

Abandoned Mobile Homes on Tribal Lands: Deconstruction and other tools

Terri McCarthy, Environmental Director, Hopland Band of Pomo Indians
Steven Escobar, Environmental Director, Chemehuevi Indian Tribe
Sarah Ryan, Environmental Director, Big Valley Band of Pomo Indians
Deirdre Nurre, Tribal Solid Waste Team, US EPA Region 9

Abandoned Mobile Homes: Environmental Issues, Disposal Challenges, Opportunities

Deirdre Nurre, Tribal Solid Waste Team
Zero Waste Section
US EPA Region 9

Abandoned Mobile Homes: the scope of the problem

- Mobile homes a common form of housing on tribal lands
- Many mobile homes on tribal lands are second-hand which means they come with various environmental problems
- Many are near the end of useful life, or abandoned
- Mobile home residents tend to be older and less wealthy than typical homeowners

Abandoned Mobile Homes: scope of the problem

Poor ventilation

Indoor air problems: mold, dust mites, vermin trigger asthma

Study: manufactured homes built before 1980 consume 53 percent more energy than other types of homes.

Older manufactured homes in extreme climates: up to \$500 a month for electricity.

For some, that's most of their monthly income



Aging Mobile Homes Burden Owners With Huge Power Bills and Mold

FEMA trailers

- FEMA deployed 144,000 trailers after Hurricanes Katrina and Rita
- Started selling off its stock in 2007 after units proven to contain high levels of cancer-causing formaldehyde
- Court order blocked sale in 2008, sales resumed in 2010
- These units still in use, many on tribal lands



How are mobile homes regulated?

- HUD: National building standards for mobile homes in 1976
- Wide range in the quality of the homes built before these regulations
- Now, mobile homes must meet specific performance criteria such as being able to withstand certain wind velocity or specific load bearing capacities
- The industry now uses “Manufactured Homes” for mobile homes to suggest higher quality housing

Healthier manufactured housing: EPA information and resources

Tribal Green Manufactured Housing

Green Manufactured Housing

Many tribal housing authorities and tribal members purchase manufactured housing. Manufactured houses (commonly known as mobile homes) are a type of prefabricated housing that are largely assembled in factories and then transported to sites of use.



Zero Energy Manufactured Home at the Nez Perce Fish Hatchery.

Manufactured housing often has a relatively low initial purchase cost, but generally do have green building features such as [ENERGY STAR appliances](#) and [lighting](#) which can significantly reduce operating costs and environmental impacts.

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Toolkit about Abandoned Mobile Homes

- Videos show step-by-step process to deconstruct an abandoned unit and rebuild a structure using the salvaged material
- Resource Guide and Checklists
- Bibliography with information on deconstruction training opportunities, disaster debris management, government regulations for mobile homes, and more
- <https://www.epa.gov/smm/toolkit-about-abandoned-mobile-homes>

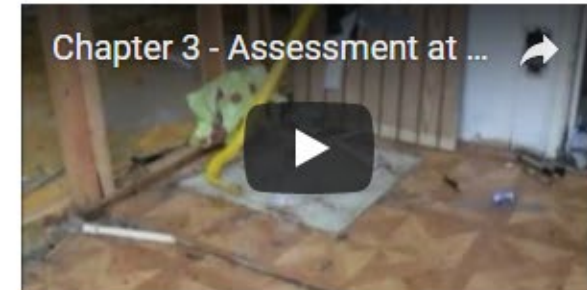
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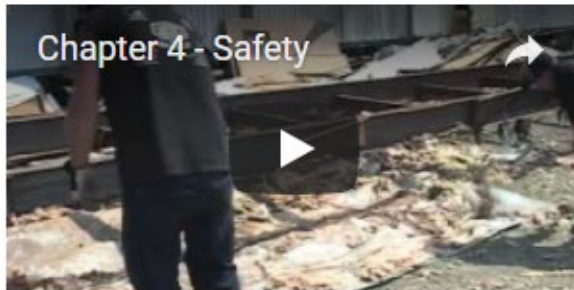
Chapter 1 - Introduction



Chapter 2 - Pre-Deconstruction Assessment at Original Site



Chapter 3 - Assessment at Deconstruction Work Site



Chapter 4 - Safety



Chapter 5 - Tools



Chapter 6 - Deconstruction: Unit 1

Why deconstruction?

Demolition Definition

Demolition = wrecking, or taking out, of any load supporting structural member of a facility or structure and related handling operations.

Burning a mobile home is also demolition!

Burning is not a solution to your environmental problems!



Why Deconstruction?

- Reduce the consumption of new resources
- Reduce landfill waste and pollution
- Create value-added markets and increase cost-effectiveness
- Expand job opportunities and workforce development skills
- Promote the sustainability of communities and the environment through resource preservation

What is deconstruction? And why should I care?

- A growing industry that needs trained workers
- New City of Portland ordinance
- "We take buildings apart, and we sell the parts"
- What you can't sell, you can reuse



Deconstruction Trainings September 2017

Mobile Home Deconstruction Trainings 2017

Purposes:

Help meet immediate project needs

Provide tribal staff with training which could be applied to other projects

Build a community of practice for deconstruction – the more you do it, the more applicable it could become

Evaluate whether mobile home deconstruction makes sense on tribal lands

Replicate EPA Region 2 training



Mobile Home Deconstruction: Training Topics



Budgeting: deconstruction versus demolition

Deconstruction business

Environmental Hazards and other risks encountered during deconstruction

Tool Use - Proper Technique

Estimating value for recovered material

Storing materials for future use or sale

Why Deconstruct



Deconstruction-----Demolition

More jobs

Good for the environment

Saves Energy

Preserves Natural Resources

Preserves History

Helps Low-Income/Small business

Fewer jobs

Hurts environment

Requires more energy

Consumes Natural Resources

Erases History

Benefits Landfills/Companies

Tools and equipment



Staging Deconstruction Sites

Organizing projects for maximum efficiency

'Touch things once' rule

Safety: structural concerns with deconstruction



Environmental Issues with Deconstruction OR Demolition

Asbestos and deconstruction

Fibers imbedded within construction materials and components are inert and do not pose a health hazard if intact

Asbestos containing materials (ACM) are a health hazard when disturbed

Removing ACM, however carefully, can disturb these tiny fibers

Impossible to visually assess presence of asbestos

Asbestos requirements on tribal lands

EPA recommends asbestos survey by accredited professional for deconstruction / demolition of any structure

Individual isolated mobile homes are technically exempt

HOWEVER: Deconstruction / demolition / renovation of more than one residential structure on the same site is an installation and is **NOT** exempt!

What's your project? Regulations differ!

Individual Mobile Home



"Installation"



Asbestos requirements for mobile home installation



Installation: Two or more mobile homes within the same project

Asbestos survey is required, plus 10 day notification by licensed asbestos removal contractor to EPA prior to asbestos removal.

Sometimes largest companies will give you a competitive price and will travel long distance to remote areas

Contact Kingsley Adeduro, US EPA Region 9 for ANY tribal asbestos issue:

Funding options for mobile home concerns



GAP funds cleanup of open dump sites

Brownfields TBA funding

HUD funds

BIA cleanup funds

Per-cap fines for violations of tribal housing ordinances

IHS

Building with deconstructed materials



Exploring options for saving and storing materials on site for future use

Options for resale at other locations, Craigslist, etc

Storing doors and windows upright and under a ceiling or awning

Deconstruction: is it right for your tribe?

- Projects 'pencil out' differently: not a one size fits all solution – sometimes hauling will be better option
- Region 9 is developing assessment tool to help tribes compare costs of deconstruction versus demolition
- Deconstruction is still an emerging building practice
- Three tribes in the following presentations have unique experiences and approaches

Thank You!

Deirdre Nurre, EPA R9 Tribal Solid Waste Team
Nurre.Deirdre@epa.gov