

# Business Ethics for HVAC Professionals

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# Learning Objectives

- More thoroughly understand the ethical climate as ruled by the National Society of Professional Engineers (NSPE) and Supported by ASHRAE.
- Apply a heightened awareness of engineer's ethical issues in day-to-day job functions.
- Learn how to apply ethical concepts to dealing with clients.
- Distinguish ethical issues from non-ethical issues and when to speak up.

# Definition of Ethics

Ethics is a branch of philosophy that involves systematizing, defending, and recommending concepts of right and wrong conduct.

# Ethics is a 24 Hour Commitment

Professional Ethics

Personal Ethics

Common Morality

(ASHRAE Seminar 15, Atlanta 2015)

# The Roots of Ethics

- The first reference to a Society Code of Ethics is found in the May 1935 issue of *The American Engineer*.
- In 1946, the Canons of Ethics for Engineers was eventually prepared by a joint committee sponsored by the Engineers' Council for Professional Development.

# Ethics vs Conduct

Code of Ethics and Code of Conduct are the standards that a group must adhere to, so as to remain the member of the organization.

- The **code of conduct** is a set of guidelines that influence your actions.
- The **code of ethics** is a set of principles that influence your judgement

# National Society of Professional Engineers Fundamental Canons

Engineers, in the fulfillment of their professional duties, shall:

1. Hold paramount the safety, health, and welfare of the public.
2. Perform services only in areas of their competence.
3. Issue public statements only in an objective and truthful manner.
4. Act for each employer or client as faithful agents or trustees.
5. Avoid deceptive acts.
6. Conduct themselves honorably, responsibly, ethically, and lawfully to enhance the honor, reputation, and usefulness of the profession.

# ASHRAE Ethics Policy

As members of ASHRAE or participants in ASHRAE activities, we pledge to act with honesty, fairness, courtesy, competence, integrity and respect for others in our conduct. We will avoid conflicts of interest, and behavior that is discriminatory and/or harassing.

+446 Words



# How Bad Business Ethics Affect Everyone

# Bad Business Ethics

## ENRON

Admitted to inflating their income figures by \$586 Million over a four-year period

Advised employees to hang onto their stocks, but executives sold their own

One month later filed Chapter 11 Bankruptcy

At its simplest, the Enron scandal is about fraud, the complexities of deregulation and a system that rewards companies for how they look on paper.

**\$74 billion**

*The amount that shareholders lost in the four years leading up to Enron's bankruptcy.*

“Only one rule of behavior”

## Follow the Golden Rule

John C. Maxwell, “There is No Such thing as Business Ethics”, 2003

The golden rule crosses cultural and religious boundaries

## Christianity

Whatever you want men to do to you, do also to them

The golden rule crosses cultural and religious boundaries

Islam

What is hateful to you, do not do to your fellow man.....

The golden rule crosses cultural and religious boundaries

Buddhism

Hurt not others with that which pains yourself

The golden rule crosses cultural and religious boundaries

## Confucianism

What you do not want done to yourself, do not do to others

The golden rule crosses cultural and religious boundaries

## Jainism

A man should go about treating all creatures as he himself would be treated



The golden rule crosses cultural and religious boundaries

Conclusion:

The golden rule is the closest thing to a universal guideline for ethics

# The Shades of Gray of Ethics

Black and White - Easiest to resolve

Life Safety

Right and Wrong

Gray - Difficult to resolve

Right vs Right

Lesser of the Evils/Dilemma

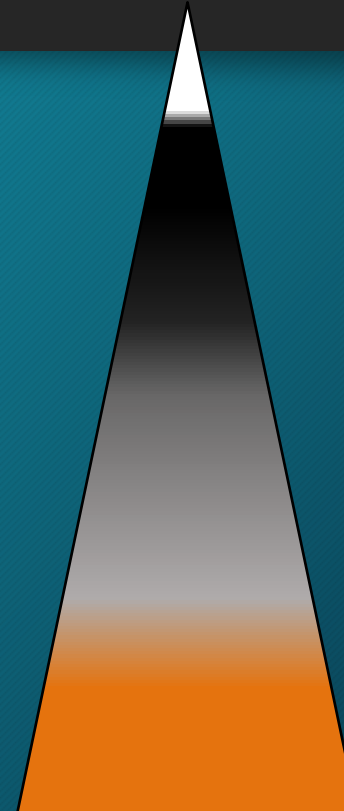
Other factors that affect ethical decision making

Family

Time/Money

Career

Reputation



# Actual Case Studies with Decisions from NSPE

*"Note: NSPE Board of Ethical Review opinions do not constitute legal advice. Individuals should review applicable federal, state, or local laws and regulations as necessary and consult with an attorney as required."*

# Public Health and Safety

- William Jones, PE is a fire protection engineer, retained by Affordable Housing Company LLC (AHC) to provide a confidential report in connection with the possible renovation of an old apartment building owned by AHC (Client).
- Jones conducts an audibility test of the fire alarm inside occupied residential units. The audibility test showed the alarm could not be heard within all of the residential units, which is in violation of the local fire code.

# Public Health and Safety

- Jones advises the Client regarding the results of the audibility tests and the code violation.
- In a follow-up telephone conversation with AHC, Jones is told that the financing for the renovation has fallen through, and that the renovation project will be delayed, which means that the problems with the fire alarm system will not be addressed immediately but in the future when funding is available.
- Jones is paid for his services.

# Public Health and Safety, What do you think?

- A. It is no longer Jones's business. He has been paid.
- B. Jones should immediately advise the Client that appropriate steps must be taken to protect the occupants of the building from the risks associated with the local fire code violation.
- C. If AHC does not address these issues, Jones should report the violation to code enforcement officials.

Is C a violation of confidentiality?

# Public Health and Safety, Answer

## **Section II.1.**

Engineers shall hold paramount the safety, health, and welfare of the public.

## **Section II.1.a.**

If engineers' judgment is overruled under circumstances that endanger life or property, they shall notify their employer or client and such other authority as may be appropriate.

## **II.1.c.**

Engineers shall not disclose, without consent, confidential information concerning the business affairs or technical processes of any present or former client or employer, or public body on which they serve.

(From National Society of Professional Engineers Case No.13-11)

# Public Health and Safety, What do you think?

~~A. It is no longer Engineer A's business. He has been paid.~~

- ✓ Jones should immediately advise the Client that appropriate steps must be taken to protect the occupants of the building from the risks associated with the local fire code violation.
- ✓ If the client does not address these issues, Jones should report the violation to code enforcement officials.

Is C a violation of confidentiality?

Engineers shall hold paramount the safety, health, and welfare of the public.



# Statements in Employee Resume

- John Doe had been employed as a design engineer in an aerospace company for twelve years, doing highly technical and complex engineering design work.
- Along with thousands of other engineers in the aerospace industry, he was laid off when contracts with his company were terminated.

# Statements in Employee Resume

- After many months of seeking a new job in his specialized field with no success he was advised by an employment counselor that his only opportunity lay in finding a position involving management and administration of engineering work.
- He changed his resume to show engineering management experience as an important responsibility. As a result, he was able to obtain a new job that involved responsibilities in his general field of technical expertise.

# Statements in Employee Resume, question

Was Doe in violation of ethics for rewriting his employment resume to emphasize his managerial experience and play down his technical experience in order to obtain new employment?

**Code of Ethics-Section 3(e)** (deleted)-"The engineer will not allow himself to be listed for employment using exaggerated statements of his qualifications."

**Code of Ethics-Section 5(a)** (new) Engineers shall not falsify their qualifications or permit misrepresentation of their or their associates' qualifications. They shall not misrepresent or exaggerate their responsibility in or for the subject matter of prior assignments.

# Statements in Employee Resume

NSPE concluded that his action was something less than an "exaggeration" in that it was a degree of emphasis.

In this case, Doe could truthfully show some degree of competence in the managerial area of his employment, even though he strongly emphasized its extent and level.

(NSPE Case No. 72-11)

# Employment—Cash Door Prize

Andy McPherson works for UVW Engineering. As part of his activities and employment responsibilities on behalf of UVW Engineering, he attends various conferences and trade shows.

While attending a recent conference and trade show at UVW Engineering's expense, McPherson won a door prize worth \$5,000.

# Employment—Ethics Rules

Section II.4.c. - Engineers shall not solicit or accept financial or other valuable consideration, directly or indirectly, from outside agents in connection with the work for which they are responsible.

Section III.5.b. - Engineers shall not accept commissions or allowances, directly or indirectly, from contractors or other parties dealing with clients or employers of the engineer in connection with work for which the engineer is responsible.

(NSPE Case No. 10-3)

# Employment—Cash Door Prize, question

Would it be ethical for McPherson to keep the door prize or is he required to remit the prize to UVW Engineering?

(NSPE Case No. 10-3)

# Cash Door Prize, Conclusion

- Based upon the facts, the gift was not directed at McPherson, but instead was a door prize apparently based solely upon chance and not any direct attempt to influence McPherson or UVW Engineering. - Not a “Conflict of Interest”
- The fact that McPherson attended the educational event at the expense of UVW Engineering, McPherson, had an ethical obligation to report and disclose the door prize to UVW Engineering.

(NSPE Case No. 10-3)



# Conflict of Interest—Engineer's Spouse as Sales Representative

- Jose Galindo is an employee for Firm X. Galindo purchases office computer software from Company Y, which employs his wife as its sales representative, she handles the transaction.
- An internal complaint was filed within Firm X regarding nepotism/favoritism. Firm X investigated and concluded that the prices from Company Y were within market pricing range and the software met Firm X's needs.

(NSPE Case No. 18-1)

# What are Engineer A's ethical responsibilities under the circumstances?

- Was it ethical for Galindo to fail to disclose that his spouse was a sales representative with Company Y?
- Was it unethical for Galindo to enter a contract with Company Y?

# Conflict of Interest—Engineer Spouse as Sales Representative

- Conflicts of interest raise important ethical issues for engineers. An engineer's professional judgment and expertise speak to the engineer's competence and integrity. Conflicts of interest call into question the ability of the engineer to use his or her judgment without compromise.
- In the present case, Galindo decided to purchase the software product from Company Y with his spouse handling the transaction.

# Conflict of Interest—Conclusion

## Conclusion:

- It was unethical for Galindo to fail to disclose that his spouse was a sales representative with Company Y. Galindo could personally and financially benefit from the transaction.
- Therefore, it was unethical for Galindo to have entered a contract with Company Y.
- Instead, Galindo should have first disclosed the contract and his spousal relationship with an appropriate Firm X supervisor who could consider and approve the agreement, if appropriate.

(NSPE Case No. 18-1)

# Conflict of Interest—Engineer Spouse as Sales Representative

## NSPE Code of Ethics References:

**I.5.** Avoid deceptive acts.

**II.4.a.** Engineers shall disclose all known or potential conflicts of interest that could influence or appear to influence their judgment or the quality of their services.

### **II.4.c.** Conflict of Interest

Engineers shall not solicit or accept financial or other valuable consideration, directly or indirectly, from outside agents in connection with the work for which they are responsible.

**III.1.e.** Engineers shall not promote their own interest at the expense of the dignity and integrity of the profession.

# Conflict of Interest—Chairman of Editorial Board of Technical Society Publication

- Karin Gupta is a board member of an engineering technical society. She is actively encouraging the society to enter into an agreement with Jones Publishing, a technical journal publisher, to annually publish technical articles and content generated by the society's members.
- During the recent engineering technical society board of director meetings, Gupta expressed strong resistance to exploring other publishing options to determine what terms and conditions other technical journal publishers might offer to the society.
- Under a separate private, undisclosed side agreement with Jones Publishing, Gupta would be given a visible and prestigious position as chairman of the editorial board for another journal published by Jones Publishing..... if the engineering society agrees to enter into the agreement with the company.

(NSPE Case No. 18-2)

# Conflict of Interest—Conclusion

## Conclusion:

Gupta has a trust relationship in her role as a board member and therefore must provide full disclosure regarding the side agreement with Jones Publishing for the engineering society's formal consideration and voting on the matter.

Furthermore, Gupta should recuse herself from her role as a board member acting on any issue regarding Jones Publishing or, if appropriate, resign her position as a board member of the engineering society.

(NSPE 18-2)

# Water Testing Equipment - Facts

- Mary Holmes, a professional engineer, is employed by H2O Corp., a company involved in the design and manufacture of equipment used in water quality testing. Six months earlier, she observed that certain new water quality testing equipment met water quality testing equipment standards based on in-house testing but failed outside testing performed by an independent laboratory.
- Ms Holmes raised her professional and technical concerns about the equipment with her non-engineer supervisor, Richard Smith. Smith replied that he would investigate the matter, but after several months, the equipment continued to fail to meet state water quality testing standards based on outside testing.
- Smith asks that Holmes accompany him to a meeting with a government regulator involved in the approval process for water quality testing equipment providers. Prior to the meeting, Smith requested that Ms Holmes report to the regulators that H2O Corp.'s new testing equipment is currently on track to meet the water testing equipment standards.



# What are Ms Holmes' ethical obligations under the circumstances?

- Among the professional engineer's most fundamental professional obligations is the responsibility to hold paramount the public health, safety, and welfare.
- At the same time, professional engineers have an obligation to act as faithful agents and trustees for their clients in the professional work.
- How she addresses and balances these concerns is fundamental to engineering ethics.

# Water Testing Equipment - Conclusion

- Ms Holmes has an obligation to discuss with Smith her concerns regarding the current failure of the water testing equipment to meet the regulatory standards
- She should develop a plan and agreement with Smith, prior to their meeting with the regulatory authority, on how and when they would achieve compliance.
- By pursuing this approach, Holmes would be taking steps to protect the public health and safety in an honest and forthright manner, while preserving the company's confidentiality and acting as a faithful agent and trustee to it.
- If Smith ignores Ms Holmes' recommendation, then she should report the concerns to Smith's supervisor. Additionally, Holmes should report and recommend investigation of in-house testing issues to determine the reason for the discrepancy.

# Water Testing Equipment - Citations

- **Code of Ethics References:**
- **I.1.** Hold paramount the safety, health, and welfare of the public.
- **I.3.** Issue public statements only in an objective and truthful manner.
- **I.4.** Act for each employer or client as faithful agents or trustees.
- **I.5.** Avoid deceptive acts.
- **II.1.b.** Engineers shall approve only those engineering documents that are in conformity with applicable standards.
- **II.1.c.** Engineers shall not reveal facts, data, or information without the prior consent of the client or employer except as authorized or required by law or this Code.
- **II.1.d.** Engineers shall not permit the use of their name or associate in business ventures with any person or firm that they believe is engaged in fraudulent or dishonest enterprise.

# Water Testing Equipment - Citations

- **Code of Ethics References (continued):**
- **II.1.e.** Engineers shall not aid or abet the unlawful practice of engineering by a person or firm.
- **II.1.f.** Engineers having knowledge of any alleged violation of this Code shall report thereon to appropriate professional bodies and, when relevant, also to public authorities, and cooperate with the proper authorities in furnishing such information or assistance as may be required.
- **II.3.a.** Engineers shall be objective and truthful in professional reports, statements, or testimony. They shall include all relevant and pertinent information in such reports, statements, or testimony, which should bear the date indicating when it was current.
- **III.1.** Engineers shall be guided in all their relations by the highest standards of honesty and integrity.
- **III.1.b.** Engineers shall advise their clients or employers when they believe a project will not be successful.
- **III.3.a.** Engineers shall avoid the use of statements containing a material misrepresentation of fact or omitting a material fact.
- **III.4.** Engineers shall not disclose, without consent, confidential information concerning the business affairs or technical processes of any present or former client or employer, or public body on which they serve.

# Water Testing Equipment – Lesson Learned

**II.1.d.** Engineers shall not permit the use of their name or associate in business ventures with any person or firm that they believe is engaged in fraudulent or dishonest enterprise.

# Credit for Engineering Work—Research Team Technical Conference Participation

- Aaron, is part of a research team that prepared and published an academic paper on energy research. He learns of an upcoming technical society conference and prepares an abstract of the paper to present at the conference.
- Aaron completes the abstract of the research and submits the abstract to the technical society, including his own name in the abstract, but not the other members of the research team. Only the abstract will be published in the technical conference proceedings.
- Included in the submission is a copy of the research paper which includes the names of all members of the research team.
- Barry, who led the research team, learns of Aaron's actions and complains to Aaron that his failure to include the other members of the team in the abstract was unethical and furthermore Barry should make the presentation at the conference.

# Credit for Engineering Work—Research Team Technical Conference Participation

## Question(s):

- Was it unethical for Aaron to fail to include all the members of the research team in the abstract?
- Was it ethical for Aaron to submit his own name to present at the technical society conference?

# Credit for Engineering Work—Research Team Technical Conference Participation

## Discussion:

- The question of providing appropriate acknowledgement and credit for engineering work is a fundamental issue in the area of engineering ethics.
- Recognizing the achievements of peers, employees, and employers for their contributions to research, design, and other engineering endeavors is more than a professional courtesy—it goes to the heart of honesty and truthfulness and the integrity of the engineering process.
- Engineers frequently work as teams and collegial relations are fundamental to engineering professionalism.



# Credit for Engineering Work—Research Team Technical Conference Participation

## Discussion:

- Aaron had an obligation to seek an immediate clarification, understanding, and resolution with Barry and the other members of the research team regarding the authorship of the energy research paper abstract.
- Aaron should take immediate steps to resubmit the abstract to include all members of the research team as agreed upon by the team.
- Aaron should yield to Barry the opportunity to participate in making the presentation at the conference.
- The Board noted, however, that Barry apparently sought to improperly use his role as the team leader to assert the right to solely present the team's research results at the conference, thus violating portions of Section III.6 of the NSPE Code.

# Credit for Engineering Work—Research Team Technical Conference Participation

## NSPE Code of Ethics References:

**II.3.** Engineers shall issue public statements only in an objective and truthful manner.

**II.3.a.** Engineers shall be objective and truthful in professional reports, statements, or testimony. They shall include all relevant and pertinent information in such reports, statements, or testimony, which should bear the date indicating when it was current.

**III.9.** Engineers shall give credit for engineering work to those to whom credit is due and will recognize the proprietary interests of others.

**III.9.a.** Engineers shall, whenever possible, name the person or persons who may be individually responsible for designs, inventions, writings, or other accomplishments.

(NSPE Case No. 13-6)

# Credit for Engineering Work—Research Team Technical Conference Participation

## Conclusion:

1. It was unethical for Aaron to not include all the members of the research team in the abstract.
2. It was unethical for Aaron to propose to present at the technical society conference without first consulting with Barry.

# Confronting Former Employee For Improper Conduct

Lawrence Johnson is a small business owner. Stanley Ryan, a licensed engineer formerly employed by Johnson's firm, makes calls to Johnson's employees requesting that they make him copies of their company's proprietary schematics. Stan Ryan's request specifically instructs these individuals to not mention these conversations to Johnson. Johnson's employees alert Johnson to the problem. For obvious reasons, Johnson is concerned about Stan Ryan's activities.

Johnson confronts Stan Ryan at a seminar and, in front of many other professionals, and makes several accusations and angry comments to Ryan. Both Johnson and Ryan exchange a series of derogatory comments. Following this exchange, they both leave the seminar.

## **Question(s):**

Was it ethical for Ryan to contact Johnson's employees?

Was it ethical for Johnson to confront Ryan in the manner described?

# Confronting Former Employee For Improper Conduct

## Discussion:

The facts in the subject case are somewhat unique.

- Clearly, Ryan's conduct is well beyond the pale of ethical conduct and Ryan should be condemned for his actions. To make calls to Johnson's employees at home and at work requesting that they make him copies of their company's proprietary schematics is more than an ethical violation – it is a legal violation.
- There can be no doubt that Johnson had justification for being angry and upset over Ryan's actions.
- Johnson's actions in confronting Ryan in the manner indicated was not ethical or professional.

# Confronting Former Employee For Improper Conduct

- It is clear that there were other reasonable options for Johnson to explore. Among these would include a direct conversation with Ryan over Ryan's actions.
- If necessary, a letter from Johnson (or Johnson's attorney) demanding that Ryan cease and desist from continuing his improper actions, or else face legal consequences.
- All engineers need to be mindful that their actions and conduct – good and bad – in response to such unprofessional and unethical conduct reflect upon the entire profession, and help to shape the public's image and impression of engineers and engineering.

# Confronting Former Employee For Improper Conduct

## NSPE Code of Ethics References:

- I.6. Engineers shall conduct themselves honorably, responsibly, ethically, and lawfully so as to enhance the honor, reputation, and usefulness of the profession.
- II.1.e. Engineers shall not aid or abet the unlawful practice of engineering by a person or firm.
- III.7. Engineers shall not attempt to injure, maliciously or falsely, directly or indirectly, the professional reputation, prospects, practice, or employment of other engineers. Engineers who believe others are guilty of unethical or illegal practice shall present such information to the proper authority for action.
- III.8.a. Engineers shall conform with state registration laws in the practice of engineering.

# Confronting Former Employee For Improper Conduct

## Conclusion:

- It was not ethical for Ryan to contact Johnson's employees.
- It was not ethical or professional for Johnson to confront Ryan in the manner described. There were other reasonable options. Also, it was not professional for Ryan to engage in derogatory language at the seminar.



# Padding the Invoice

- You quoted a customer a price for some expensive valves.
- When you were preparing his invoice, you noticed that there was a substantial quantity discount that had been applied by your vendor.
- You passed the discount on to your customer.
- He called and demanded you invoice him for the higher amount originally agreed on, because the arrangement with his client is “cost plus”.

# Padding the Invoice, What Would You Do?

- A. Change the invoice to the amount of your original quote. After all that is what you quoted. You will both make more money.
- B. Refuse to change the price on the invoice. You feel obligated to pass the savings down the line.
- C. Tell your customer's client about the improper request to raise the price.
- D. B and C

# Padding the Invoice, Answer

Sorry, You are on your own with this one!!

Thank You!!