



Matthews University



Elder Davis

“Did You Know”™ Educational Series



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FORMALDEHYDE IN THE CREMATION PROCESS

Does formaldehyde affect the operation or emissions of cremation equipment?

No, while utilizing good operating practices and properly operated cremation equipment there should be no effects.

Is formaldehyde a significant hazard in cremation? The answer is a resounding no, not only in terms of occupational safety, but from the environmental standpoint as well.

Not all embalming fluids are formaldehyde-based; some contain phenol or glutaraldehyde instead. Embalmed human remains received at the crematory may or may not have been prepared with formaldehyde. In cases where formaldehyde (CH_2O) was used in routine embalming, it has already reacted with human remains and no longer exists as CH_2O . Its preservative effect occurs through chemical reaction with the proteins in the human remains. It also reacts with the body's fat tissues and nitrogenous components. These reactions change CH_2O into other harmless chemical compounds; the amount of free formaldehyde left afterward nearly nil. If there was free formaldehyde left in the embalmed human remains, what would happen to it during cremation?

Formaldehyde's flash point (the temperature at which it will ignite and burn) is in the range of 120°F to 210°F. This is far below the range of cremation temperatures. Exposed to cremation temperatures, CH_2O reacts with the oxygen (O_2) of the combustion process and breaks down into carbon dioxide (CO_2) and water (H_2O). Formaldehyde emissions from the stack are just about nonexistent in cremation.

Sound receiving, storage and handling procedures at the crematory virtually eliminate the risk of formaldehyde exposure for crematory employees.

For service, sales or assistance please call (800) 327-2831

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