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Tommy and the High Pilots pg 5

Talk highlights hazardous toxins

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Fort Hays State physical sciences students joined Emporia State students last Thursday for "Unintended Consequences," a presentation on the pros and cons of human impact on the environment, given by Frankie Wood-Black in Cram Science Hall. The talk was sponsored by the American Chemical Society, Wichita Local Section and ESU Chemistry Club.

"We talk about serendipity quite a lot," Wood-Black, senior air professional of Trihydro Corporation in Oklahoma, said. "Most consequences are unintended. That's why I am here talking about these new technologies in sustainability."

The presentation started with Wood-Black quoting from Stephen R. Covey, author of best seller "The Seven Habits of Highly Effective People." She said that "while we are free to choose our actions, we are not free to choose the consequences of those actions."

Wood-Black discussed the introduction of chemicals into the environment such as DDT and MTBE, genetic modification, the implementation of renewable feedstocks, along with the anticipated benefits and unintended consequences of their use and regulation.

Wood-Black spoke on four case studies involving the chemical effects on the environment. She also spoke briefly about her experiences working for Downstream Technology Conoco-Philips Corporation.

"She has a PhD, MBA, and REM. She has about twenty years of industry experience," said Malonne Davis, associate professor of chemistry and science education. "Her expertise is based in the field in foundries, specifically downstream technology."

Wood-Black said that there are multiple statements in the scientific community attempting to establish some common guidelines and rules regarding sustainability, but one declaration made in 1992 was fundamental – the precautionary approach. She said that the

precautionary approach was key and that "in order to protect the environment, the precautionary approach shall be widely applied by the states, according to their capabilities."

The precautionary approach was mentioned in each of the case studies that Wood-Black discussed. She also explained how the precautionary approach has not been followed closely in the realm of regulation. She said that major issues can arise from too much regulation, such as overuse of MTBE in gasoline and the resulting leaks of the chemical into groundwater.

"It's not the farm kids who grow up and make these regulations," Wood-Black said. "It's the people who grew up in the city and aren't actually experienced with the way things work on the farm."

She said that with every chemical solution to an environmental problem with real or perceived benefits, there are usually unforeseen problems with the use of those chemicals. She said the opposite is true with older chemicals such as the banned pesticide DDT, where the vast benefits have long been forgotten in the name of the chemical's undesired effects.

Wood-Black hosted a poster session at a NPRA conference with other Trihydro environmental scientists titled, "Toxic Substance Control Act – Preparing for the Inventory Update Rule and Future," in 2010. Meredith Knauf, C.E.S., and National Cooperative Refinery Association Environmental Engineer Rhett Heflin gave a presentation titled, "Managing GHGs in a Carbon Constrained World: Greenhouse Gas Reporting Program and Environmental Management System Integration, A Case Study." Trihydro Chemical Engineer Sean Ukele gave a presentation addressing heat exchanger leaks, according to trihydro.com.

"You can't regulate common sense," said Dr. Wood-Black, "but yet we try to anyway."

The ESU Chemistry Club is planning more discussions on regulations regarding sustainability in April and May.