

Bennington State Office Building TBS Diagnostics Status Summary

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Ongoing Scope/Recommendations



- **Assist The State of Vermont BGS and VDH as needed, Collaborate w. NIOSH**
 - **Update on 2-8-07**
 - **Propose further meetings w. local VSEA**
 - **Current enclosed initial recommendations not expected to change, others will be added.**

Scope 1: Status / Rec.



■ Airborne Particle Characterization

■ Indoor/Outdoor Soot Analysis

■ (All Samples @Lab), (Rec. & approved to expand scope, 9 removed air filters added)

■ Indoor/Outdoor Real-time fine & coarse particle data logging (rm.35,145,14,123) with on-site meteorological data (2 weeks collected, 2 remain)

Scope 2: Status



■ Airborne Particle Characterization

■ Indoor/Outdoor Teflon Filter Sampling

- | (2 weeks collected, 1 wk sent to lab)
(rm.35,145,14,123)

■ Elemental Analysis of Collected Particles

- | (1st wk analysis being conducted)
- | (We are aware that multiple room HEPA filters were placed in service by 2-1-07.)

Scope 3: Status / Rec.



- **Pressure Field Diagnostics**
(Conducted to understand bulk air transport)
 - Building-Wide Pressure Field Assessments
 - Logging of pressures to outdoors
 - Logging of hall pressures to boiler room
 - | (1st round completed in all three above)
- **Rec.:** Expert boiler technician look at boiler set up ASAP. TBS engineer to review, offer to assist tech. if needed.

Scope 3: Rec. Cont'd.



- **Rec.:** Take cap off boiler discharge to reduce likelihood of reentrainment into temporary facilities before they are occupied.

(Tracer gas testing on 2-19-07 should help us to better understand any impact).

Scope 4: Status



- **Ventilation Assessment (CO2 Logging)**
 - (ongoing spot checks & logging in Rms
35,145,14,123 to date)

(Carbon Dioxide levels look normal, not high, not too low. Because of building air leakage, may not be a good indicator of proper equipment operation.)

Scope 5: Status



- **Ventilation Equipment Inspections**
 - **Hygiene Inspections (Ongoing)**
 - (Drying out of heat pump condensate drain lines & extreme difficulty to maintain in hygienic condition likely contribute to historic musty odor, NIOSH & TBS to further look at materials in condensate lines. Fiberglass liner so far looks like in good condition. Some air filters beyond time for changing.)

Scope 6: Status



■ Ventilation Equipment Control Inspections (Ongoing)

- | (Outdoor Air control discrepancies observed, some ventilation controls not working as designed. Controls contractor and TBS conducting further diagnostics.)

Scope 7: Status



- **Settled Dust Evaluations (ongoing)**
 - Typical Allergens
(Dust Mites, cat & dog allergens)
 - Particle Morphology (Fiberglass, dirt)
 - Unusual (PCB's)
 - NIOSH (Biological markers)?

- **Indoor sampling for possible Soil Gas for VOC's added as requested, (conducted 2/7/07 through 2/8/07).**

Scope 8: Status



- **Moisture Source? Evaluations**
 - **Infrared Thermography Inspection**
 - (Conducted on 1-23-07, awaiting report, air leakage sites found as expected)
 - **Moisture Meters**
 - **Wall, Window, Expansion Joint Drainage**
 - **Eventual Limited Intrusive Disassembly?**
 - **HVAC Pan Draining (ongoing inspections)**

Scope 9: Status



■ Tracer Testing

■ Evaluation of Sewer Venting (1-22-07)

- | (18 dry traps located, fix: water added,
- | no broken lines located, condensate lines will be further evaluated with tracer gas on 2-19-07)

■ Tracer Gas Testing (2-19-06)

Questions & Comments Regarding Status ?



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