage tanks, ladders in multi-story buildings and partially complete buildings, sometimes carrying heavy survey kits and/or wearing breathing masks and carrying an air tank), 35.c(ability to lift and carry survey equipment which may weigh 40 pounds). Emergency response activities may require evening and weekend work and may require wearing a pager for 24-hour on-call availability. RANK 2: Same as above. RANK 3: Same as above. RANK 4: Same as above. CRITICAL ELEMENTS: 1. Knowledge of radiological health, radiation safety, and/or health physics

List Position Numbers and Class Titles of positions directly supervised	SIGNATURE OF AGENCY REPRESENTATIVE	DATE
none		

POSITION DESCRIPTION

OHIO DEPARTMENT OF ADMINISTRATIVE SERVICES

PERSONNEL DIVISION

AGENCY: DEPARTMENT OF HEALTH

DIVISION OR INSTITUTION: BUREAU OF RADIATION PROTECTION

UNIT OR OFFICE: NUCLEAR MATERIALS SAFETY

POSITION CONTROL NUMBER: 180213.0

CLASS TITLE: HEALTH PHYSICIST 3

CLASS NUMBER: 84643

✓ State Agency		County Agency		New Position	✓ Change	COUNTY OF FRANKLIN

USUAL WORKING TITLE OF POSITION: HEALTH PHYSICIST 3

POSITION NO. AND TITLE OF IMMEDIATE SUPERVISOR: HEALTH PHYSICS SUPERVISOR 180230.0

NORMAL WORKING HOURS (Explain unusual or rotating shift)

FROM: 7:45 A.M. TO: 4:30 P.M.

JOB DESCRIPTION AND WORKER CHARACTERISTICS

%	Job Duties in order of Importance	Minimum Acceptable Characteristics
10	Participate with federal, state and local agencies in responding to a radiation emergency (or exercise), including nuclear power plants during actual emergencies or drill scenarios. Communicate in person and by telephone with other state and federal emergency response personnel and the public-at-large, and with facility staff, and participating local, state and federal entities. Assists dose assessment team leader in radiological dose assessment function and coordination activities.	practices and procedures will be demonstrated by completion of college level course work equivalent** to a bachelors degree in health physics, radiation physics, radiological sciences, engineering, physical sciences, or life sciences. **Equivalent means: Completion of baccalaureate degree in areas listed above; or Any baccalaureate degree plus evidence of completion of the Navy Nuclear School; or An associate degree in allied health (x-ray technology/ARRT-R) plus a certificate from a recognized nuclear medicine school (ARRT-N) or a certifying board equivalent to ARRT; or Completion of 80 semester hours of college level course work in science acceptable to the department (NRC training courses or power plant training courses that are equivalent to the semester hour courses may be substituted for 50% of the required college level training courses; The determination for semester hour equivalency is 18 contact hours of training equals 1 semester hour of credit; See section 4.1.1 of ANSI standard 3.1-1987).

List Position Numbers and Class Titles of positions directly supervised

none

SIGNATURE OF AGENCY REPRESENTATIVE

DATE

POSITION DESCRIPTION

OHIO DEPARTMENT OF ADMINISTRATIVE SERVICES

PERSONNEL DIVISION

AGENCY: DEPARTMENT OF HEALTH

DIVISION OR INSTITUTION: BUREAU OF RADIATION PROTECTION

UNIT OR OFFICE: NUCLEAR MATERIALS SAFETY

POSITION CONTROL NUMBER: 180213.0

CLASS TITLE: HEALTH PHYSICIST 3

CLASS NUMBER: 84643

✓ State Agency		County Agency		New Position	✓ Change	COUNTY OF: FRANKLIN

USUAL WORKING TITLE OF POSITION: HEALTH PHYSICIST 3

POSITION NO. AND TITLE OF IMMEDIATE SUPERVISOR: HEALTH PHYSICS SUPERVISOR 180230.0

NORMAL WORKING HOURS (Explain unusual or rotating shift)

FROM: 7:45 A.M. TO: 4:30 P.M.

JOB DESCRIPTION AND WORKER CHARACTERISTICS

%	Job Duties in order of Importance	Minimum Acceptable Characteristics
		3. Has completed supervisory sign-off for all required tasks listed on the health physicist 2 work expectations within the Nuclear Materials Safety Section; OR has 5 years of full time work experience (2 years of which must be at an equivalent level) in another state and/or federal radiation control program with documantation of similar inspection experience in radioactive materials and completion of equivalent training; OR has 6 years full time work experience (3 years of which must be at an equivalent level) in nuclear safety or radioactive materials in a radiation control program within industry, a medical facility, or a university and documentation of equivalent training. This experience must be broad in scope, cover related areas to those listed for the ODH health physicist 2, and must be verifiably documented. 4. Must be eligible, willing, and able to participate in all NRC, FEMA, and FDA training courses.

List Position Numbers and Class Titles of positions directly supervised

none

SIGNATURE OF AGENCY REPRESENTATIVE

DATE

POSITION DESCRIPTION

OHIO DEPARTMENT OF ADMINISTRATIVE SERVICES

PERSONNEL DIVISION

AGENCY: DEPARTMENT OF HEALTH

DIVISION OR INSTITUTION: BUREAU OF RADIATION PROTECTION

UNIT OR OFFICE: NUCLEAR MATERIALS SAFETY

POSITION CONTROL NUMBER: 180213.0

CLASS TITLE: HEALTH PHYSICIST 3

CLASS NUMBER: 84643

✓ State Agency		County Agency		New Position	✓ Change	COUNTY OF
						FRANKLIN

USUAL WORKING TITLE OF POSITION: HEALTH PHYSICIST 3

POSITION NO. AND TITLE OF IMMEDIATE SUPERVISOR: HEALTH PHYSICS SUPERVISOR 180230.0

NORMAL WORKING HOURS (Explain unusual or rotating shift)

FROM: 7:45 AM TO: 4:30 PM

JOB DESCRIPTION AND WORKER CHARACTERISTICS

%	Job Duties in order of Importance	Minimum Acceptable Characteristics
		5. Must be eligible and willing to obtain security clearance for entry into classified areas of federal facilities if required for the position (e.g. inspection or incident response for classified sections of federal facilities) 6. Must be willing and able to travel both for single day trips and overnight for inspection/incident response or for at least a week for training classes. The 5-week NRC health physics course may be required if the individual cannot document a similar training course or a degree in health physics.

List Position Numbers and Class Titles of positions directly supervised

NONE

SIGNATURE OF AGENCY REPRESENTATIVE

DATE

WORK EXPECTATIONS
NUCLEAR MATERIALS SAFETY SECTION
HEALTH PHYSICIST 3

This is a senior level position and the individual will be performing license reviews, inspections, incident response, environmental sampling, and other tasks assisted by another senior health physicist until supervisory sign-off is completed on each task listed for the HP 3 and any training courses. The individual will be responsible immediately for those tasks on the health physicist 1 and 2 lists upon entry to the health physicist 3 position and the individual must be able to demonstrate to the supervisor that he/she can perform them proficiently and unassisted. The individual must be able to act as lead worker for lower level health physicists. The individual must be able to use procedure manuals and guidance documents in completion of the assigned tasks. A senior level health physicist will be assigned to the new health physicist 3 as a mentor to assist in learning some tasks on the job. The mentor will work with the individual until he/she feels the individual is ready for supervisory review and sign-off on a specific task. This will include inspections, license reviews, and any incident response associated with the inspections, and assist with writing the inspection reports and any correspondence for inspections or license reviews. The individual will also work side-by-side with the assigned health physicist in reviewing license applications and assist in writing licensing documents and any correspondence. The supervisor will then review the task with the individual either by accompanying the individual in the field, sitting with the individual during a license review, and/or quizzing the individual on regulatory processes. If the supervisor feels that the individual is ready to perform the specific task unassisted, he/she will initial the appropriate line of the task list. No tasks on the health physicist 3 list will be performed without assistance until supervisory sign-off is achieved.

*MID PROBATION

Supervisory sign-off must be achieved on the following items:

1. Statutes, Regulations, and Standards (This is for individuals hired from outside of the Department of Health. Individuals promoted from within must have already achieved supervisory sign-off on this)

    a) Be able to cite applicable Ohio Revised Code and Ohio Administrative Code for license review and inspection compliance for the facility types on the HP 1 and 2 list.

    b) Be able to cite applicable federal regulations (e.g. NRC, DOT, FDA, EPA, FEMA) as applicable to inspection/license reviews of facilities on the HP 1 and 2 list.

c) Be able to cite applicable professional standards (e.g. NCRP, ICRP, ANSI, CRCPD).

2. Policies and Procedures (This is for individuals hired from outside of the Department of Health. Individuals promoted from within must have already achieved supervisory sign-off on this)

a) Administrative policies and procedures (e.g. sign in and out, leave policy, length of breaks and lunch, travel, etc.)

b) Know the organization of the Bureau and the general scope of work within the Nuclear Materials Safety Section.

c) Using the procedures manual for licensing and inspections be familiar with the general procedures and be able to assist with:

i) log-in of licenses
ii) license review tracking process
iii) pre-inspection preparation
iv) equipment necessary for inspecting different types and activities of radiation
v) inspection write-ups and compliance tracking

3. The individual must also have supervisory sign-off on at least two assigned facility types from the health physicist 3 list. The individual must consistently be able to demonstrate proficiency on inspections and license reviews on any of the facility types on the health physicist 1 and 2 lists.

4. The individual must also have demonstrated competence to respond to an incident using the bureau incident response plan and be able to perform all follow-up activities proficiently.

*FINAL PROBATION

By the time of the final probationary review, the individual must have supervisory sign-off on at least 5 additional inspection/license reviews listed in "ONGOING ASSIGNMENTS" #1 as assigned by the supervisor. This includes:

1. for inspections:

a) pre-inspection preparation
b) selection of the appropriate instrumentation

c) conducting the inspection
d) inspection write-up, travel reports, correspondence
e) compliance tracking
f) incident response involving any of the 3 facility types

2. for license reviews:

a) log-in process
b) review process
c) license conditions and writing of the license
d) preparation of paperwork for supervisory sign-off on the licensing recommendations
e) mailing of license package including any appropriate guidance documents

3. The individual must have demonstrated leadership ability and must have demonstrated the ability to act as lead worker for lower level health physicists on projects assigned during the probationary period.

4. The individual must demonstrate the ability to take a project assignment and develop a plan for completion and be able to follow that plan to complete the project within the assigned time. This will include coordination of activities of other staff assigned to assist with the project development to fulfill the role of the lead worker.

ON GOING ASSIGNMENTS

1. Learn specific license review and inspection procedures for, and perform license reviews and inspections without assistance as supervisor signature indicating competency is obtained for the following:

*a) Medical-broad scope
*b) Open irradiator-<10,000 Curies
*c) Open irradiator->10,000 Curies
*d) Full HP consulting service
*e) Decontamination and decommissioning service
*f) Research and development-type A, B, or C broad scope
*g) Academic-type A, B, or C broad scope
*h) Waste disposal
*i) Low-level waste disposal facility
*j) Broad scope manufacturing and distribution
*k) Develop and/or review environmental sampling and analysis plans as needed
*l) Review decontamination/decommissioning plans and be able to assess adequacy of the plan to meet clean-up criteria.

*m) Act as mentor (with demonstrated ability to promote both bureau and agency policies and philosophy) for lower level and newly hired health physicists.

*n) Act as project leader in development of programs/policies/rules as assigned by supervisor.

After competency has been demonstrated on the above specified inspections/license reviews, the individual may add optional inspections/license review to include (at the discretion of the supervisor):

*a) Participate in sealed source and device review

*b) Evaluate complex or unusual radiation problems in the medical and academic uses of radiation sources and recommend appropriate action

2. Training

Training will be obtained through "in house" training, NRC formal classes, FEMA formal classes, CRCPD training courses and other applicable training. Knowledge of current issues in radiation protection will be gained through review of professional publications.

a) Minimum training while in the position:

i) Special topics courses (e.g. sealed source and device review) (NRC)

*ii) Health physics engineering (NRC)

*iii) Health physics technology (NRC)

*iv) HAZWOPER review course (in house)

Other training is optional and will be taken at the discretion of the supervisor.

3. Other Responsibilities: These tasks will be assigned by the supervisor as experience and competence in the position increases:

*a) Answer inquiries from the public on inspections/license reviews

*b) Act as team leader for team inspections.

*c) Assist the supervisor in on-the-job training of lower level health physicists and new staff.

*d) Enter data via keyboard into computer utilizing data base software to assist in maintaining technical files and data bases on facilities evaluated.

*e) Provide technical assistance to practitioners, scientists, and officials of private and government organizations

*f) Participate with federal, state and local agencies in responding to a radiation emergency (or exercise), including nuclear power plants during actual

emergencies or drill scenarios. The Radiological Assistance Supervisor will assign a place on the assistance team.

*g) Provide technical review of application for issuance, modification, or renewal of radioactive materials licenses and sealed source and device designs for medical or industrial use. Determine whether proposed program, device, or source can meet radiation protection, licensing, and use standards.

*h) Act as trainer for the section and prepare lesson plans, student hand-outs, exams, and conduct training courses for staff.

*i) Recommend special license conditions indicating limitations or restrictions on licensed operations based on a review of the special case indicated in the license application.

* j) Make presentations to professional organizations, government entities, and public groups regarding radiation issues as assigned by the supervisor.

*k) Evaluate unusual radiation quality assurance and patient care problems where new criteria and policy must be established. Outline the necessary changes in a position paper as preparation for supervisor revision of policy.

*l) Independently or as a team leader perform complex special investigations, technical evaluations and/or inspections, reports of hazardous situations and /or complaints involving radiation, research projects.

NOTE: Those tasks prefaced by (*) are essential to eligibility for promotion to a supervisory position (the next promotional position on the manning table) within the Nuclear Materials Safety Section. Chance for successful completion of the probationary period for a supervisor would not be possible without supervisory sign-off on these items since entry to the supervisor position assumes an ability to successfully perform these tasks.

POSITION DESCRIPTION

OHIO DEPARTMENT OF ADMINISTRATIVE SERVICES

PERSONNEL DIVISION

AGENCY: DEPARTMENT OF HEALTH

DIVISION OR INSTITUTION: BUREAU OF RADIATION PROTECTION

UNIT OR OFFICE: NUCLEAR MATERIALS SAFETY

POSITION CONTROL NUMBER: 180235.0

CLASS TITLE: HEALTH PHYSICIST 2

CLASS NUMBER: 84642

✓ State Agency		County Agency		New Position	✓ Change	COUNTY OF: FRANKLIN

USUAL WORKING TITLE OF POSITION: HEALTH PHYSICIST 2

POSITION NO. AND TITLE OF IMMEDIATE SUPERVISOR: HEALTH PHYSICS SUPERVISOR 180230.0

NORMAL WORKING HOURS (Explain unusual or rotating shift)

FROM: 7:45 A.M. TO: 4:30 P.M.

JOB DESCRIPTION AND WORKER CHARACTERISTICS

%	Job Duties in order of Importance	Minimum Acceptable Characteristics
30	Write reports on compliance of facilities evaluated/inspected and/or licenses reviewed based on applicable Ohio Revised Code and Ohio Administrative Code. Maintain a working knowledge of applicable state and federal regulations and be able to cite applicable codes from such agencies as the US NRC, US DOT, US DOE, US EPA, and US FDA. Be familiar with standards of the Conference of Radiation Control Program Directors (CRCPD), National Council on Radiation Protection and Measurements (NCRP), and the American National Standards Institute (ANSI). Be able to formulate recommendations on the facility quality assurance program concerning radiation protection, radiation control and radiation safety of both workers and the general public. Evaluate documents written by others for applicability to radiation protection. Write reports of document evaluation. Provide inspection/evaluation reports on compliance and/or licensing recommendations for supervisory review. Maintain knowledge of current issues in radiation protection and safety through review of professional publications. Performs in depth research regarding compliance with state and federal regulations and adequacy of proposed rules and plans. Conducts research of radiological health issues at nuclear facilities or other facilities utilizing ionizing radiation to determine adequacy of compliance with state and federal requirements.	Ability to: 30.r(deal with many variables & determine specific action - determine compliance with regulations during inspections and emergency response situations involving large facilities with a wide range of radiation sources), 31.g(deal with complicated equations for determining radioactive decay, dose estimation, and a variety of potential exposure situations), 32.i(complete routine forms - inspection forms, license review forms, daily itineraries, travel forms, etc.), 32.j(maintain accurate records - inspection, license review, laboratory analysis reports), 32.l(write routine business letters reflecting standard procedures - compliance letters to facilities must use proper grammar, punctuation, and spelling), 32.n(understand manuals and verbal instructions technical in nature), 32.q(use proper research methods in gathering data - inspections and license reviews require the same type of documentation as research), 32.r(prepare and deliver speeches before specialized audiences & general public), 32.u(develop complex reports & position papers), 34.b(work alone and independently on most tasks), 34.c(cooperate with co-workers on group projects), 34.d(answer routine telephone inquiries from the public - on radiation issues), 34.f(handle sensitive inquiries from & contacts with officials & general public), 34.j(resolve complaints from

List Position Numbers and Class Titles of positions directly supervised: none

SIGNATURE OF AGENCY REPRESENTATIVE

DATE

POSITION DESCRIPTION

OHIO DEPARTMENT OF ADMINISTRATIVE SERVICES

PERSONNEL DIVISION

AGENCY: DEPARTMENT OF HEALTH

DIVISION OR INSTITUTION: BUREAU OF RADIATION PROTECTION

UNIT OR OFFICE: NUCLEAR MATERIALS SAFETY

POSITION CONTROL NUMBER: 180235.0

CLASS TITLE: HEALTH PHYSICIST 2

CLASS NUMBER: 84642

✓ State Agency		County Agency		New Position	✓ Change	COUNTY OF: FRANKLIN

USUAL WORKING TITLE OF POSITION: HEALTH PHYSICIST 2

POSITION NO. AND TITLE OF IMMEDIATE SUPERVISOR: HEALTH PHYSICS SUPERVISOR 180230.0

NORMAL WORKING HOURS (Explain unusual or rotating shift)

FROM: 7:45 A.M. TO: 4:30 P.M.

JOB DESCRIPTION AND WORKER CHARACTERISTICS

%	Job Duties in order of Importance	Minimum Acceptable Characteristics
10	Uses and explains the use to others of a wide variety of radiation survey instrumentation for detection of alpha, beta, and gamma radiation; maintains, checks and inventories this equipment. Maintains records of use, calibration and maintenance of equipment. Assists higher level health physicists and supervisor in coaching lower level health physicists and new staff. Enters data via keyboard into a computer utilizing data base software in order to maintain technical files and databases on facilities evaluated and licenses reviewed. Make presentations to professional organizations, government entities, and public groups regarding nuclear safety issues; provides technical assistance to practitioners, scientists and officials of private and government organizations.	angry citizens and government officials), 35.a(demonstrate physical fitness - inspection, environmental monitoring, and emergency response require working out-of-doors in all weather conditions and an ability to traverse uneven terrain, an ability to climb such structures as oil storage tanks, ladders in multi-story buildings and partially complete buildings, sometimes carrying heavy survey kits and/or wearing breathing masks and carrying an air tank), 35.c(ability to lift and carry survey equipment which may weigh 40 pounds). Emergency response activities may require evening and weekend work and may require wearing a pager for 24-hour on-call availability.
10	Participate with federal, state and local agencies in responding to a radiation emergency (or exercise), including nuclear power plants during actual emergencies or drill scenarios. Communicate in person and by telephone with other state and federal emergency response personnel and the public-at-large, and with facility staff, and participating local, state and federal entities	RANK 2: Same as above. RANK 3: Same as above. RANK 4: Same as above. CRITICAL ELEMENTS: 1. Knowledge of radiological health, radiation safety, and/or health physics practices and procedures will be demonstrated by completion of college level course work equivalent** to a bachelors degree in health physics, radiation physics, radiological sciences, engineering, physical sciences, or life sciences. **Equivalent means: Completion of baccalaureate degree in areas listed abve; or

List Position Numbers and Class Titles of positions directly supervised

none

SIGNATURE OF AGENCY REPRESENTATIVE

DATE

POSITION DESCRIPTION

OHIO DEPARTMENT OF ADMINISTRATIVE SERVICES

PERSONNEL DIVISION

AGENCY: DEPARTMENT OF HEALTH

DIVISION OR INSTITUTION: BUREAU OF RADIATION PROTECTION

UNIT OR OFFICE: NUCLEAR MATERIALS SAFETY

POSITION CONTROL NUMBER: 180235.0

CLASS TITLE: HEALTH PHYSICIST 2

CLASS NUMBER: 84642

	✓	State Agency		County Agency		New Position	✓ Change

COUNTY OF: FRANKLIN

USUAL WORKING TITLE OF POSITION: HEALTH PHYSICIST 2

POSITION NO AND TITLE OF IMMEDIATE SUPERVISOR: HEALTH PHYSICS SUPERVISOR 180230.0

NORMAL WORKING HOURS (Explain unusual or rotating shift)

FROM 7:45 A.M. TO 4:30 P.M.

JOB DESCRIPTION AND WORKER CHARACTERISTICS

%	Job Duties in order of Importance	Minimum Acceptable Characteristics
		Any baccalaureate degree plus evidence of completion of the Navy Nuclear School; or An associate degree in allied health (x-ray technology/ARRT-R) plus a certificate from a recognized nuclear medicine school (ARRT-N) or a certifying board equivalent to ARRT; or Completion of 80 semester hours of college level course work in science acceptable to the departmen (NRC training courses or power plant training courses that are equivalent to the semester hour courses may be substituted for 50% of the required college level training courses; The determination for semester hour equivalency is 18 contact hours of training equals 1 semester hour of credit; See section 4.1.1 of ANSI standard 3.1-1987). 2. Documented completion of the required training for the health physicist 1; OR documented completion of equivalent course training (i.e. similar course titles, difficulty level, written test of class content, and certificate of completion).

List Position Numbers and Class Titles of positions directly supervised

none

SIGNATURE OF AGENCY REPRESENTATIVE

DATE

POSITION DESCRIPTION

OHIO DEPARTMENT OF ADMINISTRATIVE SERVICES

PERSONNEL DIVISION

AGENCY: DEPARTMENT OF HEALTH

DIVISION OR INSTITUTION: BUREAU OF RADIATION PROTECTION

UNIT OR OFFICE: NUCLEAR MATERIALS SAFETY

POSITION CONTROL NUMBER: 180235.0

CLASS TITLE: HEALTH PHYSICIST 2

CLASS NUMBER: 84642

✓ State Agency		County Agency		New Position	✓ Change	COUNTY OF FRANKLIN

USUAL WORKING TITLE OF POSITION: HEALTH PHYSICIST 2

POSITION NO. AND TITLE OF IMMEDIATE SUPERVISOR: HEALTH PHYSICS SUPERVISOR 180230.0

NORMAL WORKING HOURS (Explain unusual or rotating shift)

FROM: 7:45 AM TO: 4:30 PM

JOB DESCRIPTION AND WORKER CHARACTERISTICS

%	Job Duties in order of Importance	Minimum Acceptable Characteristics
		3. Has completed supervisory sign-off for all required tasks listed on the health physicist 1 work expectations within the Nuclear Materials Safety Section; OR has 2 years of full time work experience at an equivalent level in another state or federal radiation control program with documentation of similar inspection experience in radioactive materials and equivalent training; OR 3 years of equivalent full time work experience in nuclear safety or radioactive materials in a radiation control program within industry, a medical facility, or a university and equivalent training (i.e. This experience must be broad in scope, cover related areas to those listed for the ODH health physicist 1, and be verifiably documented.) 4. Must be eligible, willing, and able to participate in all NRC, FEMA, and FDA training courses. 5. Must be eligible and willing to obtain security clearance for entry into classified areas of federal facilities if required for the position (e.g. inspection or incident response for classified sections of federal facilities) 6. Must be willing and able to travel both for single day trips and overnight for inspection/incident response or for at least a week for training classes. Must take 5-week NRC course if equivalent cannot be documented.

List Position Numbers and Class Titles of positions directly supervised

none

SIGNATURE OF AGENCY REPRESENTATIVE

DATE

WORK EXPECTATIONS
NUCLEAR MATERIALS SAFETY SECTION
HEALTH PHYSICIST 2

This is a mid-level position and the individual will be performing license reviews, inspections, incident response, environmental sampling, and other tasks as assistance to higher level health physicists until supervisory sign-off is completed on each task listed for the HP 2 and any training courses. The individual will be responsible immediately for those tasks on the health physicist 1 list upon entry to the health physicist 2 position and the individual must be able to demonstrate to the supervisor that he/she can perform them proficiently and unassisted. The individual must be able to use procedure manuals and guidance documents in completion of the assigned tasks. A higher level health physicist will be assigned to the health physicist 2 as a mentor to assist in learning some tasks on the job. The mentor will work with the individual until he/she feels the individual is ready for supervisory review and sign-off on a specific task. This will include inspections, license reviews, and any incident response associated with the inspections, and assist with writing the inspection reports and any correspondence for inspections or license reviews. The individual will also work side-by-side with the assigned health physicist in reviewing license applications and assist in writing licensing documents and any correspondence. The supervisor will then review the task with the individual either by accompanying the individual in the field, sitting with the individual during a license review, and/or quizzing the individual on regulatory processes. If the supervisor feels that the individual is ready to perform the specific task unassisted, he/she will initial the appropriate line of the task list. No tasks on the health physicist 2 list will be performed without assistance until supervisory sign-off is achieved.

*MID PROBATION

Supervisory sign-off must be achieved on the following items:

1. Statutes, Regulations, and Standards (This is for individuals hired from outside of the Department of Health. Individuals promoted from within must have already achieved supervisory sign-off on this)

    a) Be able to cite applicable Ohio Revised Code and Ohio Administrative Code for license review and inspection compliance for the facility types on the HP 1 and 2 list.

    b) Be able to cite applicable federal regulations (e.g. NRC, DOT, FDA, EPA, FEMA) as applicable to inspection/license reviews of facilities on the HP 1 and 2 list.

    c) Be able to cite applicable professional standards (e.g. NCRP, ICRP, ANSI, CRCPD).

2. Policies and Procedures (This is for individuals hired from outside of the Department of Health. Individuals promoted from within must have already achieved supervisory sign-off on this)

   a) Administrative policies and procedures (e.g. sign in and out, leave policy, length of breaks and lunch, travel, etc.)

   b) Know the organization of the Bureau and the general scope of work within the Nuclear Materials Safety Section.

   c) Using the procedures manual for licensing and inspections be familiar with the general procedures and be able to assist with:

      i) log-in of licenses
      ii) license review tracking process
      iii) pre-inspection preparation
      iv) equipment necessary for inspecting different types and activities of radiation
      v) inspection write-ups and compliance tracking

3. The individual must also have supervisory sign-off on at least one assigned facility type from the health physicist 2 list. The individual must consistently be able to demonstrate proficiency on inspections and license reviews on any of the facility types on the health physicist 1 list.

*FINAL PROBATION

By the time of the final probationary review, the individual must have supervisory sign-off on at least 5 additional inspection/license reviews listed in "ONGOING ASSIGNMENTS" #1 as assigned by the supervisor. This includes:

1. for inspections:

   a) pre-inspection preparation
   b) selection of the appropriate instrumentation
   c) conducting the inspection
   d) inspection write-up, travel reports, correspondence
   e) compliance tracking
   f) incident response involving any of the 3 facility types

2. for license reviews:

a) log-in process
b) review process
c) license conditions and writing of the license
d) preparation of paperwork for supervisory sign-off on the licensing recommendations
e) mailing of license package including any appropriate guidance documents

ON GOING ASSIGNMENTS

1. Learn specific license review and inspection procedures for, and perform license reviews and inspections without assistance as supervisor signature indicating competency is obtained for the following:

*a) Medical-specific
*b) Medical-private practice
*c) Sr-90 eye applicator
*d) Brachytherapy
*e) Mobile nuclear medicine service
*f) Self-shielded irradiator
*g) Wireline service
*h) Wireline service-field flooding studies
*i) Leak testing services
*j) Survey instrument calibration service
*k) Device maintenance and repair
*l) GC-ECD Maintenance and repair
*m) Leak test & instrument calibration service
*n) Dose calibrator calibration service
*o) Medical system service
*p) Teletherapy source loading
*q) Medical applicator loading
*r) Research & development-specific
*s) Academic-specific
*t) Waste handling-prepackaged
*u) Decontamination activities-non commercial
*v) Specific manufacturing & distribution
*w) Specific manufacturing-no distribution
*x) Medical manufacturing & distribution
*y) Medical distribution-no manufacturing
*z) Exempt distribution of NARM-no manufacturing
*aa) Industrial radiography-temporary job sites
*bb) Rare earth extraction and reprocessing
*cc) Ability to review environmental sample analysis for accuracy and any indicated problems.

After competency has been demonstrated on the above specified inspections/license reviews, the individual may add optional inspections/license review to include (at the discretion of the supervisor):

a) Teletherapy
b) Nuclear pharmacy
c) Open irradiator-<10,000 Curies
d) assist with research on SS&D reviews

2. Training

Training will be obtained through "in house" training, NRC formal classes, FEMA formal classes, CRCPD training courses and other applicable training. Knowledge of current issues in radiation protection will be gained through review of professional publications.

a) Minimum training while in the position:

*i) Medical Uses of Isotopes (NRC)
*ii) Industrial Radiography (NRC)
*iii) Well Logging (NRC)
*iv) HAZWOPER review course (in house)

Other training is optional and will be taken at the discretion of the supervisor.

3. Other Responsibilities: These tasks will be assigned by the supervisor as experience and competence in the position increases:

*a) Answer inquiries from the public on inspections/license reviews
*b) Write reports of document evaluation for review by supervisor
*c) Assist higher level health physicists and supervisor in on-the-job training of lower level health physicists and new staff.
*d) Enter data via keyboard into computer utilizing data base software to assist in maintaining technical files and data bases on facilities evaluated.
*e) Provide technical assistance to practitioners, scientists, and officials of private and government organizations
*f) Participate with federal, state and local agencies in responding to a radiation emergency (or exercise), including nuclear power plants during actual emergencies or drill scenarios. The Radiological Assistance Supervisor will assign a place on the assistance team.
*g) Calibrate survey instruments.
*h) Participate in team inspections as a member of the inspection team and assist in writing the inspection report and any correspondence and

compliance actions.

*i) Participate in incident response involving any facility on the HP1 or 2 list. Write the incident response report. Be able to calculate estimates of doses to involved individuals and include your calculations in the report.

j) Make presentations to professional organizations, government entities, and public groups regarding radiation issues as assigned by the supervisor.

NOTE: Those tasks prefaced by (*) are essential to eligibility for promotion to a health physicist 3 position within the Nuclear Materials Safety Section. Chance for successful completion of the probationary period for a health physicist 3 would not be possible without supervisory sign-off on these items since entry to the health physicist 3 position assumes an ability to successfully perform these tasks.

POSITION DESCRIPTION

OHIO DEPARTMENT OF ADMINISTRATIVE SERVICES

PERSONNEL DIVISION

AGENCY: DEPARTMENT OF HEALTH

DIVISION OR INSTITUTION: BUREAU OF RADIATION PROTECTION

UNIT OR OFFICE: NUCLEAR MATERIALS SAFETY

POSITION CONTROL NUMBER: 180226.0

CLASS TITLE: HEALTH PHYSICIST 1

CLASS NUMBER: 84641

✓ State Agency		County Agency	✓ New Position		Change	COUNTY OF: FRANKLIN

USUAL WORKING TITLE OF POSITION: HEALTH PHYSICIST 1

POSITION NO. AND TITLE OF IMMEDIATE SUPERVISOR: HEALTH PHYSICS SUPERVISOR 180220.0

NORMAL WORKING HOURS (Explain unusual or rotating shift)

FROM: 7:45 A.M. TO: 4:30 P.M.

JOB DESCRIPTION AND WORKER CHARACTERISTICS

%	Job Duties in order of Importance	Minimum Acceptable Characteristics
50	INSPECTIONS: Assists supervisor and/or higher level health physicists in performing evaluations and inspections of the production, use, release, disposal, and/or presence of ionizing radiation from radioactive materials at or in the environs of: nuclear power plants, federal project sites, licensed nuclear facilities, waste generators, contaminated sites, medical facilities, and any other location where radioactivity may be present, including residential, industrial, commercial and public properties. Evaluate license applications for the production, use, release, disposal, and/or presence of ionizing radiation from radioactive materials to assure that the application meets Bureau license requirements for public health and safety. Performs precise and accurate measurements of levels of radiation, concentrations of radioactive material present, collects samples for radiological analysis, examines devices, equipment, materials, facilities, records and/or reports and verifies compliance with applicable rules and/or standards as part of an evaluation/inspection. Accurately records inspection data obtained through performance of tests, observations, interviews and reasoning. Develops, writes and/or edits reports of evaluations performed of radiological operations. Collects radiological health data relating to radiation protection from radioactive materials. Compiles and analyzes data, performs field measurements of radiation exposure and radioactivity levels; organizes, evaluates and analyzes results for accuracy, trends and consistency. Communicates with medical, industrial, or residential occupants where radiological survey work is being performed. Answers inquiries from the public. (9/8/97)	**RANK 1**: Knowledge of: 5, 7, 8, 9a (in order to plan and inspect facilities), 10(safety practices for radiation protection of workers and the public), 11.a(in order to interact with the public during inspections, emergency response activities, and on the telephone), 13.b(programmatic evaluative procedures, standards, guides, and recommendations)*, 14(regulatory authority of various state and federal agencies over radiation)*, 15(ability to counsel facilities on radiation protection practices and procedures), 20(general physics, radiation physics, biological effects of radiation, investigation and survey procedures, biology), 22(use a computer for report-writing, statistical analysis, and data entry), 23(knowledge of and ability to apply the Code of Federal Regulations to applicable radiation situations, knowledge of and ability to enforce Ohio Revised Code and Ohio Administrative Code provisions as they relate to radiation)*. Skill in: 25(use of computer keyboard for report generation, statistical analysis, and data entry), 29(use of and understanding of the analytical output of a wide range of radiation detection instrumentation and associated equipment, able to use a scientific calculator for radiation decay and dose calculations)*

List Position Numbers and Class Titles of positions directly supervised	SIGNATURE OF AGENCY REPRESENTATIVE	DATE
none		

POSITION DESCRIPTION

OHIO DEPARTMENT OF ADMINISTRATIVE SERVICES

PERSONNEL DIVISION

AGENCY: DEPARTMENT OF HEALTH

DIVISION OR INSTITUTION: BUREAU OF RADIATION PROTECTION

UNIT OR OFFICE: NUCLEAR MATERIALS SAFETY

POSITION CONTROL NUMBER: 180226.0

CLASS TITLE: HEALTH PHYSICIST 1

CLASS NUMBER: 84641

✓ State Agency		County Agency	✓ New Position		Change	COUNTY OF: FRANKLIN

USUAL WORKING TITLE OF POSITION: HEALTH PHYSICIST 1

POSITION NO. AND TITLE OF IMMEDIATE SUPERVISOR: HEALTH PHYSICS SUPERVISOR 180220.0

NORMAL WORKING HOURS (Explain unusual or rotating shift): FROM 7:45 A.M. TO 4:30 P.M.

JOB DESCRIPTION AND WORKER CHARACTERISTICS

%	Job Duties in order of Importance	Minimum Acceptable Characteristics
30	Write reports on compliance of facilities evaluated/inspected and/or licenses reviewed based on applicable Ohio Revised Code and Ohio Administrative Code. Maintain a working knowledge of applicable state and federal regulations and be able to cite applicable codes from such agencies as the US NRC, US DOT, US DOE, US EPA, and US FDA. Be familiar with standards of the Conference of Radiation Control Program Directors (CRCPD), National Council on Radiation Protection and Measurements (NCRP), and the American National Standards Institute (ANSI). Be able to formulate recommendations on the facility quality assurance program concerning radiation protection, radiation control and radiation safety of both workers and the general public. Assist supervisor and/or higher level health physicists in evaluation of documents written by others for applicability to radiation protection. Assist supervisor and/or higher level health physicists in writing reports of document evaluation. Provide inspection/evaluation reports on compliance and/or licensing recommendations for supervisory review. Maintain knowledge of current issues in radiation protection and safety through reveww of professional publicationw. Assist supervisor and/or higher level health physicists in performing in depth research regarding compliance with state and federal regulations and adequacy of proposed rules and plans. Assist supervisor and/or higher level health physicists in conducting research of radiological health issues at nuclear facilities or other facilities utilizing ionizing radiation to determine adequacy of compliance with state and federal requirements.	Ability to: 30.r(deal with many variables & determine specific action - determine compliance with regulations during inspections and emergency response situations involving large facilities with a wide range of radiation sources), 31.g(deal with complicated equations for determining radioactive decay, dose estimation, and a variety of potential exposure situations), 32.i(complete routine forms - inspection forms, license review forms, daily itineraries, travel forms, etc.)*, 32.j(maintain accurate records - inspection, license review, laboratory analysis reports)*, 32.l(write routine business letters reflecting standard procedures - compliance letters to facilities must use complete sentences, use words in correct context, and be free of spelling errors), 32.n(understand manuals and verbal instructions technical in nature), 32.q(use proper research methods in gathering data - inspections and license reviews require the same type of documentation as research), 32.r(prepare and deliver speeches before specialized audiences & general public)*, 32.u(develop complex reports & position papers), 34.b(work alone and independently on most tasks), 34.c(cooperate with co-workers on group projects), 34.d(answer routine telephone inquiries from the public - on radiation issues), 34.j(resolve complaints from angry citizens and government officials)*,

List Position Numbers and Class Titles of positions directly supervised: none

SIGNATURE OF AGENCY REPRESENTATIVE

DATE

POSITION DESCRIPTION

OHIO DEPARTMENT OF ADMINISTRATIVE SERVICES

PERSONNEL DIVISION

AGENCY: DEPARTMENT OF HEALTH

DIVISION OR INSTITUTION: BUREAU OF RADIATION PROTECTION

UNIT OR OFFICE: NUCLEAR MATERIALS SAFETY

POSITION CONTROL NUMBER: 180226.0

CLASS TITLE: HEALTH PHYSICIST 1

CLASS NUMBER: 84641

✓ State Agency		County Agency	✓ New Position		Change	COUNTY OF: FRANKLIN

USUAL WORKING TITLE OF POSITION: HEALTH PHYSICIST 1

POSITION NO. AND TITLE OF IMMEDIATE SUPERVISOR: HEALTH PHYSICS SUPERVISOR 180220.0

NORMAL WORKING HOURS (Explain unusual or rotating shift)

FROM: 7:45 A.M. TO: 4:30 P.M.

JOB DESCRIPTION AND WORKER CHARACTERISTICS

%	Job Duties in order of Importance	Minimum Acceptable Characteristics
10	Uses and explains the use to others of a wide variety of radiation survey instrumentation for detection of alpha, beta, and gamma radiation; maintains, checks and inventories this equipment. Maintains records of use, calibration and maintenance of equipment. Enters data via keyboard into a computer utilizing data base software in order to maintain technical files and databases on facilities evaluated and licenses reviewed. Make presentations to professional organizations, government entities, and public groups regarding nuclear safety issues; provides technical assistance to practitioners, scientists and officials of private and government organizations.	35.a(demonstrate physical fitness - inspection, environmental monitoring, and emergency response require working out-of-doors in all weather conditions and an ability to traverse uneven terrain, an ability to climb such structures as oil storage tanks, ladders in multi-story buildings and partially complete buildings, sometimes carrying heavy survey kits and/or wearing breathing masks and carrying an air tank), 35.c(ability to lift and carry survey equipment which may weigh 40 pounds). Emergency response activities may require evening and weekend work and may require wearing a pager for 24-hour on-call availability.
10	Participate with federal, state and local agencies in responding to a radiation emergency (or exercise), including nuclear power plants during actual emergencies or drill scenarios. Communicate in person and by telephone with other state and federal emergency response personnel and the public-at-large, and with facility staff, and participating local, state, and federal entities.	RANK 2: Same as above. RANK 3: Same as above. RANK 4: Same as above.
30		CRITICAL ELEMENTS: 1. Knowledge of radiological health, radiation safety, and/or health physics practices and procedures will be demonstrated by completion of college level course work equivalent** to a bachelors degree in health physics, radiation physics, radiological sciences, engineering, physical sciences, or life sciences. **Equivalent means: Completion of baccalaureate degree in areas listed above; or

List Position Numbers and Class Titles of positions directly supervised: none

SIGNATURE OF AGENCY REPRESENTATIVE

DATE

POSITION DESCRIPTION

OHIO DEPARTMENT OF ADMINISTRATIVE SERVICES

PERSONNEL DIVISION

AGENCY: DEPARTMENT OF HEALTH

DIVISION OR INSTITUTION: BUREAU OF RADIATION PROTECTION

UNIT OR OFFICE: NUCLEAR MATERIALS SAFETY

POSITION CONTROL NUMBER: 180226.0

CLASS TITLE: HEALTH PHYSICIST 1

CLASS NUMBER: 84641

✓ State Agency		County Agency	✓ New Position		Change	COUNTY OF: FRANKLIN

USUAL WORKING TITLE OF POSITION: HEALTH PHYSICIST 1

POSITION NO. AND TITLE OF IMMEDIATE SUPERVISOR: HEALTH PHYSICS SUPERVISOR 180220.0

NORMAL WORKING HOURS (Explain unusual or rotating shift)

FROM: 7:45 A.M. TO: 4:30 P.M.

JOB DESCRIPTION AND WORKER CHARACTERISTICS

%	Job Duties in order of Importance	Minimum Acceptable Characteristics
		Any baccalaureate degree plus evidence of completion of the Navy Nuclear School; or An associate degree in allied health (x-ray technology/ARRT-R) plus a certificate from a recognized nuclear medicine school (ARRT-N) or a certifying board equivalent to ARRT; or Completion of 80 semester hours of college level course work in science acceptable to the departmen (NRC training courses or power plant training cour..es that are equivalent to the semester hour courses may be substituted for 50% of the required college level training courses; The determination for semester hour equivalency is 18 contact hours of training equals 1 semester hour of credit; See section 4.1.1 of ANSI standard 3.1-1987). 2. Experience or training in dealing with the general public, both on the telephone and in person. 3. Training and/or experience in the use of a wide variety of radiation detection instrumentation.

List Position Numbers and Class Titles of positions directly supervised

none

SIGNATURE OF AGENCY REPRESENTATIVE

DATE

POSITION DESCRIPTION

OHIO DEPARTMENT OF ADMINISTRATIVE SERVICES

PERSONNEL DIVISION

AGENCY: DEPARTMENT OF HEALTH

DIVISION OR INSTITUTION: BUREAU OF RADIATION PROTECTION

UNIT OR OFFICE: NUCLEAR MATERIALS SAFETY

POSITION CONTROL NUMBER: 180226.0

CLASS TITLE: HEALTH PHYSICIST 1

CLASS NUMBER: 84641

✓ State Agency		County Agency	✓ New Position		Change	COUNTY OF: FRANKLIN

USUAL WORKING TITLE OF POSITION: HEALTH PHYSICIST 1

POSITION NO. AND TITLE OF IMMEDIATE SUPERVISOR: HEALTH PHYSICS SUPERVISOR 180220.0

NORMAL WORKING HOURS (Explain unusual or rotating shift)

FROM: 7:45 AM TO: 4:30 PM

JOB DESCRIPTION AND WORKER CHARACTERISTICS

%	Job Duties in order of Importance	Minimum Acceptable Characteristics
		4. Knowledge of the evaluation of individuals, procedures, and facilities handling radioactive materials. (This can be gained through an educational program or actual experience in establishing radiation QA programs). 5. Must be eligible, willing, and able to participate in all NRC, FEMA, and FDA training courses. 6. Must be eligible and willing to obtain security clearance for entry into classified areas of federal facilities if required for the position (e.g. inspection or incident response for classified sections of federal facilities) 7. Must be willing and able to travel both for single day trips and overnight for inspection/incident response or for at least a week for training classes. Must take 5-week NRC health physics course if equivalent cannot be documented. * Indicates those specific skills, and/or abilities which may be acquired after employment.

List Position Numbers and Class Titles of positions directly supervised

none

SIGNATURE OF AGENCY REPRESENTATIVE

DATE

WORK EXPECTATIONS
NUCLEAR MATERIALS SAFETY SECTION
HEALTH PHYSICIST 1

This is an entry level position and the individual will be performing license reviews, inspections, incident response, environmental sampling, and other tasks as assistance to higher level health physicists until supervisory sign-off is completed on each listed task and training course. The individual must be able to use procedure manuals and guidance documents in completion of the assigned tasks. A higher level health physicist will be assigned to the health physicist 1 as a mentor to assist in learning some tasks on the job. The mentor will work with the individual until he/she feels the individual is ready for supervisory review and sign-off on a specific task. This will include inspections, license reviews, and any incident response associated with the inspections, and assist with writing the inspection reports and any correspondence for inspections or license reviews. The individual will also work side-by-side with the assigned health physicist in reviewing license applications and assist in writing licensing documents and any correspondence. The supervisor will then review the task with the individual either by accompanying the individual in the field, sitting with the individual during a license review, and/or quizzing the individual on regulatory processes. If the supervisor feels that the individual is ready to perform the specific task unassisted, he/she will initial the appropriate line of the task list. No tasks will be performed without assistance until supervisory sign-off is achieved.

*MID PROBATION

Supervisory sign-off must be achieved on the following items:

1. Statutes, Regulations, and Standards

    a) Be able to cite applicable Ohio Revised Code and Ohio Administrative Code for license review and inspection compliance for the facility types on the HP 1 list.

    b) Be able to cite applicable federal regulations (e.g. NRC, DOT, FDA, EPA, FEMA) as applicable to inspection/license reviews of facilities on the HP 1 list.

    c) Be able to cite applicable professional standards (e.g. NCRP, ICRP, ANSI, CRCPD).

2. Policies and Procedures

    a) Administrative policies and procedures (e.g. sign in and out, leave policy, length of breaks and lunch, travel, etc.)

b) Know the organization of the Bureau and the general scope of work within the Nuclear Materials Safety Section.

c) Using the procedures manual for licensing and inspections be familiar with the general procedures and be able to assist with:

i) log-in of licenses
ii) license review tracking process
iii) pre-inspection preparation
iv) equipment necessary for inspecting different types and activities of radiation
v) inspection write-ups and compliance tracking

*FINAL PROBATION

By the time of the final probationary review, the individual must have supervisory sign-off on at least 3 of the inspection/license reviews listed in "ONGOING ASSIGNMENTS" #1 as assigned by the supervisor. This includes:

1. for inspections:

a) pre-inspection preparation
b) selection of the appropriate instrumentation
c) conducting the inspection
d) inspection write-up, travel reports, correspondence
e) compliance tracking
f) incident response involving any of the 3 facility types

2. for license reviews:

a) log-in process
b) review processes and procedures
c) license conditions and writing of the license
d) preparation of paperwork for supervisory sign-off on the licensing recommendations
e) mailing of license package including any appropriate guidance documents

ON GOING ASSIGNMENTS

1. Learn specific license review and inspection procedures for, and perform license reviews and inspections without assistance as supervisor signature indicating competency is obtained for the following:

*a) Cathode Vacuum Tubes
*b) Smoke Detector Collection
*c) Instrument Calibration-In House Only
*d) Laboratory Analysis
*e) Materials Storage Only
*f) Analytical Instrument
*g) Gas Chromatograph
*h) X-Ray Fluorescence Analyzer
*i) Alnor Dew Point Tester
*j) Bone Mineral Analyzer
*k) Veterinary Medicine
*l) General License
*m) Civil Defense
*n) Fixed Gauge
*o) Portable Gauge
*p) Possession and use incident to exempt distribution
*q) Redistribution
*r) GL Distribution-No Maintenance
*s) Source Material
*t) Source Material Shielding
*u) Special Nuclear Material
*v) Collection of Environmental Samples

After competency has been demonstrated on the above specified inspections/license reviews, the individual may add optional inspections/license review to include (at the discretion of the supervisor):

a) Sr-90 Eye Applicator
b) Medical-Specific
c) Wireline Service
d) Leak Testing Service
e) Academic-Specific
f) Industrial Radiography
g) Exempt Distribution of NARM-No Manufacturing
h) Medical Distribution-No Manufacturing
i) Participate in team inspections and take inspection notes at the direction of the team leader.

2. Training

Training will be obtained through "in house" training, NRC formal classes, FEMA formal classes, CRCPD training courses and other applicable training. Knowledge

of current issues in radiation protection will be gained through review of professional publications.

a) Minimum training while in the position:

*i) Ohio applicable statutes and regulations (in house)
*ii) Applicable federal regulations (in house)
*iii) Computer software training (in house)
*iv) HAZWOPER course (in house)
*v) NRC training:
  A) Applied Health Physics (5 weeks)(exempt with HP degree)
  B) Inspection Procedures
  C) Transportation
  D) Materials Licensing
  E) Air Sampling for Radioactive Materials

Other training is optional and will be taken at the discretion of the supervisor.

3. Other Responsibilities: These tasks will be assigned by the supervisor as experience and competence in the position increases:

*a) Answer inquiries from the public on inspections/license reviews
*b) Write reports of document evaluation for review by supervisor
*c) Maintain, check, and inventory equipment
*d) Enter data via keyboard into computer utilizing data base software to assist higher level health physicists in maintaining technical files and data bases on facilities evaluated.
*e) Provide technical assistance to practitioners, scientists, and officials of private and government organizations
*f) Participate with federal, state and local agencies in responding to a radiation emergency (or exercise), including nuclear power plants during actual emergencies or drill scenarios. The Radiological Assistance Supervisor will assign a place on the assistance team.

NOTE: Those tasks prefaced by (*) are essential to eligibility for promotion to a health physicist 2 position within the Nuclear Materials Safety Section. Chance for successful completion of the probationary period for a health physicist 2 would not be possible without supervisory sign-off on these items since entry to the health physicist 2 position assumes an ability to successfully perform these tasks.