

US EPA ARCHIVE DOCUMENT

Contaminated Structures Project

Chandra Manandhar, PhD
Navajo Nation EPA
Superfund



Farmington, NM
November 9, 2011



Background

- Radioactive waste sand/rock used for building homes
- 2007 – EPA mapped and identified ~500 structures near mines
- Plan: Assess 100 structures per year, clean up or replace contaminated homes
- 5-Year Plan initiated 2008

Project - Update

- Total number of structures screened till now: 683
(including 69 structures in 2011)
- Remediated: 34
- Residential yards cleaned-up: 10

Project - Update

- At least 31 structures need to be screened by the end of calendar year 2011 if weather permits
- Total number of structures screened will be minimum of 714 by end of 2011

Building Capacity of NSP

- In 2008, USEPA was the lead and NSP built capacity while assisting USEPA in completing assessments of 199 structures
- NSP purchased the same equipment used by USEPA, completed assessment of 484 structures, and referred to USEPA only structures above Investigation Level

Equipment Calibration

- Our equipment is calibrated by third party annually to get reliable and legally defensible data
- Everyday, we do calibration before and after work in the field with source to make sure standard calibration is valid

Improved Work Strategy

- We have now revised and improved work strategy, while working in the field to avoid re-work
- We have data dictionary set-up on GPS unit

Field Work

- Once we are in the field, we get access agreement and perform radiological survey inside/outside home/structure
- Investigation Level = Average Background Reading + 10 x (Standard Deviation)
- Help from NNEPA radon program

Referral to USEPA

- Any structure or yard above Investigation Level

Priority of Selecting Homesites

- Residents who live within a quarter mile around the AUMs
- Residents who request for home radiation survey, saying mine materials might have been used to build it

Community Outreach

- Announce CSP work in the region
- Provide sign-up sheet for CSP work at chapter meetings
- Word of mouth

Work Progress

- Northern Region (2008)
- Eastern and Northern Region (2009-2010)
- Western Region (2011)
- South-Central, North-Central Region (2012)

Community Voices

- Residents are optimistic to get home replacements
- Some residents are frustrated that we did not start CSP work well in advance
(Past 30-40 years)

Examples



Before



After





Questions ?