Proposed (Draft) Ordinance for Mechanical Demolitions in City of PDX

1. PRE-DEMOLITION

A. **Asbestos.** Provide copy of asbestos survey.

B. **Training.** Demonstrate that demolition contractors are certified to engage in lead-based paint activities. Certification and licensing shall be available on site during all activities.

C. **Dust control plan.** Submit fugitive dust suppression plan to BDS. Plan shall include wetting down the structure prior to and during demolition; wind monitoring. Mechanical demolition activities shall not take place when winds exceed 25 mph. Provide a description of the means and methods for protection of any adjacent or neighboring structures and property.

D. **Delay notification.** Maintain current notification rules that allow community members and neighborhood organizations to delay demolition.

E. **Safety notification.** Replace current City door hanger notice. New notice shall:
   (1) Be placed on door knobs at least two (2) weeks prior to demolition.
   (2) Be provided to all properties within 400 feet from a property line of the demolition.
   (3) Include the following information:
      (a) Safety information and agency contacts.
      (b) Phone number of demolition applicant.
   (4) Be multi-lingual.
   (5) Be provided to culturally appropriate community groups.

2. DURING DEMOLITION

A. **Notification.** Post demolition site with notice that can be easily read from the street. Notice shall be posted at least two weeks prior to demolition. Notice shall:
   (1) Include safety information and agency contacts.
   (2) Include phone number of demolition applicant.
   (3) Be appropriately multi-lingual.

B. **Hazardous Component Removal.** Windows, window frames, doors, door frames, and siding shall me removed, wrapped in 6-mil plastic sheeting, and placed in a covered dumpster for transfer to landfill or recycled building materials location. Exceptions may be made for post-1960 homes and those that test negative for lead in select components using EPA-approved testing kits.

C. **Water.** Fine water or mist shall be applied to the building structure before and during demolition. Fine water or mist should also be applied as debris is loaded into disposal containers. Mist is more effective at controlling fugitive dust and will reduce erosion and run-off.

D. **Debris.** Securely cover debris in container during transfer to landfill or recycled building materials location.

3. ENFORCEMENT

A. **Fine.** Demolition permit application includes notice of fine for failure to control fugitive dust. Fine shall X times the cost of the permit.

B. **Appeal.** Fines may be appealed to the Hearings Officer. Mitigating factors may be considered to reduce fine.

Literature and evidence in support of demolitions best practices:

Ayodele, Ayowale Emmanuel (2014) "Changes In The Lead Concentration In Air And Soil During House Deconstruction And Demolition: Case Study Springwells, Detroit, Michigan" .Wayne State University Theses. Paper 337.

Badiali, S. (2014) Drowning in Demolition. Article dated February 26, 2014. http://www.reclamationadministration.com/2014/02/26/drowning-in-demolition-by-sara-badiali/

Cali, S.; Jacobs, D.; Welch, A.; Catalin, B; Persky V.;,Mucha, A.; Erdal, S.;,Freels, S.;Evens, A.; MacRoy, P,; Dixon, S.; Scheff, P. (2008) Sampling for Exterior Lead Dust in Single Family Housing Demolition. Powerpoint presentation. University of Illinois at Chicago. Environmental and Occupational Health Sciences Division.

Diorio, J.J., (1999). Fugitive lead dust from the demolition of residential housing. Environmental Health Update January/February, 36–37.

Davies D.J., Watt J.M., Thornton I. (1987) Lead levels in Birmingham dusts and soils. Sci Total Environ 1987;67:177-85.

EBDI (2006) East Baltimore Development Inc. Operations Protocol for Demolition and Site Preparation Activities (Revised 2010)

Farfel, M.R., Orlova, O., Lees, P.S.J., Rohde, C., Ashley, P., Chisolm Jr., J.J., (2003). A study of urban housing demolitions as sources of lead in ambient dust: demolition practices and exterior dustfall. Environ. Health Perspect. 111, 1228–1234.

Farfel MR, Orlova AO, Lees PS, Rohde C, Ashley PJ, Julian Chisolm J Jr. (2005) A study of urban housing demolition as a source of lead in ambient dust on sidewalks, streets, and alleys. Environ Res Oct;99(2):204-13.

Jacobs, David et al. (2008) Lead Particulate Deposition from Housing Demolition. National Center for Healthy Housing, Washington, DC. http://www.nchh.org/Portals/0/Contents/Article0858.pdf

Jacobs, D.E.; Cali, S.; Welch, A.; Catalin, B.; Dixon, S.; Evens, A.; Mucha, A.; Vahl, N.; Erdal, S.; Bartlett, J. (2013) Lead and Other Heavy Metals in Dustfall from Single-Family Housing Demolition. Public Health Reports. November–December 2013 Volume 128

Laidlaw, M.; M.S.;Filippelli, G.M.; Sadler, R.C.; Gonzales C.R.;Ball, A.S.; Mielke, H.W. (2016) Children's Blood Lead Seasonality in Flint, Michigan (USA), and Soil-Sourced Lead Hazard Risks. International Journal of Environmental Research and Public Health 13, 358.

Lange, J.; Thomulka, K. (2000) Effectiveness of Engineering Controls for Airborne Lead Exposure during Renovation/Demolition of a Commercial Building. Indoor & Built Environment 2000;9:207-215

Lucas, J-P.; Bellanger, L.; Le Strat, Y.; Le Tertre, A.;Glorennec, P.; Le Bot, B,; Etchevers, A.; Mandin, C.; Sébille, V. (2014) Source contributions of lead in residential floor dust and within-home variability of dust lead loading. Science of the Total Environment 470–471 (2014) 768–779.

Mucha AP, Stites N, Evens A, MacRoy PM, Persky VW, Jacobs DE (2009). Lead dustfall from demolition of scattered site family housing: developing a sampling methodology. Environmental Research 2009;109:143-8.

Rabito, F. A. et al. (2007). "The association between demolition activity and children's blood lead levels." Environ Res 103(3): 345-51.