

# Study Guide for *Henry's Daughters*



Produced and distributed by the  
National Institute for Engineering Ethics  
Murdough Center for Engineering Professionalism  
Edward Whitacre College of Engineering  
Texas Tech University  
Lubbock, Texas



TEXAS TECH UNIVERSITY

National Institute *for* Engineering Ethics

Copyright © 2010

*Henry's Daughters* is designed to raise awareness of the ethical aspects of engineering work, advance knowledge and understanding of professional standards and public obligations and expectations, improve skills in moral reasoning, and strengthen personal dedication to exemplary conduct.

## ***Henry's Daughters*** **is dedicated to the memory of**

### **E. D. “Dave” Dorchester, P.E.**

Past President, National Institute for Engineering Ethics

Past President, Texas Society of Professional Engineers

Past Chair, Texas Board of Professional Engineers

Distinguished Life Member, NIEE Executive Board

*Dave was highly influential in promoting NIEE and Murdough Center ethics programs. In 1989, he established the Professional Development Program of the Texas Board of Professional Engineers. As NIEE President, Dave worked with Dean Bill Marcy to bring NIEE to Texas Tech University.*

and

### **E. Walter LeFevre, Ph.D., P.E.**

Past President, National Society of Professional Engineers

Fellow, National Society of Professional Engineers

Past Director, Vice President and Fellow, ASCE

Past President, Arkansas Professional Engineers Board

Distinguished Life Member, NIEE Executive Board

*Walt was the longest standing member of NIEE. He appointed the current NIEE director to the original NSPE/NIEE Board of Directors and encouraged all NIEE officers, including the last president of NIEE, Dave Dorchester, actions instrumental in making the current organization possible.*

## ***Suggested Tests for Evaluating Actions***

(M. Davis [1997], C. Skooglund, J. Smith, & P. Harper)

Viewers might evaluate character actions by applying the following tests:

Harms Test



Do the benefits outweigh the harms, short term and long term?

Reversibility Test



Would I think this was a good choice if I traded places?

Colleague Test



What would my professional colleagues say?  
What does my professional code of ethics say?

Legality Test



Would my choice violate a law or policy of my employer?

Publicity Test



How would my choice look on the front page of tomorrow's newspaper?

Common Practice Test



What if everyone behaved this way?

Wise Relative Test



What would my wise old aunt or uncle do? and/or  
Would I want them to know what I'm doing?

The Hiding Test



Do I want people to know what I'm doing?

The Self-Respect Test



How will I feel about myself after making this choice?

These evaluation tests promote decisions based on how we would feel about what we do, if someone else knew, or if we would be caught.

However, the best decision is to

**Do the right thing *because* it's the right thing to do**

—rather than out of fear of negative consequences to ourselves.



## **References**

Davis, M., “Developing and using cases to teach practical ethics,” *Teaching Philosophy*, vol. 20, no. 4, pp. 353–385, 1997.

Harris, C. E., Pritchard, M. S., and Rabins, M. J., *Engineering Ethics: Concepts and Cases*, 4<sup>th</sup> ed. Belmont, CA: Wadsworth, 2009.

Johnson, D. G., *Ethical Issues in Engineering*. Englewood Cliffs, NJ: Prentice-Hall, 1991.

Martin, M. W., and Schinzinger, R., *Ethics in Engineering*, 4<sup>th</sup> ed. New York: McGraw-Hill, 2005.

Online Ethics Center for Engineering and Research:  
<http://onlineethics.org>

National Institute for Engineering Ethics:  
<http://www.niee.org>

## Part C: Story and Cast of Characters

### Story

Henry, 65, is a retired but still well-connected automobile executive and sometime lobbyist. He is involved in an academia-industry-DOT (Department of Transportation) smart highway design project called SANSHANDS. The project goal is to develop specifications for automated highways and car control systems so that people won't have to drive anymore.

Laura, 29, Henry's older daughter, works at the DOT. She is a PE and will be technical project manager on the SANSHANDS project. As project manager, Laura is responsible for compiling and recommending the specifications for the computer control system that will guide R&D and, ultimately, define the next generation of smart highways. Her recommendations will be considered by the DOT Commissioner before being adopted.

Julie, 21, is Henry's younger daughter. With her father's finagling, she was selected as an intern with OUTOCAR, a local start-up company recently founded by state university engineers in partnership with the University's Business Incubator. A major existing firm, GUIDEME, is competing with OUTOCAR to take the design of SANSHANDS concept to the next level.

The story intertwines the lives of both young women. They live together, and in their off hours, talk a lot about the project. Both are excited to be involved with a project that will impact the future. While most of their discussions focus on their technical and personal challenges, sometimes the women unconsciously cross the ethical line by letting proprietary information slip or by creating software and using another company's product as an example.

As the project evolves, though, both sisters begin to see the corrupting influence that industry money can have on both government and academia. Laura sees representatives of the firm GUIDEME taking DOT executives on fishing excursions. Julie learns that her boss used her work on the project as part of his PhD dissertation without acknowledging her role.

There are pressures within the DOT and other state departments indicating that GUIDEME is the preferred choice. OUTOCAR personnel allege that ethical misconduct and possible criminal violations happened during the project, and so the state senate ethics commission calls Henry and Laura to testify at a hearing on the project.

*Henry's Daughters* highlights ethical issues encountered by the characters, such as professional relationships, conflicts of interest, favoritism, confidentiality of proprietary information, intellectual property, sexual harassment, and individual privacy. The characters disagree over the tradeoffs between technical performance, safety, reliability, sustainability, flexibility, and cost. The characters also find that political and social factors can influence technical decisions.


## *Cast of Characters*

A close-up photograph of Henry, an older man with a grey beard and mustache, wearing a red and black patterned shirt. He is looking slightly to the right with a thoughtful expression.

### Henry

father of two girls  
professional engineer  
semi-retired lobbyist  
for GUIDEME


RODGER BOYCE

A close-up photograph of Laura, a woman with dark hair pulled back, wearing a dark top. She is looking upwards and to the right with a concerned expression.

### Laura

Henry's eldest daughter  
a professional engineer  
in charge of Special Projects  
for the State DOT

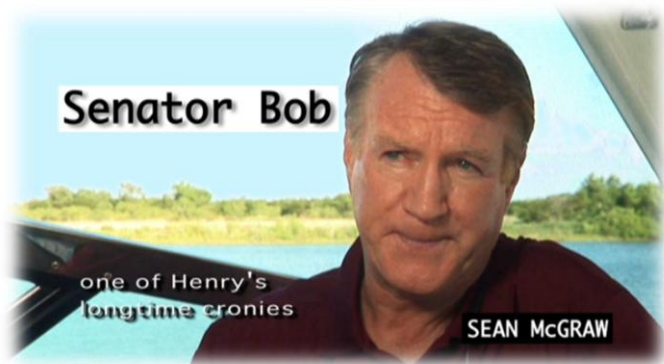
JODY RUDMAN

A close-up photograph of Julie, a young woman with long brown hair, wearing a blue top. She is looking slightly to the right with a neutral expression.

### Julie

Henry's younger  
daughter  
working her first  
post-college job  
with Outocar

NATALIE COTTRELL









# *Henry's Daughters*

## An Engineering Ethics Story

Copies of the movie may be purchased by contacting the  
**National Institute for Engineering Ethics**  
Box 41023, Lubbock, Texas 79409-1023  
Phone: 806-742-3525; Fax: 806-742-0444  
Email: [Engineering.Ethics@ttu.edu](mailto:Engineering.Ethics@ttu.edu)



TEXAS TECH UNIVERSITY

National Institute *for* Engineering Ethics

A Study Guide and information about *Henry's Daughters* ©2010 and our other engineering ethics movies, *Gilbane Gold* ©1989 and *Incident at Morales* ©2005, as well as our ethics seminars, workshops, and ethics courses may be obtained from:

**[www.niee.org](http://www.niee.org)**