



PRESS ADVISORY

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HANFORD COUNCIL RELEASES EXPERT PANEL REVIEW OF TOXIC  
CHEMICAL VAPOR REPORT

*Hanford Challenge Welcomes Independent Review; Praises Hanford  
Contractor and Council for Transparency and Collaborative Approach*

Richland, WA: A new report on the hazards of chemical vapor exposures has been released by the Hanford Concerns Council, an independent mediation council composed of Hanford-related interests.

The Council hired an independent Expert Panel to review the contractor's *Industrial Hygiene Technical Basis for Chemical Vapors* report, which had been the subject of dispute between *Hanford Challenge*, a public interest group, and contractor CH2M Hill Hanford Group. Both CH2M Hill and Hanford Challenge are members of the Concerns Council.

The legacy of Hanford's plutonium production operations is a large quantity of deadly high-level radioactive and chemical byproducts, the worst of which, an estimated 53 million gallons of nuclear waste, are stored in 177 underground tanks. The high level radioactive waste forms toxic vapors in the headspace of the tanks, which must vent to the atmosphere to prevent pressure buildup, possible explosion, or tank rupture.

Workers exposed to the tank vapors have suffered numerous health effects: nosebleeds, persistent headaches, tearing eyes, burning skin and lungs, coughing, sore throats, the need to constantly clear their throats, expectorating, dizziness, nausea, and increased heart rates. More serious health impacts resulting from exposure to tank vapors may be long term in nature. Some workers are on long-term disability resulting from chemical vapor exposure at Hanford.

The study concluded that the methodology employed by CH2M HILL for developing the *Technical Basis* document is consistent with industry best practices for setting Acceptable Occupational Exposure Levels. Another key conclusion of the Expert Panel included: "[T]he committee is unable to conclude that the protective measures are sufficiently conservative to protect worker health. There are several areas in the Technical Basis where there is significant uncertainty in sampling data. One area in particular deals with the impact of waste disturbing activities on the emission characteristics of a tank over time. The committee has identified several opportunities where the approach outlined in the Technical Basis document could be made more conservative, i.e., more

protective of workers, by reducing uncertainty” (p. 4, Executive Summary). The full review is available at [www.hanfordconcernscouncil.org](http://www.hanfordconcernscouncil.org).

On October 1, 2008, a new contractor (Washington River Protection Solutions) will take over the tank farms operation contract.

Based upon recommendations by the Expert Panel, Hanford Challenge is urging that the vapor control zones be expanded around known emission points, that the contractor expand the number of chemicals for which it monitors, and that engineered solutions to the vapor issue be explored, including a proposal to divert chemical vapors to a remote area of the site, away from workers.

The new contractor, Washington River Protection Solutions, DOE and *Hanford Challenge* are in agreement that the Hanford Concerns Council should continue to play a role in studying the vapor issue and assisting with issues related to implementation of worker protection procedures, policies and equipment.

Tom Carpenter, Executive Director of *Hanford Challenge*, gives CH2M HILL credit for participating in the study. “CH2M HILL’s agreement to fund and participate in this study shows commitment to worker safety, and to an open and transparent review of the technical underpinnings of their worker protection program.”

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For the Tech Review Summary and related reports visit  
[http://www.hanfordchallenge.org/tank\\_vapors\\_and\\_worker\\_safety](http://www.hanfordchallenge.org/tank_vapors_and_worker_safety)

For the Hanford Concerns Council Press Release visit  
[www.hanfordconcernscouncil.org](http://www.hanfordconcernscouncil.org)