# REYNOLDS ELECTRICAL & ENGINEERING CO., INC. POSITION DESCRIPTION

POSITION TITLE: Laboratory Technician I

JOB CODE : 051225

DATE PREPARED: July 31, 1985 Revised: October 27, 1993

#### SUMMARY STATEMENT

Under close supervision, the incumbent performs fundamental assignments in chemical and radiochemical procedures and environmental and hazardous waste sampling; aids in preparing samples for chemical analysis; performs analytical measurements; aids in issuing, processing, evaluating and exchanging of film and thermoluminescent dosimetric devices; performs basic operations and calibrations on complex electronic instrumentation; assists in the collection of samples; assists in the installation, operation, and maintenance of sampling stations; aids in the preparations of sampling records.

#### DIMENSIONS

The incumbent reports to a Health Physicist, Analytical Chemist, Radiological Analysis Supervisor, Industrial Hygienist, or higher level supervisor; receives guidance from lead persons, higher level laboratory technicians, or technical staff; usually does not act in a lead capacity.

- 1. Assists in performing sample digestion and extraction preparation procedures; cleans laboratory glassware;
- 2. Assists in preparing industrial, ecological, and biological materials for analysis; assists with analysis;
- Assists in issuing, processing, exchanging, and evaluating film and thermoluminescent dosimeters; exchanges environmental thermoluminescent dosimeters; assists in the preparation and maintenance of associated records;
- 4. Assists in preparation of calibration standards and controls with radioactive sources for personnel dosimetry;
- Collects and transports environmental radioactive and hazardous waste samples; assists in the installation, operation, and maintenance of environmental air sampling stations; assists in laboratory waste disposal and procures supplies; and acts as sample custodian;
- 6. Logs sample data into Laboratory Information Management System;
- Conducts simple qualitative and quantitative determinations of radionuclide concentrations from gamma and alpha spectra and gross radiation data; assists in the determination of background levels, efficiency, and geometry correction factors for nuclear detection equipment;
- 8. Operates a minicomputer system and prepares data for analysis by the computer; performs data entry on computer;
- 9. With guidance, operates and calibrates multichannel pulse-height analyzers, radiation detectors, and associated electronics, as well as other standard laboratory and field equipment;
- Adheres to all Company EEO, affirmative action, environmental, health, safety, quality assurance, and security programs;
- Performs related work as required.

# Laboratory Technician I

### ESSENTIAL JOB FUNCTIONS

Constantly = Over 2/3 of time Frequently = 1/3 - 2/3 of time

Occasionally = Less than 1/3 of time

# **Physical**

 Frequent standing/walking in laboratory or occasionally out in field on all types of surfaces short distances throughout shift;

- Occasional-to-frequent sitting while driving, working at bench, operating equipment, or completing paperwork; possibly subjected to jarring/bumping while operating vehicle in off-road condition;
- 3. Frequent lifting/carrying 1 to 25 pounds of boxes, dosimeters, samples, equipment, manuals, etc., occasionally up to 40 to 50 pound soil samples carrying up to 20 feet depending on assignment;
- Occasional pushing/pulling using both hands/arms requiring force of 1 to 20 pounds while collecting samples or operating testing/laboratory equipment;
- 5. Occasional climbing stairs or step stool to reach some areas and upper shelves;
- 6. Frequent bending/twisting at waist/knees/neck while performing routine work throughout shift;
- Constant use of both hands/arms reaching/handling/grasping/fingering/gripping while operating equipment, collecting samples, keyboarding, recording data, etc.; may involve some overhead reaching;
- 8. Constant use of sight ability in operating testing equipment, preparing samples, recording test results, and maintaining a safe work environment; visual requirements include color vision, hand/eye coordination, and visual acuity in near- and mid-range vision;
- Constant use of speech/hearing abilities and writing/reading skills when communicating with all levels of customers/coworkers/supervisors.

#### Mental

- Constant mental alertness, attention to detail, and high degree of accuracy required in number verification sampling, testing, operating, and calibrating equipment to exact specifications and maintaining a safe work environment;
- Must possess good oral/written communication skills; must be able to record data accurately; read/write/understand technical procedures/journals/manuals; and communicate with various levels of other department staff;
- 3. Must possess excellent mathematical skills including algebra in order to make necessary calculations;
- Must be able to work, follow oral and written instructions, problem-solve, and prioritize work load to ensure completion of all assignments within established time frames;
- Must be able to follow multiple tasks and complete all assignments within required time frame to exacting specifications;
- Must be able to deal with pressures of deadlines, multiple tasks, handling emergencies, and hazardous conditions.

# Laboratory Technician I

# WORKING CONDITIONS AND EQUIPMENT USED

Work is performed in laboratory or field setting depending on assignment; occasionally out in field while performing sample collection or equipment maintenance, exposed to all types of weather.

Tools & Equipment Used: All types of laboratory testing and calibration equipment, laboratory glassware, motor vehicle, telephone, general office equipment, and safety equipment including lab coat, gloves, and eye protection; depending on assignment in field, safety glasses, hard hat, respirator, anti-C-suit safety shoes, and seat belts when appropriate.

# REQUIRED TRAINING AND WORK EXPERIENCE

High school diploma or equivalent, a minimum of two years of college in the natural sciences (chemistry, biology, etc.), and one year of applicable experience in a scientific setting required, or a high school diploma or equivalent and five years of applicable work experience.

## OTHER SPECIAL QUALIFICATIONS

Driver's license and basic computer skills required. Must be able to obtain "Q" clearance. Laboratory Technicians performing environmental surveillance or hazardous waste sampling may wear respirator and may be required to enter potentially dangerous environments to perform sampling activities.

# REYNOLDS ELECTRICAL & ENGINEERING CO., INC. POSITION DESCRIPTION

POSITION TITLE:

Laboratory Technician II

JOB CODE :

051415

DATE PREPARED:

July 31, 1985

Revised: October 27, 1993

#### SUMMARY STATEMENT

Under supervision, the incumbent performs routine assignments in chemical and radiochemical procedures and environmental and hazardous waste sampling; prepares samples for chemical analysis; issues, processes, evaluates and exchanges film and thermoluminescent dosimetric devices; performs general operations and calibrations on complex electronic instrumentation; collects samples; installs, operates, and maintains sampling stations; prepares and maintains sampling records; and performs data reduction tasks using both calculators and computers.

#### DIMENSIONS

The incumbent reports to a Health Physicist, Analytical Chemist, Radiological Analysis Supervisor, Industrial Hygienist, or higher level supervisor; receives guidance from lead persons, higher level Laboratory Technicians, or technical staff; usually does not act in a lead capacity.

- 1. Performs sample digestion and extraction preparation procedures; cleans laboratory glassware; performs analytical measurements;
- 2. With assistance, prepares industrial, ecological, and biological materials for analysis; assists with analysis;
- 3. Issues, processes, exchanges, and evaluates film and thermoluminescent dosimeters; exchanges environmental thermoluminescent dosimeters; prepares and maintains associated records;
- 4. Prepares simple calibration standards and controls with radioactive sources for personnel dosimetry;
- 5. Collects environmental and hazardous waste samples; installs, operates, and maintains environmental air sampling stations; assists in laboratory waste disposal; acts as laboratory sample custodian; procures supplies;
- Logs sample data into Laboratory Information Management System;
- 7. Conducts qualitative and quantitative determinations of radionuclide concentrations from complex gamma and alpha spectra and gross radiation data; determines background levels, efficiency, and geometry correction factors for nuclear detection equipment;
- 8. Operates a minicomputer system and prepares data for analysis by the computer; performs data entry on computer system;
- 9. With some guidance, operates and calibrates multichannel pulse-height analyzers, radiation detectors, and associated electronics, as well as other standard laboratory and field equipment;
- 10. Adheres to all Company EEO, affirmative action, environmental, health, safety, quality assurance, and security programs;
- Performs related work as required.

# Laboratory Technician II

Constantly = Over 2/3 of time

#### **ESSENTIAL JOB FUNCTIONS**

# Physical Frequently = 1/3 - 2/3 of time Occasionally = Less than 1/3 of time

- 1. Frequent standing/walking in laboratory or occasionally out in field on all types of surfaces for short distances throughout shift;
- 2. Occasional-to-frequent sitting while working at bench, operating equipment, or completing paperwork;
- 3. Frequent lifting/carrying 1 to 25 pounds of boxes, dosimeters, samples, equipment, manuals, etc., occasionally up to 40 to 50 pounds, carrying up to 20 feet;
- 4. Occasional pushing/pulling requiring force of 1 to 20 pounds while operating testing/laboratory equipment;
- 5. Occasional climbing stairs or step stool to reach some areas or upper shelves;
- 6. Frequent bending/twisting at waist/knees/neck while performing routine work throughout shift;
- Constant use of both hands/arms in reaching/handling/grasping while operating equipment, keyboarding, recording data, etc.; may involve some overhead reaching;
- Constant use of sight/hearing ability in operating testing equipment, preparing samples, recording test
  results, and maintaining a safe work environment; visual requirements include color vision, hand/eye
  coordination, and visual acuity in near- and mid-range vision;
- 9. Constant use of speech abilities in communicating with all levels of customers and coworkers.

#### Mental

- Constant mental alertness, attention to detail, and high degree of accuracy required in sampling, testing, operating, and calibrating equipment to exact specifications and maintaining a safe work environment;
- Must possess good oral/written communication skills to communicate with Laboratory Technician Is and other department staff, record data accurately, and to read/write and understand technical procedures/journals/manuals, etc.;
- 3. Must possess excellent mathematical skills including algebra in order to make necessary calculations;
- 4. Must be able to work, follow oral and written instructions, problem-solve, and prioritize;
- Must be able to fallow multiple tasks and complete all assignments within required time frame to exacting specifications;
- Must be able to deal with pressures of deadlines, multiple tasks, handling emergencies, and hazardous conditions.

# WORKING CONDITIONS AND EQUIPMENT USED

Work is performed in laboratory or field setting depending on assignment; occasionally out in field while performing sample collection or equipment maintenance, exposed to all types of weather.

Tools & Equipment Used: All types of laboratory testing and calibration equipment, laboratory glassware, motor vehicle, telephone, general office equipment, and safety equipment including lab coat, gloves, and eye protection; depending on assignment in field, safety glasses, hard hat, respirator, anti-C-suit safety shoes, and seat belts when appropriate.

# Laboratory Technician II

# REQUIRED TRAINING AND WORK EXPERIENCE

High school diploma or equivalent and minimum of two years of college in the natural sciences (chemistry, biology, etc.) and two years of applicable experience in a scientific setting required; or high school diploma or equivalent, and six years of applicable work experience.

# OTHER SPECIAL QUALIFICATIONS

Driver's license required. Basic computer skills required. Must be able to obtain "Q" clearance. Laboratory Technicians performing environmental surveillance or hazardous waste sampling may wear respirator and may enter potentially dangerous environments to perform sampling activities.

# REYNOLDS ELECTRICAL & ENGINEERING CO., INC. POSITION DESCRIPTION

POSITION TITLE: Laboratory Technician III

JOB CODE : 051510

DATE PREPARED: July 31, 1985 Revised: October 27, 1993

#### SUMMARY STATEMENT

Under general supervision, the incumbent performs detailed assignments in chemical and radiochemical procedures and environmental and hazardous waste sampling; prepares and analyzes samples for chemical constituents; issues, processes, evaluates and exchanges film and thermoluminescent dosimetric devices; operates and calibrates complex electronic instrumentation; collects samples; installs, operates, and maintains sampling stations; prepares and maintains sampling records; and performs data reduction tasks using both calculators and computers.

#### DIMENSIONS

The incumbent reports to a Health Physicist, Analytical Chemist, Industrial Hygienist, Radiological Analysis Supervisor, or higher level supervisor; may provide guidance to subordinate Laboratory Technicians; and can perform as a lead person.

- 1. Performs sample digestion and extraction preparation procedures;
- 2. Analyzes samples for chemical constituents and radioactive compounds; with some supervision, prepares industrial, ecological, and biological materials for analysis;
- 3. Issues, processes, exchanges, and evaluates film and thermoluminescent dosimeters; exchanges environmental thermoluminescent dosimeters; prepares and maintains associated records;
- 4. Prepares involved calibration standards and controls with radioactive sources for personnel dosimetry;
- Collects environmental and hazardous waste samples; installs, operates, and maintains environmental air sampling stations; assists in laboratory waste disposal; serves as laboratory sample custodian; procures supplies;
- 6. Logs sample data into Laboratory Information Management System (LIMS);
- Conducts difficult qualitative and quantitative determinations of radionuclide concentrations from complex gamma and alpha spectra and gross radiation data; determines detailed background levels, efficiency, and geometry correction factors for nuclear detection equipment;
- 8. Operates a minicomputer system and prepares data for analysis by the computer; perform data entry on computer system;
- 9. May guide others, as well as operate and calibrate multichannel pulse-height analyzers, radiation detectors, and associated electronics, as well as other standard laboratory equipment;
- 10. Adheres to all Company EEO, affirmative action, environmental, health, safety, quality assurance, and security programs;
- 11. Performs related work as required.

# Laboratory Technician III

#### **ESSENTIAL JOB FUNCTIONS**

Constantly = Over 2/3 of time Frequently = 1/3 - 2/3 of time

#### **Physical**

Occasionally = Less than 1/3 of time

- 1. Frequent standing/walking in laboratory or occasionally out in field on all types of surfaces for short distances throughout shift;
- 2. Occasional-to-frequent sitting while working at bench, operating equipment, or completing paperwork;
- 3. Frequent lifting/carrying 1 to 25 pounds of boxes, dosimeters, samples, equipment, manuals, etc., occasionally up to 40 to 50 pounds, carrying up to 20 feet;
- 4. Occasional pushing/pulling requiring force of 1 to 20 pounds while operating testing/laboratory equipment;
- 5. Occasional climbing stairs or step stool to reach some areas or upper shelves;
- 6. Frequent bending/twisting at waist/knees/neck while performing routine work throughout shift;
- Constant use of both hands/arms in reaching/handling/grasping while operating equipment, keyboarding, recording data, etc.; may involve some overhead reaching;
- 8. Constant use of sight/hearing ability in operating testing equipment, preparing samples, recording test results, and maintaining a safe work environment; visual requirements include color vision, hand/eye coordination, and visual acuity in near- and mid-range vision;
- 9. Constant use of speech abilities in communicating with all levels of customers and coworkers.

#### Mental

- Constant mental alertness, attention to detail, and high degree of accuracy required in sampling, testing, operating, and calibrating equipment to exact specifications and maintaining a safe work environment;
- Must possess excellent oral/written communication skills to communicate with Laboratory Technician Is and lis and other department staff, record data accurately, read/write/understand technical procedures/journals/manuals, etc.;
- 3. Must possess excellent mathematical skills including algebra in order to make necessary calculations;
- Must be able to follow oral and written procedures; use reasoning and problem-solving skills; and apply knowledge, experience, and judgement to evaluate and interpret data;
- Must be able to follow multiple tasks and complete all assignments within required time frame to exacting specifications;
- 6. Must be able to deal with pressures of deadlines, multiple tasks, handling emergencies, and hazardous conditions;
- Must possess good leadership/training skills in order to provide instruction and guidance to assigned technicians in a positive and effective manner.

# WORKING CONDITIONS AND EQUIPMENT USED

Work is performed in laboratory or field setting depending on assignment; occasionally out in field while performing sample collection or equipment maintenance, exposed to all types of weather.

# Laboratory Technician III

Tools & Equipment Used: All types of laboratory testing and calibration equipment, laboratory glassware, motor vehicle, telephone, general office equipment, and safety equipment including lab coat, gloves, and eye protection; depending on assignment in field, safety glasses, hard hat, respirator, anti-C-suit safety shoes, and seat belts when appropriate.

# REQUIRED TRAINING AND WORK EXPERIENCE

High school diploma or equivalent and minimum two years of college in the natural sciences (chemistry, biology, etc.) and four years of work experience in a directly related scientific setting required; or high school diploma or equivalent and a minimum of eight years of applicable experience.

# OTHER SPECIAL QUALIFICATIONS

Driver's license required. Proficient computer skills required. Must be able to obtain "Q" clearance. Laboratory Technicians performing environmental surveillance or hazardous waste sampling may wear respirator and may enter potentially dangerous environments to perform sampling activities.

For radiochemistry or radioanalysis work or radiological environmental sampling, the incumbent must be actively pursuing certification by the National Registry of Radiological Protection Technicians.

For analytical chemistry work, the incumbent must perform at least three of the following:

- 1. Receive in-house training and outside instrumental training on gas chromatograph, atomic absorption spectrophotometers, inductively coupled plasma spectrophotometers, polarized light microscopes, or other equally sophisticated instrumentation;
- 2. Receive in-house training and outside sample management training such as LIMS or Environmental Protection Agency training;
- 3. Obtain at least an Associates in Arts degree or equivalent in the natural sciences;
- 4. Supervise the work of other Laboratory Technicians;
- 5. Acquire certification by American Industrial Hygiene Association's Asbestos Analysts Registry;
- 6. Satisfactorily complete at least 15 hours of college chemistry course work;
- 7. Receive in-house or outside training on environmental regulations (Resource Consolidation & Recovery Act, Comprehensive Environment Response Compensation & Liability Act, Federal Insecticide, Funguscide, Rodenticide Act, etc.;

For nonradioactive sampling personnel, Environmental Technician Registry is required.

# REYNOLDS ELECTRICAL & ENGINEERING CO., INC. POSITION DESCRIPTION

POSITION TITLE: Laboratory Technician IV

JOB CODE : 051610

DATE PREPARED: July 31, 1985 Revised: October 27, 1993

#### SUMMARY STATEMENT

Under little or no supervision, the incumbent performs the most complex assignments in chemical and radiochemical procedures and environmental and hazardous waste sampling; prepares and analyzes samples for chemical constituents; issues, processes, evaluates, and exchanges film and thermoluminescent dosimetric devices; operates and calibrates most complex electronic instrumentation; collects samples; installs, operates, and maintains sampling stations; prepares and maintains sampling records; and performs data reduction tasks using both calculators and computers.

#### **DIMENSIONS**

The incumbent reports to a Health Physicist, Analytical Chemist, Radiological Analysis Supervisor, Industrial Hygienist, or higher level supervisor; provides guidance to subordinate Laboratory Technicians; and can perform as a lead person.

- 1. Performs sample digestion and extraction preparation procedures;
- 2. Prepares industrial, ecological, and biological materials for analysis; analyzes samples for chemical constituents and radioactive components;
- 3. Issues, processes, exchanges, and evaluates film and thermoluminescent dosimeters; exchanges environmental thermoluminescent dosimeters; prepares and maintains associated records;
- 4. Prepares complex calibration standards and controls with radioactive sources for personnel dosimetry;
- Collects environmental and hazardous waste samples; installs, operates, and maintains environmental air sampling stations; assists in laboratory waste disposal; serves as laboratory sample custodian; procures supplies;
- 6. Evaluates the requirements of a project plan as it pertains to particular assignments;
- Conducts intricate qualitative and quantitative determinations of radionuclide concentrations from complex gamma and alpha spectra and gross radiation data; determines complex background levels, efficiency, and geometry correction factors for nuclear detection equipment;
- 8. Operates a minicomputer system and prepares data for analysis by the computer; logs sample data into Laboratory Information Management System;
- Guides others, operates, maintains, and calibrates multichannel pulse-height analyzers, radiation detectors, and associated electronics, as well as other standard laboratory and field equipment;
- Adheres to all Company EEO, affirmative action, environmental, health, safety, quality assurance, and security programs;
- 11. Performs related work as required.

## Laboratory Technician IV

### **ESSENTIAL JOB FUNCTIONS**

#### **Physical**

Constantly = Over 2/3 of time Frequently = 1/3 - 2/3 of time Occasionally = Less than 1/3 of time

- 1. Frequent standing/walking in laboratory or occasionally out in field on all types of surfaces for short distances throughout shift;
- 2. Occasional-to-frequent sitting while working at bench, operating equipment, or completing paperwork;
- 3. Frequent lifting/carrying 1 to 25 pounds of boxes, dosimeters, samples, equipment, manuals, etc., occasionally up to 40 to 50 pounds, carrying up to 20 feet;
- 4. Occasional pushing/pulling requiring force of 1 to 20 pounds while operating testing/laboratory equipment;
- 5. Occasional climbing stairs or step stool to reach some areas or upper shelves;
- 6. Frequent bending/twisting at waist/knees/neck while performing routine work throughout shift;
- Constant use of both hands/arms in reaching/handling/grasping while operating equipment, keyboarding, recording data, etc.; may involve some overhead reaching;
- 8. Constant use of sight/hearing ability in operating testing equipment, preparing samples, recording test results, and maintaining a safe work environment; visual requirements include color vision, hand/eye coordination, and visual acuity in near- and mid-range vision;
- 9. Constant use of speech abilities in communicating with all levels of customers and coworkers.

#### **Mental**

- Constant mental alertness, attention to detail, and high degree of accuracy required in sampling, testing, operating, and calibrating equipment to exact specifications and maintaining a safe work environment;
- Must possess excellent oral/written communication skills to communicate effectively with other department staff and assigned technicians, record data accurately, read/write/understand technical procedures/journals/manuals, etc.;
- 3. Must possess excellent mathematical skills including algebra in order to make necessary calculations;
- 4. Must be able to follow oral and written procedures; use reasoning and problem-solving skills; and apply knowledge, experience, and judgement to evaluate and interpret data;
- 5. Must be able to follow multiple tasks and complete all assignments within required time frame to exacting specifications;
- 6. Must be able to deal with pressures of deadlines and multiple tasks;
- 7. Must possess excellent leadership/training skills in order to provide instruction and guidance to assigned technicians in a positive and effective manner.

#### WORKING CONDITIONS AND EQUIPMENT USED

Work is performed in laboratory or field setting depending on assignment; occasionally out in field while performing sample collection or equipment maintenance, exposed to all types of weather.

### Laboratory Technician IV

Tools & Equipment Used: All types of laboratory testing and calibration equipment, laboratory glassware, motor vehicle, telephone, general office equipment, and safety equipment including lab coat, gloves, and eye protection; depending on assignment in field, safety glasses, hard hat, respirator, anti-C-suit safety shoes, and seat belts when appropriate.

# REQUIRED TRAINING AND WORK EXPERIENCE

High school diploma or equivalent and a minimum of two years of college in the natural sciences (chemistry, biology, etc.) and six years of work experience in a directly related scientific setting required; or high school diploma or equivalent and a minimum of ten years of applicable experience.

#### OTHER SPECIAL QUALIFICATIONS

Driver's license required. Proficient computer skills required. Must be able to obtain "Q" clearance. Laboratory Technicians performing environmental surveillance or hazardous waste sampling may wear respirator and may enter potentially dangerous environments to perform sampling activities.

For radiochemistry or radioanalysis work or radiological environmental sampling, the incumbent must possess certification from the National Registry of Radiological Protection Technicians.

For analytical chemistry work, qualification for the IV level of this position requires performance of at least two of the following job requirements:

- 1. Successfully analyze performance evaluation samples for results submitted to certifying agencies;
- 2. Perform developmental work (i.e., develop new analytical methods, validate new methods, and/or write new method Standard Operating Procedures);
- 3. Review analytical data for compliance with data quality objectives;
- 4. Peer review the work of other Laboratory Technicians;
- 5. Perform field measurements in conformance with "good laboratory practice;"

For nonradioactive sampling personnel, Environmental Technician Registry is required.