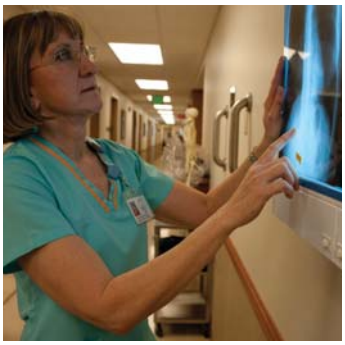
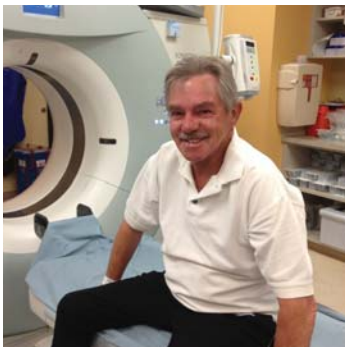
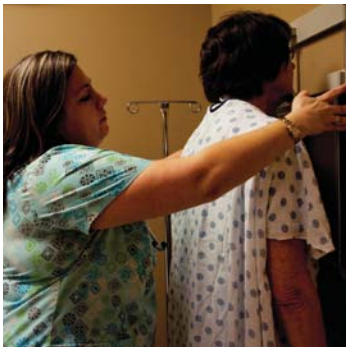
2014 ANNUAL REPORT

FORMER WORKER MEDICAL SCREENING PROGRAM





U.S. DEPARTMENT OF ENERGY

Office of Environment, Health, Safety and Security

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Table of Contents

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Abbreviations Used in This Report

ACOEM	*American College of Occupational and Environmental Medicine*
AEC	*Atomic Energy Commission*
BAECP	*Burlington Atomic Energy Commission Plant*
BeLPT	*Beryllium Lymphocyte Proliferation Test*
BTMed	*Building Trades National Medical Screening Program*
CDC	*Centers for Disease Control and Prevention*
CMIO	*Chief Medical Informatics Officer*
COPD	*Chronic Obstructive Pulmonary Disease*
CPWR	*CPWR – The Center for Construction Research and Training*
CT	*Computed Tomography*
CXR	*Chest X-ray*
DOE	*U.S. Department of Energy*
DOL	*U.S. Department of Labor*
EEOICPA	*Energy Employees Occupational Illness Compensation Program Act*
EHSS	*DOE Office of Environment, Health, Safety and Security*
ELCD	*Early Lung Cancer Detection*
EPA	*Environmental Protection Agency*
FMPC	*Feed Materials Production Center*
FWP	*Former Worker Medical Screening Program or Former Worker Program*
FY	*Fiscal Year*
GDP	*Gaseous Diffusion Plant*
IAAP	*Iowa Army Ammunition Plant*
INL	*Idaho National Laboratory*
JHBSPH	*Johns Hopkins Bloomberg School of Public Health*
JHU	*Johns Hopkins University*
JOTG	*Joint Outreach Task Group*
K-25	*Oak Ridge K-25 Gaseous Diffusion Plant*
LANL	*Los Alamos National Laboratory*

LDCT	*Low-dose Computed Tomography*
NIH	*National Institutes of Health*
NIOSH	*National Institute for Occupational Safety and Health*
NNSS	*Nevada National Security Site (formerly known as Nevada Test Site)*
NSSP	*National Supplemental Screening Program*
ORAU	*Oak Ridge Associated Universities*
ORNL	*Oak Ridge National Laboratory*
OSHA	*Occupational Safety and Health Administration*
PFT	*Pulmonary Function Test*
SNL	*Sandia National Laboratories*
UNM	*University of New Mexico*
UTHSCT	*University of Texas Health Science Center at Tyler*
WHPP	*Worker Health Protection Program*
Y-12	*Y-12 National Security Complex*

Foreword

The Former Worker Medical Screening Program, or Former Worker Program (FWP), was established by the U.S. Congress as part of Section 3162 of the National Defense Authorization Act for Fiscal Year 1993. The legislation called for the U.S. Department of Energy (DOE) to provide ongoing medical screening examinations, at no cost, to all eligible former DOE Federal, contractor, and subcontractor workers. As a result of the development and maintenance of nuclear weapons, workers from DOE or its predecessor Agencies (the Manhattan Engineer District, the Atomic Energy Commission, and the Energy Research and Development Administration) may have developed work-related illnesses as a result of their exposure to hazardous materials, including radiation, beryllium, asbestos, lasers, silica, lead, cadmium, chromium, solvents, noise, and other occupational exposures. The medical screenings are designed to check for adverse health effects that may have resulted from working at DOE facilities. Since 1996, the program has made great strides in addressing the occupational health legacy of the Department's 70-plus years of nuclear weapons design and production, and continued to fulfill the crucial mandate that the U.S. Congress entrusted to it.

The FWP, managed by EHSS, uses a network of renowned occupational health experts from universities, labor unions, and commercial organizations to administer the medical screening program. These third-party providers ensure objective and credible medical evaluation services.

Through ongoing outreach and continuous medical screening activities, the FWP provides important health information to former workers across the country. DOE has also developed a strong relationship with the Department of Labor and the National Institute for Occupational Safety and Health. The close collaboration between the organizations provides consistent, objective, and reliable information on the Energy Employees Occupational Illness Compensation Program Act benefits available to the workers.

The Department and EHSS are committed to the health and safety of our workforce. EHSS recognizes the significance of DOE's obligations to our former workers. We are pleased to present this annual report highlighting the program accomplishments in 2014 and previous years.

We thank the former workers for their service at our DOE sites, and we will strive to continue providing the high quality medical services to which they are entitled.

Matthew B. Moury
Associate Under Secretary for
Environment, Health, Safety and Security
Office of Environment, Health, Safety and Security
U.S. Department of Energy

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Executive Summary

This Fiscal Year (FY) 2014 Annual Report presents an overview of the structure and accomplishments of the U.S. Department of Energy's (DOE) Former Worker Medical Screening Program or Former Worker Program (FWP). The FWP was mandated by the U.S. Congress as part of Section 3162 of the National Defense Authorization Act for FY 1993 (Public Law 102-484).

Since 1996, FWP has provided ongoing medical screening examinations, at no cost, to all interested and eligible former DOE Federal, contractor, and subcontractor workers from all DOE sites, as well as former workers from its predecessor Agencies (the Manhattan Engineer District, the Atomic Energy Commission, and the Energy Research and Development Administration). The original legislation that established the FWP also called for the program to provide ongoing medical examinations; therefore, former workers are entitled to a re-screen examination 3 years after their initial medical screening and every 3 years thereafter. The estimated population of former workers who may be eligible to receive these medical screening services is more than 600,000 individuals.

Medical screening is a tool used to identify diseases or precursor conditions in a select population at an early stage of development of disease, often before signs or symptoms develop. The medical screening exams offered by the FWP are designed to detect work-related health effects from a wide range of potentially hazardous exposures, including radiation, beryllium, asbestos, lasers, silica, lead, cadmium, chromium, solvents, noise, and other occupational hazards. Individuals who are found to have any abnormal medical findings are referred to their personal physicians or a specialist for additional testing and diagnoses. Followup care is not covered by the FWP, and the program is not intended to serve as a substitute for routine medical exams received through an individual's personal physician.

To ensure objective and credible medical examinations, the program offers medical screening exams by third-party providers. The administration of these medical examinations is built on the principles of absolute confidentiality and respect for the privacy of individuals. Medical screening exams are offered at clinics in communities near DOE sites, as well as through a large network of health clinics nationwide to allow for services to be provided in close proximity to most workers' residences. In fact, this vast network of clinics has allowed the FWP to not only provide participant medical screening exams in all 50 states but in several international locations as well.

The success of the FWP is due, in large part, to the DOE's Office of Environment, Health, Safety and Security's collaboration with independent, credible, and highly regarded medical experts in the field of occupational medicine. Their dedication to the DOE workforce over the past 18 years has resulted in high-quality services, and the level of satisfaction expressed by participants speaks to the skill and professionalism of the organizations implementing the program for EHSS.

In FY 2014, the FWP continued to successfully fulfill its congressional mandate of delivering free medical screening services to all interested and eligible former workers. The program activities undertaken focused on meeting the following objectives:

Deliver high-quality medical screening services to thousands of former workers nationwide.

As of September 30, 2014, 111,473 screenings and re-screen exams have been performed. In FY 2014, 3,764 initial medical examinations and 4,997 re-screen medical exams were conducted. In addition, since 2000, the FWP has made screening for occupational lung cancer with low-dose helical computed tomography (CT) scans

available to workers at high risk for lung cancer. Since the initiation of the FWP's Early Lung Cancer Detection program, 14,387 participants have been screened and provided a total of 41,237 CT scans. In FY 2014, 902 participants were screened and a total of 4,131 CT scans were performed; this includes baseline, followup, and annual scans.

Enhance the efficiency and effectiveness of program implementation.

The overall success of the FWP is ultimately measured by the number of former workers who can be identified, located, contacted, and provided with timely medical screening examinations and followup recommendations. This process requires close coordination, timely communication, and frequent interaction among several stakeholders that include workers, labor unions, worker advocates, DOE Institutional Review Boards (committees overseeing the protection of human subjects), DOE Headquarters program offices, DOE field and site offices, and DOE contractors. Also important is effectively meeting the requirement to adequately protect personally identifiable information and protected health information that is collected for use in the program.

The overall EHSS strategy in FY 2014 was to continuously improve program effectiveness consistent with the following elements:

- *Improved precision in locating the targeted population.* Specifically, EHSS worked closely with the DOE Headquarters program offices, field and site offices, contractors, and labor unions to more effectively and efficiently identify, locate, and access employment records. This effort was focused on obtaining "last known" contact information for former workers and has resulted in improved communication and sharing of employee rosters.

- *Enhanced life-cycle outreach.* Specifically, to proactively reach out to the next generation of former workers, EHSS and FWP project personnel continued to work with DOE site Human Resource Departments to have FWP brochures included in exit packages for workers retiring/separating from the site, published program materials, and provided hyperlinks to relevant information on retiree and DOE site webpages. Additionally, for the second year in a row, EHSS has intensified its outreach to the current workforce by sharing a Department-wide message informing current workers of the availability of medical screening for when they become former DOE workers. This initiative is expected to result in an increased use of the free medical screening services once the current generation of workers retire/separate from DOE.

- *Strengthened interagency collaboration and partnership.* Specifically, EHSS increased the overall effectiveness and coordination of various outreach and awareness campaigns by continuing to partner with other Federal Agencies through the established Joint Outreach Task Group (JOTG). The Agencies and entities involved include DOE, the U.S. Department of Labor (DOL), the National Institute for Occupational Safety and Health (NIOSH), the Offices of the Ombudsman for DOL and NIOSH, and the DOE-funded FWP projects. This effort enabled more effective outreach, enhanced communication, and provided more clarity and consistency in the information and guidance provided to former workers on the FWP, the Energy Employees Occupational Illness Compensation Program Act, and the benefits available to them. As part of its commitment, the task group created a JOTG town hall meeting video that includes the same information presented at a typical JOTG public outreach meeting. It provides the audience with important how-to tips to take advantage of congressionally mandated benefits and their potentially lifesaving outcomes. The video can be found on the DOE Web site (http://energy.gov/ehss/joint-outreach-task-group-video-series).

The FWP continues to serve as a benefit to the former DOE workforce. While the program has identified, located, and offered medical screening exams to tens of thousands of former workers, much work still remains to continue these efforts. The FWP will continue to fulfill its obligation to the original mandate, to fulfill the huge debt we owe to the workers who served our Nation during World War II and the Cold War and in meeting today's challenges.

"If I hadn't gone through the screening, I never would've known I had cancer. Then who knows how I'd feel today. Or if I'd even be here."

– Norman Grnya, former Hanford worker, Laborers Local 348

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1.0 Program Overview

This Fiscal Year (FY) 2014 Annual Report presents an overview of the structure and accomplishments of the U.S. Department of Energy's (DOE) Former Worker Medical Screening Program or Former Worker Program (FWP). This document reports cumulative efforts and results from the FWP, along with updates for the current year. The FWP is a congressionally mandated program that is responsible for providing medical screening exams, at no cost, to all interested and eligible former DOE Federal, contractor, and subcontractor workers from all DOE sites and/or its predecessor Agencies (the Manhattan Engineer District, the Atomic Energy Commission, or AEC, and the Energy Research and Development Administration). The estimated population of former workers who may be eligible to receive these medical screening services is more than 600,000 individuals. The medical screening exams offered by the FWP are designed to check for potential adverse health outcomes related to occupational exposures, including but not limited to radiation, beryllium, asbestos, lasers, silica, welding fumes, lead, cadmium, chromium, solvents, and noise.

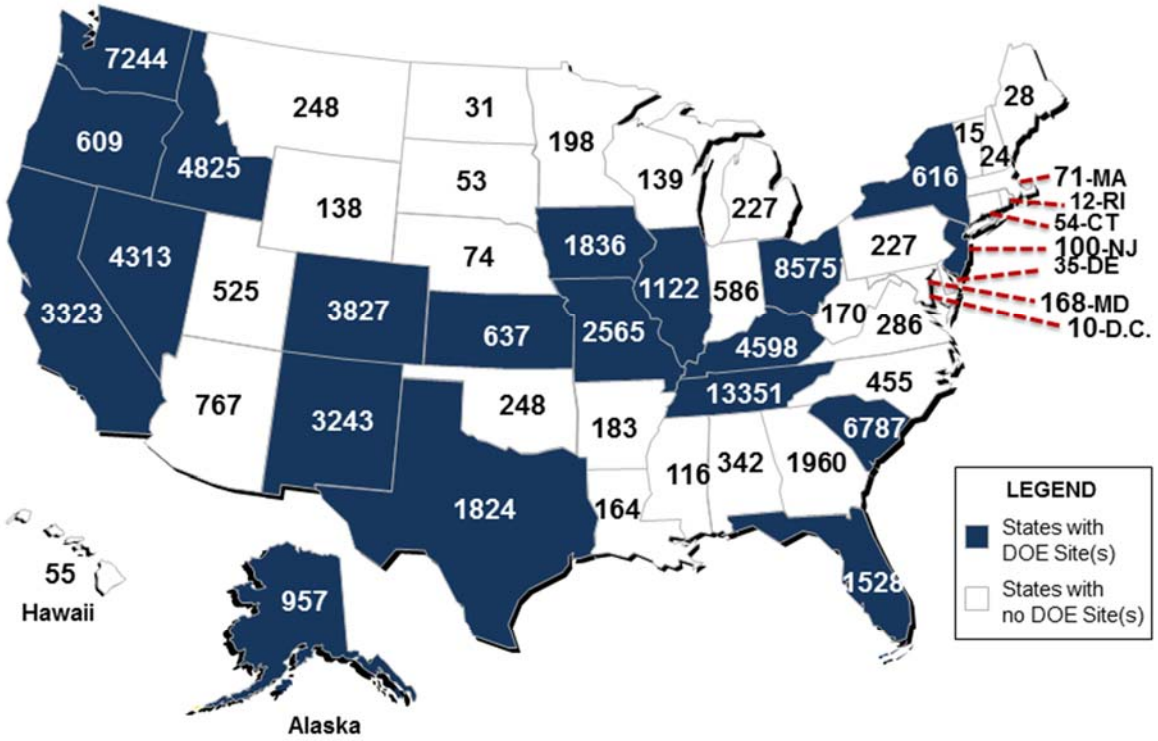
The program was established following the issuance of the National Defense Authorization Act for FY 1993 (Public Law 102-484), which called for DOE to:

> *"… establish and carry out a program for the identification and on-going medical evaluation of its… former employees who are subject to significant health risks as a result of the exposure of such employees to hazardous or radioactive substances during such employment."*

Since the inception of the FWP, DOE has made great strides in addressing the occupational health legacy of its nuclear weapons design and production activities. The FWP, managed by the DOE's Office of Environment, Health, Safety and Security (EHSS), uses independent occupational health experts from universities, labor unions, and commercial organizations to administer the medical screening program. Using these third-party providers ensures that medical evaluation services are objective and credible.

The success of the FWP is due, in large part, to EHSS' collaboration with independent, highly regarded medical experts in the field of occupational medicine. Funded by EHSS, the FWP projects operate independently and are perceived as flexible, accessible, and sensitive to worker concerns and issues. While each project has unique characteristics and has employed different approaches to meeting its objectives, all have continuously improved and upgraded their delivery systems. Consequently, they enjoy a high comfort factor among their participant populations. Their dedication to the DOE workforce over the past 18 years has resulted in high-quality services, and the level of satisfaction expressed by participants speaks to the skill and professionalism of the organizations administering the program for EHSS. In FY 2014, an average of 97.5 percent of the participants indicated satisfaction with the program. As of September 2014, a total of 111,473 medical exams have been conducted through the FWP.

Medical screenings are provided at clinics in communities near DOE sites, as well as through a large network of health clinics nationwide that allow services to be provided near most workers' residences. In fact, this vast network of clinics has allowed the FWP to provide participant medical screening exams not only in all 50 States, but in several international locations as well (see Figure 1).



ALABAMA	342	FLORIDA	1528	MAINE	28	NEW HAMPSHIRE	24	RHODE ISLAND	12	WISCONSIN	139	*NORWAY*	*1*
ALASKA	957	GEORGIA	1960	MARYLAND	168	NEW JERSEY	100	SOUTH CAROLINA	6787	WYOMING	138	*UNITED ARAB EMIRATES*	*1*
ARIZONA	767	HAWAII	55	MASSACHUSETTS	71	NEW MEXICO	3243	SOUTH DAKOTA	53			*MARSHALL ISLANDS*	*1*
ARKANSAS	183	IDAHO	4825	MICHIGAN	227	NEW YORK	616	TENNESSEE	13351	*NOT DISPLAYED:*			
CALIFORNIA	3323	ILLINOIS	1122	MINNESOTA	198	NORTH CAROLINA	455	TEXAS	1824	*PUERTO RICO*	*1*		
COLORADO	3827	INDIANA	586	MISSISSIPPI	116	NORTH DAKOTA	31	UTAH	525	*PHILIPPINES*	*1*		
CONNECTICUT	54	IOWA	1836	MISSOURI	2565	OHIO	8575	VERMONT	15	*VIRGIN ISLANDS*	*1*		
DELAWARE	35	KANSAS	637	MONTANA	248	OKLAHOMA	248	VIRGINIA	286	*CANADA*	*6*		
DISTRICT OF COLUMBIA	10	KENTUCKY	4598	NEBRASKA	74	OREGON	609	WASHINGTON	7244	*GREECE*	*1*		
		LOUISIANA	164	NEVADA	4313	PENNSYLVANIA	227	WEST VIRGINIA	170	*IRELAND*	*2*		

Figure 1. Participants Screened by State of Residence Program to Date (through September 2014)

The FWP infrastructure consists of four designated regional projects located near major DOE sites, as well as two nationwide projects.

The regional FWP projects include:

- Pantex Former Worker Medical Surveillance Program, conducted by Drexel University School of Public Health in conjunction with the University of Texas Health Science Center at Tyler and West Texas A&M Partners Clinic
- Medical Exam Program for Former Workers at Los Alamos and Sandia (New Mexico) National Laboratories, conducted by Johns Hopkins Bloomberg School of Public Health in conjunction with the University of New Mexico
- Worker Health Protection Program (WHPP), conducted jointly by Queens College of the City University of New York, United Steelworkers, the Atomic Trades and Labor Council in Oak Ridge, and the former Fernald Atomic Trades and Labor Council
- Former Burlington AEC Plant and Ames Laboratory Workers Medical Screening Program, conducted by The University of Iowa College of Public Health

The nationwide FWP projects include:

- National Supplemental Screening Program (NSSP), conducted by Oak Ridge Associated Universities (ORAU) in conjunction with Axion Health, Comprehensive Health Services, National Jewish Health, and the University of Colorado Denver

- Building Trades National Medical Screening Program (BTMed), conducted by CPWR – The Center for Construction Research and Training (CPWR) in conjunction with Duke University Medical Center, the University of Cincinnati Medical Center, and Zenith-American Solutions

Figure 2 provides a map indicating the DOE sites served by these regional FWP projects. The DOE sites, sponsoring organizations, and the year that screening was initiated are provided in a summary of services posted on the FWP Web site (http://energy.gov/ehss/downloads/former-worker-program-summary-services)[1]. Individual FWP project descriptions are provided in Appendix A of this report.

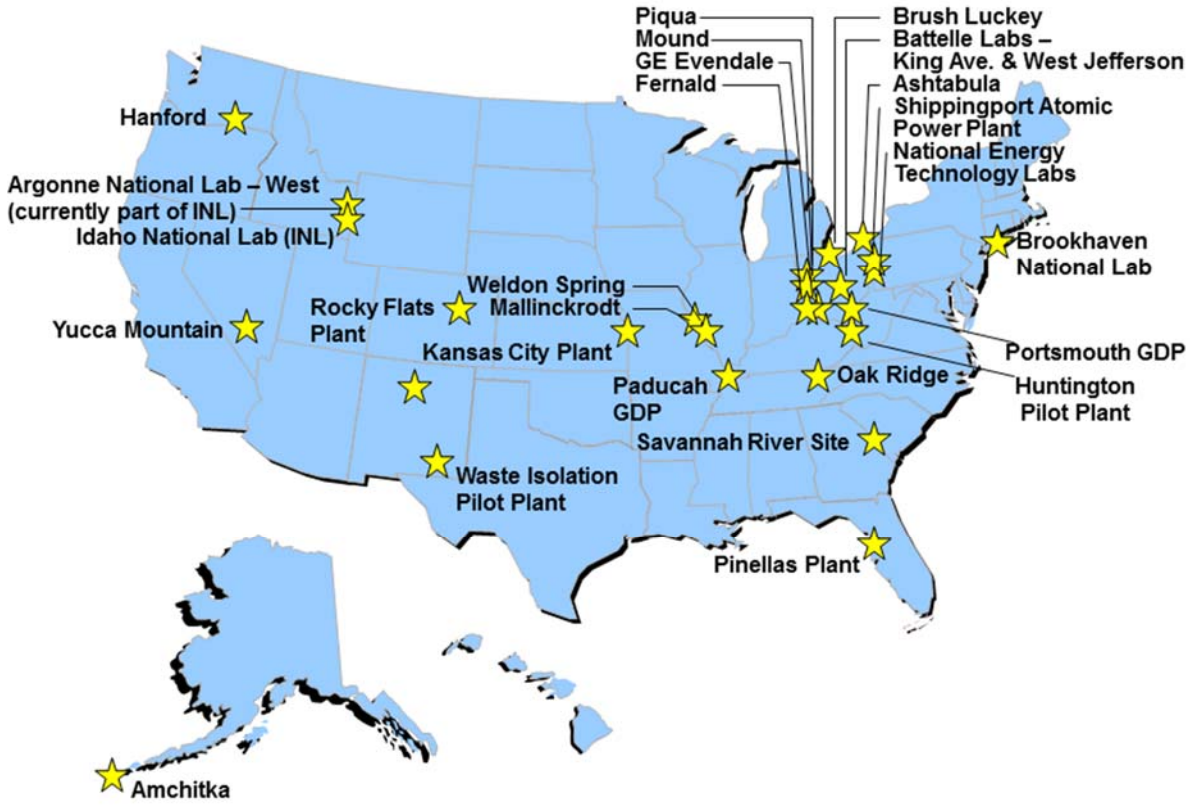


Figure 2. DOE Sites Served by Regional FWP Projects

[1] Links to referenced documents have been included for your convenience, but please be aware that links may change when newer versions of the cited documents are posted on the Web site.

The advantage of the regional approach is that it maximizes outreach to workers and encourages participation in the FWP through day-to-day contact with local worker networks and organizations.

The FWP directly benefits former DOE workers by: (1) identifying signs or symptoms of health problems at an early stage when they are more treatable; and (2) improving workers' understanding of health risks they may face due to possible exposures during their prior employment with DOE.

Additional indepth information regarding the FWP, how it is managed and administered by DOE, and descriptions of the medical exam components can be found on the FWP Web site (http://energy.gov/ehss/services/worker-health-and-safety/former-worker-medical-screening-program).

"The physician did an excellent job of examining me. I have not had such a thorough exam by my own physician or the VA hospital."

- Former Pantex worker

2.0 Program Implementation

Program implementation focuses primarily on three specific activities, which are:

1. Outreach: Identify and notify former DOE workers about FWP medical screening services.
2. Ongoing Medical Screening: Provide medical screening exams that are designed to check for health conditions related to occupational exposures to former workers who choose to participate in the program, including a re-screen exam every 3 years.
3. Communicate Results: Provide medical screening exam results to participants, as well as information regarding any conditions that may require followup medical care with their personal physicians or specialists, and provide information regarding possible compensation for work-related illnesses.

1. Outreach: Identify and notify former DOE workers about FWP medical screening services.

Senator Tom Harkin speaks with (from right to left) Matt Moury, Associate Under Secretary, Office of Environment, Health, Safety and Security, Mary Fields, Program Manager, FWP, and Dr. Patricia Worthington, Director, Office of Health and Safety, at The University of Iowa's commemoration luncheon for former workers of the Burlington AEC Plant.

Most of the FWP projects use multiple outreach methods to notify potentially eligible former DOE workers about the availability of FWP services and to increase the visibility of the program in communities surrounding DOE sites. To locate former workers who may be eligible to participate in the program, EHSS works closely with DOE Headquarters program offices to obtain rosters of former workers from site contractors, as well as field and site offices. Rosters are lists of names, along with other identifying information, of former DOE workers that may be available from employers or DOE.

The confidentiality and privacy rights of former workers are not only a legal requirement, they are crucial to establishing and maintaining credibility with the former worker community. All medical information that is collected as part of this program is treated as confidential and is used only as allowed by the Privacy Act of 1974. All FWP activities are conducted with the approval of the Institutional Review Boards, or Human Subjects Committees, of DOE and involved universities. All individuals sign an informed consent and Health Insurance Portability and Accountability Act (HIPAA) authorization prior to participation. In addition, all program staff are required to take annual privacy awareness training, and all FWP projects have security procedures in place for the safe transmittal and storage of personally identifiable information.

Invitations are sent by the FWP projects to employees on the rosters they receive from DOE, using the last known addresses. When addresses are found to be outdated or inaccurate, supplemental outreach methods are

used by FWP projects; these include address-update services, such as credit bureaus, or Internal Revenue Service mailing services.

JOTG town hall meeting in Paducah, Kentucky

However, from the inception of the FWP, DOE realized there would be challenges in trying to locate workers to participate in the medical screening program; there is no centralized database of former DOE workers. In addition, many workers were employed intermittently by subcontractors, and these companies typically did not leave a copy of employee records with the prime contractor when their job was completed. Thus, the availability of rosters varies greatly by site.

To increase the visibility of the FWP, program information is shared through providing FWP brochures in exit packets for workers separating from a site, and publishing program materials and hyperlinks on retiree and DOE site webpages. To further increase awareness of the FWP, EHSS recently sent out a Department-wide message informing current workers of the availability of medical screening for former DOE workers and to make current workers aware of their eligibility to participate in the program once they have retired/separated from DOE.

In 2009, the Joint Outreach Task Group (JOTG) was established to enhance communication and coordination. The JOTG includes representatives from DOE, the U.S. Department of Labor (DOL), the National Institute for Occupational Safety and Health (NIOSH), the Offices of the Ombudsman for DOL and NIOSH, and the DOE-funded FWP projects. The goal of creating the task group was to coordinate and improve outreach efforts between the Agencies involved in the implementation of the FWP and the Energy Employees Occupational Illness Compensation Program Act (EEOICPA). To meet this goal, the JOTG holds town hall meetings in and near the communities of DOE sites. This effort enables more effective outreach, enhances communication, and provides more clarity and consistency in the information and guidance provided to former workers on FWP, EEOICPA, and benefits available to them.

Also as part of its commitment, the task group created a JOTG town hall meeting video that includes the information presented at a typical JOTG public outreach meeting. The video is not intended to replace future JOTG town hall meetings in the communities, in and around the DOE sites, or the DOE closure sites. Instead, the video provides the JOTG with an outreach tool for workers who are too sick to attend an upcoming task group meeting; people in the communities where no meeting is scheduled in the immediate future; Unions, retiree groups, and other organizations that are interested in holding a “virtual” town hall meeting for their members; DOE sites that would like to show the video during an onsite Health and Safety meeting; and other similar group activities. The video is also streamed via the Internet and available with closed captioning for the hearing impaired. This video is designed to be helpful to those seeking an overview of the EEOICPA and FWP, as well as those who are not sure which Agency they should contact to address their specific question. The video can be found on the DOE Web site (http://energy.gov/ehss/joint-outreach-task-group-video-series).

As of September 30, 2014, FWP projects have attempted to contact over 800,000 potential FWP participants. Those who are interested and eligible have either completed their medical screening examinations or are in the

process of being scheduled for an exam. Additional information regarding outreach can be found on the FWP Web site (http://energy.gov/ehss/outreach-former-worker-medical-screening-program-fwp).

2. Ongoing Medical Screening: Provide medical screening exams that are designed to check for health conditions related to occupational exposures to former workers who choose to participate in the program, including a re-screen exam every 3 years.

Conventional Medical Screening Program

A medical screening exam conducted in Oak Ridge, TN.

Medical screening is a strategy used to identify diseases or precursor conditions in a select population at an early stage in the development of disease, often before signs and symptoms develop, and to refer individuals with suspicious findings to their personal physician or a specialist for further testing, diagnosis, and treatment. The FWP is not intended to serve as a substitute for routine medical exams received through an individual's personal physician.

The medical screening exam offered by the FWP evaluates an employee's health as it relates to their potential occupational exposure to hazardous agents. The FWP uses a customized medical screening protocol that was developed by a team of independent physicians specializing in occupational medicine. The protocol is updated, as necessary, based on new research findings within the scientific/medical community. The health conditions targeted in the medical screening exams include chronic lung diseases, beryllium-related disorders, hearing loss, and damage to other selected major organ systems that may be associated with occupational exposures. A listing of exposures and medical examinations offered through the FWP is available in the medical protocol posted on the FWP Web site (http://energy.gov/ehss/downloads/former-worker-program-medical-protocol).

Before participating in the medical screening program, former workers must complete a medical history questionnaire and an occupational history questionnaire, either on their own or via an interviewer-conducted session. The interviews are conducted by the local outreach coordinators employed by the FWP projects who, in many cases, are former workers with knowledge of DOE sites and exposures.

The initial medical screening examination includes a physical examination and may consist of the following based on the individual's occupational exposure history as reported in the questionnaire/interview:

- Chest x-ray with B reading (interpretation for occupational lung disease)
- Spirometry (breathing test)
- Beryllium Lymphocyte Proliferation Test (BeLPT)
- Blood chemistry test
- Urinalysis
- Audiometry (hearing test).

Participation in the FWP is completely voluntary, and participants can refuse any portion of the medical screening examination.

The original legislation that established the FWP also called for the program to provide ongoing medical examinations; therefore, former workers are entitled to a re-screen examination 3 years after their initial medical screening and every 3 years thereafter. The re-screening improves the detection of latent occupational disease, which may not show signs or symptoms for decades after exposure. A latency period is the time between the exposure and the potential onset of the disease. It should also be noted that certain medical exams may be recommended only during the initial screening exam and excluded from the re-screen exam. For example, audiometry (hearing test) is not offered on the re-screen exam since occupational hearing loss would typically be detected during the initial screening exam of retired workers.

The medical screening examinations, while focusing on the detection of occupational disease, also provide an overall picture of the "general health" of DOE former workers. In addition to its core function of identifying conditions that may have been related to workplace exposures, the program also provides some general health screening services at minimal cost to the DOE.

Participants are screened for some common non-occupational health conditions, such as diabetes (blood sugar), coronary artery disease (cholesterol), cardiovascular disease/hypertension (blood pressure), obesity, and elevated creatinine levels (a blood test used to assess kidney function). While not intended to be a comprehensive examination, these tests provide for the early detection of these conditions without significantly impacting the overall focus and cost of the program.

The standard medical screening protocol used by the FWP is intended to detect incidental findings. An incidental finding, or unanticipated abnormal finding, is information discovered during routine medical exams that, in some cases, ends up saving lives. Examples of incidental findings found on certain components of the medical exam include:

- Chest x-ray: pneumonia, abdominal aortic aneurysm
- Audiogram (hearing test): age-related hearing changes
- Complete blood count: anemia
- Physical exam: non-cancerous skin conditions.

A value-added benefit to the FWP medical screening exam is the opportunity for health practitioners to provide wellness counseling. Studies have shown that individuals are more likely to stop smoking, for example, when a health care provider counsels them to do so. Similarly, the re-screening examination is an opportunity to educate former workers about behavior changes to improve their overall health status for improved quality of life and also affords the opportunity to look for any changes in the individual's overall health condition from the previous medical exam, making early referral and treatment more effective.

The results of general health screening tests, as well as incidental findings picked up on examination, can be of great benefit to a participant. Many of the conditions that fall into this category can be readily treated by the participant's personal physician and can significantly improve longevity and quality of life. DOE and the FWP projects are committed to ensuring that the overall well-being of our former workers is evaluated within the program.

As of September 30, 2014, a total of 111,473 medical exams have been conducted through the FWP, 79,852 initial screening exams and 31,621 re-screen exams. A breakdown of the number of initial and re-screen exams by DOE site is presented in Appendix B. A detailed description of each of the components of the medical screening exams can be found on the FWP Web site (http://energy.gov/ehss/conventional-medical-screening-program). The medical findings broken out by DOE site can be found in Appendix C. A summary of medical examinations performed to date is presented in Tables 1-4 below. Only new abnormal findings on re-screen exams are reported. Suspected work-related findings have been primarily lung-related conditions (e.g., asbestosis and/or silicosis, beryllium sensitization, and lung cancer) and hearing loss.

Table 1. Chest X-ray Findings on Initial and Re-screen Exams (through September 2014)

Screening Exam	Workers Screened	Asbestos-related Lung Disease[2]	Silicosis[3]	Other Dust-related Disease	Lung Nodules, Nodes, or Lesions
Initial	71,897	8,468 (11.8%)	198 (0.3%)	1,050 (1.5%)	2,249 (3.1%)
Re-screen	21,832	1,431 (6.6%)	17 (0.1%)	207 (0.9%)	507 (2.3%)

Table 2. Spirometry Findings on Initial and Re-screen Exams (through September 2014)

Screening Exam	Workers Screened	Obstructive Airways Dysfunction Detected[4]
Initial	71,572	14,640 (20.5%)
Re-screen	22,058	4,682 (21.2%)

[2] Asbestos-related disease, or asbestosis, is a lung disease caused by breathing in asbestos fibers.
[3] Silicosis is a lung disease caused by breathing in silica dust.
[4] Obstructive airways dysfunction includes chronic obstructive pulmonary disease, which is a progressive lung disease caused by long-term exposure to lung irritants, such as cigarette smoke, air pollution, chemical fumes, or dust. Obstructive airways dysfunction also includes asthma, which is a chronic inflammatory disease of the bronchial tubes, or airways, that causes swelling and narrowing of the airways. It is thought to be caused by a combination of environmental and genetic factors.

Table 3. Results of BeLPTs on Initial and Re-screen Exams (through September 2014)

Screening Exam	Workers Screened	1 Abnormal[5]	2 Abnormal	1 Abnormal and 1+ Borderline
Initial	64,645	823 (1.3%)	650 (1.0%)	223 (0.3%)
Re-screen	19,496	139 (0.7%)	163 (0.8%)	71 (0.4%)

Table 4. Audiometry Findings on Initial Exam (through September 2014)

Workers Screened	Noise-induced Hearing Loss
63,840	37,966 (59.5%)

"I want to thank everyone involved in the NSSP for their courtesy and thoughtfulness. This was my first exam, and I will definitely make sure I participate when contacted for my rescreening. The exam was outstanding. Thank you so much for providing this great opportunity."

-Former Hanford worker

Early Lung Cancer Detection Program

Since 2000, DOE has made screening with low-dose helical computed tomography (CT) scans available because many former workers are at risk for occupational lung cancer as a result of their work for DOE. Through the FWP, DOE initiated the Early Lung Cancer Detection (ELCD) program using low-dose helical CT scans to detect lung cancers at an earlier, more treatable stage. Lung cancer results in about 160,000 deaths in the U.S. every year. The most common causes of lung cancer are long-term exposures to tobacco smoke and residential radon emissions, but occupational hazards, such as asbestos, ionizing radiation, silica, beryllium, and diesel exhaust, also cause or contribute to the disease. Since the initiation of the FWP's ELCD program, a total of 14,387 participants have been screened and provided 41,237 CT scans. In FY 2014, 902 participants were screened and a total of 4,131 CT scans were performed; this includes baseline, followup, and annual scans.

In 2000, the Worker Health Protection Program (WHPP), the FWP project administered by Queens College of the City University of New York and the United Steelworkers,

[5] Individuals with one abnormal BeLPT are encouraged to file a claim with the DOL EEOICPA. Beryllium sensitization is diagnosed by an occupational medicine physician based on abnormal BeLPT results.

along with their partners, began using low-dose helical CT scans to screen individuals who met established eligibility criteria, including a history of at-risk occupational exposure to lung carcinogens, such as asbestos, beryllium, radioactive materials, nickel, and chromium. WHPP offers the ELCD program to eligible production/in-house workers at the Oak Ridge K-25, Paducah, and Portsmouth Gaseous Diffusion Plants; Y-12 National Security Complex (Y-12); Oak Ridge National Laboratory (ORNL); Mound Plant; Feed Materials Production Center (FMPC or Fernald); Idaho National Laboratory (INL); and to all eligible workers (construction and production) from the Nevada National Security Site (NNSS, formerly known as Nevada Test Site).

In addition, in April 2011, the BTMed, a component of the FWP that is conducted by CPWR in conjunction with their partners, began an ELCD program for former construction workers from the Oak Ridge Reservation. In July 2013, BTMed began a similar program for former Hanford construction workers. The program is also available to workers from other DOE sites who meet the eligibility criteria and who either live near the screening sites or are willing to travel to these sites.

In July 2013, the NSSP, another component of the FWP that is conducted by ORAU and its partners, began a pilot ELCD program in coordination with National Jewish Health in Denver, Colorado. The pilot testing includes 98 participants. By virtue of geographic proximity to the former Rocky Flats Plant, the pilot project is comprised mostly of former workers from this site; however, participants from other sites who are in the Denver metropolitan area are also included. In addition to former workers from Rocky Flats, the pilot project includes participants from INL, Kansas City Plant, and NNSS.

The results from the ELCD programs are summarized in Tables 5 and 6 below. The detected cancers have been staged – indicated by a descriptor (usually numbers I to IV) representing how much the cancer has spread. CT screening has led to cancers being detected at an early stage when treatment is more likely to be effective and has proved to be better for early detection than conventional chest x-rays.

Table 5. Stage of Lung Cancers Detected by WHPP, BTMed, and NSSP ELCD Program, 2000-September 30, 2014

Site of ELCD Program	Number of Participants Screened	Number of Lung Cancers Detected	Number of Detected Lung Cancers That Were Staged	Number (%) of Early (Stage I or II Non-Small Cell or Limited Small Cell) Cancers Detected
Amchitka (All Workers)	1	0	0	0 (0%)
FMPC (Production Workers)	442	2	1	0 (0%)
Hanford (Construction Workers)	231	6	6	5 (83%)
INL (Construction Workers)	3	1	1	1 (100%)
INL (Production Workers)	571	3	1	0 (0.0%)
K-25 (Production Workers)	2,847	27	26	21 (78%)

Site of ELCD Program	Number of Participants Screened	Number of Lung Cancers Detected	Number of Detected Lung Cancers That Were Staged	Number (%) of Early (Stage I or II Non-Small Cell or Limited Small Cell) Cancers Detected
Kansas City Plant (Production Workers)	1	0	0	0 (0%)
Mound Plant (Production Workers)	607	5	4	4 (80%)
NNSS (All Workers)	596	2	1	1 (50%)
ORNL (Production Workers)	1,336	12	11	5 (42%)
Oak Ridge Reservation (Construction Workers)	347	4	4	0 (0%)
Paducah (Production Workers)	1,997	20	18	15 (75%)
Portsmouth (Production Workers)	2,263	21	21	16 (76%)
Rocky Flats (Construction Workers)	1	0	0	0 (0%)
Rocky Flats (Production Workers)	95	0	0	0 (0%)
Y-12 (Production Workers)	3,048	29	24	16 (55%)
Yucca Mountain (All Workers)	1	0	0	0 (0%)
Total	14,387	132	118	84 (64%)

The ELCD programs have also detected other diseases of importance (see Table 6).

Table 6. Other Diseases Found on CT Scan by WHPP, BTMed, and NSSP

Condition	Number Detected
Appendiceal cancer	1
Breast cancer	1
Kidney cancer	5
Liver cancer	1
Lymphoma	4
Thyroid cancer	5
Aortic aneurysms	34
Heart aneurysms	5
Splenic aneurysms	1
Pneumonia	37
Thymoma	5

More indepth information regarding the ELCD program, including low-dose CT scans, can be found on the FWP Web site (http://energy.gov/ehss/early-lung-cancer-detection-program).

"At first I was not interested in participating in the CT scan for the early detection of lung cancer through the Worker Health Protection Program, but I received a phone call from the program and was convinced to participate. I feel amazed and blessed that I did. The CT scan found a suspicious nodule that turned out to be lung cancer. My cancer was found at an early stage so I was able to successfully undergo surgery. My recovery was amazingly fast and I have been feeling great and enjoying life ever since."

-Thomas Whitsett, former Paducah Gaseous Diffusion Plant worker

3. Communicate Results: Provide medical screening exam results to participants, as well as information regarding any conditions that may require followup medical care with their personal physicians or specialists, and provide information regarding possible compensation for work-related illnesses.

Occupational medicine physicians review the results from the medical screening exams, along with the completed medical and occupational exposure history questionnaires, to determine whether any abnormal findings exist and whether the findings may have been caused by a work-related exposure. Participants requiring urgent medical attention for an abnormal test result are contacted immediately by phone, informed of the finding, and provided recommendations for further evaluation and treatment by their personal physicians or a specialist. The findings are also documented in a letter to the participant, otherwise known as an "urgent letter," that is sent by overnight mail.

Workers are provided with a summary of all the findings from their medical screening examination in a results letter several weeks after their examination, along with any necessary followup recommendations. Although the primary focus of the results letter is to provide a summary of any possible occupational-related findings and followup recommendations for those findings, the letter also includes a summary of all the findings, including non-occupational findings, discovered during the screening. The results letter also includes general health advice for workers, such as recommendations for smoking cessation. Individuals who are found to have any abnormal medical findings are referred to their personal physicians or a specialist for followup care.

While the FWP projects offer medical screening exams, followup medical evaluation and treatment are not within the scope of the FWP. If the FWP screening result indicates a need for medical treatment, efforts are made to ensure that participants get the necessary care. This involves communicating with the participants, their families, and their personal physicians.

When appropriate, the FWP physicians who write the results letters include language regarding the possible work-relatedness of a condition, especially if the condition is known to be a potential occupational disease. The inclusion of this language, known as "causation" language, can be very helpful for participants who decide to file a claim under the EEOICPA, which is administered by DOL. Moreover, participants are provided contact information for DOL EEOICPA Resource Centers in the results letters, as well as other State and Federal workers' compensation programs when appropriate.

The FWP complements the EEOICPA by offering former DOE workers medical screening examinations that are conducted by expert occupational medicine physicians who provide workers with detailed information about the possible relationship between their condition and their occupational exposure at a DOE site. In addition, FWP project staff, many of whom are former DOE workers, are able to assist participants by providing useful site and exposure information to include in their claims packages. While participation in the medical screening program is not required for filing a compensation claim, the medical results are often useful in supporting an EEOICPA claim.

In summary, the FWP has served, and continues to serve, as a benefit to the former DOE workforce. While the program has identified, located, and offered medical screening services to tens of thousands of former workers, much work still remains to continue these efforts.

"When my father was diagnosed with lung cancer in August 2010, my primary concern was how we were going to arrange the daily radiation treatments and weekly chemo sessions, while at the same time caring for my mother who has Alzheimer's.

"I knew very little about the Former Worker Medical Screening Program and the involvement of The University of Iowa College of Public Health. I knew my father had regularly attended meetings for former Line 1 IAAP workers and had some medical screenings done throughout the years, but that was the extent of my knowledge. Now at 81 years old and facing a cancer treatment regimen, my father's understanding of how the two worked together was sketchy at best.

"I had planned to take him to the October FWP meeting, in hopes of gathering information, but he was too ill. He made a phone call and the FWP staff member from The University of Iowa, Christina, came to the house the day of the meeting. While her official title is Claims and Case Management Worker, we think of her as a compassionate, dedicated professional and friend. She explained the process for filing a claim for compensation.

"Dad signed the papers and Christina set the wheels in motion collecting the numerous medical records and other required paperwork. I can't describe how relieved we felt when she left. She was going to take care of it, we didn't have to worry. Thanks to her efforts Dad's claim was approved in July 2011.

"Then Dad started receiving paperwork from the DOL about an impairment rating. The letter was confusing. I wasn't sure who was qualified to do the impairment and what else might be involved if we were to proceed. I tried unsuccessfully calling the DOL with my questions. Then I remembered Christina had mentioned the impairment rating.

"After the second DOL notice I contacted Christina by email. She responded immediately with a plan of action. When I had questions later on, Dr. Fuortes responded.

"On October 7, Dad and I, along with about 180 others, attended the IAAP Recognition Luncheon. This was my first meeting and I was impressed by the genuine concern and care shown by those representing FWP at The University of Iowa College of Public Health.

"It was apparent to me how much Dr. Fuortes means to these workers. After addressing the crowd, he made his way through the audience taking the time to talk with anyone who approached him; and many did, including myself. Christina and other FWP staff were present, registering people, handing out commemorative mugs and manning the serving line.

"As dad's health continues to decline and Dr. Fuortes proceeds with the impairment rating, I know that I am but one voice of many to praise the work of Dr. Fuortes and his entire staff at the U of Iowa. The funding for their program must continue. The assistance they offer is immeasurable. The hope and compassion they offer to cancer patients and their families is priceless. God bless them all."

-Daughter of former Iowa Army Ammunition Plant worker

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3.0 Program Accomplishments

The program continued to fulfill its critical mandate of providing medical screening services, at no cost, to all interested and eligible former DOE workers. As of September 30, 2014, 111,473 screenings have been performed. In FY 2014, 3,764 initial medical screening examinations and 4,997 re-screen exams were conducted. In addition, since 2000, the FWP has made screening for occupational lung cancer with low-dose helical CT scans available to workers at high risk for lung cancer. Since the initiation of the FWP's ELCD program, 14,387 participants have been screened and provided a total of 41,237 CT scans. In FY 2014, 902 participants were screened for a total of 4,131 CT scans; this includes baseline, followup, and annual scans.

The program has resulted in a high level of satisfaction among participating former DOE workers. In FY 2014, an average of 97.5 percent of the participants indicated satisfaction with the program. The vast majority of participants are very satisfied with the program in general, the services they receive, the quality of the personnel, and the timeliness of service delivery.

The program is served by highly regarded occupational medicine physicians from across the country. To overcome longstanding shortages of occupational medicine expertise in communities surrounding DOE sites, DOE has been able to match and connect national occupational medicine expertise with local parties throughout the DOE complex. These physicians have worked with EHSS to develop and conduct the FWP medical screening program using clinics in DOE communities, as well as a nationwide network of clinics. These physicians have worked with local clinics to ensure highly accessible and appropriate medical screening services. In some instances, FWP project personnel have provided occupational medicine training and clinical sessions to medical clinic staff in DOE communities to provide the best quality service to FWP participants.

The program has resulted in the identification of conditions at early stages, allowing for successful treatment. The FWP has identified occupational-related diseases, pre-cancerous conditions, and cancers at early stages, allowing successful treatment and, in some cases, the elimination of the disease, thus substantially improving the health and well-being of many former workers who participated in the program. In addition, a valuable benefit of the medical screenings provided through the FWP is the identification of non-occupational health conditions, such as uncontrolled high blood pressure, diabetes, and elevated cholesterol levels.

FWP screening exam results continue to benefit former workers by providing useful information to support EEOICPA claim adjudication. The FWP provides former DOE workers with an accessible, affordable means of obtaining a medical evaluation targeted at work-related health conditions. While participation in the medical screening program is not required for filing an EEOICPA compensation claim, the medical results have been useful in supporting workers' claims.

The program has advanced the state of medical knowledge. The FWP projects have contributed 30 articles to peer-reviewed scientific literature, either directly by studying former workers in the context of the screening program or by recruiting former workers in the program as research participants for scientific studies funded by the National Institutes of Health or other research funding sources. A list of the major publications that have benefited from program activities to date can be found on the FWP Web site (http://energy.gov/ehss/fwp-scientific-publications). Some of the topics include beryllium sensitization, hearing loss, and pulmonary

abnormalities among former DOE workers. Not included in the list are numerous briefings to small groups, including EHSS staff, Site Occupational Medicine Directors, and site employees.

The program continued making use of creative outreach initiatives to increase the visibility of the FWP. The JOTG focuses on educating the former workers on the programs and resources available to them. In addition, this partnership among different government Agencies responds to the President's recommendations for transparency and open government. Each involved Agency has a different mission, but the goals are complementary. By working together, the Agencies are better able to serve the DOE workforce.

In the interest of combining resources, since both the EEOICPA and FWP serve a similar population of workers, the Federal entities have partnered to hold local outreach meetings in and around active or closed DOE sites. Since its inception, the task group has focused on holding joint public town hall meetings. To date, 51 meetings have been held in, and near, the communities of 27 DOE sites.

Recognizing that not everyone can make it to these meetings, the task group created a JOTG town hall meeting video that includes the information presented at a typical JOTG public outreach meeting. The video is streamed via the Internet and available with closed captioning for the hearing impaired. This video is particularly helpful to those seeking an overview of the EEOICPA and FWP, as well as those who are not sure which Agency they should contact to address their specific question. The video can be found on the DOE Web site (http://energy.gov/ehss/joint-outreach-task-group-video-series).

In FY 2014, the FWP projects participated in almost 350 outreach events in the communities near DOE facilities and closure sites. These events include community events, such as picnics and fairs, as well as events geared specifically to the DOE workforce, such as DOE site health and safety fairs, retiree luncheons, and union-sponsored events. The FWP projects provided support for seven outreach events sponsored by DOL. The assistance included mailing invitations to former workers regarding the upcoming events, distributing outreach materials for the events in the local communities, locating facilities where the events could be held, as well as having FWP project staff attend the events to support DOL and provide information regarding the FWP.

To further increase awareness of the FWP, EHSS sent out a Department-wide message informing current workers of the availability of medical screening for former DOE workers and to make current workers aware of their eligibility to participate in the program once they have retired/separated from DOE.

Summary. DOE has made great advances in addressing the occupational health legacy of more than 70 years of nuclear weapons design and production. The FWP is a prime example of EHSS' commitment to its workforce and demonstrates the feasibility and value of conducting targeted medical screening programs for occupational diseases. In 2015, the Department will continue to meet its obligation to its former workers by building on lessons learned for enhancing program implementation.

"On behalf of my family and myself, I want to thank both the ATLC and Worker Health Protection Program. The program gave me the peace of mind and assurance of my continued health through the years. Recently, the screening saved my life due to an early diagnosis of Stage 1 Adenocarcinoma. Therefore, I only required surgical intervention and four rounds of chemotherapy. This program will undoubtedly give other individuals and their families both repose and hope now and in the future."

-Michael (Mickey) R. Hall, former Oak Ridge National Laboratory Worker

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4.0 Future Initiatives

As we enter FY 2015, the FWP will undertake several new initiatives to improve upon past successes of this program. The FWP will conduct the following activities:

1. BTMed will expand its Early Lung Cancer Detection (ELCD) program to include workers from various Ohio, West Virginia, and Kentucky facilities and workers from Savannah River Site in Augusta, Georgia. Workers that are eligible for a scan, regardless of the DOE site they worked at, will be offered the opportunity to participate if they live near, or are willing, to travel to one of BTMed's established centers.

2. NSSP plans on publishing its program's findings in three separate articles in peer-reviewed scientific literature.

3. WHPP will expand its ELCD program to include former workers from Lawrence Berkeley, Lawrence Livermore, and Sandia National Laboratories in northern California.

4. The University of Iowa will initiate, in cooperation with The University of Iowa Comprehensive Lung Imaging Center, an ELCD program for former workers from the Iowa Army Ammunition Plant (Line 1/Division B workers) and Ames Laboratory.

5. New outreach and screenings will be focused at the following sites: Waste Isolation Pilot Plant in Carlsbad, New Mexico; SLAC National Accelerator in Menlo Park, California; and West Valley Demonstration Project in West Valley, New York.

"Four to six months before I had my surgery, we lost a good friend who if he'd had the screening done earlier he would've maybe been alive. Because his was lung cancer, too."

-Roger Tool, former Hanford worker, UA Local 598 (with his wife Ellen)

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Appendix A: Individual Project Descriptions

The U.S. Department of Energy (DOE) Former Worker Program (FWP) projects are briefly described below.

Building Trades National Medical Screening Program (BTMed)

Who we are: BTMed is administered by CPWR – The Center for Construction Research and Training (CPWR), the health and safety research center of the Building and Construction Trades Department of the AFL-CIO, in partnership with Stoneturn Consultants, Duke University Medical Center, University of Cincinnati, and Zenith-American Solutions.

What we do: BTMed identifies construction workers who have been employed on DOE sites and screens them for occupational illnesses. BTMed serves workers from 27 DOE sites. Nearly 30,500 medical screenings and 1,200 low-dose CT scans have been delivered through a network of 200 specially credentialed clinics across the country.

Findings: The screenings have found abnormal chest x-rays (CXRs) in 18% of these workers, abnormal pulmonary function in 40%, and evidence of hearing loss in a striking 64% of former DOE construction workers. CT scanning has already found six stage one lung cancers (see below for more on ELCD). Those workers presenting abnormal test results are referred for additional testing and care. BTMed is proud to report a 97% satisfaction rate among participants in the program.

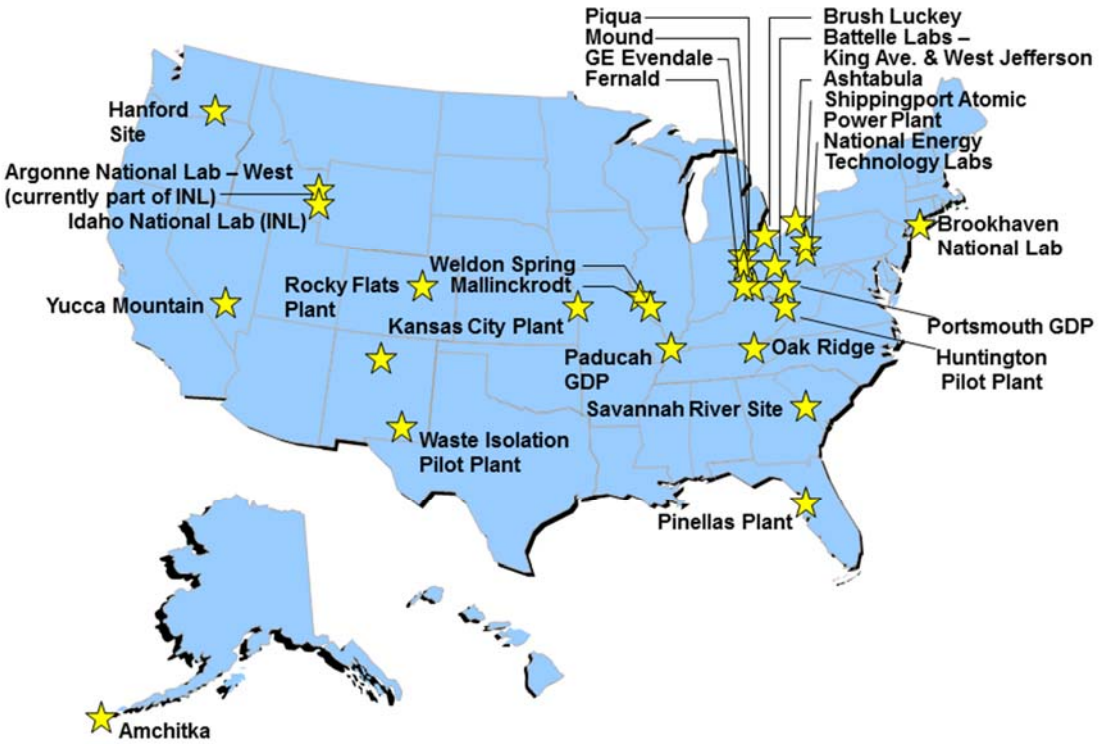


Figure 3. BTMed covered DOE Sites

BTMed Early Lung Cancer Detection (ELCD)

An alarming 160,000 Americans die from lung cancer each year, and the combination of smoking with exposure to workplace dusts and toxins can put construction workers at an elevated risk. To respond, BTMed has stepped up in recent years by introducing a program of ultra-low-dose CT scans. The scans are capable of detecting early stage cancers for more effective intervention.

The BTMed Early Lung Cancer Detection (ELCD) Program began with at-risk workers at Oak Ridge, Tennessee, in 2011. Today BTMed offers low-dose CT scans in Augusta, Georgia; Knoxville, Tennessee; Richland, Washington; as well as Cincinnati, Ohio, and Seattle, Washington. The test results can identify small nodules on the worker's lungs. Workers found to have these nodules are referred to specialists for further testing – and if the nodules prove to be cancerous, for treatment.

Workers who receive early screenings are afforded a unique opportunity – and a vital health benefit. Lung cancer has a 16% survival rate when detected using conventional methods; early detection, like that promised by low-CT screening, can boost this rate as high as 80%.

Early lung cancer screening is already saving lives!

BTMed and Research

While providing critical health services to past generations of construction workers, BTMed also benefits future generations of men and women working in the trades – with a rich vein of medical surveillance data informing cutting-edge health and safety research.

Medical screenings offered by BTMed are completely confidential. But the aggregate results, once stripped of names and personal information, permit leading occupational health scientists to identify outstanding threats to worker health and safety.

Take beryllium: workers engaged in abrasive blasting using certain coal slag products, or in particular types of welding and brazing, are at risk of exposure to the toxic metal. The ominous-sounding element was widely used in nuclear weapons facilities, and for more than a decade, BTMed has tested workers for beryllium sensitivity. Researchers reviewed data from nearly 14,000 BTMed blood tests, finding that 1.4% of the workers had tested positive for beryllium sensitivity – and 15% of those with sensitivity in time developed Chronic Beryllium Disease (CBD). (CBD is a lung disorder that can present as coughing, shortness of breath with activity, fatigue, loss of appetite, and weight loss.) The results of the study were published in the *American Journal of Industrial Medicine*.

Researchers analyzing surveillance data from BTMed have also discovered that:

- Asbestos continues to produce new cases of lung disease long after a worker's exposure to the deadly substance has ended.

- Construction workers are significantly more likely to suffer noise-induced hearing loss than workers in general industry. Nearly 60% of construction workers in the group were found to have material hearing impairment.
- Construction workers are at an elevated risk of Chronic Obstructive Pulmonary Disease (COPD). Non-smoking construction workers in the sample were significantly more likely to suffer COPD than non-smokers working in other industries.

For the complete reports, visit www.btmed.org.

For more information

1-800-866-9663 or 1-888-464-0009

www.btmed.org

"What I've found out is that it's a great program. And I think everybody at Hanford or who worked at a nuclear plant should feel fortunate that we got it."

-Charles Wilson, former Hanford worker, UA Local 598

Laura S. Welch, MD
Medical Director, BTMed
CPWR
lwelch@cpwr.com

Dr. Welch, second from right, meets with staff from the Seattle Cancer Care Alliance to discuss low-dose CT scans.

Dr. Laura Welch serves as the Medical Director for CPWR, a research and development institute affiliated with the Building and Construction Trades Department of the AFL-CIO. She is a lecturer at George Washington University's Department of Environmental and Occupational Health. She previously held full-time faculty positions at the Albert Einstein, Yale University, and George Washington University Schools of Medicine.

She serves as a consultant to many Federal agencies, including the Occupational Safety and Health Administration (OSHA), National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention (CDC), and National Institutes of Health (NIH) and has many leadership roles in the American Public Health Association and Association of Occupational and Environmental Clinics. Dr. Welch provides occupational medicine expertise to the AFL-CIO, having worked with several union-management committees on health and safety issues. Her extensive work experience has led her to author over 100 peer-reviewed publications, abstracts, and technical reports.

As CPWR's Medical Director, Dr. Welch manages two national medical screening programs for construction workers. She is the principal investigator for the Early Lung Cancer Detection Program for construction workers, which is part of BTMed. She is also responsible for a nationwide screening program for sheet metal workers. She received her medical degree from the State University of New York at Stony Brook.

Knut Ringen, DrPH, MHA, MPH
Principal Investigator, BTMed
CPWR
knutringen@msn.com

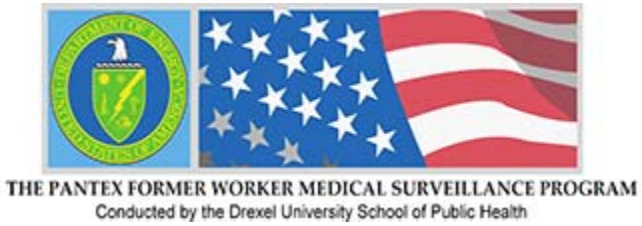
With more than 40 years of experience in public health administration, Dr. Knut Ringen can be considered one of the founders of the field of occupational high risk management. Due to his intensive studies of issues within one of the most high-risk industries in the world, he is an expert in construction safety and health. In 1996, he used this experience to establish the first medical screening program for former DOE construction workers, which evolved into the BTMed. The BTMed program, which serves construction workers from 27 DOE sites across the country, has delivered in excess of 30,000 screenings to date.

In 1979, Dr. Ringen launched three projects to demonstrate that medical screenings among workers known to have been exposed to work-related health hazards could identify occupational illnesses and could help these workers secure their rights and prevent a premature death. When growing evidence from scientific studies and concerns expressed by workers suggested that DOE working conditions were hazardous, Dr. Ringen advocated for a special focus on construction workers, as these workers were usually employed by subcontractors and were more likely to be assigned to the most hazardous duties. Using the data collected from these medical screenings, Dr. Ringen and others could show how effective this model of medical screening and assistance was and why it should be applied to construction workers on DOE sites. This scientific analysis helped encourage Congress to enact legislation in 1993 that forms the basis for DOE's FWP.

BTMed has saved lives, helped workers and their families with compensation, and demonstrated to DOE that construction workers need better safety and health protections. It is well appreciated by the participants.

BTMed is administered by CPWR (cpwr.com), a 501(c 3) non-profit research institution, which serves as the research arm of Building and Construction Trades Department, AFL-CIO.

Dr. Ringen was the first executive director of CPWR and currently is its senior science advisor. He has directed other non-profit health organizations and has worked at the National Academy of Sciences and the National Cancer Institute. Among many honors, he is a fellow of the European Academy of Sciences and the Collegium Ramazzini, the international society of scholars in environmental and occupational health. He has a Master's in Hospital Administration from the Medical College of Virginia (now a part of Virginia Commonwealth University) and PhD and Master's degrees in Public Health from Johns Hopkins University (JHU).



The Pantex Former Worker Medical Surveillance Program

Who we are:

Primary: Drexel University School of Public Health
Outreach: Department of Occupational Health Sciences, The University of Texas Health Science Center at Tyler, Texas
Clinical Services: West Texas A&M Health Partners Clinic, Amarillo, Texas

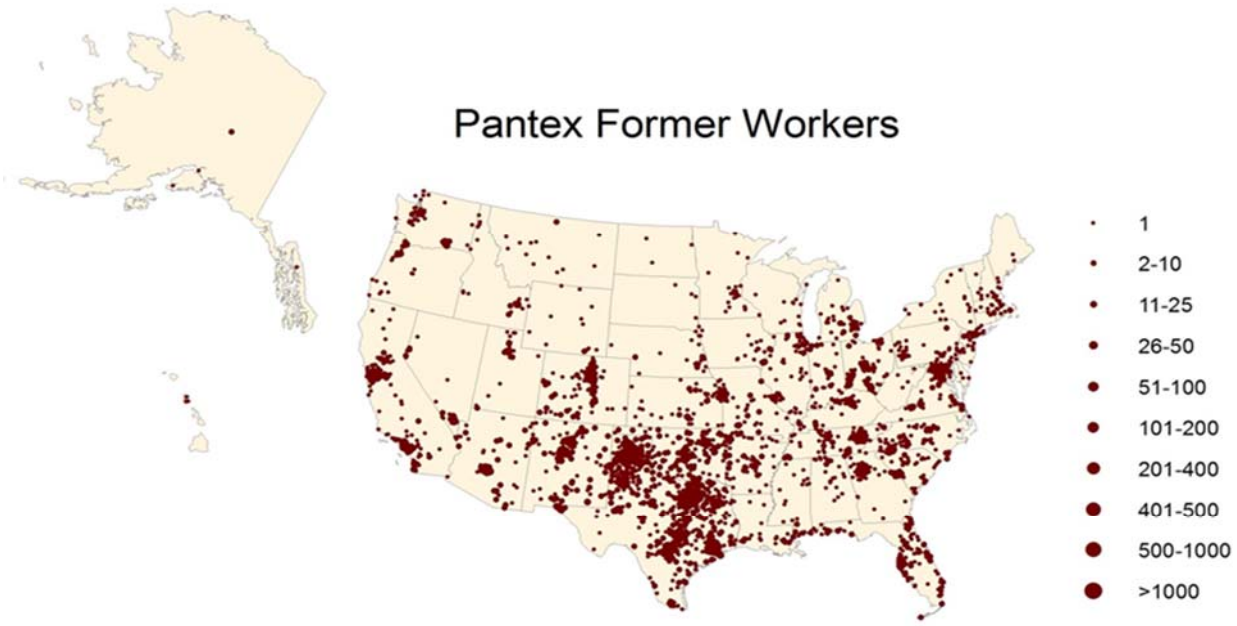
What we do:

- The Pantex Former Worker Medical Surveillance Program offers former Pantex Plant employees and contract workers the opportunity to obtain an independent, objective assessment of their health in relation to their workplace exposures by a health care provider experienced in occupational medicine.
- Participants are scheduled for an appointment at a time convenient for them at the Health Partners Clinic in Amarillo, which is affiliated with a university nursing program. Former workers that live outside the Amarillo area are referred to the National Supplemental Screening Program (NSSP).
- Each participant completes an occupational exposure history, as well as past medical history, prior to having their medical screening examination.
- The screening exam may include some or all of the following tests: physical exam, chest x-ray with International Labour Organization B-read, spirometry, BeLPT, blood chemistry tests, and urinalysis.
- Former workers who participate in the program receive results of their clinical exam and medical tests in a personalized "results letter" from a board certified occupational medicine physician along with any necessary follow-up recommendations.
- The screening process is an opportunity for former workers to receive additional wellness information and support for lifestyle changes to improve their health and quality of life.
- Each participant is offered the opportunity to return for a "re-screening" exam every 3 years; the re-screening exam is focused on previous findings and any new health developments.
- Students from multiple disciplines, including sports and exercise science, undergraduate and graduate level nursing, health sciences, and medical assistant programs, are provided educational opportunities by participating in clinic activities. This is a unique opportunity for students of health care professions to learn about occupational medicine.
- Our Participation Surveys continue to show 99% satisfaction with the program.

What we have found: n=900

- CXRs: 6% demonstrated findings consistent with work-related lung disease
- Pulmonary Function Tests (PFTs): 40.3% demonstrated findings consistent with obstructive disease
- Beryllium Lymphocyte Proliferation Tests (BeLPTs): 1.2% had at least one abnormal BeLPT
- Audiometry: Audiometry is not part of the Pantex former worker screening protocol.

Toll-free number: 1-888-378-8939



"I wish Dr. Phillips, Family Nurse Practitioner, was my physician at the VA. I learned more in one hour from her than the last two years from my current physician. Dr. Phillips is a credit to the program."

-Former Pantex worker

The Pantex Former Worker Medical Surveillance Program

THE PANTEX FORMER WORKER MEDICAL SURVEILLANCE PROGRAM
Conducted by the Drexel University School of Public Health

Arthur L. Frank MD, PhD

Dr. Frank is a Professor of Public Health at the Drexel University School of Public Health in Philadelphia. He is also Chair Emeritus of the Department of Environmental and Occupational Health. He also holds faculty positions as Professor of Medicine and as Professor of Civil, Architectural, and Environmental Engineering. His medical degree is from the Mount Sinai School of Medicine (1972), and his PhD in Biomedical Sciences is from the Mount Sinai campus of the City University of New York (1977). He worked at Mount Sinai with Dr. Irving Selikoff, and since his days as a medical student, has been continuously engaged in research regarding the health effects of asbestos. His professional interests involve exposure to other dusts and to carcinogens in general. He has also worked in the area of agricultural safety and health. Dr. Frank has taught at Mount Sinai, the University of Kentucky, and in the University of Texas system before joining the faculty at Drexel. He is boarded in both internal medicine and occupational medicine and has served as an advisor to such organizations as the National Institute for Occupational Safety and Health, OSHA, the Environmental Protection Agency (EPA), and the CDC. He has been a consultant to companies and unions. He has done work internationally, including in China, India, and Mongolia. He has published some 200 publications, many related to asbestos, and served many publications as an editor and reviewer.

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C. David Rowlett, MD, MS, FACOEM

Dr. Rowlett joined the Department of Occupational Health Sciences at UTHSCT as an Associate Professor in 2010 and began working with the Pantex former worker program in 2014. In addition, he serves as medical director of both employee health and of the occupational health clinic at UTHSCT. He also serves as part-time medical director for Eastman Chemical Company. Prior to UTHSCT, Dr. Rowlett was first a designated physician and then the site occupational medical director at the Pantex plant, Amarillo, Texas, from 2003-2009. Dr. Rowlett received an MS in Chemical Engineering from Texas Tech University, Lubbock, Texas, in 1977, after which he served on active duty as a research engineer for the U.S. Army. After 4 years on active duty, he entered industry in 1981 as a process engineer and technical superintendent. After 3 years in industry, he returned to Texas Tech where he received his MD in 1987. He completed an MS in Preventive Medicine in 1989 and an occupational medicine residency in 1990 at The University of Iowa, Iowa City, Iowa. He returned to industry with Exxon Company USA, serving as medical director of the Baytown refinery, Baytown, Texas, 1990-1993. Following this, Dr. Rowlett spent a decade in multispecialty group practice, first with Scott & White Clinic, Temple, Texas (1993-1999) and then with the Covenant Medical Group, Lubbock, Texas (1999-2003) before joining Pantex.

While at Scott & White, Dr. Rowlett served as an assistant professor at Texas A&M University with appointments in the College of Medicine, Nuclear and Safety Engineering/Industrial Hygiene, and the NSF Ergonomics Center. During this time, Dr. Rowlett became a member of the American College of Occupational and Environmental Medicine's (ACOEM) Practice Guidelines committee where he served for almost a decade. He was a contributing editor and a chapter lead for the second addition of the "Guidelines". His presentations and publications span the fields of industrial hygiene, toxicology, engineering, safety and surety, as well as evidence-based practice of medicine. He is board certified in occupational medicine and a fellow of ACOEM.

Medical Exam Program for Former Workers from Los Alamos National Laboratory and Sandia (New Mexico) National Laboratories

Who we are:

- Johns Hopkins Bloomberg School of Public Health (JHBSPH)
- University of New Mexico (UNM)

What we do:

- Provide medical screening exams to all interested former workers from Los Alamos National Laboratory (LANL) and Sandia National Laboratories (SNL).
- The JHBSPH Medical Exam Program is one of several unique programs within the DOE FWP. Examinations are done in New Mexico in Espanola, New Mexico, and Albuquerque, New Mexico, by occupational health professionals from JHBSPH and UNM.
- Examination sessions are scheduled over a 2-day or 3-day period two to three times per year. Physicians, health care providers, and occupational health professionals travel from Baltimore, Maryland; Espanola, New Mexico; and Albuquerque, New Mexico, to the examination site to conduct physical examinations.
- During examination sessions, former workers have the opportunity to meet with the program occupational medicine physician to discuss their examination results and to ask questions.
- Each participant has a detailed exposure and medical history interview prior to their initial examination and a short medical history interview before their re-examination. These interviews are conducted by a former worker from LANL.
- The program staff assists former workers with workers' compensation claims and, when appropriate, writes letters in support of claims for Federal compensation for former workers from both sites.
- The project has completed 3,836 examinations of former workers since the program began in 2000. Of these exams, 3,300 were new exams, and 535 were re-examinations of former LANL workers for past exposures to asbestos, beryllium, and radiation, and SNL former workers for past exposure to asbestos, beryllium, radiation, and silica.
- On exit surveys, over 97% of program participants stated that they were satisfied with their overall evaluation, and 97% would recommend the program to other former workers.
- The program works with the Joint Outreach Task Group to develop outreach strategies to recruit former workers who are eligible for the medical screening program and the Energy Employees Occupational Illness Compensation Program Act (EEOICPA).
- Over the past year, we participated in three Department of Labor (DOL) Town Hall Meetings in New Mexico, where we spoke with former workers and invited them to participate in the program.
- We were invited again this year to participate in a Cold War Patriots Resource Meeting where we spoke with former workers and invited them to participate in the program.

What we have found:

- CXRs: 11.0% have findings consistent with work-related lung disease
- PFTs: 17% demonstrated findings consistent with obstructive disease
- BeLPTs: 3% had at least one abnormal BeLPT
- Audiometry: 55% demonstrated hearing loss for normal speech tones.

Toll-free number: 1-877-500-8615

Web site: http://www.jhsph.edu/lanlfw/

Maureen Cadorette, PhD, COHN-S

Dr. Cadorette has been a nurse for over 40 years. She graduated from Nursing School in 1972 and completed a Bachelor's degree in nursing in 1992. She has a Master's in Public Health (1994) and a PhD in Occupational and Environmental Health (2005) from JHU. She has worked in many areas of nursing, but Orthopedics was her longest stint, and she was at one time certified in Orthopedic Health Nursing. Today, she is a Certified Occupational Health Nurse. She has worked at JHU as a staff member and an Assistant Scientist since 1997, and she has worked in Occupational Health for 20 years. She is on the Faculty of the Education and Research Center at JHBSPH. They are funded by NIOSH, and they educate occupational health professionals. She has been with the FWP since 1997 as a project coordinator and now as a Co-Principal Investigator. She manages the day to day activities of the program and works with their staff in New Mexico to keep the program working smoothly.

Brian S. Schwartz, M.D., M.S.

Dr. Schwartz is a Professor in the Department of Environmental Health Sciences in the JHBSPH. He is jointly appointed in the Department of Epidemiology in the School of Public Health and in the Department of Medicine in the School of Medicine. He joined the faculty at Johns Hopkins as an Assistant Professor in 1990 and was promoted to Professor in 2001. He served as Director of the Division of Occupational and Environmental Health from 1996 to 2006 and as Director of the Occupational and Environmental Medicine Residency from 1993 to 1998, for which he is currently Co-director. He is a board-certified specialist in internal medicine and occupational and environmental medicine. Dr. Schwartz has been evaluating patients concerned about occupational and environmental diseases since 1990 in the Johns Hopkins Center for Occupational and Environmental Health. He also has an active research program on how metals, solvents, other chemicals, industrial processes, and environmental and community conditions can affect health. Dr. Schwartz has been the leader or co-leader of the FWP at LANL and SNL since 2000. The two programs take a unique approach in that program health care providers perform all the examinations themselves. The two programs have completed almost 4,000 examinations of former workers.

Who we are:

The NSSP is managed by Oak Ridge Associated Universities (ORAU) with a team from:

- National Jewish Health,
- University of Colorado Denver, Center for Worker Health and Environment, Colorado School of Public Health,
- Comprehensive Health Services, Inc., and
- Axion Health.

What we do:

- Since 2005, the NSSP has provided medical screening examinations to former DOE employees from eight primary DOE sites:
  - Argonne National Laboratory,
  - Fermi National Accelerator Laboratory,
  - Hanford,
  - Kansas City Plant,
  - Princeton Plasma Physics Laboratory,
  - Pinellas,
  - Rocky Flats, and
  - Savannah River Site
- The NSSP also provides medical examinations for former DOE site employees where no Former Worker Program (FWP) has been assigned.
- The NSSP also accepts referrals (production, construction and building trades) from the other FWPs whose participants may live outside of their respective medical screening coverage areas.
- The NSSP provides the opportunity for participants to receive a re-screening medical examination every 3 years.
- The NSSP provides DOE former workers exposure-based medical screening examinations and also provides screening tests and procedures to identify medical conditions that are non-occupational in origin. As a consequence, former workers have the opportunity to receive wellness information and support for lifestyle changes to improve their health and quality of life.
- The NSSP provides DOE former workers with assistance in regards to filing EEOICPA benefit claims with the DOL.
- More than 99% of the responding NSSP participants were satisfied with their experience in the NSSP.
- In 2013, the NSSP began a Low-Dose Computed Tomography (LDCT) Pilot Program to detect lung cancer at an early stage, as well as work-related lung diseases and other medical conditions, in approximately 100 NSSP participant volunteers who live in the greater Denver metro area. The NSSP LDCT Pilot Program is based on the National Comprehensive Cancer Network's Clinical Practice Guidelines.
- In 2014 the Pilot LDCT completed the first round of LDCTs for 98 NSSP participants representing the Rocky Flats Plant, Kansas City Plant, Idaho National Laboratory, and the Nevada National Security Site. LDCTs and radiology evaluations were performed at National Jewish Health, Denver, Colorado.

What we have found:

- The NSSP has provided medical screening examinations to 13,473 former DOE employees representing 49 DOE Sites.
- CXRs:
  - 10.9% had findings consistent with asbestos-related lung disease
  - 3.6% had suspicious lung nodules or lesions identified
  - 0.2% had lung cancer diagnosed
- PFTs:
  - 19.6% had findings consistent with restrictive lung disease
  - 17.8% had findings consistent with obstructive lung disease
- BeLPTs: 3.1% had at least one abnormal BeLPT
- Audiometry: 42.7% demonstrated hearing loss for normal speech tones
- LDCT Pilot Program
  - 98 - NSSP participants who competed an initial LDCT
  - 11 - participants with nodules suspicious for lung cancer
  - 7 - participants with indeterminate nodules
  - 9 - participants with non-cancerous findings that require follow-up

NSSP Toll-free number:

1-866-812-6703

NSSP Web site:

http://www.orau.org/nssp

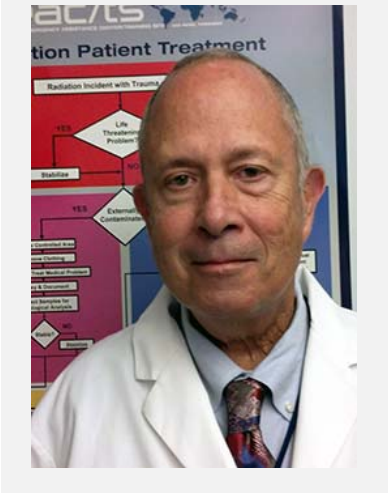
"We found absolutely nothing to complain about. My wife and I are former Rocky Flats Plant engineers, and because of our backgrounds in trying to identify problems we usually find something to complain about. We are so glad we decided to participate. We received a great examination, and a lot of really important information from the NSSP."

-Former Rocky Flats workers

Donna L. Cragle, Ph.D.

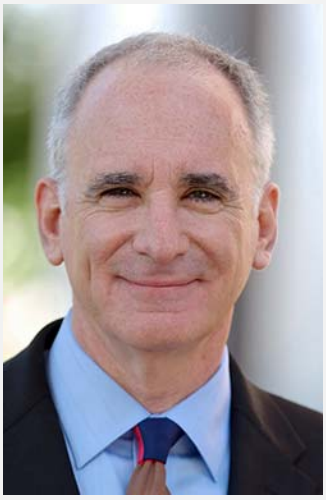
Dr. Cragle is the Vice President and Director, Health, Energy and Environment, at ORAU. She has been involved with research of occupational hazards in DOE facilities for 35 years. The primary focus of her research has been in the area of occupational epidemiology, with particular interest in radiation and beryllium exposures. She has worked on numerous international projects, including an international committee to assess the body of data related to human health effects related to nickel exposure. She also worked on a data preservation effort for an international radiation epidemiology project involving health effects of radiation exposure. Dr. Cragle has also been involved in decision-making related to maintenance of the large worker databases. She has extensive experience with large-scale studies involving data from multiple worker populations. She has assisted outside researchers in their access to worker data and worked collaboratively with these researchers to facilitate their understanding of the data. Dr. Cragle's knowledge of occupational epidemiology has resulted in teaching opportunities both nationally and internationally. Her publications have provided significant contributions to the occupational epidemiology literature. Dr. Cragle received her Bachelor of Arts degree in biological sciences from Indiana University and her Masters of Science in human genetics from Virginia Commonwealth University. Dr. Cragle received her Ph.D. in environmental epidemiology from the University of North Carolina-Chapel Hill.

John R. McInerney, M.D.



Dr. McInerney is a physician with ORAU, manager of the ORAU Arvada Office, and is the Co-Principal Investigator of the NSSP and the NSSP LDCT Pilot Program. Dr. McInerney coordinates the NSSP evaluation tests and procedures and participant education and results notification with the occupational physicians and radiologists at the University of Colorado Denver and National Jewish Health. He is residency trained and board-certified in Emergency Medicine and Occupational Medicine and practiced in the Emergency Departments of major hospitals in Detroit, Chicago, Minneapolis, and Denver. Dr. McInerney served 3 years as a commissioned officer in the Indian Health Service providing medical and urgent care to the Hopis and Navajos at a remote hospital in northeastern Arizona. Dr. McInerney owned and operated a medical care facility in Golden, Colorado, for 15 years that provided emergency, general, and occupational medical services to the surrounding community. He served as an elected Golden, Colorado, city councilman for 8 years and was the Colorado School of Mines team physician for 25 years. Prior to accepting the position with ORAU, he worked as a physician at the DOE Rocky Flats Plant for 10 years, the last 7 of which he was the DOE Rocky Flats Site Occupational Medical Director. Dr. McInerney has also served as an advisor on DOE health-related committees and continues his interaction with the DOE Site Occupational Medicine Directors regarding NSSP former DOE worker findings.

Lee S. Newman, M.D., M.A., FCCP, FACOEM



Dr. Newman is Professor of Environmental and Occupational Health in the Colorado School of Public Health, University of Colorado Denver. He is Director of the Center for Worker Health and Environment, Director of the NIOSH-supported Mountain and Plains Education and Research Center, and is Chief Medical Informatics Officer (CMIO) of Axion Health, Inc. Dr. Newman is also a Professor of Medicine in the Division of Allergy and Clinical Immunology and Division of Pulmonary Sciences and Critical Care Medicine in the School of Medicine at the University of Colorado Denver, Anschutz Medical Campus. Dr. Newman serves as the Co-Principal Investigator of the NSSP. In his role as founder and CMIO of Axion Health, Dr. Newman led the team in the development of the highly secure software system that has been used by the NSSP since 2005 to efficiently conduct former energy worker exams throughout the country. He has also served as an advisor to many federal agencies, including the DOE, the DOL EEOICPA, NIH, the Food and Drug Administration, the EPA, and the CDC. Dr. Newman is board certified in internal medicine and pulmonary medicine and is an internationally renowned expert on occupational and environmental lung disorders. Dr. Newman is recognized for his contributions to our understanding of how beryllium affects the immune system. As the former Chief of the Division of Environmental and Occupational Health at National Jewish Health, he pioneered the use of the BeLPT and was instrumental in bringing this test into routine use for both clinical diagnosis and screening of beryllium-exposed workers leading to the current clinical definition of beryllium sensitization and CBD. Dr. Newman received his Bachelor of Arts degree in psychology from Amherst College and his Masters of Arts degree in social psychology from Cornell University Graduate School of Arts and Sciences. He earned his MD from Vanderbilt University School of Medicine, completed internship and residency in Internal Medicine at Emory University School of Medicine, and pulmonary fellowship at the University of Colorado Denver/National Jewish Health.

Worker Health Protection Program (WHPP)

Who we are:

The WHPP is administered by the Barry Commoner Center for Health and the Environment at Queens College of the City University of New York, in conjunction with the United Steelworkers, the Atomic Trades and Labor Council in Oak Ridge, and the Fernald Medical Screening Program. Screening is conducted through partnerships with medical groups located within local DOE communities. Medical partners include Kaiser Permanente in Northern California and the University of Nevada School of Medicine's Department of Family and Community Medicine in Las Vegas, Nevada.

WHPP employs a small network of former and current DOE workers as "local coordinators" to conduct outreach and assist with program operations in the DOE communities where medical screening occurs. Activities of local coordinators include conducting outreach at community events, scheduling and assisting with program registration, answering medical screening questions, liaising with local site offices and worker groups, advising on the development of program materials, and providing appropriate guidance regarding the EEOICPA claims process. Local coordinators have been an essential component in the recruitment of the DOE workers who have participated in over 30,000 initial examinations and over 48,000 total examinations through WHPP.

What we do:

The consortium utilizes expert occupational medicine physicians and support staff to provide independent medical screening to workers who are at risk of illnesses related to their work from 13 DOE sites. In addition to the standard FWP medical screening, WHPP administers the Early Lung Cancer Detection (ELCD) program with low-dose CT scans at nine DOE sites.

WHPP provides both FWP medical screening and the ELCD program to workers from:

- Idaho National Laboratory (Idaho)
- K-25 Gaseous Diffusion Plant (GDP) (Tennessee)
- Fernald (Ohio)
- Mound (Ohio)
- Nevada Test Site, now called the Nevada National Security Site (Nevada)
- Oak Ridge National Laboratory (Tennessee)
- Paducah GDP (Kentucky)
- Portsmouth GDP (Ohio)
- Y-12 National Security Complex (Tennessee).

Standard FWP medical screenings only are provided to workers from:

- Brookhaven National Laboratory (New York)
- Lawrence Berkeley National Laboratory (California)
- Lawrence Livermore National Laboratory (California)
- Sandia National Laboratories (California).

In 2015, WHPP will begin medical screening at the Waste Isolation Pilot Plant in New Mexico and the SLAC National Accelerator Laboratory in California.

What we have found:

FWP medical screening

- CXRs (N=47,592): 5.27% demonstrated findings consistent with work-related lung disease (total percentage of CXR abnormalities in the following categories: asbestosis without pleural disease, asbestosis with pleural disease, asbestos-related pleural disease, silicosis, mixed dust pneumoconiosis, and pneumoconiosis not otherwise specified)
- PFTs (N=47,137): 20.73% demonstrated findings consistent with obstructive disease (percentage of PFT abnormalities – obstructive pattern and mixed pattern combined)
- BeLPTs (N=38,449): 2.46% had at least one abnormal BeLPT (total percentage of BeLPT abnormals – 1, 2 or 1 and 1+ borderlines)
- Audiometry (N=27,461): 61.12% demonstrated hearing loss for normal speech tones.

ELCD program

- 121 ELCD program participants have been identified as having primary lung cancer.
- 79 of the 108 (73%) individuals whose lung cancers have been staged to date had an early stage lung cancer (Stage I or II non-small cell or limited small cell) at the time of diagnosis.
- Lung cancer was detected in one of approximately 113 DOE workers tested (N=13,705).

Toll-free number: 1-888-241-1199

Web site: http://worker-health.org

Facebook: www.facebook.com/WorkerHealthProtectionProgramwhpp

"I began working at the Portsmouth Gaseous Diffusion Plant in November of 1989. I was very happy to be able to stay in the area and have a good-paying job. Of course, I realized there were hazards inherent with the job."

"As time went on, I was involved in many different projects and worked throughout all buildings within the plant. My respiratory function declined with every year I worked but I was in denial that my lung condition was related to the chemicals that I worked with every day. During my last Worker Health Protection Program exam the physician stated, "your lungs are really bad for a man your age." After seeking medical treatment of my diagnosis, I began the EEOICPA claims process. I was shocked to learn of the number of chemicals that I had been exposed to that had contributed to my illness. I am thankful to the Worker Health Protection Program for assisting in my diagnosis. With the lack of post-health care at the PGDP for hundreds of workers, the Worker Health Protection Program is a vital necessity."

-John Jenkins, former Portsmouth GDP worker

Steven Markowitz, MD, DrPH

Steven Markowitz, MD, DrPH, an occupational medicine physician and epidemiologist, directs the Barry Commoner Center for Health and the Environment at Queens College, City University of New York. He is Adjunct Professor of Preventive Medicine at Mount Sinai School of Medicine. He received his undergraduate education at Yale University, his medical degree and doctorate in epidemiology from Columbia University, and completed residencies in internal medicine at Montefiore Hospital and in occupational medicine at Mt. Sinai School of Medicine.

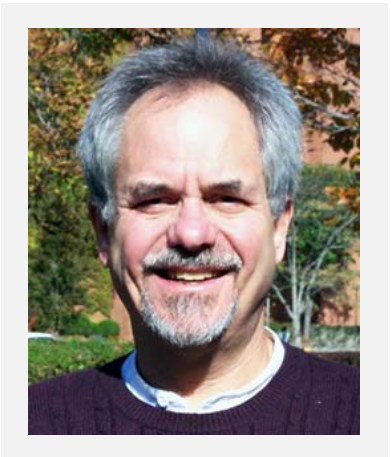
In 1996, Dr. Markowitz worked with the Department of Energy (DOE), other physicians, and labor unions to establish the DOE FWP. Under these auspices since 1997, Dr. Markowitz has co-directed *WHPP*, a national medical screening program for former DOE nuclear weapons workers at 14 DOE sites in 8 states. WHPP has provided over 48,000 examinations to more than 30,000 DOE workers from 1998 to the present. In addition, since 2000, WHPP has provided low-dose CT scanning to screen over 13,000 workers for the purpose of early lung cancer detection. Program collaborators include the United Steelworkers and the Oak Ridge and Fernald Atomic Trades & Labor Councils.

Dr. Markowitz has conducted research in the areas of occupational cancer, asbestos-related diseases, immigrant occupational health and surveillance of occupational injuries and illnesses, publishing over 90 journal articles and book chapters. Earlier in his career, Dr. Markowitz directed the occupational medicine residency at Mount Sinai School of Medicine and initiated a NIH-funded training for medical students and a Fogarty Center-funded international occupational health fellowship in Mexico, Brazil, and Chile. For more than a decade, he has worked with community groups in New York City to address immigrant occupational health, providing medical screening in 2002 for Latino day laborers who worked near Ground Zero, documenting health and safety problems of immigrant restaurant workers in New York City, and training and equipping 500 Latino day laborers to perform Hurricane Sandy clean-up work.

Dr. Markowitz is Editor-in-Chief, *American Journal of Industrial Medicine* and Associate Editor of a major textbook, *Environmental and Occupational Medicine (4th edition)* (2007). He currently serves on the Board of Scientific Counselors of the National Toxicology Program and on the NIOSH Scientific and Technical Advisory Board of the World Trade Center Health Program. He has served as a consultant to the World Health Organization and the Pan American Health Organization. He founded and directed the World Trade Center Clinical Center of Excellence based in Queens.

Founded in 1966, the Barry Commoner Center for Health and the Environment is an environmental and occupational health institute at Queens College, City University of New York, the nation's largest public university. The Center addresses real world problems, involves affected communities, and seeks to find achievable solutions.

Dr. Lewis Pepper



Dr. Pepper came to the Worker Health Protection Program at Queens College (QC) in 2011 after 20 years at the Boston University School of Public Health. Since coming to QC, he has served as the Associate Medical Director of the WHPP. Dr. Pepper has been interested in beryllium-related health effects. He has co-authored a paper examining beryllium exposure at the Nevada Test Site, and most recently was a member of the American Thoracic Society's *Ad Hoc Committee on Beryllium Sensitivity and Chronic Beryllium Disease* assisting in their June 2014 Statement on Beryllium Disease.

Dr. Pepper was the Principal Investigator of NIOSH-funded studies of lead exposure among bridge construction workers and the health impacts of workplace reorganization and downsizing at the U.S. Department of Energy. The latter study involved almost 6,000 employees at five DOE facilities.

Currently Dr. Pepper is an Adjunct faculty member of the Hunter School of Public Health of the City University of New York.

James Frederick

Jim Frederick is the Assistant Director of the Health, Safety & Environment Department (HSE) of the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union (USW). Jim has been with the USW since 1994, working at the Pittsburgh headquarters. Jim is a member of USW local union 9305. He has a Bachelor's degree in environmental health from Purdue University and a Master's degree in environmental health and safety management from Rochester Institute of Technology.

The USW is the largest industrial union in North America and has 850,000 members in the U.S., Canada, and the Caribbean. It represents workers employed in the metals, rubber, chemicals, paper, energy, government, and service sectors.

The USW HSE Department's primary task is to assist the union's membership through their local unions in protecting their health and safety and maintaining environmental health for the communities in which our members and their neighbors live. The USW HSE Department is comprised of 27 full-time staff and more than 300 local union trainers and activists working part-time for the USW HSE Department on an ongoing basis.

Jim's work for the USW includes:

- providing health, safety, and environmental assistance to the membership;
- coordinating workplace health and safety audits, as well as fatality and catastrophic incident investigations at USW represented facilities;
- facilitating health, safety, and environmental negotiations with various USW employers;
- providing a range of training programs to local union health and safety activists, employers, and others;
- working with government representatives and other organizations to improve workplace health, safety, and environmental protections;
- providing oversight of health, safety, and environment conferences for the members of the union; and
- serving as the principal investigator on cooperative grant programs for the USW's Tony Mazzocchi Center for Health, Safety, and Environmental Education.

Former Burlington Atomic Energy Commission Plant (BAECP) and Ames Laboratory Workers Medical Screening Program

Who we are:

The University of Iowa College of Public Health

What we do:

The University of Iowa College of Public Health administers medical screenings to former nuclear weapons workers from two DOE facilities in Iowa: Line 1/Division B/ BAECP at the Iowa Army Ammunition Plant (IAAP) in West Burlington, Iowa, operational between 1949 and mid-1975, and the Ames Laboratory at Iowa State University in Ames, Iowa, established in the early 1940s.

Approximately 7,000 workers were employed in assembly and disassembly of nuclear weapons on IAAP's Line 1, and approximately 5,684 are living. Current addresses have been obtained for these individuals; 7% of those do not live in Iowa and are being referred to the NSSP for screenings. Medical screenings for BAECP workers began in 2002. As of September 30, 2014, a total of 1,345 former workers have been screened. A total of 790 Line 1 former workers have received a 3-year repeat screening with 374 receiving a 6-year, 151 a 9-year repeat screening, and 6 a 12-year repeat screening.

In the early 1940s, the Ames Laboratory developed the process for producing large quantities of high-purity uranium metal for nuclear reaction purposes for the Manhattan Project. Overall, the Lab produced over 2 million pounds (1,000 tons) of purified uranium. The Ames Laboratory presently conducts a broad range of applied chemical and physical research.

Over 13,000 employees worked at the Ames Laboratory, and 10,675 of those workers are still living and have known addresses; 71% do not live in Iowa and are being referred to NSSP for screenings. Medical screenings for former Ames Laboratory workers began in 2006. As of September 30, 2014, a total of 1,855 former Ames Laboratory workers have been screened. A total of 795 former Ames Laboratory workers have received a 3-year repeat screening with 181 receiving a 6-year and 1 a 9-year repeat screening.

What we have found:

- CXRs: 460 (16%) former workers demonstrated findings suspicious for work-related lung disease (n=2,919).
- PFTs: 308 (10%) former workers demonstrated findings consistent with obstructive disease (n=2,984).
- BeLPTs: 94 (3%) former workers had at least one abnormal BeLPT (n=3,031).

- Uncontrolled Hypertension Detected: 445 (22%) former workers were hypertensive; 17 (0.9%) had urgent/severe hypertension (blood pressure >180/110); and 1 (0.05%) had emergent hypertension (blood pressure >220/140), n=2,011.
- Uncontrolled Diabetes Mellitus Detected: 150 (5%) former workers had hyperglycemia (non-fasting glucose ≥ 200mg/dL), n=2,925. 112 (11%) former workers indicated fair control of their diabetes (hemoglobin A1c 7.1-9.0), and 20 (2%) had poor control (A1c ≥ 9.1), n=993.
- Cancers: 94 (3%) former workers have been newly diagnosed with a cancer since having their screening, with the greatest number of newly diagnosed cancers (30%) being lung cancer (28 cases), n=3,200.
- Sarcoid lung disease: 5 of the BAECP former workers and 11 of the Ames Laboratory former workers were found to have a history of pulmonary sarcoidosis.

Toll-free number: 1-866-282-5818

Web site: www.iowafwp.org

"I want to thank the individuals of The University of Iowa Former Worker Medical Screening Program for their tremendous help. This FWP team is always so knowledgeable and professional with their help; it is deeply appreciated. The first medical screening I had done was in November 2008. I had been diagnosed with CLL in March 2007 and was notified after the medical screening by phone that my white cell blood count was higher than it had been and that I had a possible urinary tract infection. I immediately went to the doctor the next day and started an antibiotic to keep my white cells from climbing higher. This is very important with CLL.

"This program is desperately needed in this area and hopefully will continue for some time. IAAP workers are grateful for their continuous help and screening."

-Former Iowa Army Ammunition Plant worker

Laurence Fuortes, MD, MS

Laurence Fuortes, MD, MS, is a Professor of Occupational and Environmental Health and Internal Medicine at The University of Iowa. He is an occupational medicine physician with over 30 years of clinical experience and has directed the University Employee Health Clinic for 25 years. Dr. Fuortes teaches courses in environmental toxicology and international health and mentors graduate students, medical students, and occupational medicine residents in the Pulmonary Division Outpatient Clinic at the University Hospitals.

He has been the Principal Investigator of the FWP at The University of Iowa College of Public Health since its inception in 2000, which provides screenings to the two DOE sites in Iowa: IAAP and Ames Laboratory. In addition to evaluating the former workers at the medical screening, Dr. Fuortes provides thorough assistance with recommendations for follow-up care and conducts EEOICP impairment evaluations for former DOE workers. His personalized attention has been greatly appreciated by the workers and was recognized in receiving The University of Iowa Brody Service Award. Dr. Fuortes has also directed studies of the health effects of Department of Defense conventional weapons workers from the IAAP.

With over ninety peer reviewed publications, Dr. Fuortes has been an investigator on numerous occupational and environmental public health programs, many with major service components such as pesticide toxicology in agricultural workers, traumatic head and spinal cord injury epidemiology, and health services delivery to Iowa migrant farm workers. Dr. Fuortes also served as an Internist with the Indian Health Service and an Epidemic Intelligence Service Officer and has also been involved with extensive global occupational health initiatives as well, including serving as a World Health Organization/Fulbright Lecturer in Costa Rica and a Senior Fulbright Scholar in South Africa and Armenia, as well as directing Fogarty international research-training programs.

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Appendix B: Exams Conducted through the Former Worker Program

Table 7. Number of Former Workers Screened and Re-screened by U.S. Department of Energy Site (through September 2014)

State	Sites	Initial Screenings	Re-screens
AK	Amchitka Island Test Site	1,405	575
CA	Lawrence Berkeley National Laboratory	543	174
CA	Lawrence Livermore National Laboratory	1,945	832
CA	Sandia National Laboratories, CA	224	73
CO	Rocky Flats Plant (Construction Workers)	762	296
CO	Rocky Flats Plant (Production Workers)	3,530	746
FL	Pinellas (Production Workers)	615	125
IA	Ames Laboratory	1,855	977
IA	Iowa Army Ammunition Plant	1,345	1,321
ID	Idaho National Laboratory (Construction Workers)	1,138	297
ID	Idaho National Laboratory (Production Workers)	4,789	2,722
IL	Argonne National Laboratory	624	56
IL	Fermi National Accelerator Laboratory	162	7
KY	Paducah GDP (Construction Workers)	945	396
KY	Paducah GDP (Production Workers)	3,432	1,935
MO	Kansas City Plant (Construction Workers)	695	204
MO	Kansas City Plant (Production Workers)	2,373	403
NM	Los Alamos National Laboratory	2,945	474
NM	Sandia National Laboratories, NM	382	39
NV	Nevada National Security Site	4,673	2,154
NY	Brookhaven National Laboratory (Construction Workers)	596	246
NY	Brookhaven National Laboratory (Production Workers)	440	29

State	Sites	Initial Screenings	Re-screens
OH	Feed Materials Production Center (Construction Workers)	2,114	960
OH	Feed Materials Production Center (Production Workers)	1,282	614
OH	Mound Plant (Construction Workers)	369	131
OH	Mound Plant (Production Workers)	1,548	947
OH	Portsmouth GDP (Construction Workers)	1,129	489
OH	Portsmouth GDP (Production Workers)	3,672	2,508
SC	Savannah River Site (Construction Workers)	4,375	1,541
SC	Savannah River Site (Production Workers)	5,071	138
TN	Oak Ridge K-25 (K-25) (Production Workers)	4,427	2,709
TN	Oak Ridge National Laboratory (ORNL) (Production Workers)	2,068	1,169
TN	Oak Ridge Reservation[6] (Construction Workers)	3,328	1,323
TN	Y-12 National Security Complex (Y-12) (Production Workers)	3,665	2,266
TX	Pantex Plant	1,202	388
WA	Hanford Site (Construction Workers)	3,653	1,286
WA	Hanford Site (Production Workers)	4,940	708
	Other Sites[7] (Construction Workers)	1,420	356
	Other Sites[8] (Production Workers)	171	7
	Grand Total	79,852	31,621

[6] Includes K-25, ORNL, and Y-12
[7] Sites where the number of individuals screened by the Building Trades National Medical Screening Program to date is less than 100.
[8] Sites where the number of individuals screened by the National Supplemental Screening Program to date is less than 100.

Appendix C: Program Findings

More in-depth information regarding the exam components offered through the program can be found on the Former Worker Program Web site (http://energy.gov/ehss/conventional-medical-screening-program). Medical findings by the U.S. Department of Energy (DOE) site/worker population are provided below.

Table 8 illustrates chest x-ray findings on initial exams to date, and Table 9 provides findings on re-screens.

Table 8. Chest X-ray Findings on Initial Screening (through September 2014)

State	Sites	Workers Screened	Asbestos-related Lung Disease	Silicosis	Other Dust-related Disease	Lung Nodules, Nodes, or Lesions
AK	Amchitka Island Test Site	1,095	157 (14.3%)	1 (0.1%)	0 (0.0%)	60 (5.5%)
CA	Lawrence Berkeley National Laboratory	510	9 (1.8%)	0 (0.0%)	5 (1.0%)	28 (5.5%)
CA	Lawrence Livermore National Laboratory	1,834	41 (2.2%)	0 (0.0%)	7 (0.4%)	129 (7.0%)
CA	Sandia National Laboratories, CA	212	4 (1.9%)	0 (0.0%)	1 (0.5%)	16 (7.5%)
CO	Rocky Flats Plant (Construction Workers)	679	215 (31.7%)	7 (1.0%)	13 (1.9%)	24 (3.5%)
CO	Rocky Flats Plant (Production Workers)	3,102	731 (23.6%)	3 (0.1%)	49 (1.6%)	94 (3.0%)
FL	Pinellas (Production Workers)	596	49 (8.2%)	4 (0.7%)	16 (2.7%)	29 (4.9%)
IA	Ames Laboratory	1,788	58 (3.2%)	0 (0.0%)	60 (3.4%)	51 (2.9%)
IA	Iowa Army Ammunition Plant	1,243	120 (9.7%)	0 (0.0%)	67 (5.4%)	32 (2.6%)
ID	Idaho National Laboratory (Construction Workers)	914	107 (11.7%)	0 (0.0%)	2 (0.2%)	28 (3.1%)
ID	Idaho National Laboratory (Production Workers)	4,747	331 (7.0%)	1 (0.0%)	19 (0.4%)	84 (1.8%)
IL	Argonne National Laboratory	570	65 (11.4%)	0 (0.0%)	16 (2.8%)	18 (3.2%)

State	Sites	Workers Screened	Asbestos-related Lung Disease	Silicosis	Other Dust-related Disease	Lung Nodules, Nodes, or Lesions
IL	Fermi National Accelerator Laboratory	152	13 (8.6%)	0 (0.0%)	6 (3.9%)	5 (3.3%)
KY	Paducah Gaseous Diffusion Plant (GDP) (Construction Workers)	866	147 (17.0%)	7 (0.8%)	12 (1.4%)	47 (5.4%)
KY	Paducah GDP (Production Workers)	3,428	189 (5.5%)	26 (0.8%)	16 (0.5%)	53 (1.5%)
MO	Kansas City Plant (Construction Workers)	607	85 (14.0%)	0 (0.0%)	1 (0.2%)	31 (5.1%)
MO	Kansas City Plant (Production Workers)	2,322	244 (10.5%)	1 (0.0%)	63 (2.7%)	96 (4.1%)
NM	Los Alamos National Laboratory	2,768	202 (7.3%)	0 (0.0%)	96 (3.5%)	52 (1.9%)
NM	Sandia National Laboratories, NM	364	25 (6.9%)	1 (0.3%)	16 (4.4%)	5 (1.4%)
NV	Nevada National Security Site	4,528	511 (11.3%)	38 (0.8%)	79 (1.7%)	361 (8.0%)
NY	Brookhaven National Laboratory (Construction Workers)	477	89 (18.7%)	0 (0.0%)	0 (0.0%)	9 (1.9%)
NY	Brookhaven National Laboratory (Production Workers)	436	18 (4.1%)	0 (0.0%)	4 (0.9%)	4 (0.9%)
OH	Feed Materials Production Center (Construction Workers)	1,869	216 (11.6%)	4 (0.2%)	0 (0.0%)	33 (1.8%)
OH	Feed Materials Production Center (Production Workers)	1,253	23 (1.8%)	0 (0.0%)	10 (0.8%)	18 (1.4%)
OH	Mound Plant (Construction Workers)	303	60 (19.8%)	0 (0.0%)	3 (1.0%)	6 (2.0%)
OH	Mound Plant (Production Workers)	1,536	79 (5.1%)	2 (0.1%)	3 (0.2%)	23 (1.5%)
OH	Portsmouth GDP (Construction Workers)	1,002	186 (18.6%)	3 (0.3%)	3 (0.3%)	40 (4.0%)
OH	Portsmouth GDP (Production Workers)	3,669	214 (5.8%)	9 (0.2%)	14 (0.4%)	58 (1.6%)

State	Sites	Workers Screened	Asbestos-related Lung Disease	Silicosis	Other Dust-related Disease	Lung Nodules, Nodes, or Lesions
SC	Savannah River Site (Construction Workers)	3,857	395 (10.2%)	3 (0.1%)	1 (0.0%)	141 (3.7%)
SC	Savannah River Site (Production Workers)	3,400	953 (28.0%)	56 (1.6%)	345 (10.1%)	32 (0.9%)
TN	Oak Ridge K-25 (K-25) (Production Workers)	4,418	273 (6.2%)	9 (0.2%)	23 (0.5%)	55 (1.2%)
TN	Oak Ridge National Laboratory (ORNL) (Production Workers)	2,065	104 (5.0%)	4 (0.2%)	1 (0.0%)	15 (0.7%)
TN	Oak Ridge Reservation[9] (Construction Workers)	2,779	513 (18.5%)	6 (0.2%)	6 (0.2%)	111 (4.0%)
TN	Y-12 National Security Complex (Y-12) (Production Workers)	3,654	212 (5.8%)	4 (0.1%)	11 (0.3%)	43 (1.2%)
TX	Pantex Plant	1,180	59 (5.0%)	1 (0.1%)	8 (0.7%)	44 (3.7%)
WA	Hanford Site (Construction Workers)	2,999	793 (26.4%)	3 (0.1%)	2 (0.1%)	168 (5.6%)
WA	Hanford Site (Production Workers)	4,465	948 (21.2%)	2 (0.0%)	64 (1.4%)	233 (5.2%)
	Other Sites[10] (Construction Workers)	1,147	171 (14.9%)	4 (0.3%)	0 (0.0%)	27 (2.4%)
	Other Sites[11] (Production Workers)	158	16 (10.1%)	0 (0.0%)	8 (5.1%)	6 (3.8%)
	Grand Total	71,897	8,468 (11.8%)	198 (0.3%)	1,050 (1.5%)	2,249 (3.1%)

[9] Includes K-25, ORNL, and Y-12.

[10] Sites where the number of individuals screened by the Building Trades National Medical Screening Program (BTMed) to date is less than 100.

[11] Sites where the number of individuals screened by the National Supplemental Screening Program (NSSP) to date is less than 100.

Table 9. Chest X-ray Findings on Re-screening (through September 2014)

State	Sites	Workers Screened	Asbestos-related Lung Disease	Silicosis	Other Dust-related Disease	Lung Nodules, Nodes, or Lesions
AK	Amchitka Island Test Site	400	28 (7.0%)	1 (0.3%)	0 (0.0%)	15 (3.8%)
CA	Lawrence Berkeley National Laboratory	117	1 (0.9%)	0 (0.0%)	1 (0.9%)	10 (8.5%)
CA	Lawrence Livermore National Laboratory	621	2 (0.3%)	0 (0.0%)	1 (0.2%)	43 (6.9%)
CA	Sandia National Laboratories, CA	53	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (9.4%)
CO	Rocky Flats Plant (Construction Workers)	234	13 (5.6%)	0 (0.0%)	2 (0.9%)	2 (0.9%)
CO	Rocky Flats Plant (Production Workers)	692	199 (28.8%)	3 (0.4%)	14 (2.0%)	14 (2.0%)
FL	Pinellas (Production Workers)	114	5 (4.4%)	0 (0.0%)	1 (0.9%)	1 (0.9%)
IA	Ames Laboratory	757	15 (2.0%)	0 (0.0%)	21 (2.8%)	13 (1.7%)
IA	Iowa Army Ammunition Plant	508	42 (8.3%)	0 (0.0%)	51 (10.0%)	15 (3.0%)
ID	Idaho National Laboratory (Construction Workers)	250	22 (8.8%)	0 (0.0%)	0 (0.0%)	5 (2.0%)
ID	Idaho National Laboratory (Production Workers)	1,687	70 (4.1%)	1 (0.1%)	2 (0.1%)	4 (0.2%)
IL	Argonne National Laboratory	49	1 (2.0%)	0 (0.0%)	3 (6.1%)	2 (4.1%)
IL	Fermi National Accelerator Laboratory	7	0 (0.0%)	0 (0.0%)	1 (14.3%)	0 (0.0%)
KY	Paducah GDP (Construction Workers)	309	33 (10.7%)	0 (0.0%)	1 (0.3%)	22 (7.1%)

State	Sites	Workers Screened	Asbestos-related Lung Disease	Silicosis	Other Dust-related Disease	Lung Nodules, Nodes, or Lesions
KY	Paducah GDP (Production Workers)	1,424	42 (2.9%)	1 (0.1%)	0 (0.0%)	8 (0.6%)
MO	Kansas City Plant (Construction Workers)	167	14 (8.4%)	0 (0.0%)	0 (0.0%)	3 (1.8%)
MO	Kansas City Plant (Production Workers)	378	14 (3.7%)	0 (0.0%)	14 (3.7%)	8 (2.1%)
NM	Los Alamos National Laboratory	437	59 (13.5%)	0 (0.0%)	20 (4.6%)	2 (0.5%)
NM	Sandia National Laboratories, NM	39	8 (20.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
NV	Nevada National Security Site	1,350	86 (6.4%)	9 (0.7%)	47 (3.5%)	149 (11.0%)
NY	Brookhaven National Laboratory (Construction Workers)	191	11 (5.8%)	0 (0.0%)	0 (0.0%)	4 (2.1%)
NY	Brookhaven National Laboratory (Production Workers)	27	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
OH	Feed Materials Production Center (Construction Workers)	680	50 (7.4%)	0 (0.0%)	0 (0.0%)	5 (0.7%)
OH	Feed Materials Production Center (Production Workers)	467	7 (1.5%)	0 (0.0%)	0 (0.0%)	4 (0.9%)
OH	Mound Plant (Construction Workers)	105	11 (10.5)	0 (0.0%)	1 (1.0%)	1 (1.0%)
OH	Mound Plant (Production Workers)	636	16 (2.5%)	0 (0.0%)	0 (0.0%)	2 (0.3%)
OH	Portsmouth GDP (Construction Workers)	382	53 (13.9%)	0 (0.0%)	0 (0.0%)	5 (1.3%)
OH	Portsmouth GDP (Production Workers)	1,602	101 (6.3%)	1 (0.1%)	1 (0.1%)	14 (0.9%)

State	Sites	Workers Screened	Asbestos-related Lung Disease	Silicosis	Other Dust-related Disease	Lung Nodules, Nodes, or Lesions
SC	Savannah River Site (Construction Workers)	1,116	108 (9.7%)	1 (0.1%)	0 (0.0%)	49 (4.4%)
SC	Savannah River Site (Production Workers)	135	5 (3.7%)	0 (0.0%)	6 (4.4%)	2 (1.5%)
TN	K-25 (Production Workers)	1,816	50 (2.8%)	0 (0.0%)	1 (0.1%)	9 (0.5%)
TN	ORNL (Production Workers)	840	24 (2.9%)	0 (0.0%)	1 (0.1%)	1 (0.1%)
TN	Oak Ridge Reservation[12] (Construction Workers)	1,006	125 (12.4%)	0 (0.0%)	0 (0.0%)	36 (3.6%)
TN	Y-12 (Production Workers)	1,611	57 (3.5%)	1 (0.1%)	2 (0.1%)	2 (0.1%)
TX	Pantex Plant	299	10 (3.3%)	0 (0.0%)	0 (0.0%)	9 (3.0%)
WA	Hanford Site (Construction Workers)	930	90 (9.7%)	0 (0.0%)	1 (0.1%)	42 (4.5%)
WA	Hanford Site (Production Workers)	589	75 (12.7%)	0 (0.0%)	16 (2.7%)	22 (3.7%)
	Other Sites[13] (Construction Workers)	320	12 (3.8%)	0 (0.0%)	0 (0.0%)	4 (1.3%)
	Other Sites[14] (Production Workers)	4	1 (25.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	Grand Total	21,834	1,431 (6.6%)	17 (0.1%)	207 (0.9%)	507 (2.3%)

[12] Includes K-25, ORNL, and Y-12.
[13] Sites where the number of individuals screened by BTMed to date is less than 100.
[14] Sites where the number of individuals screened by NSSP to date is less than 100.

Table 10 illustrates spirometry (breathing test) findings to date on initial exams, and Table 11 provides findings on re-screening.

Table 10. Spirometry Findings on Initial Screening (through September 2014)

State	Sites	Workers Screened	Obstructive Airways Dysfunction Detected
AK	Amchitka Island Test Site	1,091	170 (15.6%)
CA	Lawrence Berkeley National Laboratory	520	57 (11.0%)
CA	Lawrence Livermore National Laboratory	1,837	228 (12.4%)
CA	Sandia National Laboratories, CA	210	21 (10.0%)
CO	Rocky Flats Plant (Construction Workers)	669	191 (28.6%)
CO	Rocky Flats Plant (Production Workers)	3,437	828 (24.1%)
FL	Pinellas (Production Workers)	588	168 (28.6%)
IA	Ames Laboratory	1,815	213 (11.7%)
IA	Iowa Army Ammunition Plant	1,270	254 (20.0%)
ID	Idaho National Laboratory (Construction Workers)	896	224 (25.0%)
ID	Idaho National Laboratory (Production Workers)	4,703	854 (18.2%)
IL	Argonne National Laboratory	580	60 (10.3%)
IL	Fermi National Accelerator Laboratory	151	12 (7.9%)
KY	Paducah GDP (Construction Workers)	852	222 (26.1%)
KY	Paducah GDP (Production Workers)	3,374	510 (15.1%)
MO	Kansas City Plant (Construction Workers)	596	139 (23.3%)
MO	Kansas City Plant (Production Workers)	2,306	540 (23.4%)
NM	Los Alamos National Laboratory	1,885	568 (30.1%)
NM	Sandia National Laboratories, NM	331	41 (12.4%)
NV	Nevada National Security Site	4,571	1,389 (30.4%)
NY	Brookhaven National Laboratory (Construction Workers)	498	66 (13.3%)

State	Sites	Workers Screened	Obstructive Airways Dysfunction Detected
NY	Brookhaven National Laboratory (Production Workers)	435	58 (13.3%)
OH	Feed Materials Production Center (Construction Workers)	1,828	361 (19.7%)
OH	Feed Materials Production Center (Production Workers)	1,232	168 (13.6%)
OH	Mound Plant (Construction Workers)	308	77 (25.0%)
OH	Mound Plant (Production Workers)	1,484	339 (22.8%)
OH	Portsmouth GDP (Construction Workers)	997	245 (24.6%)
OH	Portsmouth GDP (Production Workers)	3,630	764 (21.0%)
SC	Savannah River Site (Construction Workers)	3,840	679 (17.7%)
SC	Savannah River Site (Production Workers)	2,745	314 (11.4%)
TN	K-25 (Production Workers)	4,291	910 (21.2%)
TN	ORNL (Production Workers)	2,016	394 (19.5%)
TN	Oak Ridge Reservation[15] (Construction Workers)	2,754	527 (19.1%)
TN	Y-12 (Production Workers)	3,582	758 (21.2%)
TX	Pantex Plant	1,177	383 (32.5%)
WA	Hanford Site (Construction Workers)	2,997	758 (25.3%)
WA	Hanford Site (Production Workers)	4,785	905 (18.9%)
	Other Sites[16] (Construction Workers)	1,139	210 (18.4%)
	Other Sites[17] (Production Workers)	152	35 (23.0%)
	Grand Total	71,572	14,640 (20.5%)

[15] Includes K-25, ORNL, and Y-12.
[16] Sites where the number of individuals screened by BTMed to date is less than 100.
[17] Sites where the number of individuals screened by NSSP to date is less than 100.

Table 11. Spirometry Findings on Re-screening (through September 2014)

State	Sites	Workers Screened	Obstructive Airways Dysfunction Detected
AK	Amchitka Island Test Site	393	33 (8.4%)
CA	Lawrence Berkeley National Laboratory	119	7 (5.9%)
CA	Lawrence Livermore National Laboratory	636	29 (4.6%)
CA	Sandia National Laboratories, CA	55	1 (1.8%)
CO	Rocky Flats Plant (Construction Workers)	235	10 (4.3%)
CO	Rocky Flats Plant (Production Workers)	690	104 (15.1%)
FL	Pinellas (Production Workers)	116	24 (20.7%)
IA	Ames Laboratory	774	70 (9.0%)
IA	Iowa Army Ammunition Plant	464	120 (25.9%)
ID	Idaho National Laboratory (Construction Workers)	243	14 (5.8%)
ID	Idaho National Laboratory (Production Workers)	1,667	709 (42.5%)
IL	Argonne National Laboratory	47	0 (0.0%)
IL	Fermi National Accelerator Laboratory	7	1 (14.3%)
KY	Paducah GDP (Construction Workers)	306	16 (5.2%)
KY	Paducah GDP (Production Workers)	1,390	330 (23.7%)
MO	Kansas City Plant (Construction Workers)	159	4 (2.5%)
MO	Kansas City Plant (Production Workers)	371	41 (11.1%)
NM	Los Alamos National Laboratory	378	54 (14.3%)
NM	Sandia National Laboratories, NM	37	5 (13.5%)
NV	Nevada National Security Site	1,477	479 (32.4%)
NY	Brookhaven National Laboratory (Construction Workers)	198	3 (1.5%)
NY	Brookhaven National Laboratory (Production Workers)	28	6 (21.4%)
OH	Feed Materials Production Center (Construction Workers)	649	26 (4.0%)

State	Sites	Workers Screened	Obstructive Airways Dysfunction Detected
OH	Feed Materials Production Center (Production Workers)	456	82 (18.0%)
OH	Mound Plant (Construction Workers)	101	4 (4.0%)
OH	Mound Plant (Production Workers)	618	219 (35.4%)
OH	Portsmouth GDP (Construction Workers)	374	26 (7.0%)
OH	Portsmouth GDP (Production Workers)	1,584	662 (41.8%)
SC	Savannah River Site (Construction Workers)	1,092	56 (5.1%)
SC	Savannah River Site (Production Workers)	134	4 (3.0%)
TN	K-25 (Production Workers)	1,759	520 (29.6%)
TN	ORNL (Production Workers)	828	237 (28.6%)
TN	Oak Ridge Reservation[18] (Construction Workers)	985	91 (9.2%)
TN	Y-12 (Production Workers)	1,584	480 (30.3%)
TX	Pantex Plant	290	18 (6.2%)
WA	Hanford Site (Construction Workers)	907	70 (7.7%)
WA	Hanford Site (Production Workers)	581	118 (20.3%)
	Other Sites[19] (Construction Workers)	321	9 (2.8%)
	Other Sites[20] (Production Workers)	5	0 (0.0%)
	Grand Total	22,059	4,682 (21.2%)

[18] Includes K-25, ORNL, and Y-12.
[19] Sites where the number of individuals screened by BTMed to date is less than 100.
[20] Sites where the number of individuals screened by NSSP to date is less than 100.

Table 12 illustrates beryllium testing findings on initial exams to date, and Table 13 provides findings on re-screens.

Table 12. Results of Beryllium Lymphocyte Proliferation Tests (BeLPTs) by DOE Site on Initial Screening (through September 2014)

State	Sites	Workers Screened	1 Abnormal	2 Abnormal	1 Abnormal and 1+ Borderline
AK	Amchitka Island Test Site	84	2 (2.4%)	0 (0.0%)	0 (0.0%)
CA	Lawrence Berkeley National Laboratory	242	4 (1.7%)	5 (2.1%)	0 (0.0%)
CA	Lawrence Livermore National Laboratory	1,180	10 (0.8%)	31 (2.6%)	5 (0.4%)
CA	Sandia National Laboratories, CA	139	1 (0.7%)	3 (2.2%)	2 (1.4%)
CO	Rocky Flats Plant (Construction Workers)	680	4 (0.6%)	3 (0.4%)	0 (0.0%)
CO	Rocky Flats Plant (Production Workers)	2,106	18 (0.9%)	13 (0.6%)	12 (0.6%)
FL	Pinellas (Production Workers)	588	7 (1.2%)	21 (3.6%)	3 (0.5%)
IA	Ames Laboratory	1,814	26 (1.4%)	22 (1.2%)	6 (0.3%)
IA	Iowa Army Ammunition Plant	1,309	15 (1.1%)	11 (0.8%)	8 (0.6%)
ID	Idaho National Laboratory (Construction Workers)	888	13 (1.5%)	4 (0.5%)	5 (0.6%)
ID	Idaho National Laboratory (Production Workers)	4,391	34 (0.8%)	31 (0.7%)	14 (0.3%)
IL	Argonne National Laboratory	299	5 (1.7%)	2 (0.7%)	1 (0.3%)
IL	Fermi National Accelerator Laboratory	104	2 (1.9%)	1 (1.0%)	0 (0.0%)
KY	Paducah GDP (Construction Workers)	865	15 (1.7%)	8 (0.9%)	1 (0.1%)
KY	Paducah GDP (Production Workers)	2,948	38 (1.3%)	18 (0.6%)	7 (0.2%)

State	Sites	Workers Screened	1 Abnormal	2 Abnormal	1 Abnormal and 1+ Borderline
MO	Kansas City Plant (Construction Workers)	597	2 (0.3%)	11 (1.8%)	3 (0.5%)
MO	Kansas City Plant (Production Workers)	2,261	36 (1.6%)	23 (1.0%)	9 (0.4%)
NM	Los Alamos National Laboratory	2,760	42 (1.5%)	33 (1.2%)	21 (0.8%)
NM	Sandia National Laboratories, NM	360	11 (3.1%)	3 (0.8%)	3 (0.8%)
NV	Nevada National Security Site	2,855	35 (1.2%)	23 (0.8%)	12 (0.4%)
NY	Brookhaven National Laboratory (Construction Workers)	484	5 (1.0%)	23 (4.8%)	0 (0.0%)
NY	Brookhaven National Laboratory (Production Workers)	427	5 (1.2%)	11 (2.6%)	6 (1.4%)
OH	Feed Materials Production Center (Construction Workers)	1,835	5 (0.3%)	13 (0.7%)	3 (0.2%)
OH	Feed Materials Production Center (Production Workers)	1,074	7 (0.7%)	6 (0.6%)	2 (0.2%)
OH	Mound Plant (Construction Workers)	305	0 (0.0%)	2 (0.7%)	0 (0.0%)
OH	Mound Plant (Production Workers)	1,463	23 (1.6%)	13 (0.9%)	4 (0.3%)
OH	Portsmouth GDP (Construction Workers)	997	15 (1.5%)	2 (0.2%)	1 (0.1%)
OH	Portsmouth GDP (Production Workers)	3,274	22 (0.7%)	10 (0.3%)	4 (0.1%)
SC	Savannah River Site (Construction Workers)	3,858	27 (0.7%)	36 (0.9%)	11 (0.3%)
SC	Savannah River Site (Production Workers)	2,339	53 (2.3%)	13 (0.6%)	4 (0.2%)
TN	K-25 (Production Workers)	4,365	87 (2.0%)	77 (1.8%)	20 (0.5%)
TN	ORNL (Production Workers)	1,999	22 (1.1%)	28 (1.4%)	9 (0.5%)

State	Sites	Workers Screened	1 Abnormal	2 Abnormal	1 Abnormal and 1+ Borderline
TN	Oak Ridge Reservation[21] (Construction Workers)	3,056	23 (0.8%)	21 (0.7%)	11 (0.4%)
TN	Y-12 (Production Workers)	3,603	58 (1.6%)	64 (1.8%)	12 (0.3%)
TX	Pantex Plant	1,161	11 (0.9%)	1 (0.1%)	0 (0.0%)
WA	Hanford Site (Construction Workers)	3,004	34 (1.1%)	31 (1.0%)	6 (0.2%)
WA	Hanford Site (Production Workers)	4,175	106 (2.5%)	29 (0.7%)	18 (0.4%)
	Other Sites[22] (Construction)	731	2 (0.3%)	2 (0.3%)	0 (0.0%)
	Other Sites[23] (Production)	109	0 (0.0%)	2 (1.8%)	0 (0.0%)
Grand Total		64,645	823 (1.3%)	650 (1.0%)	223 (0.3%)

Table 13. Results of Beryllium Lymphocyte Proliferation Tests (BeLPTs) by DOE Site on Re-screening (through September 2014)

State	Sites	Workers Screened	1 Abnormal[24]	2 Abnormal[25]	1 Abnormal and 1+ Borderline
AK	Amchitka Island Test Site	21	0 (0.0%)	0 (0.0%)	0 (0.0%)
CA	Lawrence Berkeley National Laboratory	52	0 (0.0%)	1 (1.9%)	0 (0.0%)
CA	Lawrence Livermore National Laboratory	478	3 (0.6%)	3 (0.6%)	0 (0.0%)

[21] Includes K-25, ORNL, and Y-12.
[22] Sites where the number of individuals screened by BTMed to date is less than 100.
[23] Sites where the number of individuals screened by NSSP to date is less than 100.
[24] May include individuals who did not receive a BeLPT at the time of their initial screening or who had a normal result on their initial screening and a single abnormal result on the re-screening.
[25] May include individuals who did not receive a BeLPT at the time of their initial screening, had a normal result on the initial screening, or had a single abnormal or borderline result on their initial screening that was confirmed on their re-screening.

State	Sites	Workers Screened	1 Abnormal[24]	2 Abnormal[25]	1 Abnormal and 1+ Borderline
CA	Sandia National Laboratories, CA	43	2 (4.7%)	0 (0.0%)	0 (0.0%)
CO	Rocky Flats Plant (Construction Workers)	202	1 (0.5%)	0 (0.0%)	0 (0.0%)
CO	Rocky Flats Plant (Production Workers)	430	3 (0.7%)	2 (0.5%)	1 (0.2%)
FL	Pinellas (Production Workers)	112	0 (0.0%)	0 (0.0%)	1 (0.9%)
IA	Ames Laboratory	767	3 (0.4%)	3 (0.4%)	1 (0.1%)
IA	Iowa Army Ammunition Plant	767	12 (1.6%)	3 (0.4%)	1 (0.1%)
ID	Idaho National Laboratory (Construction Workers)	214	2 (0.9%)	0 (0.0%)	0 (0.0%)
ID	Idaho National Laboratory (Production Workers)	1,509	4 (0.3%)	14 (0.9%)	7 (0.5%)
IL	Argonne National Laboratory	38	1 (2.6%)	0 (0.0%)	0 (0.0%)
IL	Fermi National Accelerator Laboratory	7	0 (0.0%)	0 (0.0%)	0 (0.0%)
KY	Paducah GDP (Construction Workers)	275	0 (0.0%)	2 (0.7%)	0 (0.0%)
KY	Paducah GDP (Production Workers)	1,330	7 (0.5%)	6 (0.5%)	9 (0.7%)
MO	Kansas City Plant (Construction Workers)	161	3 (1.9%)	1 (0.6%)	0 (0.0%)
MO	Kansas City Plant (Production Workers)	369	0 (0.0%)	2 (0.5%)	1 (0.3%)
NM	Los Alamos National Laboratory	418	5 (1.2%)	1 (0.2%)	0 (0.0%)
NM	Sandia National Laboratories, NM	38	2 (5.3%)	0 (0.0%)	1 (2.6%)
NV	Nevada National Security Site	1,161	9 (0.8%)	7 (0.6%)	2 (0.2%)

State	Sites	Workers Screened	1 Abnormal[24]	2 Abnormal[25]	1 Abnormal and 1+ Borderline
NY	Brookhaven National Laboratory (Construction Workers)	183	4 (2.2%)	2 (1.1%)	1 (0.5%)
NY	Brookhaven National Laboratory (Production Workers)	20	0 (0.0%)	1 (5.0%)	0 (0.0%)
OH	Feed Materials Production Center (Construction Workers)	558	4 (0.7%)	0 (0.0%)	0 (0.0%)
OH	Feed Materials Production Center (Production Workers)	390	1 (0.3%)	5 (1.3%)	1 (0.3%)
OH	Mound Plant (Construction Workers)	88	0 (0.0%)	0 (0.0%)	0 (0.0%)
OH	Mound Plant (Production Workers)	540	1 (0.2%)	10 (1.9%)	3 (0.6%)
OH	Portsmouth GDP (Construction Workers)	337	1 (0.3%)	0 (0.0%)	0 (0.0%)
OH	Portsmouth GDP (Production Workers)	1,540	4 (0.3%)	8 (0.5%)	5 (0.3%)
SC	Savannah River Site (Construction Workers)	984	11 (1.1%)	3 (0.3%)	2 (0.2%)
SC	Savannah River Site (Production Workers)	130	0 (0.0%)	1 (0.8%)	1 (0.8%)
TN	K-25 (Production Workers)	1,676	21 (1.3%)	19 (1.1%)	10 (0.6%)
TN	ORNL (Production Workers)	704	4 (0.6%)	20 (2.8%)	7 (1.0%)
TN	Oak Ridge Reservation[26] (Construction Workers)	964	6 (0.6%)	6 (0.6%)	3 (0.3%)
TN	Y-12 (Production Workers)	1,355	11 (0.8%)	34 (2.5%)	11 (0.8%)
TX	Pantex Plant[30]	195	2 (1.0%)	5 (2.6%)	0 (0.0%)
WA	Hanford Site (Construction Workers)	753	5 (0.7%)	3 (0.4%)	0 (0.0%)

[26] Includes K-25, ORNL, and Y-12.

State	Sites	Workers Screened	1 Abnormal[24]	2 Abnormal[25]	1 Abnormal and 1+ Borderline
WA	Hanford Site (Production Workers)	518	5 (1.0%)	0 (0.0%)	2 (0.4%)
	Other Sites[27] (Construction Workers)	165	2 (1.2%)	1 (0.6%)	1 (0.6%)
	Other Sites[28] (Production Workers)	4	0 (0.0%)	0 (0.0%)	0 (0.0%)
	Grand Total	19,497	139 (0.7%)	163 (0.8%)	71 (0.4%)

Table 14 illustrates audiometry (hearing test) findings on initial exams to date.

Table 14. Audiometry Findings on Initial Screening (through September 2014)

State	Sites	Workers Screened	Noise Induced Hearing Loss (NIHL)
AK	Amchitka Island Test Site	1,109	735 (66.3%)
CA	Lawrence Berkeley National Laboratory	263	107 (40.7%)
CA	Lawrence Livermore National Laboratory	936	408 (43.6%)
CA	Sandia National Laboratories, CA	101	47 (46.5%)
CO	Rocky Flats Plant (Construction Workers)	647	422 (65.2%)
CO	Rocky Flats Plant (Production Workers)	3,374	2,030 (60.2%)
FL	Pinellas (Production Workers)	586	225 (38.4%)
IA	Ames Laboratory[29]	151	44 (29.1%)
IA	Iowa Army Ammunition Plant[30]	102	85 (83.3%)
ID	Idaho National Laboratory (Construction Workers)	854	555 (65.0%)

[27] Sites where the number of individuals screened by BTMed to date is less than 100.
[28] Sites where the number of individuals screened by NSSP to date is less than 100.
[29] The site-specific project does not offer audiograms. However, workers referred to the NSSP are provided audiograms.
[30] The site-specific project does not offer audiograms. However, workers referred to the NSSP are provided audiograms.

State	Sites	Workers Screened	Noise Induced Hearing Loss (NIHL)
ID	Idaho National Laboratory (Production Workers)	4,500	2,444 (54.3%)
IL	Argonne National Laboratory	595	216 (36.3%)
IL	Fermi National Accelerator Laboratory	159	63 (39.6%)
KY	Paducah GDP (Construction Workers)	805	619 (76.9%)
KY	Paducah GDP (Production Workers)	3,338	1,878 (56.3%)
MO	Kansas City Plant (Construction Workers)	571	334 (58.5%)
MO	Kansas City Plant (Production Workers)	2,291	1,083 (47.3%)
NM	Los Alamos National Laboratory	2,498	1,477 (59.1%)
NM	Sandia National Laboratories, NM	315	178 (56.5%)
NV	Nevada National Security Site	4,068	3,134 (77.0%)
NY	Brookhaven National Laboratory (Construction Workers)	502	323 (64.3%)
NY	Brookhaven National Laboratory (Production Workers)	426	263 (61.7%)
OH	Feed Materials Production Center (Construction Workers)	1,814	909 (50.1%)
OH	Feed Materials Production Center (Production Workers)	1,215	417 (34.3%)
OH	Mound Plant (Construction Workers)	296	192 (64.9%)
OH	Mound Plant (Production Workers)	1,486	759 (51.1%)
OH	Portsmouth GDP (Construction Workers)	1,028	742 (72.2%)
OH	Portsmouth GDP (Production Workers)	3,555	1,843 (51.8%)
SC	Savannah River Site (Construction Workers)	3,941	2,319 (58.8%)
SC	Savannah River Site (Production Workers)	2,762	1,703 (61.7%)
TN	K-25 (Production Workers)	3,978	2,600 (65.4%)

State	Sites	Workers Screened	Noise Induced Hearing Loss (NIHL)
TN	ORNL (Production Workers)	2,003	1,255 (62.7%)
TN	Oak Ridge Reservation[31] (Construction Workers)	2,705	1,939 (71.7%)
TN	Y-12 (Production Workers)	3,538	2,450 (69.2%)
TX	Pantex Plant[32]	63	24 (38.1%)
WA	Hanford Site (Construction Workers)	2,295	1,596 (69.5%)
WA	Hanford Site (Production Workers)	3,909	1,914 (49.0%)
	Other Sites[33] (Construction Workers)	907	563 (62.1%)
	Other Sites[34] (Production Workers)	154	71 (46.1%)
	Grand Total	63,840	37,966 (59.5%)

[31] Includes K-25, ORNL, and Y-12.
[32] The site-specific project does not offer audiograms. However, workers referred to the NSSP are provided audiograms.
[33] Sites where the number of individuals screened by BTMed to date is less than 100.
[34] Sites where the number of individuals screened by NSSP to date is less than 100.

Appendix D: Resources

U.S. Department of Energy (DOE) Former Worker Medical Screening Program (FWP) Web site
http://energy.gov/ehss/services/worker-health-and-safety/former-worker-medical-screening-program

FWP Medical Protocol
http://energy.gov/ehss/downloads/former-worker-program-medical-protocol

FWP Summary of Services
http://energy.gov/ehss/downloads/former-worker-program-summary-services

A Basic Overview of the FWP (Brochure)
http://energy.gov/ehss/downloads/former-worker-medical-screening-program-brochure

DOE Chronic Beryllium Disease Awareness Web site
https://ehss.energy.gov/HealthSafety/fwsp/advocacy/cbd/

Building Trades National Medical Screening Program
http://www.btmed.org/default.cfm
1-800-866-9663

FWP for Burlington Atomic Energy Commission Plant (otherwise known as the Iowa Army Ammunition Plant) and Ames Laboratory
http://www.iowafwp.org
1-866-282-5818

Medical Exam Program for Los Alamos National Laboratory Former Workers
http://www.jhsph.edu/LANLFW/index.html
1-877-500-8615

National Supplemental Screening Program
http://www.orau.org/nssp/
1-866-812-6703

Pantex FWP
1-888-378-8939

Worker Health Protection Program
http://www.worker-health.org/
1-888-241-1199
1-877-771-7977 (for former Nevada National Security Site workers)

Medical Facilities with Experience Evaluating Chronic Beryllium Disease
http://energy.gov/ehss/downloads/former-workers-medical-facilities-experience-evaluating-chronic-beryllium-disease

DOE Human Subjects Protection Program
http://humansubjects.energy.gov/

A Basic Overview of the Energy Employees Occupational Illness Compensation Program (EEOICP) (Brochure)
http://energy.gov/ehss/downloads/basic-overview-energy-employees-occupational-illness-compensation-program

U.S. Department of Labor (DOL) Division of Energy Employees Occupational Illness Compensation
http://www.dol.gov/owcp/energy/index.htm

DOL Resource Centers
http://www.dol.gov/owcp/energy/regs/compliance/ResourceMeetings/ResourceCenters.htm

National Institute for Occupational Safety and Health (NIOSH) Dose Reconstruction
http://www.cdc.gov/niosh/ocas/ocasdose.html

DOL Office of the Ombudsman for the EEOICP
http://www.dol.gov/eeombd/