

ARNOLD & PORTER (UK) LLP

Key California EH&S Issues 2015
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2015 Update

- **Trends in Individual Criminal Liability**
 - When should you worry?
- **TCE and Vapor Intrusion**
 - When science, policy and politics collide
- **Hexavalent Chromium**
 - A problem in California drinking water
- **What's Next?**

Individual Criminal Liability



When Do Criminal Prosecutions Occur

- Harvard study of 1000 cases shows key factors are:
 - Serious injury or death
 - Significant environmental harm (e.g., chemical spill)
 - Deceptive or misleading conduct



Individual Criminal Liability



UCLA Laboratory Fire: A Case Study

- December 28, 2008 UCLA lab researcher was using a plastic syringe to withdraw from a glass storage bottle the highly reactive liquid reagent tert-Butyllithium, which is spontaneously flammable in air. In the process, the plunger became dislodged from the barrel, the reagent spilled onto her, and she immediately caught fire. She suffered second and third degree burns over approximately forty-three percent of her body. She died eighteen days later as a result of her injuries.

Civil and Criminal Prosecutions

- Cal/OSHA cited UCLA for serious and willful civil violations
- Both UCLA and the principal investigator, Patrick Harran were later criminally prosecuted by the LA County

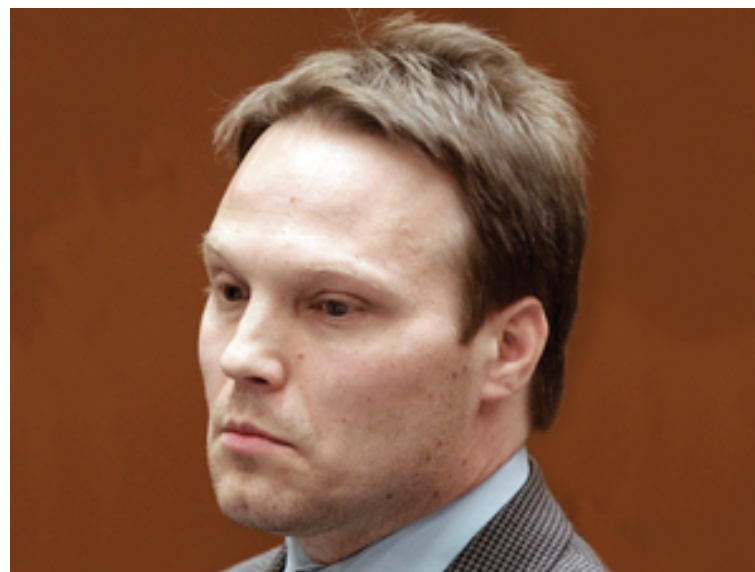


UCLA Case Study: Key Findings

- UCLA EH&S Staff:
 - Had an inadequate IIPP
 - Was aware that researchers did not use PPE like lab coats and gloves, and failed to take action
 - Was aware that principal investigators were not providing adequate oversight
- The Principal Investigator
 - Failed to train Ms. Sangji in proper technique to handle a highly hazardous chemical
 - Had inadequate SOPs
 - Did not provide or enforce the use of PPE

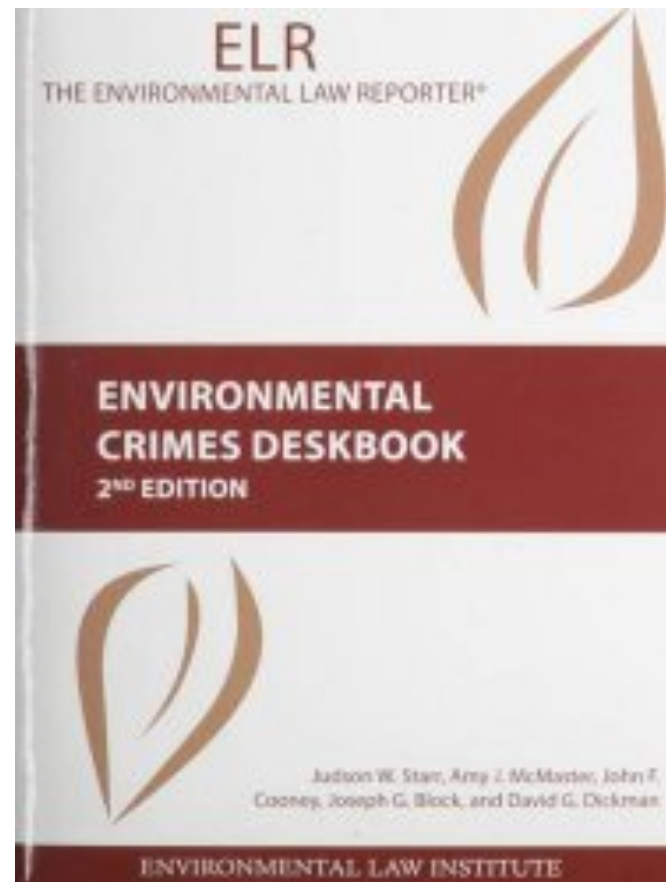
UCLA Case Study: Resolution

- Professor Harran worked out a deferred prosecution requiring him to:
 - Teach a summer course on organic chemistry to inner city high school graduates for five years;
 - Complete 800 hours of non-teaching community service at UCLA Hospital or UCLA Health Services;
 - Pay a \$10,000 fine; and
 - Remain violation-free for five years.



Criminal Enforcement Concepts

- This case illustrates:
 - Criminal omission and commission
 - Willful blindness
 - Deliberate ignorance
- Mens rea (intent)

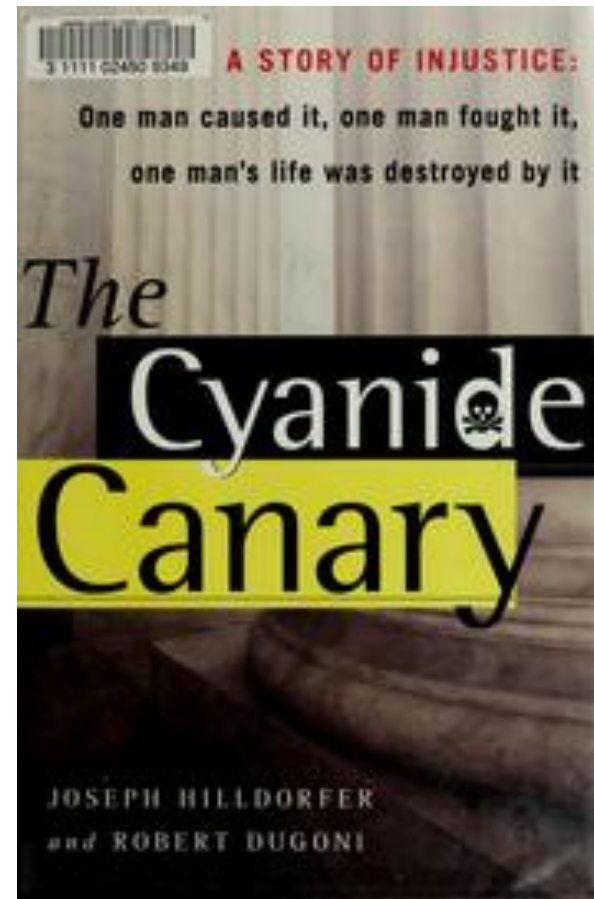


Other Criminal Case Studies

- Solus Water Heater Explosion Death (2007)



Evergreen Resources – Cyanide in Tank



California C&R – Fall Fatality

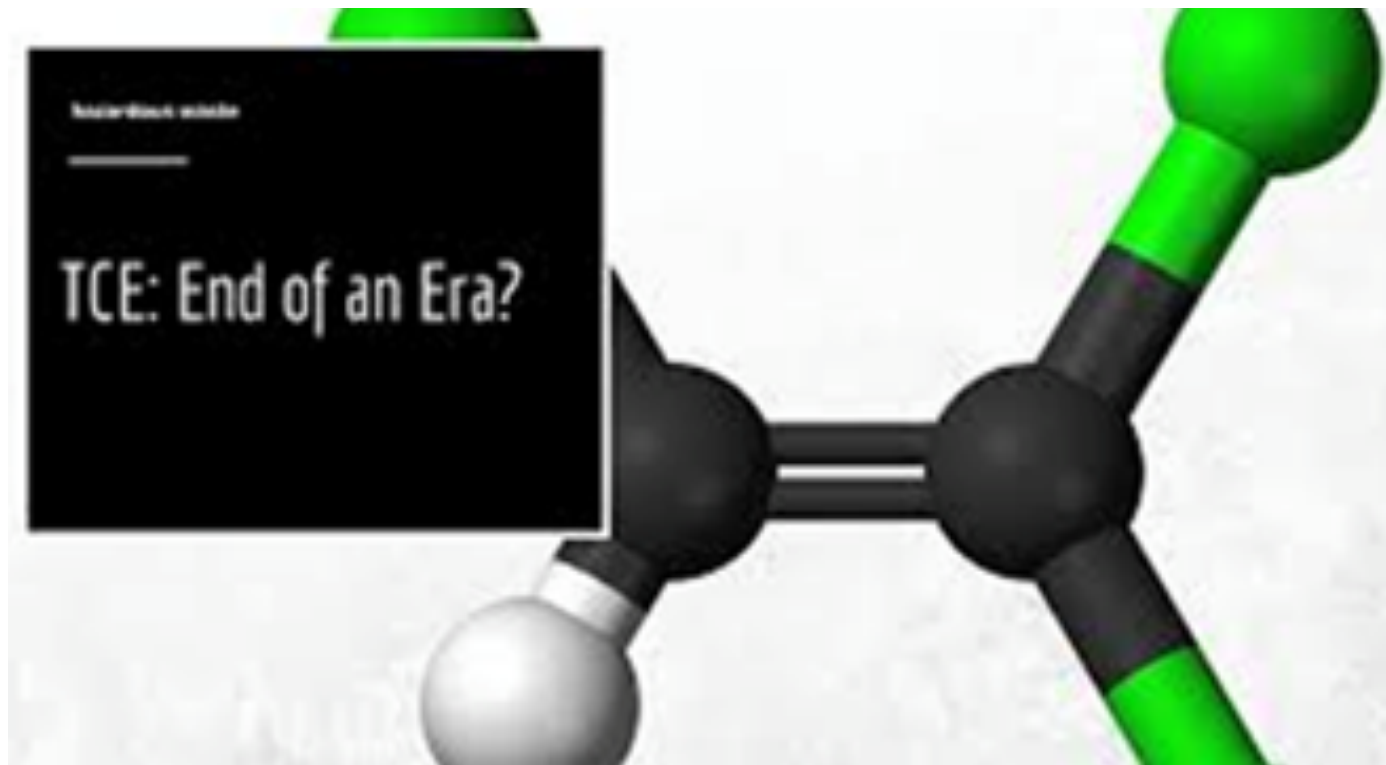


Summary

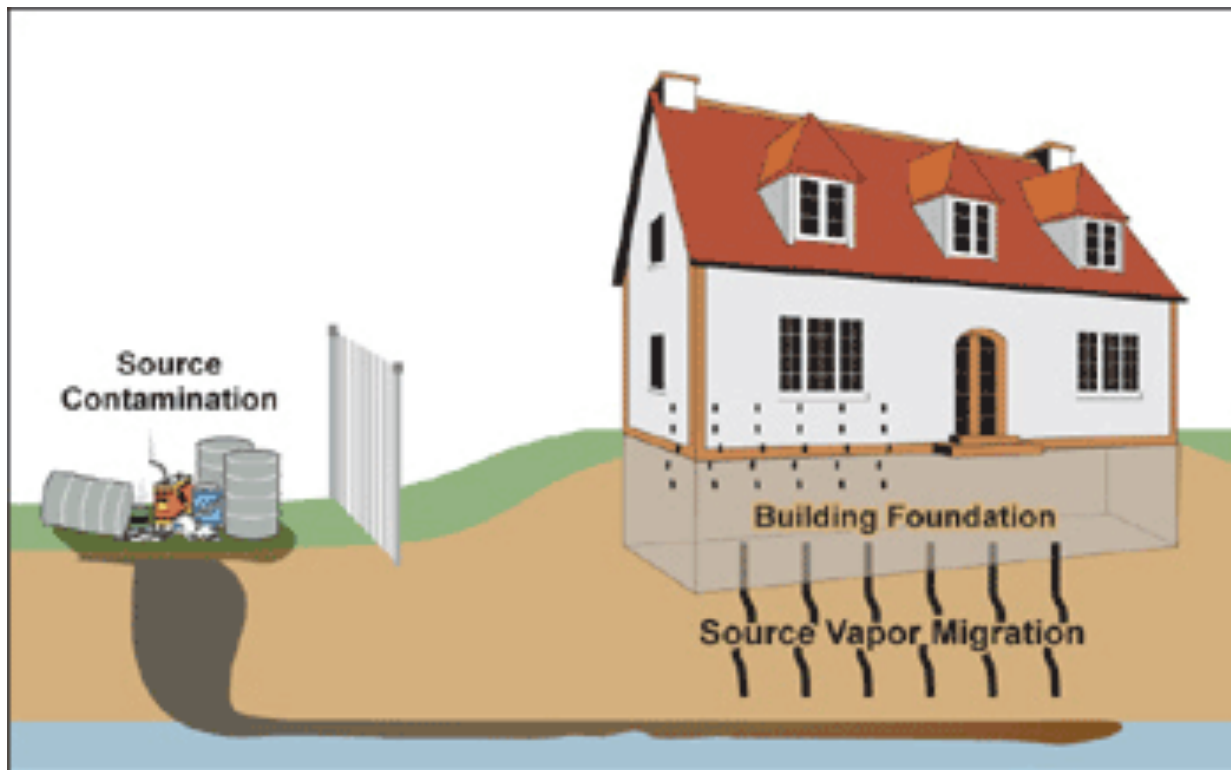
- Criminal prosecutions are rare
- But the government has very strong enforcement tools
- Training, core safety, real world implementation are key



TCE: When Worlds Collide



TCE and Vapor Intrusion



EPA Region 9 Policy

- December 2013 South Bay Sites Letter
- July 2014 EPA Region 9 Policy
- Stakeholder Responses
 - HSIA
 - CMTA
 - Silicon Valley Leadership Group
- Serious questions remain about whether TCE causes birth defects (fetal heart malformations) over very short term exposures
- Disparity between OSHA and EPA standards

Hexavalent Chromium in Drinking Water



Hexavalent Chromium and Drinking Water

- New standard is very low – 10 ppb
- Hex chrome is present throughout California and found in drinking water
- Sources appear to be “anthropogenic” and naturally occurring



Active and Standby CDPH Wells (3156 Total) with at Least One Detection of Chromium VI > 1 µg/L DLR

Source 1980 - September 2008 Geotracker-CDPH Data
(Map revised September 8, 2009)



What's Next?

- The California environment shows the positive effects of decades of strong policies and enforcement
- Environmental justice is a trend
- California is at the forefront of mega-issues like climate change
- Lessons learned need to be applied on a planetary scale