



Apr. 13, 2017

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It is our professional opinion that spray applied **Precidium™ ECS™** (ECS) polyurea will provide a permanent airtight and water tight barrier against particles from asbestos contaminated soil from passing into the building interior environment. Asbestos particles will not penetrate the ECS liner, neither alone nor carried by air or water. We have completed extensive testing of water vapour permeance through ECS, and the hydraulic conductivity is very small (approx. 1×10^{-12} cm/sec. or less). We have also completed in-house testing of methane vapour transmission through 60 mil ECS and found the amount of vapour passing through the liner was smaller than we could measure, even under 1 atmosphere of pressure. Methane is more permeable through polyurea than through air, so it is reasonable to deduce that air transfer through the membrane is even lower.

ECS would be sprayed applied to fabric to cover and seal soil. ECS is very strong and elastic, making it very durable in service. ECS does not break down over time when covered, and will provide permanent protection over the lifespan of the building.

In conclusion, we believe an ECS spray applied liner to be a suitable candidate for asbestos abatement applications.

Quantum would be happy to provide more information or discuss this application further if required. Please contact the undersigned if you require additional information.

Sincerely,

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