

**University of Iowa- Former Worker Program
(UI-FWP)**

**Burlington Atomic Energy Commission Plant (BAECP)
&
Ames Laboratory**

DOE-FWP PI Meeting
November 18, 2008

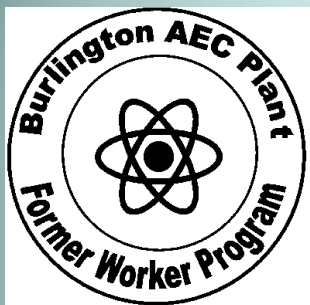
BAECP and Ames Lab Former Workers Recruited, Screened & Re-screened by UI-FWP and Nssp, as of September 30, 2008

	BAECP Screenings since 2001	Ames Lab Screenings since 2006	TOTAL
Initial Recruitment Mailing	4,173	3,966	8,139
Follow-up Recruitment Mailing	2,000	2,451	4,451
Screened by UI-FWP	1,078	636	1,714
Rescreened by UI-FWP	517	59	576
TOTAL Screenings UI-FWP	1,595	695	2,290
Referred to Nssp	57	516	573
Screened by Nssp	14	273	287
Rescreened by Nssp	6	16	22
TOTAL Screened by Nssp	20	289	309

New Cancers Detected Through Screening

	n	BAECP # (%)	Dx Screening Test
Lung	1,026	11 (1%)	CXR
Prostate	139	4 (3%)	PSA
Mesothelioma	1,026	2 (0.2%)	CXR
Thyroid (intrathoracic)	1,026	1 (0.09%)	CXR
Colon	692	1 (0.1%)	Hemoccult
CLL	1,002	1 (0.1%)	CBC
	n	Ames Lab # (%)	Dx Screening Test
Lung	573	3 (0.5%)	CXR
Lymphatic system	619	1 (0.2%)	WBC

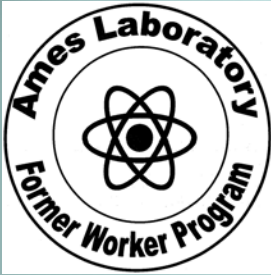
Note: 3 Lung CA's and 1 Brain CA were detected during the 3 year interim



History of Cancers and Lung Disease in screened BAECP Former Workers, n = 1,078

Cancer	n (%)
Lymphatic system	7 (0.65%)
Leukemia	6 (0.56%)
Colon and Rectum	38 (3.52%)
Lung	27 (2.5%)
Thyroid	8 (0.74%)
Bladder	29 (2.69%)
Mesothelioma	1 (0.10%)

Lung Disease	n (%)
Sarcoidosis	2 (0.19%)
Wegener's granulomatosis	2 (0.19%)
B.O.O.P	1 (0.10%)



History of Cancers and Lung Disease in screened Ames Lab Former Workers, n = 636

Cancer	n (%)
Lymphatic system	6 (0.94%)
Leukemia	4 (0.63%)
Colon and Rectum	5 (0.79%)
Lung	3 (0.47%)
Thyroid	3 (0.47%)
Bladder	4 (0.63%)
Mesothelioma	1 (0.16%)

Lung Disease	n (%)
Sarcoidosis	3 (0.47%)
Wegener's granulomatosis	1 (0.16%)

PFT and BeLPT Abnormalities

PFT	LINE 1 n=1,086	AMES LAB n=619	TOTAL
Restrictive Pattern	58 (5%)	29 (5%)	87
Obstructive Pattern	427 (39%)	142 (23%)	569
Mixed Pattern	45 (4%)	10 (2%)	55

BeLPT	LINE 1 n=1,058	AMES LAB n=624	TOTAL
Total BeLPTs (including repeats)	1,887	833	2,720
Individuals Screened	1,058	624	1,682
Individuals with 1 Abnormal BeLPT	38 (3.6%)	27 (4.3%)	65

Using ATS severity criteria

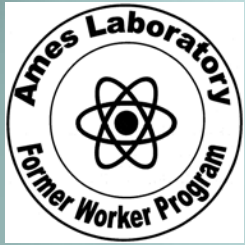
CXR ILO Abnormalities

CXR	BAECP n=1,026	AMES LAB n=573	TOTAL
Parenchymal Abnormalities	73 (7%)	23 (4%)	96
Pleural Abnormalities	62 (6%)	28 (5%)	90
Parenchymal and Pleural Abnormalities	45 (4%)	10 (2%)	55



BAECP Screenings Summary

- Elevated rate of beryllium sensitization despite low exposures
- Implications for more widespread screenings of DoE populations and other workforces utilizing Be alloys
- Fibrotic lung diseases more prevalent than expected (is this an age, smoking, screening or occupational effect?)
 - My personal suspicion is that Barium is responsible for several of these cases



Ames Lab Screenings Summary

- High prevalence of parenchymal, (and pleural abnormalities), as compared to general population
- High rate of Beryllium sensitization and PFT and or radiologic abnormalities, (similarly to BAECP, much of this group had only residual dust exposure). These cases appear to be clinically stable.
- Similarly to BAECP, a high rate of pulmonary fibrosis, (screening effect or Uranium/Thorium/Thoron?)
- Majority of former workers outside of IA, referred to NSSP:
 - 8,893 living with known addresses
 - 2,072 (23%) live in Iowa
 - 6,911 (77%) live outside of Iowa—NSSP referrals
 - Most live in CA, IL, TX, MN, CO, OH

UI-FWP Outreach

Main Forms of Outreach:

- Direct mailings
- Recruitment calls
- Media campaigns- radio, press releases, articles in local paper, informational brochure and packet
- Word of mouth from CAB members and former workers, (ask for same at screenings)

Other Methods:

- Townhall Meetings
- Assistance from IAAAP HR and Ames Lab Health & Safety Office (helped determine cohort)
- Brochure at Union Hall & Ames Lab
- Web site
- CME's in local hospitals, medical societies
- Ames Lab Newsletter
- IAAAP Breakfast Group
- Joint UIA DOL Meetings/Roundtables
- ZabaSearch/TransUnion
- Former worker mailing lists