

DRAFT Summary of ACT General Comments on Ft. Worth*

ACT COMMENTS to Region 6	Region 6 Response	ACT Member Response	External Peer Reviewer Comment
<p>Health Effects:</p> <p>The health effects and risks associated with asbestos exposure should be clearly described in all the Fort Worth documentation. The documents should mention the full breadth of potential health impacts resulting from exposure, including asbestos's potential carcinogenic effect, mesothelioma, and other types of lung cancer.</p>	<p><i>"The health effects section of the Introduction of the Method document, as well as the community outreach materials, have been significantly expanded to address these concerns."</i></p>	<p>Present asbestos regulations are not health based but rather predicated on the assumption that any and all exposures are unacceptable. The 4/1/04 QAPP does not address potential health effects or rationale for choice of a health-based exposure benchmark as per requested by the ACT. The document titled "The "Fort Worth Method" does contain information pertaining to health effects of asbestos. However, information necessary to compare health limits with environmental exposures is inadequate.</p>	<p><u>Goldsmith (pg. 5):</u> "Because there is no information about details of protecting demolition workers, other than we will follow OSHA guidelines, the answer must be NO." <u>Millette (pg. 12 & 14)</u> Health criterion of 0.003 PCME fibers/cc is inconsistent with WTC criterion of 0.0009 f/cc. Time weighted averaging should not be used for rapid response. Sci. and tech. data to determine whether the Method is protective of HH is not contained in the three documents provided for review. <u>Weix (pg. 27 & 29)</u> Unrealistic to use OSHA PEL/STEL or health risk std. of 0.003 f/cc in an outdoor setting. "There is no known safe level of exposure to asbestos." (emph. added)</p>

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<p>Lack of Scientific Information to Support Project Assumptions and Design</p> <p>There is no rationale given for the decision regarding the amount of Transite material (quantities greater than 20% coverage for every 1 LF) that will be removed.</p>	<p><i>"In the absence of other definitive guidance regarding this issue and upon consultation with ORD, we offer the following thoughts. The California Air Resources Board (CARB) allows for up to 30 mph winds within their ambient outdoor monitoring during soil remediation projects for asbestos. The Fort Worth Method has set the upper limit at 25 mph or 17% less than the CARB acceptable number to provide an additional factor of safety. EPA's Standard Operating Procedure SOP #2015 for ambient outdoor monitoring sets no upper limit for wind speed. Additional description and documentation has been provided in the documents."</i></p>	<p>It is not clear from the QAPP whether any ACM will be removed from the CT Inn prior to demolition. A discussion of Transite material is provided as a footnote on page 5 of the QAPP. However, this footnote does not contain a rationale for the amount of Transite to be left behind prior to demolition. Transite material can contain high percent levels of asbestos. If this material is friable, it may provide temporary or ongoing source for exposure.</p>	<p>Weix (pg. 27 & 28): Wants to know if all friable or presumed asbestos materials were tested including mastics or any built-up roofing material. Did R6 aggressively look for asbestos in hidden cavities and floors? Transite material is difficult to wet and should be removed prior to demolition. "All friable material must be removed before demolition can begin." (emph. added)</p>
<p>The rationale for the sampling procedure is not provided.</p>	<p><i>"Additional description and documentation has been provided in the documents."</i></p>	<p>No amount of ambient monitoring will allow determination of actual or potential exposure offsite. A combination of personal monitoring and detailed environmental deposition monitoring are required for such determination. Neither are provided in the QAPP.</p>	<p>Weix (pg. 27 & 29) Because airborne concentrations of asbestos fibers were low is not an indication that fibers did not leave the demolition site. On-site monitoring is inadequate to monitor momentary releases of particulate matter if it does not pass over a stationary monitor.</p>

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<p>What is the scientific basis for setting acceptable wind speeds (less than 25 mph) for sampling?</p>	<p><i>"The Fort Worth Method has set the upper limit at 25 mph or 17% less than the CARB acceptable number to provide an additional factor of safety."</i></p>	<p>No scientifically valid justification is given for this threshold. There is some discussion in the remediation plan of a study in which greater impacts were predicted at higher wind speeds. There is no consideration in the QAPP for transient exposures due to changing environmental conditions or wind speeds. Ambient monitoring is not intended to address potential for offsite exposures.</p>	<p>Price (pg. 16, 18 & 22) "the statistical analysis methods described in the QAPP will not make the best use of the data for testing the performance of the Fort Worth Method or for comparing it to the NESHAP Method." "whether or not the number of samples to be collected is sufficient for the intended purpose of the study has not yet been determined." (emph. added) "the argument for not sampling during idle times is not satisfactory." "</p>
<p>What is the basis for the number of samplers?</p>	<p>[no specific response to this comment was provided by Region 6.]</p>	<p>Ambient monitoring devices are insufficient to determine potential for real-time or future exposure. No justification is given for the number of samplers. A reference is made to an USEPA SOP for locating stationary air samplers is made but this is in reference to sampler location. Placement of sampling devices is key to determination of actual or potential human exposure. Without this information, the Primary Goal cannot be met.</p>	<p></p>

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<p>How was the determination made that 25% is adequately wet?</p>	<p>[no specific response to this comment was provided by Region 6.]</p>	<p>Asbestos is extremely difficult to wet and such wetting will not necessarily prevent release or exposure from building materials with embedded sources of asbestos. The use of qualitative criteria of wetting asbestos containing material will not provide sufficient information or scientific validation for future employment of the method.</p>	<p>Goldsmith (pg. 4) "there were no definitions of "adequately wet," nor any details of the procedures to place water sprays into attic spaces" Weix (pg. 27, 28, 29, 30) "The transite material is not easy to wet and should be removed before demolition begins" (emph. added) "the absence of visible emissions is not sufficient evidence of being adequately wet" "wet materials can leak out on to streets during transport to the landfill and also cause a control problem at the landfill." "What testing will be done to determine that all RACM is adequately wet?" "The Fort Worth Method of wetting demolition debris may not sufficiently mix or penetrate Category I or Category II non-friable ACM" "When material such as floor tile, ceiling tile, transite material, window putty, or built-up roof materials break into small pieces there will be a release of asbestos fibers" (emph. added)</p>

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<p>No rationale for the demolition sequencing (Building #4 >> Building #3 >> Building #2) is presented; however, this decision may have direct and significant impacts on the dispersion of fibers and quality of monitoring data obtained during demolition. For example, it is unclear whether Fort Worth considered leaving Building #3 in place (i.e., sequencing Building #4 then Building #2) to serve as a physical barrier so that collected fibers could be more definitively associated with Building #2 demolition rather than potentially branded as fibers resuspended during mechanical disturbances of the former Building #4 site.</p>	<p>[no specific response to this comment was provided by Region 6.]</p>	<p>No logical order is presented for building destruction. Building destruction order will reduce or minimize the potential for human exposure during the demolition. The wind direction, proximity to area residents, monitor location, building integrity, etc. will all influence the sequence of building destruction.</p>	<p>Goldsmith (pg. 4, 5): "But they do not seem to have put into place any active community interactions (newsletter is meaningless in this case) to involve neighbors in the upcoming process. Development of public participation plan should be well underway, but it clearly seems to be in the 'we tell locals what is happening mode' with no real intent to have community members play any meaningful role." (emph. added) "The authors of the document seem to equate public participation with environmental justice (EJ). I think this does a disservice to the community, and does not permit the local community to play a role in what will happen in their neighborhood."</p>
<p>Method may fail to meet the requirements contained within the Agency's Information Quality Guidelines (IQGs)</p>	<p>[no specific response to this comment was provided by Region 6.]</p>	<p>General concern that the public is not fully informed of potential exposure based upon review of Region 6 Comment.</p>	

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<p>Reportable Quantity Guidelines Misunderstood</p> <p>The <i>Asbestos Remediation Plan</i> briefly mentions the Reportable Quantity requirements and sets forth estimated release amounts that trigger response actions (see Section 6.0 Response Actions, <i>Surface Water Impacts</i>). Several points are noteworthy. First, this appears to be the only Fort Worth Project-related discussion pertaining to CERCLA section 102(b) reportable quantity (RQ) requirements. The ACT, however, views RQ provisions as being broadly applicable to any Fort Worth Project demolition or asbestos management activity that potentially could result in a release into the environment. Second, it is unclear why the RQ discussion is limited to surface water. Unless an exemption applies (e.g., Federally permitted releases), RQ reporting is required regardless of the release mechanism (i.e., airborne fibers, surface runoff, ground water infiltration). Third, no discussion is presented relating the stated thresholds (i.e., <10 gal; >10 - <50 gal; >50 gal; 7 million structures per liter) to the asbestos RQ.</p>	<p><i>"Documents revised accordingly. Surface water appears to have the most potential for reaching the 1 pound RQ threshold during the demolition activities due to the nature of the wetting methods being employed for this project. The likelihood of a significant air release is extremely remote and would require a significant visible release thus causing the project to be shutdown. Since there are no field methods that would visually allow one to estimate a 1 pound release of microscopic asbestos structures we conservatively derived water volumes that would be able to be visually estimated that should contain less than 1 pound of asbestos. Again a key point in a RQ discussion from asbestos demolition is that the majority of building materials do not contain asbestos and the bulk of materials that do contain asbestos are at quantities less than 5%, thus an airborne release of an RQ for asbestos is extremely remote".</i></p>	<p>The assumption that the likelihood of a "significant air release is extremely remote" is without foundation. There is no available empirical data from the Cowtown Inn or previous investigations to support this statement. Weaknesses in the sampling and analysis plan preclude the ability to identify "significant air releases". Visible emission criteria are subjective and may or may not be indicative of worker or residential exposure.</p>	<p>Goldsmith (pg. 3): "I was extremely disappointed that Phase 1 was inappropriate for comparison with planned Phase 2. Phase 1 was a demolition of an asbestos-containing building that IS NOT comparable with any of the Fort Worth Method plans applied to Cowtown site in Phase 2." "...asbestos in the ...Phase 1 was in the linoleum and mastic...and would not have become airborne during application of Fort Worth method." (emph. added) Millette (pg. 11): "[soil analysis] is thought to be accurate in the 1.0% range but has not been validated at the 0.1% level." "...discussions of the methods as to which parts will be used in this study appear to be taken from other projects where the situations under consideration are not similar." "scientific and technical data upon which to make a determination of whether the Fort Worth Method is more or less protective of human health is not contained in the three documents provided for review." Weix (pg. 29): "...monitoring is inadequate to monitor momentary releases of particulate matter"</p>

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<p>Air Monitoring Techniques Not Certified for Outdoor Monitoring</p> <p>The ACT was unable to find references in the QAPP that would validate the sampling protocol for outdoor air. Without validating the sampling methodology, it is not clear that the asbestos monitors will detect the actual amount of asbestos that is released. The ACT recommends referencing the appropriate documents that provide the background for this approach.</p>	<p><i>"US EPA Standard Operation Procedure #2015 - Appendix A, table 1, Sample Stations for Outdoor Sampling. The Fort Worth Method is more conservative and goes beyond the minimum requirements set forth in this SOP. The SOP simply references a minimum of 3 downwind located on a 180 degree arc. We have gone beyond this by placing 5 samplers on a 180 degree arc with 3 additional samplers along the same arc located at a slightly higher elevation. Two samplers are also planned as close to directly over the site as well. We also are co-locating downwind samples running two separate pumps at the same location in order to address any potential overloading of filters. Downwind sample locations will be located at similar distances during the NESHAP demolition and the Fort Worth Method demolition to allow for comparison. For the collocated samplers, one pump is set at the flow rate necessary to gain the target volume and the co-located sample is set at 50% of that flow rate. Sample media and collection techniques mirror industry standard and fit the requirements of the analytical methods proposed."</i></p>	<p>Ambient air monitors are <u>not</u> capable of <u>determining actual or potential exposure to workers or residents in real time</u>. Nor are ambient monitors capable of determining the amount of asbestos released during the Cow Town Demonstration project. Thus, aggressive assessment of ACM within the structure and removal of this material prior to demolition is the best means of <u>minimizing exposure of community members to this known human carcinogen</u>.</p>	<p>Weix (pg. 29, 30): If asbestos fibers are detected on the monitor there is not any way to measure what the release was beyond that point. Additional monitors may not be sufficient to capture airborne fibers" Milliette (pg. 10, 13): "There is no provision for overloaded samples. Unfortunately the most important sample may be the one that has a high amount of particulate present caused by a dust release from the site. Although it causes a number of difficulties in comparing results, the use of ISO 13794 should be considered for any overloaded samples that cannot be prepared and analyzed by the direct procedure." (emph. added) "It will also be nearly impossible to meet the quality control check of filter media (pages 48-49, Doc 2)" Price (pg. 18): "...it is not possible to determine the statistical power for the comparison of upwind and downwind airborne asbestos concentrations. Therefore, whether or not the number of samples to be collected is sufficient for the intended purpose of the study has not yet been determined."</p>

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<p>Compliance with OSHA</p> <p>By design, OSHA asbestos regulations mirror those that are contained in the EPA NESHAP. The OSHA asbestos regulations specify permissible exposure limits for asbestos, respiratory protection, work practices such as containment, and certain other engineering controls. Although page 43 of the Ft. Worth Method indicates that the demolition activities will comply with all applicable OSHA requirements, it appears to the ACT that some deviation may be inevitable if the Ft. Worth method is followed. The ACT recommends that the City of Ft. Worth thoroughly review the OSHA requirements and determine if some type of regulatory flexibility for worker protection would need to be requested.</p>	<p><i>"Concerns noted and additional language added."</i></p>	<p>Despite extensive review, could not find information detailing specific plans in the 4/1/04 QAPP to comply with OSHA regulations. There is no information regarding protective equipment for workers, the number or location of personal or stationary monitors, or analytical techniques to be employed to provide information regarding worker exposure. Like other private, academic and government entities, EPA is required to comply with all OSHA regulations during building demolition and other asbestos related remediation projects. Failure to include detailed plans for OSHA compliance in the QAPP denies the opportunity for independent review of the proposed worker protection program.</p>	<p>Goldsmith (pg. 5) ". there is no information about details of protecting demolition workers" Millette (pg. 12, 13): "Although Table 4 in Doc 1 lists that there will be OSHA monitoring of workers, there is no discussion of personal air sampling in the documents. The level of protective equipment should be validated with personal air samples collected on the worker." (emph. added) "Because the potential release is expected to be episodic, if it occurs at all, the time-weighted averaging should not be used for the criteria for rapid response." Weix (pg. 27): "It is very unrealistic to use the OSHA PEL of 0.1 fibers/cc, the OSHA clearance level of 0.01 fibers/cc, or a health/risk standard of 0.003 asbestos structures/cc in an outdoor setting."</p>

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<p>It Is Not Evident that the Proposed Analytical Techniques will Adequately Identify Asbestos</p> <p>Materials with asbestos concentrations below 1% (i.e., those which could be found to have trace or non-detectable asbestos concentrations using the routine method of PLM, and therefore declared non-asbestos containing for demolition purposes), can release very high airborne concentrations of asbestos when disturbed. Several studies (including the EPA Versar study of vermiculite insulation containing non-detectable asbestos concentrations by PLM) have shown that even with wetting, these materials can still serve as a source of significant airborne fiber releases when disturbed.</p>	<p><i>"The current NESHAP does not regulate materials that contain 1% or less of asbestos. EPA regulations currently support that demolition with these materials in place is low risk. Fort Worth Method has identified that Vermiculite Attic Insulation if encountered will be removed prior to use of the Fort Worth Method."</i></p>	<p>The revised Fort Worth Method QAPP relies on the 1% cutoff for asbestos in solid media and inappropriately applies this screening value to soils. No efforts have been implemented to address the likelihood of re-aerosolization of asbestos from soils and other solid media. Soils and asbestos materials from building demolition may remain following demolition. Such materials may provide an ongoing source of exposure to residents and future inhabitants. Extensive research by industry, academia, and the USEPA has demonstrated the potential for friable asbestos in soils to release airborne fibers at levels greater than the OSHA short and long-term exposure limits.</p>	<p><u>Millette (pg. 11)</u>: "...a soil method is provided as Appendix C to Doc 2. This method (EPA Region 1 Standard Operating Procedure for the Screening and Analysis of Soil and Sediment Samples for Asbestos Content) and its addendum for more accurate quantitation is thought to be accurate in the 1.0% range but has not been validated at the 0.1% level. Data showing that this method is applicable for the Texas soil standards should be provided." <u>"The 1% bulk criterion for asbestos-containing building material should not be used with this mass method as it has been shown that much lower percentages can give rise to elevated air levels if the dust is resuspended."</u> (emphasis added)</p>
<p>It is important to thoroughly and accurately sample the air around the demolition site. However, only a very small portion of the air in only a very small area can be sampled using air samplers, which are usually employed for indoor sampling.</p>	<p><i>"See comment to #4 above."</i></p>	<p>Even with thorough and accurate sampling of air around the site, exposures to residents and workers will not be estimable. No amount of ambient monitoring is sufficient to determine human exposure potential or environmental loading from deposition.</p>	<p><u>Weix (Pg. 29)</u>: "One test (Cowtown Inn) is not sufficient to determine equivalency to other types of construction (brick/concrete versus wood) and other types of ACM or significantly different concentrations of asbestos." "On-site monitoring is inadequately to monitor momentary releases of particulate matter if it does not pass over a stationary monitor. During further demolitions there will not be any monitoring."</p>

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<p>What is the rationale for the location of sampling devices (other than upwind and downwind); and what is the assumption about asbestos concentrations distant from the samplers?</p>	<p>"See comment to #4 above."</p>	<p>Asbestos concentrations determined at ambient monitors are not useful for determination or estimation of human exposure or for the amount of asbestos that may leave the site. Once asbestos contamination leaves the site, efforts to identify and clean up will be more difficult.</p>	<p>Price (pg. 17, 18): The 27 upwind samples also are treated as replicates (i.e., as if they measure the same upwind airborne concentration). Clearly this interpretation is not correct - the 27 samples in these groups are not replicates. Even the 5 downwind samples collected at ground level may not be replicates....it is not possible to determine the statistical power for the comparison of upwind and downwind airborne asbestos concentrations" Weix (pg. 27) Monitoring alone may not be enough to determine if asbestos fibers are leaving the demolition site.</p>
<p align="center">The Rationale for Removing Some Types of Asbestos Prior to Demolition is Unclear</p>			
<p>The documentation does not include a justification or explanation for how asbestos removal amounts and material types were chosen. Furthermore, it is unclear whether or not any regulated asbestos containing material (RACM) will be removed from the Cowtown Inn before demolition. A rationale for removing some types/quantities of asbestos containing materials and not others, prior to demolition, should be included in the documentation.</p>	<p>"See page 16 and 17 of the Method document, Section A.2.1 of the QAPP, and Chapter 4 of the Remediation Plan."</p>	<p>Present asbestos regulations are based upon the premise that removal of ACM prior to demolition is required. We agree. Due to difficulties in monitoring for human exposure and offsite transport of friable asbestos, all ACM must be aggressively identified and removed prior to demolition.</p>	<p>Weix (pg. 29): "The method needs to specifically identify which RACM materials will be allowed to remain in the structure before demolition occurs. To just say spray on fireproofing and thermal system insulation is insufficient. On-site monitoring is inadequate to monitor momentary releases of particulate matter if it does not pass over a stationary monitor. During further demolitions there will not be any monitoring. Thus, the demolition contractor may not be meeting the requirements of the Fort Worth Method. To be ensured of meeting equivalence and protectiveness all RACM should be adequately wetted and removed before the structure is demolished. When this is done there will not be any RACM allowed to be airborne during demolition." (emphasis added)</p>

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<p>Vermiculite</p> <p>Any asbestos assessment conducted should address vermiculite and should be discussed in both the Fort Worth method and QAPP. The ACT is particularly concerned that there is no consideration for the identification, assessment or removal of materials such as vermiculite attic insulation, Monokote fireproofing, vermiculite-containing ceiling tile, and other types of vermiculite containing products that might have been previously misclassified as non-asbestos, but for which the Agency now has renewed concern.</p>	<p><i>"Documents have been revised to address the vermiculite concerns."</i></p>	<p>While the 4/1/04 QAPP does address issues pertaining to VAI, it does not address ACT Comments pertaining to vermiculite products other than VAI. ACT specifically asked for assessment of vermiculite presence in fireproofing, ceiling tile, and other sources (such as ceiling texturing). Considerable amount of vermiculite product may remain during demolition. The highly friable nature of this material may pose an imminent and substantial endangerment to workers and nearby public.</p>	<p>Weix (pg. 27, 28): "For the Fort Worth Method all friable material must be removed before demolition can begin" "I want to know if all friable or presumed asbestos materials were tested including mastics or any built-up roofing material" "Did they aggressively look for materials that were in hidden cavities or in floors?"</p>
<p>It is important to consider that while airborne release from some ACM may be adequately controlled by wetting, releases from other ACM may not. EPA has demonstrated that airborne release from certain ACM is only minimally controlled by wetting. This is clearly demonstrated in the case of vermiculite attic insulation and may also be true of other vermiculite containing materials such as wall board, ceiling tile, concrete decking and Monokote spray-on fireproofing.</p>	<p><i>"See page 47 of the Method document, and the comment to the item above. ACM is defined as materials that contain greater than 1% asbestos as determined in accordance with AHERA analytical protocol. So this comment should actually state materials that currently do not meet the definition of ACM may actually release asbestos in high quantities. This would seem to a policy issue for EPA and not a point for consideration within the scientific approach and validation of the Fort Worth Method. The Fort Worth Method seeks to obtain flexibility under the current Asbestos NESHAP 40 CFR 61. Data is proposed to be collected during the execution of the method that may allow for some of these concerns to be addressed."</i></p>	<p>The 4/1/04 QAPP does not address specific steps to be taken in the event that vermiculite products other than VAI are encountered. Considerable amount of vermiculite product may remain during demolition. The highly friable nature of this material may cause offsite emissions endangering workers and nearby public both during and following the demolition.</p>	<p>Weix (pg. 27, 28, 30): "For the Fort Worth Method all friable material must be removed before demolition can begin" "I want to know if all friable or presumed asbestos materials were tested including mastics or any built-up roofing material" "Did they aggressively look for materials that were in hidden cavities or in floors?" An improvement would be to ensure that asbestos fibers are not leaving the demolition area. This will be done by controlling the RACM that remains in the structure by either removing ACM before demolition begins or adequately wetting ACM during the demolition process."</p>

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<p>There are also concerns regarding the ability of NESHAP asbestos sampling techniques to detect the presence of the more toxic forms of asbestos fibers that are associated with vermiculite. The Ft. Worth Method indicates that PLM will be used to determine the types and quantities of asbestos that are present in the buildings prior to demolition. Research at Libby, Montana has shown that PLM is not capable of detecting the more toxic forms of asbestos, such as tremolite, that is present in Libby vermiculite.</p>	<p><i>"This comment has been addressed. Vermiculite was not found in the Cowtown Inn site."</i></p>	<p>There is no discussion in the 4/1/04 QAPP regarding specific analytical techniques used to identify or enumerate asbestos associated with vermiculite or vermiculite-containing materials. With the absence of specific analytical quality assurance protocols to identify and enumerate amphibole asbestos associated with vermiculite-containing materials, this form of asbestos may be missed or miss characterized during the demolition. (information to verify this information has been asked for several times but, as of the date of this document, has not been received.)</p>	
<p align="center">A Clear Decision Tree Needs to Be Developed for Stop Work Authority</p>			
<p>Stop work measures and metrics for making a stop work determination must be clearly stated. The QAPP should include a new section outlining situations that may require the project to be terminated.</p>	<p><i>"See Remediation Plan Section 6.1. All documents revised to state that if sampling ceases, demolition ceases."</i></p>	<p>Five different stop work measures are proposed, depending upon the size of the release: momentary, small, medium, large and uncontrolled. Different actions are proposed depending upon the release size: from no action to immediate cessation of activities. The proposed stop work procedures are subjective. While they may be effective at preventing off-site "visible emissions" they are not indicative of friable asbestos moving offsite. Friable asbestos may move offsite without visible emissions.</p>	<p>Goldsmith (pg. 4): "there is absolutely no information who will be onsite and who will have legal and professional responsibility and authority when decisions need to be made." "More details about who has the authority to take action, who has the legal responsibility must be provided before the project is approved."</p>

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<p>Additionally, an individual from OSHA, EPA, and the Texas Department of Health should each have the authority to stop work. The documents should clearly identify these individuals and their on-site authority.</p>	<p><i>"Comment addressed."</i></p>	<p>It is unclear from the revised QAPP who has stop work authority and under what conditions.</p>	<p><u>Millette (pg. 14):</u> "The document must make it clear (and all agencies must agree) who has the duty and responsibility to issue the "stop work" order." <u>Goldsmith (pg. 4):</u> "...there is absolutely no information who will be onsite and who will have legal and professional responsibility and authority when decisions need to be made."</p>
<p>The Term "Adequately Wet" is Not Clear</p>			
<p>"Adequately Wet" is not used consistently. This is an important definition because it is integral to determining when the structure is wet enough for demolition. This definition should be consistent with NESHAP and EPA guidance. In the QAPP, the Criteria for Acceptance of the Secondary Objectives states that moisture levels in excess of 25 percent will be judged "Adequately Wet." (QAPP page 27). The Method cites 40 CFR §61.141, which states, "adequately wet means sufficiently mix or penetrate with liquid to prevent the release of particulates. If visible emissions are observed coming from asbestos-containing material, then that material has not been adequately wetted. However, the absence of visible emissions is not sufficient evidence of being adequately wet." (Method page 50)</p>	<p><i>"Comment addressed."</i></p>	<p>The term "adequately wet" is defined in the April 1, 2004 QAPP as a footnote according to the NESHAP definition. The definition of "adequately wet" as the moisture content of the debris has been removed. Provisions have been added at 4.1.6 to stop work if visual emissions are observed. As stated above, the absence of visible emissions, is not an absolute indicator that asbestos is not moving off site. Point in fact, during cleanup efforts in Libby, Montana, high airborne asbestos concentrations were recorded on personal air monitors of individuals actually during the wetting.</p>	<p><u>Goldsmith (pg. 4):</u> "The Fort Worth method includes the introduction of water into the buildings being demolished as a means to prevent the release of asbestos dust into the atmosphere, but there were no definitions of "adequately wet," nor any details of the procedures to place water sprays into attic spaces. "<u>Weix (pg 28):</u> "The method does not adequately define or describe how RACM would be adequately wetted or remain wetted from the time of demolition to the time of disposal at the landfill. "</p>

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<p>Segregation Rationale and Handling of Debris</p> <p>The issue of segregating ACBM versus non-ACBM is confusing. The method states that debris that is "not containing RACM be demolished first, the debris treated as construction debris, and kept segregated from the RACM." Segregation of the non-RACM and RACM should be very strictly monitored under this scenario.</p>	<p><i>"Comment addressed."</i></p>	<p>The revised QAPP states that "segregation will not be employed in the demolition of the Cowtown Inn." (p 73) The document is still not clear on how this combined debris will be managed. NESHAPS requires segregated management of all friable asbestos containing material.</p>	<p>Weix (pg. 29) The method needs to specifically identify which RACM materials will be allowed to remain in the structure before demolition occurs. To just say spray on fireproofing and thermal system insulation is insufficient."</p>
<p>Where the document specifies the ACM that would be removed under the Fort Worth Method, some of these thresholds are based on the NESHAP thresholds (160 sq. feet; 35 cubic feet). However, for Transite material, it states "in quantities greater than 20% coverage for every ILF of building exterior." Where does this figure come from? In the terms of the Cowtown Inn, does that mean Transite will be removed?</p>	<p><i>"See pages 15-17 of Method document, Section 4.2.1 of QAPP."</i></p>	<p>The revised QAPP states that "No ACM will be removed from Buildings # 2, 3, 5, 6, 8, or 9 prior to demolition by the Ft. Worth Method." Thus, no Transite panels will be removed. The result is that this method will take marginally friable bulk materials and render them friable. RACM will be removed from Buildings 4 and 7. The justification for this threshold is that it is believed that this threshold will be protective. <u>The demolition will not gather any evidence on whether the 20% coverage threshold is effective by not removing Transite prior to demolition of any of the 5 buildings to be demolished under the Ft. Worth Method.</u></p>	<p>Weix (pg. 27): Right now the materials that tested positive for asbestos in the buildings to be demolished were transite, and interior surface texture with joint compound. Both of these materials are considered RACM, which is a Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition.</p>

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<p>Although a breakdown of the total amount of ACM for the entire complex is given, it is unclear what is contained within the specific buildings. What amount of asbestos is actually in building #4 (to be demolished using the NESHAP), and buildings #2 and 3 (to be demolished using the Ft. Worth Method) specifically?</p>	<p><i>"Comment addressed, see response above."</i></p>	<p>A breakdown of ACM by building is presented on page 47-48 of the revised QAPP.</p>	<p><u>Weix (pg. 30):</u> "The documents are hard to follow because there is inconsistencies in the way the same information is presented in different documents. It would be better if all the information was in one easy to follow manual. These inconsistencies make it difficult to understand and find information."</p>
<p>It is not clear based on the information provided, what will be removed comparatively between the buildings. The differences in the removal amounts between the buildings have the potential to be much greater than they might initially appear by the way the information is presented. The documents should clarify the specific materials and quantities to be removed from the buildings for the two different methods</p>	<p><i>"Comment addressed, see response above."</i></p>	<p>This detail is still lacking. Since no segregation will be performed at the Cowtown Inn site, the resulting debris pile must be handled and disposed of as ACM.</p>	
<p>Under "Handling of Demolition Debris," it seems to lack detail on how non-RACM will be isolated to prevent contamination with RACM. Will the piles be labeled with signs or be labeled in some other way?</p>	<p><i>"Comment addressed, see comments above."</i></p>		

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<p>Finally, it is not clear in the documentation whether full NESHAP methods, including containment, will be used to remove RACM prior to demolition with the Ft. Worth Method. The removal procedure should be clarified.</p>	<p><i>"Comment addressed, see comments above."</i></p>	<p>There is no specific discussion about the use of NESHAPs-style containment during the removal of ACM with the exception of Vermiculite Attic insulation. The release of friable asbestos from removal of this material will cause exposure to workers and, possibly, to the public. Such removal does not comply with OSHA regulations for asbestos containment during removal activities.</p>	<p>Goldsmith (pg. 4): "Cowtown motel buildings have asbestos in TSI, transite panels, ceiling tile, surface texture as well as sheetrock. Thus, the finding of no measurable fugitive asbestos fibers from phase 1 tells us nothing about the success of plans for Phase 2 on the Cowtown Inn site or any other remediation of vacant structures where the method would be used."</p>
<p>Visible Emissions</p> <p>There are inconsistencies between the documents on how visible emissions will be treated during the tests. Some documents stipulate that work will be stopped if visible emissions are seen, while other documents indicate that work will continue. The QAPP seems to introduce a new policy for determining if building materials have met the definition of "adequately" wet based on moisture content of the debris</p>	<p><i>"Efforts have been made to be consistent throughout the documents."</i></p>	<p>The term "adequately wet" is already defined in NESHAPS. The Fort Worth Method appears to attempt to redefine "adequately wet".</p>	<p>Goldsmith (pg. 3): "There was a hodge-podge of community history, national statistics on vacant structures, and tornadoes that had no relevance to asbestos hazard or the Fort Worth Method or EPA or the Cowtown Inn site." Weix (pg. 30): "The documents are hard to follow because there is inconsistencies in the way the same information is presented in different documents. It would be better if all the information was in one easy to follow manual. These inconsistencies make it difficult to understand and find information."</p>

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<p>Concern Regarding Risk Criterion</p> <p>The risk evaluation in the Fort Worth QAPP incorrectly assumes that NESHAP's regulation of ACM is health-based. For example, the assumption that the NESHAPS cutoff for 1% asbestos in the ACM is a health-based limit is not correct. EPA and independent investigations have demonstrated that bulk ACM concentrations below the PLM limit of detection can create elevated airborne asbestos concentrations.</p>	<p><i>"Revisions Incorporated"</i></p>	<p>Region 6 continues to inappropriately employ the 1% asbestos in soils and other solid materials as a risk-based criteria. EPA regions 8, 9, and 10 as well as asbestos industry scientists, EPA HQ, and academic scientists have clearly demonstrated the ability for high fiber concentrations to be released into the air following physical disturbance of soils and other materials containing far less than 1% asbestos. In light of this information, the use of the 1% cutoff for asbestos in soils is not justified. If people are exposed to asbestos because of the use of this Method, no remediation plan will be adequate.</p>	<p>Goldsmith (Pg. 5): "There is plenty of environmental sampling and monitoring, but nothing about assessment of worker risks." Millette (Pg. 11): "The 1% bulk criterion for asbestos-containing building material should not be used with this mass method as it has been shown that much lower percentages can give rise to elevated air levels if the dust is resuspended." Weix (Pg. 32): "If there is an emission release of asbestos from the demolition site the risk factor of later health effects will be unknown. There won't even be a mechanism available to identify everyone that was exposed to asbestos." (emphasis added)</p>

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