

# BLOCKSON CHEMICAL COMPANY

Workgroup Members

Wanda Munn, Chair

James Melius

Brad Clawson

Genevieve Roessler

# Site Operational History

- ❖ Site manufactured wet process phosphoric acid
- ❖ Located in Joliet, Illinois, used Florida phosphate rock
- ❖ 1950-51 AEC contracted to extract uranium from  $H_3PO_4$
- ❖ Constructed Building 55 for separation operation
- ❖ Processing continued through June 1960
- ❖ All Blockson chemical production ended in 1991
- ❖ Building 55 was demolished in 1996.

# Department of Energy Designation

- Blockson Chemical Company at Joliet is designated as an Atomic Weapons Employer from 1951 to 1960
- The residual period was originally defined as ending in 2009; later revised to March, 2011.

# Special Exposure Cohort History

- ❖ First SEC petition, #58, received May 11, 2006
- ❖ Covered all employees on the Joliet site
- ❖ Covered period from March 1, 1951 to June 30, 1960
- ❖ Petition approved effective October 3, 2010
- ❖ Basis: Inability to reconstruct with sufficient accuracy the exposure of workers to radon in Building 40 where digestion of the phosphate rock took place.

# Special Exposure Cohort History - 2

- ❖ Second, i.e., current Petition #255, received February 24, 2015
- ❖ Covers residual period, July 1, 1960 - December 31, 1991
- ❖ Covers all employees on the Joliet site
- ❖ Dose reconstruction feasibility not relevant here since AEC activities were no longer under way
- ❖ Residual contamination could be possible in Buildings 40 and 55 and external phosphogypsum pile

# Special Exposure History - 3

- ❖ NIOSH evaluation determined dose reconstruction was feasible
- ❖ Sanford, Cohen & Associates was directed to review findings November, 2015
- ❖ Review returned 5 Findings and 1 Observation

# Special Exposure History - 4

- ❖ Workgroup addressed each item in detail on June 28, 2016
- ❖ Two Findings were determined to be Technical Basis Document issues and not applicable to a petition for claims beyond the operational period
- ❖ Three Findings and the Observation were closed.

# SEC 225 Findings & Observation

- ❖ Finding 1 – Issue on how Technical Basis Document estimates residual photon dose. Transferred to TBD.
- ❖ Finding 2 – Concern on determination of external dose from phosphogypsum stack resolved by agreement that exposure was bounded by Building 55 exposure. Closed.
- ❖ Finding 3 – Issue on residual beta dose determined to be a TBD concern. Transferred to TBD.



# SEC 225 Findings & Observation

- ❖ Finding 4 – Concern on inhalation of particulates from phosphogypsum stack, agreed to be bound by Building 55 exposure. Closed.
- ❖ Finding 5 – Concern on estimates of residual radon exposure resolved by agreement after discussion that methods were reasonable and favorable. Closed.
- ❖ Observation 1 – Additional comment on radon exposure covered by Finding 5 discussion. Closed.

# Workgroup Recommendation

- ❖ Based on the discussions of all questions raised with respect to SEC Petition 225, the Workgroup agrees with the NIOSH conclusion that sufficiently accurate dose reconstruction is possible for all covered Blockson Chemical Company workers during the residual period July 1, 1960 to December 31, 1991.
- ❖ The Workgroup therefore recommends that the petition be denied.



Questions?