Workers at Y-12 and the Oak Ridge National Laboratory Win Medical Screening Program

When DOE started occupational disease medical surveillance programs for former DOE workers in the mid-1990's, not all workers in the complex were offered screening. The biggest gap has been at Y-12 and ORNL, where only construction workers have been offered a screening program. After much hard work by the Atomic Trades & Labor Council and Queens College, DOE decided to provide funding for start-up of a medical screening program for non-construction workers at Y-12 and the ORNL.

With the administrative cooperation of PACE International Union, a needs assessment is being conducted to provide an initial understanding of the kinds of exposures and diseases that workers at Y-12 and ORNL have experienced over the past 6 decades and what kind of medical screening should be offered. This needs assessment will be completed in late 2003. After DOE review, medical screening for Y-12 and ORNL workers is expected to begin in early 2004. PACE members can take pride in helping their union brothers and sisters develop this much-deserved medical screening program. Queens College will be helping yet another set of workers to learn the truth about how workplaces exposures may have affected their health.

DOE Goodbye and Welcome

The Worker Health Protection Program (WHPP) and all the Former Worker Programs (FWP's) have lost a good friend and tireless advocate in the departure of Kitty Taimi from the DOE. Kitty was the Former Worker Program Manager since its beginning back in 1996. We will all miss Kitty and are grateful for the dedicated direction she provided.

However, there will not be a vacuum in the FWP's. Elizabeth (Libby) White, DOE Program Manager for the Former Beryllium Worker Medical Surveillance Program, is replacing Kitty as the Former Worker Program Manager. Libby will work with Janet Normandy and Mary Fields in overseeing the FWP. Janet is currently Program Manager for the Rocky Flats Former Radiation Worker Medical Surveillance Program and Mary is also responsible for overseeing several current beryllium worker issues. We look forward to working with Libby, Mary, and Janet and want to wish them a warm welcome.

From left to right: Mary Fields, Libby White, and Janet Normandy

Building Trades Will Begin Medical Testing of Portsmouth, Paducah Construction Workers

The construction workers at the Portsmouth and Paducah gaseous diffusion plants will soon have their own medical testing program similar to that offered by the PACE/Queens College Worker Health Protection Program (WHPP).

Dr. Eula Bingham of the University of Cincinnati will head up the construction workers' project. Medical testing is anticipated to begin in Portsmouth in December 2003 and at Paducah in early 2004. There will be an interview office at each of the two sites with the Oak Ridge coordinating office handling scheduling. The project is known as the Oak Ridge, Portsmouth and Paducah Building Trades Medical Surveillance Program.

The toll-free number for signing up for the Construction Worker Project is:

1-888-464-0009

PACE/Queens College WHPP Health Watch

Vol. 2 Issue 6 2003

Written, Edited and Compiled by:

Sylvia Kieding, B.A. Amy Manowitz, MPH

Steve Markowitz, MD Lyndon Rose, MD, MPH

Other Contributing Authors:

Gaylon Hanson

For more information visit our website at: www.pace-workerhealth.org or e-mail us at whpp@qc.edu or call us at 1-888-241-1199.

This newsletter has been made possible through funding from the Department of Energy, contracts: DEF-FC03-96 SF 21260, DE-FC03-97S F21512, awarded to PACE International Union.

WHPP WORKER HEALTH PROTECTION PROGRAM

HealthWatch

A newsletter of the PACE/Queens College Worker Health Protection Program

Volume 2, Issue 6 Fall 2003

Senator McConnell Provides Hope for Major Funding Boost for the GDP Screening Program

Senator Mitch McConnell (R-KY) has come through again with funding support for an enhanced worker medical screening program. His support in the past has meant that *current* uranium enrichment plant workers have the opportunity for medical screening by independent physicians, whereas only *former* workers are eligible at all other DOE sites. Further, the Senator's efforts ensured that state-of-the-art technology is available for early lung cancer detection for uranium enrichment plant workers.

For fiscal year 2004 (FY04), the Department of Energy's budget request allocated only $1.0 million out of the $3.075 million needed for the Gaseous Diffusion Plant workers screening program. As part of Congressional deliberations, Senator McConnell added $2.075 million. Without these funds, many current and former GDP workers at Portsmouth, Paducah and Oak Ridge K-25 will not be afforded the opportunity to obtain medical screening through the WHPP Program. As part of the Senate Energy and Water Appropriations Act for FY04, Senator McConnell included the following provision:

> *The Committee recommends $3,075,000, an increase of $2,075,000 above the request, for medical monitoring at the gaseous diffusion plants at Paducah, Kentucky, Portsmouth, Ohio, and Oak Ridge, Tennessee. This will fully fund, as required by law, the worker screening program for both current and former workers. The Committee strongly supports and requires the continued use of helical low-dose CAT scanning for early lung cancer detection in workers with elevated risks of lung cancer. Such tests may detect lung cancers at an early stage even when they are not visible by conventional X-rays. The program in place at the gaseous diffusion plants is successfully identifying early lung cancers at a stage when they are treatable and can be expected to dramatically increase survival rates.*

This legislation must still clear the House-Senate conference committee before it is presented to the President for his signature. Fortunately, Senator McConnell has been named to the Conference Committee, where he will be able to use his clout. "Lives of nuclear workers have been saved because Senator McConnell has made this medical screening program one of his budget priorities," noted Steven Markowitz, MD, director of the Worker Health Protection Program. "Atomic workers are very fortunate to have the Senator as a dependable advocate."

UPDATE ON FEDERAL COMPENSATION CLAIMS (as of 9/18/03)

Claims filed	46,757
Total number of payments made:	8,860
Amount of compensation paid	$656.5 million
Claims with final approval	10,037
Claims tentatively approved	10,440
Claims on the way to NIOSH for dose reconstruction	14,232

Source: **US Department of Labor (DOL) website *www.dol.gov/esa/regs/compliance/owcp/eeoicp/weeklystats.htm*** Note: **The DOE federal compensation program, administered by the US DOL, covers specified cancers, silicosis and chronic beryllium disease only.**

Message from Dr. Markowitz, WHPP Project Director

Oftentimes, when we do a CT scan for the detection of lung cancer, we find a nodule that is benign. Why do so many people in the PACE Worker Health Protection Program, as many as 36 percent of our participants, have these benign nodules in the lungs? Usually, this nodule represents an old infection, most commonly histoplasmosis.

Histoplasmosis is an infectious disease, mostly of the lungs, caused by a fungus. It occurs when a person breathes in the fungus, which lives in the soil. It is an odd disease since most people, as much as 90%, who contract the illness do not know they have it, because they experience no symptoms. Or the symptoms are so ordinary – fever, headache, and cough – that the affected person believes they have a cold or the flu. They recover without treatment. Nonetheless, even when no symptoms occur, people who have histoplasmosis often develop one or more nodules in the lungs that remain for many years and often collect calcium. These nodules do not cause any symptoms. They are frequently seen on the routine chest x-ray or the CT scan, and physicians understand that they represent a mild fungal illness that occurred in the person's distant past.

Occasionally, histoplasmosis can cause more serious disease, involving more severe symptoms, causing pneumonia and enlarged lymph nodes, and sometimes spreading throughout the body. Histoplasmosis also can lead to chronic lung illness with significant lung scarring and inflammation. The more serious form of histoplasmosis usually occurs in people who are elderly or who have AIDS or another chronic disease. When histoplasmosis is serious, treatment with an intravenous anti-fungal medicine is required.

Histoplasmosis occurs at higher rates in a particular geographic pattern. Most people in the Ohio, Mississippi, and St. Lawrence river valleys have had histoplasmosis, because the fungus occurs so frequently in the soil in those areas. The histoplasmosis fungus is also known to thrive in a high nitrogen environment, such as is produced by bird excrement.

Since the fungus that causes histoplasmosis lives in the soil, especially in locations where birds reside, some workers will have a higher than average risk of developing histoplasmosis. Among such workers are farmers and farmhands (who clean out chicken coops); construction workers (especially in earth-moving operations); road construction workers; landscaping and gardening workers; and demolition workers. Any job that involves cleaning or repairing buildings where bird feces exist increases the risk of histoplasmosis.

Workplace exposure likely contributes to histoplasmosis in workers with high-risk jobs. This applies as well to parts of the U.S. where histoplasmosis is otherwise common. This question is only important when the more serious form of the disease occurs, which appears to be more likely in a worker with intense occupational exposure to the fungus.

Preventing histoplasmosis can be difficult, because the fungus is widely distributed in the soil over sizable geographic areas. When work in a bird-infested area is required, wetting the area, especially with a 3% formaledehyde solution, will reduce airborne dust. Proper respiratory protection and protective clothing should be used to minimize dust inhalation. People with known compromise of the immune system should not perform work that entails contact with bird excrement.

Thank you from WHPP Early Lung Cancer Detection Program Participant

To the Worker Health Protection Program,

I appreciate the Worker Health Protection Program. The CT scans you did on me helped to find my cancer early. They got all the cancer and I didn't have to have any type of treatments. I think that if I didn't have this early detection they wouldn't have found my cancer in time. I hope they keep this program open. I think it helps save lives.

George Duncan
Former Paducah Gaseous Diffusion Plant Worker

WHPP Success At-A-Glance

(as of 09-30-03)

No. of callers	10,707
No. of exams completed	8,691
No. of workshops completed	312
No. of participants who attended workshops	3,182

If you haven't taken advantage of the WHPP free medical screening exam, you should call 1-888-241-1199, to schedule an appointment. Once you have had your exam and received your results, you may qualify for the WHPP Early Lung Cancer Detection Program. A mobile CT scan unit rotates between the three Gaseous Diffusion Plant union halls approximately every two weeks. The number to call to schedule a CT scan is 1-866-228-7226.

The Dash Between The Years

The "Dash Between the Years" refers to the Cold War. It began on September 2, 1945 and ended December 26, 1991. On MSNBC, April 13, 2003 Secretary of Defense Donald Rumsfeld said, "it seems to me that the Cold War was a war and it was a difficult period for people. It required us to be patient. It required us to invest when there wasn't an immediate threat that you could see at your doorstep. And it took successive presidents of both political parties to have the stamina, the will and the foresight to resist the expansion of the Soviet Union and communism on this globe. And it was a good thing and we won it, and we won it with patience and perseverance." (Source: http://coldwarveterans.com/).

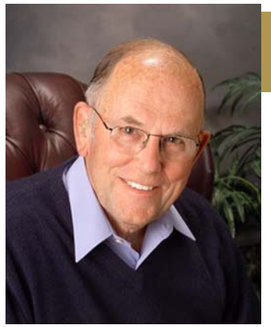
The Korean War, Vietnam and Grenada were wars during the Cold War period. Other operations took place in Korea (1966-74), Berlin (1961-62), Congo (1964), and The Cuban Missile Crisis (1962). There were troops deployed and continuous nuclear-armed SAC B-52 missions to provide retaliatory capability against the Soviet Union. We were all kept on a high state of alert. Many of you worked in research, development, and production during these years to keep our defensive and offensive capability state-of-the-art. It lasted over 45 years. No headlines, just honest and faithful service. The United States was one big factory scattered from the Atlantic to the Pacific. The Cold War created two types of veterans: those who fought in the above wars, and those who fought here on American soil often working to supply the United States military. You may be both.

The workers who fought the Cold War by providing the hardware (such as nuclear weapons) have had many repercussions, some of them being various health problems. For many of you, medical costs are overwhelming, especially if veterans' benefits providing health care and prescription relief were not applied for or if medical coverage was not part of your retirement benefit package. For those relying on Medicare, we need to do more. Medicare falls short and prescription benefits are nonexistent.

As part of the thousands who have received physicals in the Workers Health Protection Program, you have had a chance to associate with an exciting program. Your thoughts and views have helped others recognize the shortcomings of the current DOE program — such as the fact that there is only a one-time exam. Cold War veterans have come a long way towards being recognized by the government and the public. If you feel more needs to be done, contact the elected officials from your district.

A Cold War Certificate of Recognition is available to those who served during the Cold War. It recognizes service members and government civilian employees during this period. Application forms are available on the Internet at the following website: ***vvnw.org/coldwarrecognition.***

Gaylon Hanson
Local Representative, WHPP INEEL



Marvin Eld

Testimonial of Marvin Eld, WHPP Participant from the Idaho National Engineering and Environmental Laboratory (INEEL)

Beginning in 1957, for over 40 years, I worked mostly in management positions at the INEEL in atomic energy programs, including the SL-1 cleanup.

Last year, the PACE Union contacted me to offer me a free physical exam and the opportunity to participate in an educational workshop at the local union hall. My first response was that it is not necessary. I have regular physicals and I know my health problems. Also, I worked in offices and was not exposed to the hazardous conditions. I had not worked in any of the nuclear areas for 30 years.

Until I received free medical screening tests for occupational disease, I never knew that I had become "beryllium sensitized". As a result, the Department of Labor has approved a claim to provide ongoing medical monitoring for chronic beryllium disease. My condition would never have been found in a community medical facility. I strongly recommend that persons who worked at a DOE facility contact WHPP for a free diagnostic screening.

Jackson Purchase Clinic Serves Paducah GDP Workers Near Mayfield, Kentucky

Gibson

Dr. Randall Gibson, one of nine physicians working at the Jackson Purchase Medical Clinic in Mayfield, Kentucky, conducts the physical examinations for Paducah Gaseous Diffusion Plant (GDP) workers living near Mayfield. Mayfield, Kentucky is near the Tennessee border and near Murray, Kentucky as well. Many former, as well as current, Paducah workers live in this area, making the clinic an attractive choice geographically.

Dr. Gibson is a native of Paducah and, as such, is well aware of the issues affecting workers from the Paducah DOE facility. Gibson is "thrilled to have the opportunity to participate in this important program for the Cold War veterans from his home town."

Dr. Gibson has been in Family Practice since 1976 and is Board-certified in Family Practice by the American Osteopathic Board of Family Practice. From 1996-1999, he was Senior Administrator of Medical Affairs for Pinelake Regional Hospital in Mayfield and has been a member of the Kentucky State Board of Medical Licensure.

The WHPP is proud to have Dr. Gibson — and the other Jackson Purchase doctors — involved with the medical screening program. Anyone in the Paducah area who has not had their free medical screening yet should call the toll-free number (1-888-241-1199) and set up an appointment at this clinic.

Federal Compensation Program Update: "Special Exposure Cohort" Rule Targets Workers When Radiation Dose Cannot Be Reconstructed, INEEL Workers May Be Able to Apply

Have you doubted the accuracy of the radiation dose readings from film badges or bioassays? Did film badge readings come back zero when you knew you were in a hot area? You aren't alone. Ongoing reviews of DOE records have revealed that dose measurements are missing for some, and accuracy is dubious for others. DOE contractors assigned some workers negative doses and other workers had their doses "zeroed-out" after an "incident." Some were never monitored for certain radiation hazards because of management's fear that unions would use this as a justification to demand hazardous duty pay.

How can the government make a credible compensation decision under the Energy Employees Occupational Illness Compensation Program Act ("EEOICPA") if the radiation dose data are faulty? What happens when radiation dose reconstruction will not produce a credible estimate? The new federal compensation law addresses this issue by allowing claimants the opportunity to petition to be members of a so-called "Special Exposure Cohort ("SEC"). This could be of special importance to certain INEEL and Argonne workers who may not have been properly monitored. Claimants can petition to be members of the SEC if:

- It is not feasible to estimate radiation dose with sufficient accuracy; and
- There is a reasonable likelihood that the class of workers may have been endangered from exposure to radiation at the workplace.

When EEOICPA was enacted, certain workers at Paducah, Portsmouth, Oak Ridge K-25 and the Amchitka Island Test site were specifically included in the Special Exposure Cohort because Congress determined that radiation doses could not be reconstructed and workers were put in harm's way without adequate protections. Workers with one or more of 22[1] listed cancers who file a claim with the US Department of Labor (the agency charged with processing the DOE workers' federal claims), can receive a lump sum benefit of $150,000 plus prospective medical costs *without having to go through the radiation dose reconstruction process*. (See box for list of cancers covered.) Congress did not include INEEL/Argonne workers in the SEC.

Members of Special Exposure Cohorts have received rapid and substantial payments. At Portsmouth, approximately 500 cancer claims have been approved for a total of $75 million in benefits. By comparison, at Idaho only 25 claims have been approved out of 871 cases filed as of 8/25/03, and most of the Idaho claims are for beryllium-related illnesses, which don't require dose reconstruction.

Congress directed the Secretary of Health and Human Services to come up with procedures for classes of workers to be included in the SEC for those who didn't work at the four DOE locations indicated above.

On March 7, 2003**,** procedures were proposed by the Department of Health and Human Services (HHS). The HHS proposed rule would allow workers to petition HHS to become members of the Special Exposure Cohort if they were employed in jobs where there are insufficient data to come up with a plausible worst case dose estimate, and they were employed in such a setting at a covered facility for at least 250 days.

A major controversy arose over this proposed rule. HHS proposed that it could choose to limit eligible cancers to fewer than the 22 specified cancers in the law for those who were in a Special Exposure Cohort. Fortunately, Congress established a clear legislative history, which indicated that all 22 cancers **had to be covered** for workers in Special Exposure Cohorts. A letter from Senators Jeff Bingaman (D-NM), Charles Grassley (R-IA), Ted Kennedy (D-MA) and Patty Murray (D-WA) warned HHS that it would violate Congressional intent if each and every Special Exposure Cohort did not include all 22 cancers[1].

NIOSH is reviewing comments received from 18 groups (including PACE International, PACE Local 7-4200 (Mound) and the Fernald Atomic Trades & Labor Council). A final rule is expected by the end of the year. You can review the draft rule, comments and transcripts of the Advisory Board meetings at ***www.cdc.gov/niosh/ocas.***

[1]The 22 cancers are: multiple myeloma, leukemia (except chronic lymphocytic leukemia), lymphoma, lung, bone, renal, breast (male and female), liver, pancreas, salivary gland, urinary bladder, thyroid, pharynx, brain, colon, ovary, gall bladder, bile ducts, small intestine, stomach and esophagus.

DOL/DOE EEOICPA Resource Centers

Idaho Falls
EEOICPA Resource Center
Exchange Plaza, Suite 375
1820 East 17th Street
Idaho Falls, ID 83404
208-523-0158
Toll-free: 1-800-861-8608

Oak Ridge
EEOICPA Resource Center
Jackson Plaza Office complex
800 Oak Ridge Turnpike – Suite 103
Oak Ridge, TN 37830
865-481-0411
Toll-free: 1-866-481-0411

Paducah
EEOICPA Resource Center
Barkley Center
125 Memorial Drive
Paducah, KY 42001
270-534-0599
Toll-free: 1-888-654-9922

Portsmouth
EEOICPA Resource Center
4320 Old Scioto Trail
Portsmouth, OH 45662
740-353-6993
Toll-free: 1-866-363-6993

By the end of the August 2003, less than three years after the WHPP **Early** Lung Cancer Detection (ELCD) Program started, a milestone was reached — over 4,000 former and current workers scanned on the mobile unit and over 9,000 scans completed! (Some participants come back for multiple follow-up CT scans.) To date, 26 primary lung cancers have been detected, more than ¾ of which have been described as early lung cancer. This has all been made possible through the hard work of the ELCD staff – Lori Brannon, CT Technician; Mike Church and Gerold (Buzzard) Wilkin, Mobile Unit Drivers; the Queens College CBNS staff; the PACE WHPP Coordinators and their "Ground Teams" of local members and retirees.

The CT scanner is kept very busy, with a normal day consisting of up to 30 scans, depending on the type of scans being done and the number of days we are staying at a particular site. It's hard to imagine how much work goes into keeping a mobile program such as the WHPP Early Lung Cancer Detection Program, running smoothly.

Lori, the technician, is truly a "one-woman show." In addition to being an expert in scanning and locating nodules, she oversees the proper maintenance of the scanner, handles all film requests (including hours of printing and numerous trips to the post office), orders supplies, maintains records, and works with Queens College staff on all other administrative matters regarding reports and scheduling.

Mike Church, the mobile unit driver who is assisted by Buzzard Wilkin, oversees maintenance of the truck, doing minor repairs himself and working with consultants to do the extensive quarterly maintenance that has kept the truck "up and running" for almost three years. Government regulations require extensive record keeping for each trip the mobile unit makes. Mike takes care of all of this paperwork. (This is no small task. As of August 2003, 68 round trips were made between the three GDP union halls). He also works with program consultants to make sure all licenses and permits are kept up-to-date.

Then, of course, is all the work done by the WHPP Ground Team at each site. The Ground Teams handle registration and work with Lori to keep the flow of participants in and out of the trailer running smoothly. The Ground Team also makes the reminder calls for each and every appointment made. This step has been crucial in maintaining our impressively high show rate in the Early Lung Cancer Detection Program. Ground Team staff have also been instrumental in helping the ELCD staff locate participants that move or temporarily relocate.

On the Queens College side, many of you have most likely spoken with Rosa Melendez. Rosa has single-handedly made over 90% of the 9,000 appointments for scans on the mobile unit. In addition to scheduling, Rosa handles film requests and assists the Program Coordinator, Amy Manowitz, and Medical Director, Albert Miller, MD, in their efforts to answer questions on CT scan results. Dr. Miller reviews all the radiologists reports and prepares results letters. He also acts as a liaison between ELCD and the radiologist's at Beth Israel Hospital. Beth Israel's lung cancer screening coordinator, Michelle Motta, helps with loading the images sent from the mobile unit, sending the radiologist's reports to QC, and

troubleshooting computer problems. Michelle also assists the Beth Israel doctors with state licensing requirements in all three states. At Queens College, Rosa works with Jenn Stuckey, Frank Feeley, and Heather Anathasiou who handle all other administrative aspects of the program including (but not limited to) reviewing charts for eligibility, processing reports and results letters, and entering and proofing data.

As you can see, this is a tremendous project that requires a high level of teamwork. We are fortunate that we have basically maintained the same staff since the program's inception. Everyone involved is proud to be a part of this important program and to have a role in helping the cold war veterans who were, often unknowingly, exposed to harmful substances in the process of devoting their working lives to this country.

Thanks to Lori Brannon, CT Scan Technician For Promoting Paducah Relay-for-Life

Lori Brannon

The American Cancer Society sponsored a Relay-for-Life in Paducah on May 16, 2003 and Lori Brannon, CT Scan Technician for the WHPP Early Lung Cancer Detection Program, worked hard to make it a success. At the Relay-for-Life, participants walk around a track and each lap means more money donated to this worthy cause. Sponsors (those contributing over $100) set up booths with educational materials — in our case, handouts on the Worker Health Protection Program and the early detection of lung cancer.

Lori and the PACE Local 8-550 put together a team to staff the WHPP booth and to walk in the race. Lori got hard hats with the WHPP logo for the team and made special signs with the WHPP emblem for the exhibit booth. The race was rained out after a short time, but the American Cancer Society still raised $204,000 for cancer prevention in McKracken County, where Paducah is located. The WHPP contributed $500 to the effort. We were pleased to participate in this important cancer fundraising event.

PACE and Queens College WHPP Staff Get Together at the 2003 WHPP Annual Information Exchange

PACE Worker Health Protection Program (WHPP) program staff met in Nashville on March 10-13, 2003, the yearly opportunity for Queen College's staff to get together with PACE personnel. Queens College staff, led by Dr. Steven Markowitz, runs the medical surveillance portion of the PACE program. The purpose of the meeting is to review the past year's activities and develop a plan for the upcoming year. The meeting also allows the PACE WHPP staff to get up to date on issues affecting their work in the field.

Everyone agreed that this year's Annual Information Exchange was "the best ever" for the program. This was most likely due to the fact that the format was interactive with the Ground Teams conducting many of the workshop sessions.

The PACE local coordinators from the four WHPP sites (K-25, Paducah and Portsmouth GDPs and INEEL) gave site activity reports and discussed standardizing the telephone interviews with potential participants and other issues "from the field". The focus of the Queens portion of the meeting was a review of last year's medical testing results with presentations by Dr. Steven Markowitz, Project Director, and Lyndon Rose, Staff Physician. Amy Manowitz, Early Lung Cancer Detection Program (ELCD) Coordinator, conducted a small group activity around the eligibility requirements for the ELCD Program. (This program offers CT scans to workers from the three gaseous diffusion plants that meet certain criteria based on age and smoking and exposure history.)

The WHPP program will stress outreach efforts this year and Queens College staff led a discussion on the media plan, mailings and follow-up, searching for addresses, updating rosters and special events.

This year's meeting featured a number of guest speakers who provided information on the Energy Employee's Occupational Illness Compensation Act (EEOICPA), legislation that was passed in October 2000 that provides a compensation system for energy workers separate from the state workers' compensation system. (The federal compensation program, administered by the U.S. Department of Labor (DOL), is more limited than the state systems with regard to the illnesses covered (covers only certain cancers, silicosis and chronic beryllium disease). However, this new program makes it easier for energy workers to get compensation awards if their illness is covered.)

Guest speakers included Barbara Armstrong of the DOL Jacksonville Regional Office who described the DOL claims process and DOL program results. Dr. Jim Neeton from NIOSH discussed the NIOSH dose reconstruction regulation (which is part of the EEOICPA used to estimate dose when records are missing or inadequate) and Mark Griffon, a member of the President's Advisory Committee on Radiation and Worker Health, talked about the Committee's work.

WHPP Beryllium Screening Update

The PACE/Queens College Worker Health Protection Program (WHPP) continues to screen former and current Department of Energy (DOE) contractor workers for beryllium sensitivity at the three gaseous diffusion plants (GDP) and Idaho National Engineering and Environmental Laboratory (INEEL). Screening for beryllium sensitivity is done through a blood test known as the Beryllium Lymphocyte Proliferation Test (BeLPT). (See box for a summary of WHPP beryllium testing results.)

A positive or abnormal BeLPT may be the first sign of chronic beryllium disease(CBD), a lung disease that can cause shortness of breath and other symptoms. A positive test can help the doctor to distinguish CBD from other diseases that have the same symptoms. It is important to note, however, that just because your beryllium blood test is positive, this does not mean you definitely have chronic beryllium disease. It does mean that you should get further medical tests to find out if, in fact, you do have the disease.

As with all medical tests, there is a chance that the beryllium blood test could have false positives (abnormal results when they are really normal) or false negatives (normal results that are really abnormal). For this reason, a person is not considered beryllium sensitized until two LPT blood tests results are abnormal.

DOE workers diagnosed with chronic beryllium disease (CBD) are eligible for workers' compensation under the Energy Employees Occupational Illness Compensation Program Act of 2000 (EEOICPA). (See box for how the Act covers claims for beryllium.) This federal compensation program is administered through the Department of Labor (DOL). If you think you are eligible, you can find out more about filing a claim by calling the DOE Office of Worker Advocacy at 1-877-447-9756.

If you have been screened through the WHPP and have not had a BeLPT, please call the WHPP Screening Project Office at 1-888-241-1199 to determine your eligibility.

The National Toxicology Program, a program within the U.S. Department of Health and Human Services, has listed beryllium as a known human carcinogen. WHPP participants at the GDP's who have a confirmed sensitivity to beryllium are likely to be eligible for the WHPPP Early Lung Cancer Detection Program. If you are sensitized and are interested in getting a CT scan on the WHPP mobile unit, call 1-866-228-7226.

WHPP Testing For Beryllium Sensitivity

	GDP's	*INEEL*	*TOTAL*
# of participants tested	**4763**	**1531**	**6294**
% abnormal BeLPT*	**4.2**	**2.9**	**3.9**

***abnormal defined here as at least one abnormal Be blood test**

Who can file a beryllium-related claim for federal workers' compensation and what is covered.

Status	What EEOICPA Covers
Confirmed CBD	$150,000 lump sum payment and future medical expenses
Confirmed sensitivity to Be	Cost of ongoing medical surveillance to detect CBD
At least one abnormal BeLPT	Cost of blood tests to confirm sensitivity

Screening for Liver and Kidney Disease

Exposure to hazardous or toxic substances can affect the body in many ways. In general, when chemicals and other hazards are absorbed, they travel through the various body systems and can affect a particular organ or organs, called the "target organ(s)". Fortunately, the body has mechanisms, mainly in the liver and kidneys, to process and eliminate many of these substances. This ability to eliminate toxic substances can reduce the effect(s) on the target organ(s).

The elimination of toxic substances is just one of the many functions of the liver and kidneys. For example, the kidneys maintain the blood volume and regulate the mineral content in the bloodstream. The liver produces energy from digested nutrients, forms proteins and stores carbohydrates. While these organs can be remarkably resilient in the elimination of toxins, the other functions of these organs can be damaged in the process.

Damage to the kidney and liver can be acute or chronic. An **acute** process generally refers to a relatively short period to time **(hours to weeks)** between exposure to the toxin and the onset of symptoms or medical findings. A **chronic** process generally refers to a long period of time **(years)** between exposure to the toxin and the onset of symptoms or medical findings. The detection of either an acute or chronic process or disease can be complex, depending on the type of toxin and the extent of exposure.

How do you detect liver or kidney disease?

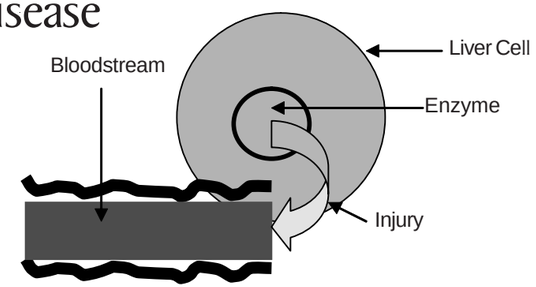
Medical screening to detect chronic liver and kidney disease usually involves a test that measures how well these organs are functioning, rather than testing for the toxic substance itself. While there are several reasons for this approach, the main reason is that many substances that cause chronic disease of the liver and kidney are difficult to detect in the body.

There are several tests available to detect abnormalities. Blood tests — commonly referred to as ***liver and kidney function tests*** —- are among the most commonly used. In a typical blood chemistry profile, six liver function and two kidney function tests are done.

Liver Function Tests	Kidney Function Tests
• Alanine aminotransferase (ALT)	• Blood urea nitrogen (BUN)
• Aspartate aminotransferase (AST)	• Creatinine
• Gamma glutamic transpeptidase (GGT)	
• Lactic dehydrogenase (LD or LDH)	
• Alkaline phosphatase (ALP)	
• Bilirubin	

What are liver function tests?

All of the liver function tests, with the exception of bilirubin, are measurements of ***enzyme levels***. These enzymes are normally present in liver cells, and there is a certain "normal" level of these enzymes circulating in the bloodstream. When the liver becomes inflamed or damaged, these enzymes are released into the bloodstream in abnormal amounts by the damaged cells. This results in elevated levels in the bloodstream. Bilirubin, another substance commonly measured in the blood to detect liver disease, is produced from the breakdown of red blood cells. Again,



When liver cells are damaged, abnormal amounts of enzymes can be released into the bloodstream. If liver cell enzymes levels are elevated on a blood test, this can indicate that liver function is impaired.

a normal bilirubin level is maintained as the liver continually removes bilirubin from the bloodstream for further processing. If the liver is impaired, however, bilirubin is not removed, and the level in the bloodstream will rise.

What are kidney function tests?

The kidney function tests do not measure enzymes, but measure breakdown products of normal body processes. Blood urea nitrogen (BUN) is produced as a result of protein breakdown. The BUN is formed in the liver and carried via the bloodstream to the kidneys to be eliminated. Creatinine is a breakdown product of a specific type of muscle protein. It is formed in certain muscles and is carried via the bloodstream to be eliminated by the kidneys. If the kidneys become impaired and unable to eliminate the usual amount of these substances, the BUN and creatinine blood levels will rise.

What if these tests are elevated?

If either a liver or a kidney function test is elevated, then the next step is to determine what is causing the elevation. It is important to remember that elevated liver or kidney tests are not diagnoses in themselves but serve as ***indicators*** of abnormal function of these organs.

There are many diseases and conditions that can cause an elevation of these tests. Some of the more common causes are hepatitis (inflammation of the liver) from infectious agents such as viruses and chemicals such as alcohol. Some common causes of kidney damage include diabetes and high blood pressure. Kidney and liver damage may also be work-related. There are certain organic chemicals (such as carbon tetrachloride) that can cause both liver and kidney disease. Certain metals (lead, mercury, cadmium and uranium) are known to cause chronic kidney disease. Since many toxic substances are difficult to detect in the body, a detailed occupational history is essential for determining whether kidney or liver disease is work-related.

Liver and kidney function tests, once documented to be elevated, need to be monitored periodically, depending on the degree of elevation and the overall medical circumstances. Further tests may be done to determine more precisely the extent of damage. Besides follow-up tests, it should be emphasized that if a particular chemical substance, whether work-related or not, is causing the abnormality in the liver or a kidney function tests, **exposure should be stopped** to prevent further damage to these organs. Workers also need to minimize exposure to workplace liver and/or kidney toxins if they have kidney or liver disease of any origin.