

## POST-1971

# Uranium Workers Look for Answers

**F**ormer uranium workers and their spouses, many with debilitating health conditions, sat down around a dining room table in Grants, New Mexico, in January 2007 to devise a survey of those who worked after 1971 in the New Mexico uranium industry. Workers before 1971 are compensated for a small group of uranium-related illnesses through the Radiation Exposure Compensation Act (RECA). But many sick post-1971 uranium workers believe their medical conditions are also related to working with uranium. They formed the Post '71 Uranium Workers Committee (P'71) and, after several unsuccessful attempts to secure help from professional researchers,

survivors) reported one or more health conditions for themselves and/or their families. Though the P'71 survey is not a scientific study, 1,300 responses out of an estimated 10,000 Post '71 uranium workers in New Mexico is enough of a sample to understand their health status and occupational safety issues. With workers reporting a significant number of uranium-related medical conditions, the survey findings raise questions about why these workers are not compensated for their uranium-related illnesses. Furthermore, the findings cast doubt on whether the eight uranium-related illnesses compensated through RECA actually represent the full health impact of uranium on workers and their families.

Disease Control (CDC), and RECA which is administered by the Department of Justice (DOJ) — found more than 20 medical conditions (illnesses and symptoms) attributed to working with uranium.

### HEALTH CONDITIONS FINDINGS

In the supplemental survey, workers were asked to describe their health using the same descriptors (excellent, very good, good, fair, poor) as the National Health and Nutrition Examination Survey (NHANES) of a sample of U.S. citizens. The most current NHANES survey (2006) revealed that 19% of U.S. citizens said their health was fair or poor. However, the Post '71 survey revealed that 80% of the former uranium workers reported they were in fair or poor health.

### Health findings also included:

- Seventy-two percent of P'71 workers reporting one or more uranium-related medical conditions (illnesses and symptoms) recognized by OSHA, EPA, the CDC, and DOJ-RECA;
- Thirty percent of female workers and 40% of female spouses reporting one or more reproductive disorders, including miscarriages, stillbirths, and bearing children with birth defects;
- Nine percent of respondents reporting RECA-compensable diseases. (It is unknown what percentage of pre '71 workers has RECA-compensable diseases);
- As expected, nearly 70% of workers reported respiratory conditions. However, not expected were chronic skin disorders as the second highest (nearly 30%) reported condition; and
- Among symptoms reported, as expected, lung problems came first (64%), but joint pain came second (56%).



Linda Evers (far left), Liz Lucero (far right), and Colorado College students.

The P'71 survey indicates that a significant percentage of conditions reported by workers are recognized as uranium-related by four federal agencies. Post '71 Vice-President Linda Evers contends, "The RECA program should compensate all uranium-related illnesses recognized by the federal government and not just a select few."

### SURVEY RESPONDENTS

Who were those who reported health conditions for themselves and/or their families on the P'71 survey? Most (67%) began working when they were 24 or younger. Those who completed the survey worked an average of 6.6 years in the industry. And Post '71 survey respondents are not elderly; the median age of those who responded is 54. This means that half of those surveyed were more than 54 and half were less than 54.

Regarding medical treatment, 41% are currently receiving it, 18% were treated in the past, 14% said they could not afford treatment, and 27% did not respond to the question.

### Other demographics include:

- Gender — 86% were male and 14% were female.

**“Over the years, as my children have grown, they have all experienced several medical conditions, ranging from respiratory problems, inability to have children i.e. miscarriages and tubal pregnancies, to kidney problems and joint conditions. Sometimes I believe this could be a direct result of my having to bring my clothes home, covered with uranium on a continual basis. I myself have breast cancer.”**

— ANONYMOUS FEMALE URANIUM WORKER

created their own survey with questions about working conditions and worker/family health. The survey was posted on the organization's website and distributed at meetings around northern New Mexico. These efforts, aided by word of mouth, resulted in 1,300 completed surveys primarily from NM but also some from 23 other states.

Needing help with data analysis, P'71 applied to the Southwest Studies Program of The Colorado College (CCSWS) which provides a research team to southwestern communities involved in Community-Based Research Projects. A team comprising a faculty advisor and three student research fellows began analysis of the health conditions portion of the survey in summer 2008. It became clear however, that more information was needed. In 2009 a supplemental medical conditions survey was developed by Post '71, SRIC, and CCSWS, and mailed out to those who completed the original survey. Southwest Studies agreed to send three more research fellows with their advisor in summer 2009 to complete the data analysis.

By summer 2009, 700 supplemental surveys had been received and were combined with the 1,300 original surveys. Out of these, 1,046 former workers (or their

Post '71 officers Liz Lucero and Linda Evers concede that the surveys were informal and that the results cannot easily be compared to epidemiological studies of uranium miners and millers from the 1950s, 60s, and early 70s. However, they contend that the surveys complement occupational health studies conducted by Dr. Susan Dawson, a social worker, and Dr. Gary Madsen, a sociologist, at Utah State University, among Navajo and Anglo uranium workers employed from the 1940s to the 1980s. Dawson and Madsen concur: "The post-1971 uranium workers have been largely ignored by epidemiologists. The Post '71 current grassroots study is very important in helping to document these workers' work exposures and health issues. Without extensive documentation, it is unlikely that the post-1971 uranium workers will be considered for the Radiation Exposure Compensation Act (RECA)."

As data analysis revealed patterns in medical conditions, the CCSWS team decided to research uranium-related medical conditions recognized by other U.S. federal agencies. They found that four agencies — the Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the Centers for

## VOICES from the EARTH

EDITOR: Annette Aguayo

CONTRIBUTORS: Annette Aguayo, Linda Evers, Don Hancock, Chuck Hosking, Liz Lucero, Sofia Martinez, Teddy Nez, Post '71 Uranium Workers Committee, Paul Robinson, Chris Shuey, Sandra Simons-Ailes, Maria Varela

PUBLISHED BY: Southwest Research and Information Center

BOARD OF DIRECTORS: Judith Espinosa, Candace Head-Dylla, Sylvia Ledesma, Robert Nofchissey, Manuel Pino, Sandra Simons-Ailes, Julie Stephens, Ann Watson, Esther Yazzie-Lewis

Voices from the Earth is published three times a year by Southwest Research and Information Center, a nonprofit 501 (c) (3) educational corporation

SUBSCRIPTION RATES for U.S. residents: \$10 for students & senior citizens, \$15 for individuals, and \$30 for institutions. Canada add \$8.

Address correspondence to: P. O. Box 4524, Albuquerque, NM 87196-4524

Street address: 105 Stanford Drive SE, Albuquerque, NM 87106

Telephone: (505) 262-1862 • Fax: (505) 262-1864 • E-mail: admin@sric.org • Visit our Web site: www.sric.org

Copyright © 2009 Southwest Research and Information Center

Library of Congress ISSN 1535-7953

Graphic Design by C<sup>2</sup> Graphics • Printed by Signature Offset, Albuquerque, NM

Please inquire for other foreign rates

Send a self-addressed, stamped envelope for writers' guidelines.

- *Ethnicity*— 57% Hispanic; 21% Anglo; 21% Native American
- *Native American affiliation* — Of the 21% Native Americans who completed the survey:
  - 40% were Pueblo
  - 57% were Navajo
  - 3% had other tribal affiliation

## OCCUPATIONAL SAFETY FINDINGS

The highest number of survey responses was in the section about working conditions, occupational safety, and education about the dangers of exposure to radiation. While 1,046 of the 1,300 surveyed reported on their health status, nearly 1,200 workers made comments on workplace conditions.

There was widespread concern that health and safety measures enacted in the mid-1970s to protect workers were not routinely followed by most mining and milling companies. For example, 96% of workers reported that they were not instructed to avoid washing contaminated work clothes with the family laundry. As a result, 95% of the workers laundered their clothing at home. Many commented about their fear that illnesses of spouses and children were caused by daily exposure to uranium-contaminated clothing and work gear. As one worker wrote:

*“No information was given to me on exposure to dangerous chemicals, or health safety. I am afraid of all the dangerous risks I took when I worked for a uranium mine. I worry about the children, spouse and myself today because I don’t know how it will effect everyone I love. I feel that my life and family’s lives may be cut short due to them not practicing safety. I didn’t know that I was harming my family’s lives by coming home in dirty unsafe clothes, and even washing our clothes together. The company’s mistakes will cause family tragedy. My family’s health is not replaceable.”*

Eighty-two percent said they were not required to shower before leaving the workplace, with many commenting that available showers were few, filthy, and run with cold, often contaminated, mine water.

### *Other occupational safety findings included:*

- Seventy-nine percent of workers complained that they did not receive adequate training, education, or literature on the health dangers involved in working with uranium and how to protect themselves from contamination.
- Fifty-six percent stated that inspected and approved personal respiratory protection equipment was not regularly provided.
- Two-thirds of workers revealed that individual radon monitors were never provided, even though federal and state mine safety regulations required individual exposure records to be kept for all employees.
- Only a third of the workers reported that safety meetings and trainings were conducted regularly; two-thirds said they never or seldom occurred or were offered only at employee orientation.

About half the workers responding to the Post-71 survey questioned the adequacy of in-mine ventilation, which can reduce exposure to radon and diesel fumes from underground equipment. As far back as 1952, the U.S. Public Health Service had identified the need for ventilation in underground mines. The Mine Safety and Health Administration (MSHA), created in 1977 to enforce mine safety requirements and exposure limits, found that ventilation is “the most effective control measure for radon gas and radon daughters.” Dr. Leon Gottlieb of the Navajo Health Authority, apparently relying on the fact that the government recognized the importance of ventilation, stated at a 1979 conference on workplace exposure: “Present health and safety standards have definitely improved

Many workers indicated that mine operators knew weeks ahead about the next scheduled MSHA safety inspection. “We were told two to three weeks prior to the [inspectors] coming... to clean everything,” one former miner wrote on his survey form. Some commented that highly contaminated areas were often closed off for inspections and then re-opened for work after the inspector left. As one worker wrote:

*“The day before the federal mine inspectors came to the mine, a large (contaminated) area was roped off-limits. The following day a foreman told me to go behind the ropes to haul ore with a loader. I told him it was closed. The foreman removed the rope and said now it was open.”*

In survey after survey, workers commented, “All they cared about was production.” Post ’71 leaders charge that the federal government is ultimately responsible for the ill health and deaths among Post ’71 workers because government regulations were too little and too late for them and because of the lax enforcement of those few regulations that were in place.

P’71 is advocating for RECA compensation for Post ’71 workers and for the expansion of RECA-compensable diseases. In addition, the results of the P’71 survey raise several questions indicating the need for more comprehensive health research on uranium workers and their families. Questions they raise include: What is the full impact of exposure to uranium and other contaminants on reproductive systems of workers, families, and future generations? What is the relationship between exposure to uranium in the workplace and the high incidence of arthritis and degenerative joint disease, or cardiovascular and gastrointestinal illnesses found among uranium workers?

“These Post ’71 people are sick and dying now, in their late forties and early fifties,” lamented Evers, a former uranium mill worker who suffers from a painful

# Medical Conditions Attributed to Working with Uranium

BY FOUR FEDERAL AGENCIES

## RECA-COMPENSABLE DISEASES (DOJ)

- Lung Cancer
- Pulmonary Fibrosis
- Silicosis
- Cor Pulmonale
- Pneumoconiosis
- Renal Cancer
- Nephritis
- Kidney Tubal

## OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION

- Leukemia
- Lymphoma
- Multiple Myeloma
- Chronic Skin Blisters
- Hyperpigmentation

## ENVIRONMENTAL PROTECTION AGENCY

- Asthma
- Chronic Bronchitis
- Chronic Hacking Cough
- Chronic Obstructive Pulmonary Disorder (COPD)
- Emphysema
- Shortness of Breath
- Leukopenia
- Tumors: Bone, Head, Nasal Passages

## CENTERS FOR DISEASE CONTROL

- Tuberculosis

P’71 plans to educate lawmakers in the New Mexico Legislature and the congressional delegation. “We want justice for our people now,” emphasized Evers. “Our families have been sacrificed for the sake of someone else’s dollar. It has been 30 years, and still we are forced to fight with our own government to do the right thing.” This fall, Evers and Lucero will be presenting the P’71 research to some Navajo Nation communities, the Laguna Pueblo, and Peñasco, NM. “The workers have been asking us to let them know what the survey found out,” says Liz Lucero. “It’s taken two years, but at last we have something to show for all the work that went into the research. The survey gave us a voice, and we intend to use that voice.” Communities may request a presentation of the Post ’71 survey findings by Evers and Lucero by calling Linda Evers at (505) 287-2304 or by email: [Leversredfence@aol.com](mailto:Leversredfence@aol.com).

— Maria Varela, Linda Evers, and Liz Lucero

## CONTACT INFORMATION

Post ’71 Uranium Workers Committee  
P.O. Box 1591  
Grants, NM 87020  
[www.post71exposure.org](http://www.post71exposure.org)

**“Men and women who worked in the uranium industry have untiringly and with much vigor, supplied to the world its needs, wants, and power. This supply has cost the health and death of many persons. The loss of innocent men, women, and children has gone unappreciated.**

**Billions of dollars have been enjoyed by our national government and its magnates. While these our leaders have attained to high posh lifestyles, due to engineering unmatched power, we, grateful for earning a living, are left to fend for ourselves. The government has taken our lands, women and children, freedom, and now our health. Is it wrong to be properly compensated as bonafide American Citizens? ”**

— COMMENT FROM A NATIVE AMERICAN WORKER

OSHA guidelines for the protection of uranium workers state: “A worker who handles uranium or an insoluble uranium compound should thoroughly wash hands, forearms, and face with soap and water before eating, using tobacco products, or using toilet facilities.” Yet 79% of the workers responding said that there were no wash basins available at work. Several commented that many available basins utilized contaminated waters from the mines.

in the mines. They have better ventilation systems, respirators and face masks, and efficient control of the interior of the mines.” However, a large number of P’71 survey respondents do not agree. Most worked between 1976 and 1986, when stronger regulations were supposedly enforced, but only 14% said that ventilation in their work area was adequate. Thirty-six percent said it was not adequate, and 49% said it was adequate “sometimes.”

degenerative bone condition in her wrists that limits the use of her hands. Evers notes that 21 persons who completed the original P’71 survey in 2007-08 were listed as “deceased” on the 2009 supplemental survey. “The Post ’71 uranium workers are being lost at a rate that’s unacceptable. The families of these workers are left without a bread winner, a father, a husband, and now face a very bleak outlook for the future,” Evers added.