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Chris White, PE, LEED AP

The Most Interesting Engineer in the World

This week we welcomed Chris White "The World's Most Interesting Engineer". Chris is a third-generation Professional Engineer and a LEED Accredited Professional experienced in solving mold and indoor air quality problems, conducting asbestos and lead inspections and designing environmental cleanup/remediation after disasters. Among other things, we learned Chris' path to becoming "the World's Most Interesting Engineer".

Chris White, Vice President at Wynn L. White Consulting Engineers, Inc., is a third-generation Professional Engineer and a LEED Accredited Professional. He is a graduate of LSU. Since 1988, Chris has been deeply involved in asbestos management and abatement, demonstrating his long-standing commitment to the industry. His work with local and national clients has been instrumental in solving complex indoor air quality problems and reducing environmental risks.

Chris specializes in solving mold and indoor air quality problems, conducting asbestos inspections and designing abatement projects, conducting lead surveys and designing abatement projects, designing environmental cleanup and remediation after disasters, and designing environmental hazard abatement and demolition projects. Chris has been a key figure in managing his firm's disaster response and recovery work. His most notable disaster response work was as project manager for response projects after Hurricanes Katrina and Rita in 2005, the 2016 Baton Rouge flood, and Hurricanes Laura and Ida in 2020 and 2021.

Chris has co-authored three books with Wynn White: "Lead Learning Hazard", "Proactive Moisture and Indoor Air Quality Management Plan", and "How to Improve Test Scores Through Better Indoor Air Quality". Away from work, Chris is a husband and Dad, a Chicago Cubs fan, and an amateur photographer.

Nuggets mined from today's episode:

What attracted you to engineering, the same career path as your grandfather and father? Chris began working for the family business, surveying for asbestos in schools as a High School graduate. The money was good. Chris wanted to go to college. The asbestos abatement boom started while he was in college. Chris has a degree in history, originally wanted to teach history or become an attorney. Dad suggested he become a professional engineer if he wanted to take over and eventually own the business. He went to school full-time and worked fulltime. He started a family and then took an unconventional 7-year path to becoming professional engineer.

Tips for working with family in a business Learn every job in the company and learn what everyone does. When much is going on many hands make light work. He worked on projects, worked in the office, and learned how to get reports done. He also learned how to generate revenue and manage projects for the firm. Their firm incorporates engineering ethics into all their projects – after all, at their core they're an engineering firm.

What is Wynns' Way?

Rotary International is one of the largest service organizations in the world. The self-declared mission of Rotary, as stated on its website, is to "provide service to others, promote integrity, and advance world understanding, goodwill, and peace through [the] fellowship of business, professional, and community leaders". It is a non-political and non-religious organization. Wikipedia rotary.org

The Rotarian Four-Way Test is a moral code used by Rotarians worldwide to guide their personal and business relationships. It consists of four questions: Is it the truth? Is it fair to all concerned? Will it build goodwill and better friendships? Will it be beneficial to all concerned?

WE LOOK FOR PEOPLE THAT ARE IN ALIGNMENT WITH OUR CORE VALUES

- The Core Values represent the baseline of moral character expected of all Wynn L. White Consulting Engineers, Inc. personnel. They are not a list of lofty ideals you are supposed to shoot for some day in the future. Rather, they are the standards of behavior you need to embrace and live by on a day-to-day basis.
- INTEGRITY
- Integrity is a character trait. It is the willingness to do what is right even when no one is looking.
- SERVICE ABOVE SELF

- Voluntarily giving of oneself, over personal desires, to provide for the welfare of others.
- EXCELLENCE
- This challenges us to develop a sustained passion for continuous improvement and innovation to enable Wynn L. White Consulting Engineers, Inc. to grow and flourish in serving our clients' needs. The obligation to excel is a moral obligation for members of a professional firm.
- RESPECT
- Respect means we value our diverse membership. We treat each other with fairness, dignity, and compassion. We work as a team.
- Engineering ethics- safeguarding the health, welfare and safety of the public.

How did being the World's Most Interesting Engineer come about? The Most Interesting Man in the World was a popular advertising character for Dos Equis beer, portrayed by actor Jonathan Goldsmith from 2006 to 2016. The campaign featured humorous and adventurous stories, making the character a cultural icon and significantly boosting the brand's popularity.

Coining the "World's Most Interesting Engineer" title for himself was a combination of self-deprecating stereotype of engineers as being boring, and only impressed with themselves and their projects, and with his admiration of the Dos Equis beer commercials.

How large is Wynn White Consulting Engineers? 7 people. Chris and Wynn are the two principal engineers. The firm has a young graduate engineer, three field employees, an assistant project manager, and Chris' Mom who runs the back office.

Are we running out of asbestos work? There is so much asbestos related work to be done if it became a national priority to remove all asbestos it might take as long as 100 years to do it. Lead is more in the news; particularly lead in water as the result of deterioration of pipes. As pipes and drainage systems deteriorate lead leaches out. Over time both lead and asbestos show up in tap water. Lead and asbestos commonly show up after catastrophes. Lead and asbestos are commonly found after hurricanes and wildfires; the concentrations of HAZMAT vary.

Call me, and I'll gladly assist. Following catastrophes Wynn White Consulting Engineers provides free public service info to the public through social media and other means. Their goal is to help prevent avoidable consequences caused by improper remediation.

It's not just mold! Following storms and hurricanes fixation upon mold is common; Chris cautions not to forget about other potential hazards such as PCBs, lead, asbestos, etc.

Does your firm currently perform outdoor monitoring? Yes, particularly with petrochemical clients doing abatement projects; where they do air monitoring along the perimeters of projects where work is being done.

Are the lab fees for sample analysis going up or going down? The PCM analyst counts fibers that are present on the filters to give a time-weighted average of the concentration of those fibers for the volume of air sampled. PCM results are fiber concentrations and do not distinguish between asbestos and non-asbestos fibers. Wynn White Consulting Engineers performs this analysis in-house. TEM analysis is done using an electron microscope. Analysis of a clearance set of TEM samples which cost $3,000 in years past now can be obtained for $350.

Asbestos must be taken seriously.
In the 1980s when Chris first underwent asbestos abatement and monitoring training workers couldn't be trained fast enough. *Attendees of these early training classes left the course petrified of asbestos after hearing that inhaling just one asbestos fiber could cause mesothelioma. Asbestos regulatory inspectors routinely showed up unannounced on projects. Consultants and abatement contractors feared the consequences for violations and fines.

Chris advocates: Doing what's right and doing it the right way.

*"By 1969, Dr. Irving Selikoff and others had produced data conclusively showing that asbestos workers had developed cancer by working in areas with concentrations of asbestos fibers below the twelve fiber per cubic centimeter of air standard then recommended by the American Conference of Governmental Industrial Hygienists (ACGIH). In 1970 the ACGIH revised the recommendation down to five fibers."

OSHA'S Chemical Regulations, 1970–1976

- Chapter
- pp 81–104

This led to asbestos abatement workers being taught that 1 fiber of asbestos could cause mesothelioma.

What's new in storm recovery? More understanding and acceptance of the importance of the need for advance planning. Advises facilities to select and qualify their team: consultants, contractors, suppliers in advance of the water event. The economic value of having a condition assessment to validate conditions of the facility before the storm.

Excited about new technology 360^{o} cameras and remote monitoring devices and data loggers sharing info in the cloud.

Changed minds what was gotten wrong- 37 years of asbestos regulations led to lead regulations. Lead regulations initially fizzled out. During the 1990s there was talk about government regulations on IAQ. No IAQ regulations except for guidance and programs. IAQ regs haven't taken off, due to push back and negative connotation.

During COVID- Attended a school facility manager meeting to learn about HVAC operating and maintaining systems during COVID and COVID cleaning procedures, instead the attendees were talked down to by a state department of health MD about masking and vaccines. One positive result of COVID, awareness of the value of improved filtration in buildings.

Mold concerns and mistakes.

Contractors removing all the ceiling tiles in buildings whether tiles need to be removed or not. While concentrating on removing ceiling tiles, they are ignoring visibly moldy sheetrock. Removing sheetrock, whether it needs to be removed or not. Sometimes the wait and see approach is best. Example of a school where contractors removed ceiling tile which was OK, while ignoring the cafeteria where mold grew on everything.

What pointers or tips for restorers? Ensure that everyone understands the scope of the project, the expectations, when project completion criteria and success criteria are met. Avoid miscommunication before the project starts. We don't like outsiders coming in for storm response who think they have to save us from ourselves. It's not your building or school. Ask the owner or facility what they want – it's their building.

What is Insituation? The name given to his firm's 360^{o} walkthrough of a facility imaging everything inside and out. LiDAR laser scanning is a remote scanning methodology for spatial analysis using laser light to densely sample the

surface of an object and subsequently provide a detailed 3D Model. The data can be used to create pdfs, floor plans, CAD drawings, etc. The data is sent into the Cloud and accessed remotely. Their firm provides walkthrough data to clients for sharing with contractors, design team, and FEMA. This helps cut down response time and can save time getting insurance and FEMA approval on projects.

The LEED Silver building that was "green". Chris has developed the unavoidable habit of when in a building systematically looking at the floor, the base molding, walls, and ceiling while looking for "stuff".

The law of unintentional consequences.

- Many hotels have gone away from using vinyl wallcovering.
- A Florida hotel, built on the coast. Chris noticed bubbling of the wall covering in a room where an ice machine was located. He detached the wall covering and found what appeared to be "materials exhibiting characteristics of mold". A lawyer friend taught him that phrase.

RoundUp

Pete Consigli Disaster Restoration Global Watchdog & Industry Historian

- Rotary clubs are about people who get together for the purpose of public service. Politics and religion are not discussed.
- A Masonic Hall in California was carpeted with thick wool carpet. The carpeting was cleaned by a Mason. Following cleaning, dehumidifies and air movers were used to speed the drying.
- Mike McGuinness, CIH from New Jersey frequently encounters mold problems in schools who schedule carpet cleaning during late summer. The temperature and RH are high and the HVAC system is either turned off or not adjusted to handle the spike in humidity; resulting in mold growth.
- With his experiences with asbestos in the Bay Area of California, Pete lectured on asbestos awareness at an RIA Conference many years ago. Subjects discussed included and were not limited to: common materials containing asbestos, legal implications, friable versus nonfriable asbestos, sampling/analysis, disposal, etc.
- The LEED Silver building where Chris found mold was in the words of Joe Lstiburek "was most likely designed by a northern architect.

Chris White:

- Wishes more training was required for people who are doing the work.

- Large regional and national restoration firms have good supervisors. Supervision may be stretched thin on large out of state projects.
- Benefit of knowing state and regional contractors and consultants with demonstrated capabilities.
- Encourage FEMA to make site inspections of large losses.
- Storm season is coming- start planning now.
- Take care of the water, don't forget about the other things!

Z-Man signing off

Trivia-
According to an article in The Balance, what is the #1 reason engineers quit their jobs?

Answer:
Boredom

Sorry, there was no correct answers