Applied Case Studies in OEHS Ethics

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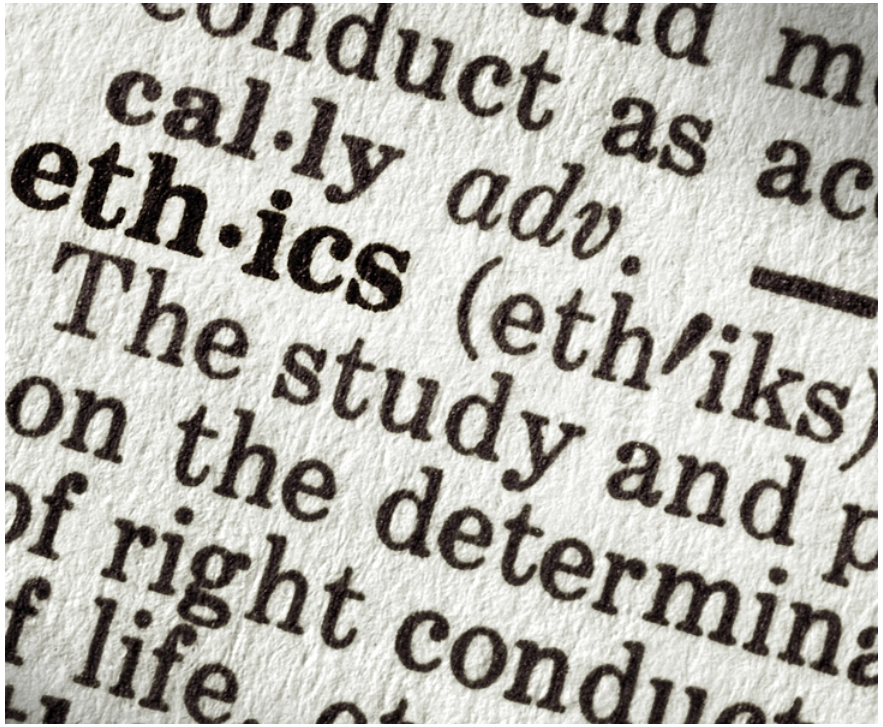
Agenda

- Review Code of Ethics & Ethics Definitions
  - Code of Ethics & Ethics Definitions
  - Obligations & Responsibilities
    - ABIH
    - BCSP Code of Ethics
- Ethical Processes
- Case Study 1: The IH consultant & business practice
- Case Study 2: The visiting EOHS professional
- Case Study 3: Rooftop evaluation
- This presentation contains interactive questions. Remember in ethics there may be no right or wrong answer.

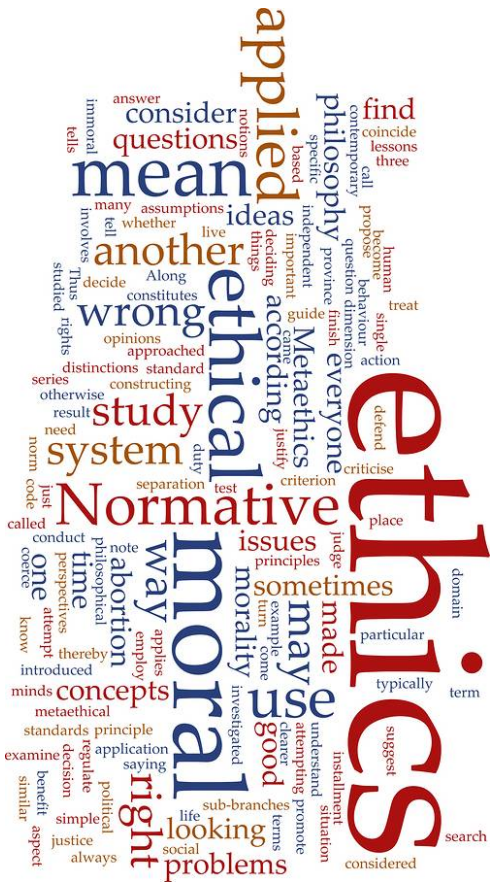
Code of Ethics & Ethics Definitions

- **Ethics** comes from the Greek word meaning custom, usage, character
  - Science of the *ideal human character*
  - The science of moral duty



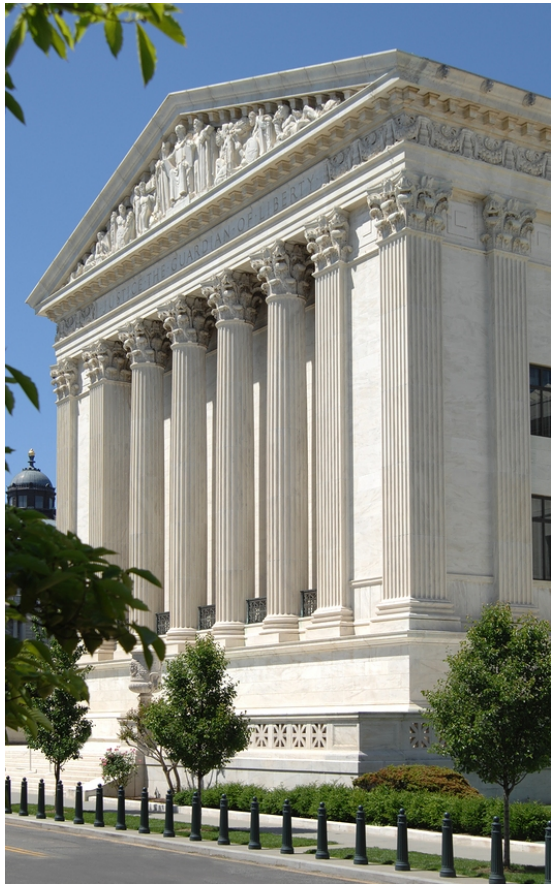
Code of Ethics & Ethics Definitions

- People have an understanding of what is good and proper.
  - Inner impulses, judgments and duties of people
  - The terms moral and ethical can be interchangeable
  - Urges us to “do unto others what we want others to do to us”, the “Golden Rule”



Code of Ethics & Ethics Definitions

- Regulated
  - Dictated by various governmental regulations
  - Dictated by case law
- Free Will
  - No constraints over behavior
  - We are free to do whatever we wish and act according to our free will



Code of Ethics & Ethics Definitions

- Guiding Approaches
  - Put yourself in their shoes, use empathy.
  - Key role in all cultures and teachings
  - Promote the interests not only of ourselves but of others

Code of Ethics & Ethics Definitions

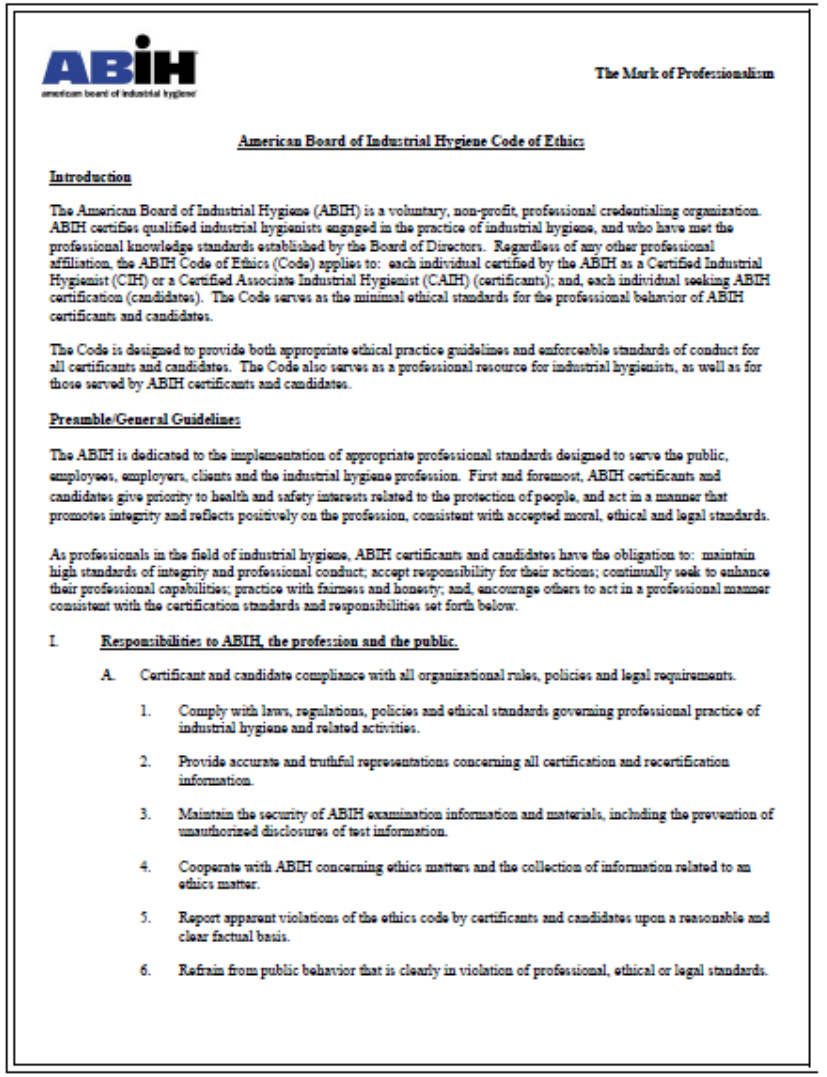
- Ethical questions can take many forms:
  - Any subject matter that compromises the values of an organization
  - Business conflicts
  - Workplace relationships
  - Technical judgments

Code of Ethics & Ethics Definitions

- Ethics questions can include:
  - What are my moral duties?
  - What rules/regulations do I need to follow?
  - What are the rights of people that I have responsibility?
  - Are there codes of conduct I need to follow?
  - What does my intuition tell me to do?

Code of Ethics & Ethics Definitions

- Professional Code of Ethics
  - Provides minimum ethical standards for professional behavior
  - Provides appropriate ethical guidelines and enforceable standards of conduct
  - Serves as a professional resource for EOHS professionals as well as those served by EOHS professionals



ABIH
american board of industrial hygiene

The Mark of Professionalism

American Board of Industrial Hygiene Code of Ethics

Introduction

The American Board of Industrial Hygiene (ABIH) is a voluntary, non-profit, professional credentialing organization. ABIH certifies qualified industrial hygienists engaged in the practice of industrial hygiene, and who have met the professional knowledge standards established by the Board of Directors. Regardless of any other professional affiliation, the ABIH Code of Ethics (Code) applies to: each individual certified by the ABIH as a Certified Industrial Hygienist (CIH) or a Certified Associate Industrial Hygienist (CAIH) (certificants); and, each individual seeking ABIH certification (candidates). The Code serves as the minimal ethical standards for the professional behavior of ABIH certificants and candidates.

The Code is designed to provide both appropriate ethical practice guidelines and enforceable standards of conduct for all certificants and candidates. The Code also serves as a professional resource for industrial hygienists, as well as for those served by ABIH certificants and candidates.

Preamble/General Guidelines

The ABIH is dedicated to the implementation of appropriate professional standards designed to serve the public, employees, employers, clients and the industrial hygiene profession. First and foremost, ABIH certificants and candidates give priority to health and safety interests related to the protection of people, and act in a manner that promotes integrity and reflects positively on the profession, consistent with accepted moral, ethical and legal standards.

As professionals in the field of industrial hygiene, ABIH certificants and candidates have the obligation to: maintain high standards of integrity and professional conduct; accept responsibility for their actions; continually seek to enhance their professional capabilities; practice with fairness and honesty; and, encourage others to act in a professional manner consistent with the certification standards and responsibilities set forth below.

I. **Responsibilities to ABIH, the profession and the public.**

A. Certificant and candidate compliance with all organizational rules, policies and legal requirements.

1. Comply with laws, regulations, policies and ethical standards governing professional practice of industrial hygiene and related activities.
2. Provide accurate and truthful representations concerning all certification and recertification information.
3. Maintain the security of ABIH examination information and materials, including the prevention of unauthorized disclosures of test information.
4. Cooperate with ABIH concerning ethics matters and the collection of information related to an ethics matter.
5. Report apparent violations of the ethics code by certificants and candidates upon a reasonable and clear factual basis.
6. Refrain from public behavior that is clearly in violation of professional, ethical or legal standards.

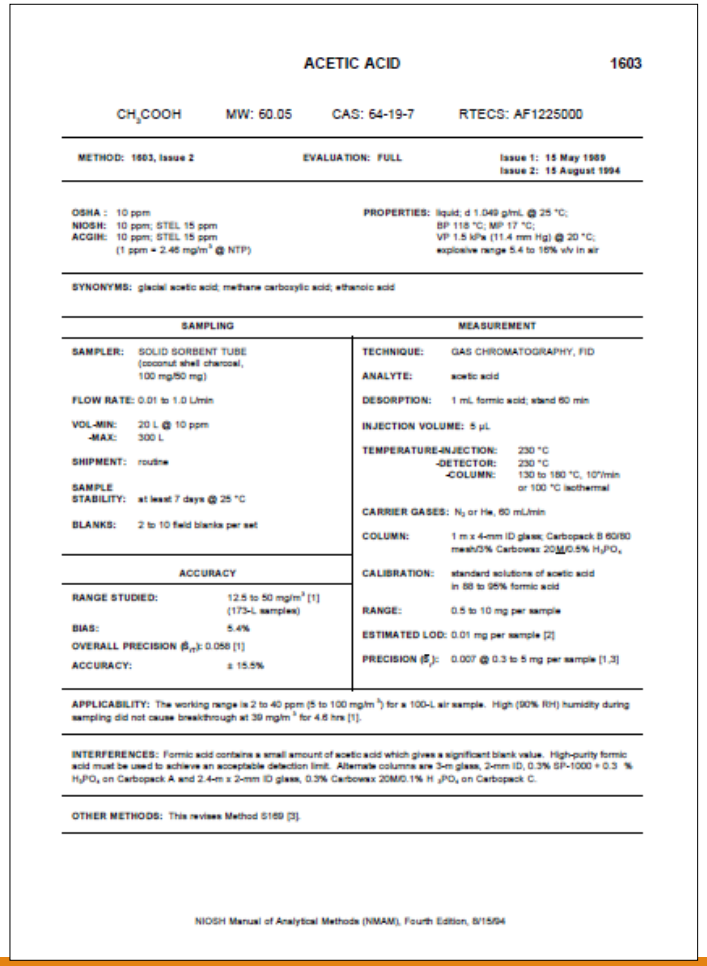
Question 1

Which of the following areas can be included in the definition of ethics:

a. Integrity/professional conduct
b. Conflict of interest
c. Intellectual property rights/plagiarism
d. Confidentiality of sensitive information
e. All of the above

Obligations & Responsibilities (ABIH)

- Maintain standards of high integrity & professional conduct
  - Provide IH evaluations and results in an understandable manner
  - Provide professional direction that focuses on current occupational guidelines and standards



ACETIC ACID 1603

CH_3COOH MW: 60.05 CAS: 64-19-7 RTECS: AF1225000

METHOD: 1603, Issue 2 EVALUATION: FULL Issue 1: 15 May 1989 Issue 2: 15 August 1994

OSHA : 10 ppm
NIOSH: 10 ppm; STEL 15 ppm
ACGIH: 10 ppm; STEL 15 ppm
(1 ppm = 2.46 mg/m³ @ NTP)

PROPERTIES: liquid; d 1.049 g/mL @ 25 °C; BP 118 °C; MP 17 °C; VP 1.5 kPa (11.4 mm Hg) @ 20 °C; explosive range 5.4 to 16% v/v in air

SYNONYMS: glacial acetic acid; methane carboxylic acid; ethanoic acid

SAMPLING

SAMPLER: SOLID SORBENT TUBE (coconut shell charcoal, 100 mg/50 mg)

FLOW RATE: 0.01 to 1.0 L/min

VOL-MIN: 20 L @ 10 ppm
-MAX: 300 L

SHIPMENT: routine

SAMPLE STABILITY: at least 7 days @ 25 °C

BLANKS: 2 to 10 field blanks per set

ACCURACY

RANGE STUDIED: 12.5 to 50 mg/m³ [1] (173-L samples)

BIAS: 5.4%

OVERALL PRECISION ($\hat{S}_{rT}$): 0.058 [1]

ACCURACY: ± 15.5%

MEASUREMENT

TECHNIQUE: GAS CHROMATOGRAPHY, FID

ANALYTE: acetic acid

DESORPTION: 1 mL formic acid; stand 60 min

INJECTION VOLUME: 5 µL

TEMPERATURE-INJECTION: 230 °C
-DETECTOR: 230 °C
-COLUMN: 130 to 180 °C, 10°/min or 100 °C isothermal

CARRIER GASES: N_2 or He, 60 mL/min

COLUMN: 1 m x 4-mm ID glass; Carbopack B 60/80 mesh/3% Carbowax 20M/0.5% H_3PO_4

CALIBRATION: standard solutions of acetic acid in 88 to 95% formic acid

RANGE: 0.5 to 10 mg per sample

ESTIMATED LOD: 0.01 mg per sample [2]

PRECISION ($\hat{S}_r$): 0.007 @ 0.3 to 5 mg per sample [1,3]

APPLICABILITY: The working range is 2 to 40 ppm (5 to 100 mg/m³) for a 100-L air sample. High (90% RH) humidity during sampling did not cause breakthrough at 39 mg/m³ for 4.6 hrs [1].

INTERFERENCES: Formic acid contains a small amount of acetic acid which gives a significant blank value. High-purity formic acid must be used to achieve an acceptable detection limit. Alternate columns are 3-m glass, 2-mm ID, 0.3% SP-1000 + 0.3 % H_3PO_4 on Carbopack A and 2.4-m x 2-mm ID glass, 0.3% Carbowax 20M/0.1% H_3PO_4 on Carbopack C.

OTHER METHODS: This revises Method S169 [3].

NIOSH Manual of Analytical Methods (NMAM), Fourth Edition, 8/15/94

Obligations & Responsibilities (ABIH)

- Practice with fairness and honesty
  - Provide accurate results with accurate interpretations
    - Applicable OEL
    - Any sampling interferences
- Avoid situations of compromise & conflict
- Assure comprehensive evaluations focused on improving work situations

Obligations & Responsibilities (ABIH)

- Comply with laws, regulations, & ethical and consensus standards
  - Applicable OSHA Regulatory Entity
  - EPA
  - ANSI
  - ASTM
  - NFPA
  - ACGIH
  - NIOSH

Obligations & Responsibilities (ABIH)

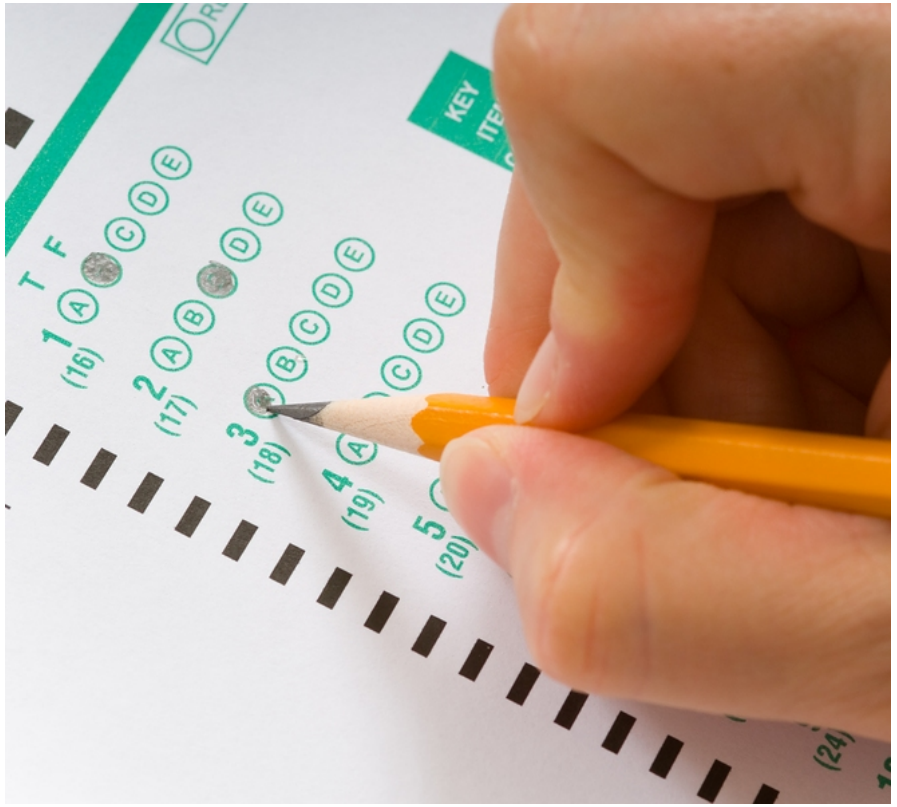
- Truthful & accurate representations concerning all certification & recertification information
  - Application information including experience and education
  - Maintenance certification such as attendance at conferences and continuing education

Obligations & Responsibilities (ABIH)

- Accept Responsibilities for their actions
  - Responsible for providing accurate advice
- Continually seek to enhance professional abilities
  - Continuing maintenance requirements
  - Expand expertise beyond current experience
    - Non-ionizing radiation
    - Biological safety
    - Safety related rubrics
    - Areas which impact worker H&S

Obligations & Responsibilities (ABIH)

- Maintain security of ABIH exam information and materials
- Cooperate with ABIH concerning ethics matters
- Report violations of ethics codes by certificants and candidates upon a clear factual basis



Obligations & Responsibilities (ABIH)

- Responsibilities to clients, employers, employees & the public
  - Deliver competent services
  - Recognize Limitations of one's professional abilities
    - Obtain guidance from colleagues as needed
    - Provide professional services only when qualified
    - IH responsible for determining one's own professional abilities
    - Make a reasonable effort to provide appropriate professional referrals when unable to provide competent professional services

Obligations & Responsibilities (ABIH)

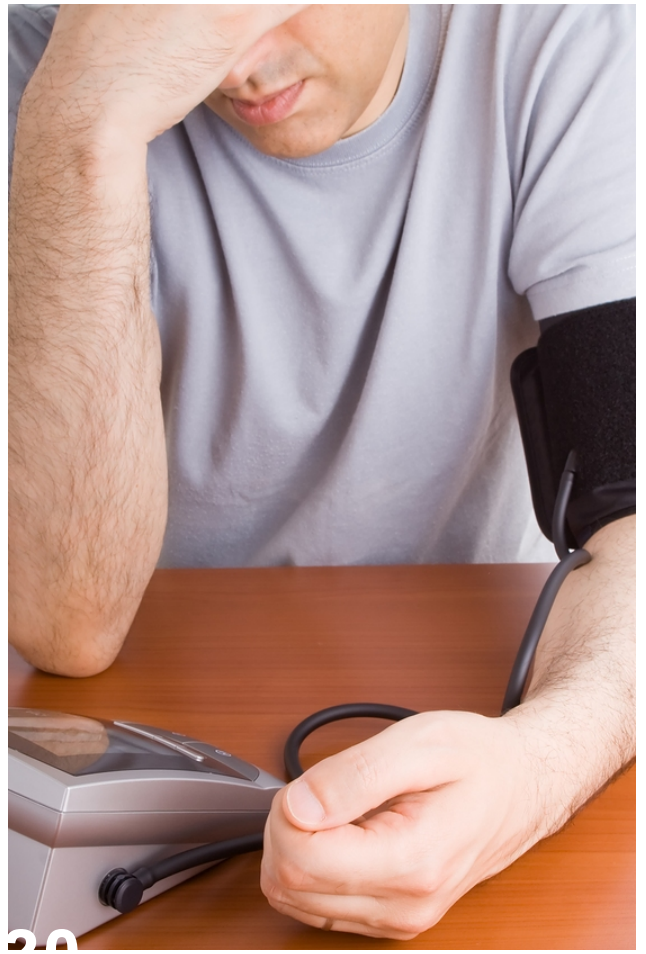
- Maintain confidentiality of sensitive information unless;
  - The information is reasonably understood to pertain to unlawful activity
  - A court or government agency lawfully directs release of information

Obligations & Responsibilities (ABIH)

- A court or government agency lawfully directs release of information
  - *Example: A former employee of your current employer has been diagnosed with lung cancer. One of your predecessors performed Cr-VI monitoring on this employee. Through appropriate legal channels the court orders release of the monitoring records*

Obligations & Responsibilities (ABIH)

- Client or employer authorizes the release of information
  - *Example: A physician (or other third party) request the release of IH data, and the consultant requests permission from the client involved for release of the data*



Obligations & Responsibilities (ABIH)

- Properly use professional credentials and provide truthful & accurate representation of competency
  - *Example: A consultant has failed the CSP exam three times. He decides to market himself as a "Comprehensive Safety Professional"*

Obligations & Responsibilities (ABIH)

Properly use professional credentials and provide truthful & accurate representation of competency

Recognize and respect the intellectual property rights of others

Example: a training consultant uses a consensus standard for reference during a course. He is forced with the decision to duplicate the standard (which is only available for purchase) to save costs for attendees

Obligations & Responsibilities (ABIH)

- Avoid conflict of interest
- Following appropriate procedures in the course of performing professional duties

Refrain from offering, accepting gifts/payment or benefits in order to secure work or influence judgment

Obligations & Responsibilities (BCSP)

- Hold paramount the safety and health of people, the protection of the environment and protection of property in the performance of professional duties
- Exercise obligation to advise employers, clients, employees, the public, and appropriate authorities of danger and unacceptable risks to people, the environment, or property
- Be honest, fair, and impartial
- Issue public statements only in an objective and truthful manner and only when founded upon knowledge of the facts and competence in the subject matter.

Obligations & Responsibilities

Other ethics codes

- IHMM
- ASSE
- AIHA
- Canadian Registration Board of Occupational Hygienists
- Board of Canadian Registered Safety Professionals

Obligations & Responsibilities

Always tell the truth to client/employer, even if he/she may not like the truth

Never deliberately overstate positive or underestimate negative results

Never deliberately fail to acknowledge data limitations

Never deliberately fail to control data quality

Never deliberately to protect data confidentiality

Hold back findings to avoid negative results

Never fabricate data

Never destroy data that contradict desired outcome

Obligations & Responsibilities

- You perform noise sampling in a lab resulting from an employee compliant to a high frequency noise from an ultrasonic cleaner. You determine that noise levels are well below the action level even though the employee complaining is still bothered by the noise. You make reference to noise controls in accordance with the hierarchy of controls. The employer reads the report and does not want to make changes other than giving the employee PPE.
  - What do you do?
  - Applying what we have talked about so far what guides you in your decisions?

Team Exercise

Obligations & Responsibilities

- A client is going to vacate a facility because of a lease dispute with their landlord. They advise you that they are going to “leave behind” their hazardous materials including a 55 gallon drum of flammable waste. What do you do?
- A contract specifies a CIH performance or oversight for Ozone monitoring at a production facility. Because of budgetary restraints, the CIH delegates the work to entry level IH and directs and review the entry IH’s work. What should the CIH do to ensure work is performed in accordance with project specs?

Team Exercise

Ethical Decision Processes

Ends based thinking principle

- What is the greatest good for the greatest number of people?
- This principle relies on assessing the consequences or the ends of the action

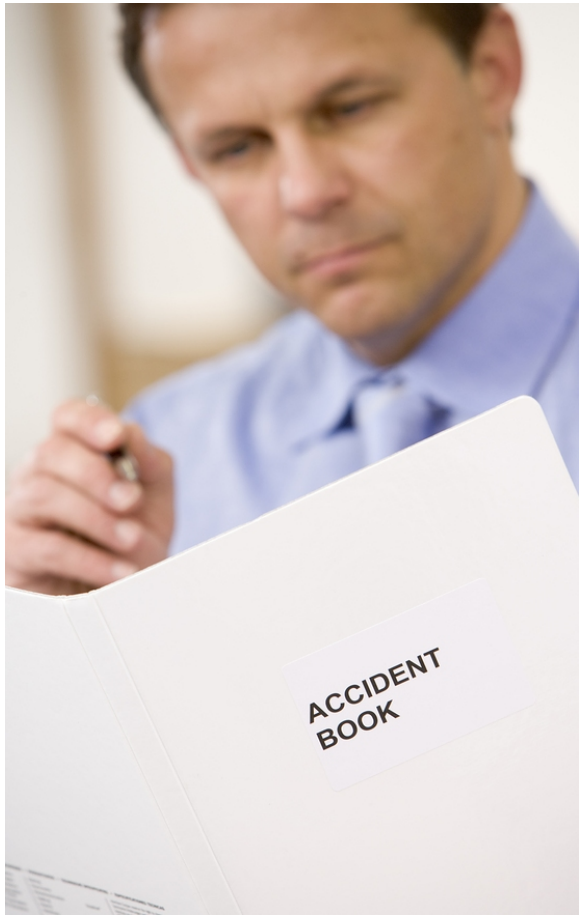
Ethical Decision Processes

- Resolving ethical dilemmas*
  - Right vs. Wrong Dilemmas
  - Right vs. Right Dilemmas
    - Truth versus loyalty
    - Individual versus community
    - Short-term versus long-term
    - Justice versus mercy

*Rushworth Kidder, Founder and President of the Institute for Global Ethics. “How Good People Make Tough Choices”

Ethical Decision Processes

- Right vs. Wrong
  - Moral temptations
  - Selecting one of the choices would result in a violation of a law, a departure from the truth, or perhaps an unfulfilled duty or responsibility

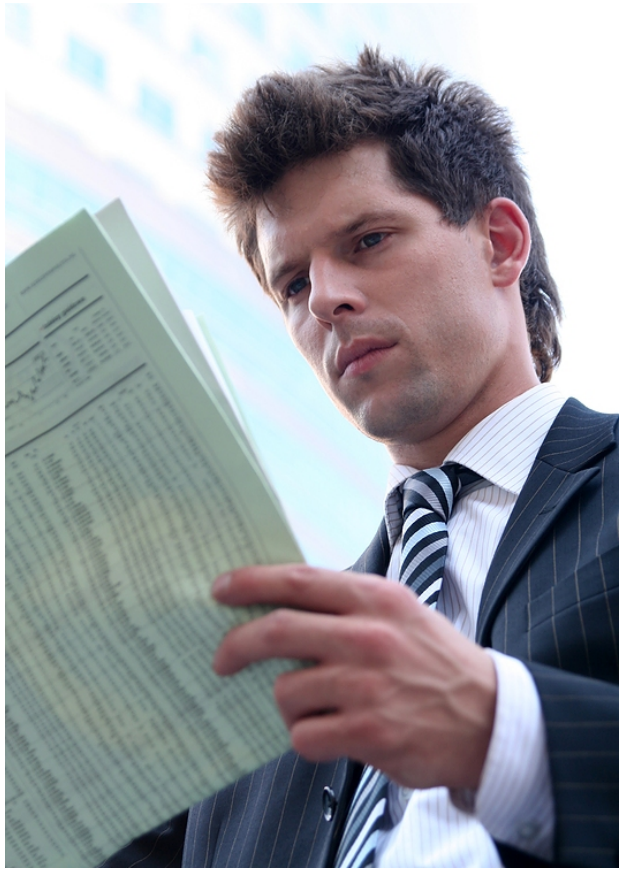


Ethical Decision Processes

- Can you answer the following (Right vs. Wrong):
  - Is a law broken?
    - Can be willful
    - Can be ignorance
  - failure of compliance with clearly specified laws.

Ethical Decision Processes

- Can you answer the following (Right vs. Wrong):
  - Does the course of action make you feel uncomfortable?
  - Would you feel awkward or ashamed to read about your actions on the front page of tomorrow's newspaper?
  - Would an individual you really respect avoid behaving in this way?
  - Would someone who cares deeply about you want you to avoid behaving this way?



Ethical Decision Processes

- Right vs. Right
  - A decision must be made between two right choices and the values supporting each
  - Force us to examine and weigh deeply held beliefs

Ethical Decision Processes

- Four common situations in which right versus right ethical dilemmas arise
  - Truth versus loyalty
    - Honesty vs. promise keeping, or integrity vs. commitment
  - Individual versus community
    - Choose from helping yourself, or a small group of people, vs. helping a much larger group of people.
  - Short-term versus long-term
    - Must make a decision that would benefit either immediately, or would rather be helpful in the long run.
  - Justice versus mercy
    - Upholding the belief that people have what is coming to them, or giving them another chance for their mistakes.

Ethical Decision Processes

- Resolution Principles
  - Recognize that there is a moral issue
  - Gather the relevant facts
    - Test for right versus wrong issues
    - Test For right-versus-right paradigms
    - Apply the resolution principles (Which line of reasoning seems most relevant and persuasive to the issue?)
      - Ends Based Thinking
      - Rules Based Thinking
      - Care Based Thinking

Ethical Decision Processes

- Ends-based thinking
  - Decide to do whatever provides the greatest good for the greatest number.
  - It relies on being able to predict the consequences of different actions.
- Rule-based thinking
  - Decide what to do based on a rule that you believe should be a general principle that is always followed.
  - Acknowledge that you can never really know all the consequences of your actions and that it is better to stick to one's principles.
- Care-based thinking - deciding what to do based on the idea that this is what we would want others to do to you.

Ethical Decision Processes

- A client is withholding payment while requesting that a safety engineer alter an accident investigation report, such that, if the report were altered, would not properly describe the seriousness of the investigation findings.
  - What ethical dilemma does this represent?
  - What do you do?

1 on 1 Exercise #1

Ethical Decision Processes

- An industrial hygienist may have knowledge that a friend and coworker, who has confided outside of their job, is immunocompromised due to HIV infection. The coworker, a virologist, intends to continue handling highly infectious agents while being treated. This is work the virologist enjoys, is committed to, and has spent years training to perform. If the industrial hygienist informs management about the condition, the coworker will likely be removed from this position and reassigned, potentially derailing his/her career.
  - What ethical dilemma/situation does this represent?
  - What do you do?

1 on 1 Exercise #2

Ethical Decision Processes

- Dan is a safety manager at a metals company. He participates in a motor cycle club with 4 other plant workers. Upon reviewing the results of annual audiometric tests, there are 4 confirmed cases of standard threshold shifts, all 4 are members of the motor cycle club. These employee use hearing protection while on the job but not outside work. He is confident that all 4 would give statements that they participate in this activity outside of work. Should Dan report the STS's on the OSHA 300 log if he is confident the issue is not work related?
  - What ethical dilemma/situation does this represent?
  - What do you do?

1 on 1 Exercise #3

Ethical Decision Processes

- As part of a companies' performance goals, if there is a 30% reduction in the number of findings in a safety audit, the safety manager receives a bonus. The safety manager is tasked with considering two consulting firms for an audit;
- Firm A: Which has been used at the facility previously and tends to find a fair number of improvement opportunities
- Firm B: Which has not worked for the company in the past and does not have a history of thoroughness at this facility
  - What ethical dilemma/situation does this represent?
  - What do you do?

1 on 1 Exercise #4

Case Study #1

- Background: An IH consultant (who is a CIH) is going to bid on a job resulting from an indoor air quality complaint from an employee. Several retail employees had complained of allergic reactions after construction activities began in an unoccupied adjacent suite where the employees worked. The employer/occupant was an international retail firm requiring a CIH for performance of actual monitoring and report writing.

Case Study #1 (Continued)

- Activities: During the winter construction activities began on the unoccupied suite adjacent to the complainant employees' occupied suite. As a result of construction activities the following occurred:
  - An air handling system on the roof of the building was relocated to a different part of the structure. As a result a water leak to the occupied suite.
  - As a result of construction activities from the unoccupied suite dust from building materials accumulated in the occupied suite where complainant employees were located. Note this building was originally built in 1940
  - Holes created in the walls and floor throughout both suites allowed rodents to access the occupied suite.
- The CIH who wants to bid on this project considers himself an expert in industrial applications, however their IAQ experience is limited to lead and asbestos monitoring when he was an entry level industrial hygienist.

Case Study #1 (Continued)

- Which ABIH Ethics Cannons can guide the CIH evaluating whether they have ethically made the correct decisions on this situation? (there may be more than 1 answer)
- Which ethical dilemma can be applied here?
- How should the CIH evaluate their own skills and/or the skills needed for this job? (there may be more than 1 answer)

1 on 1 CS #1

Case Study #2

You are brought into a sister plant because of your savvy IH skills and because there is no full time EOHS professional at this location. In additional to the noise and air sampling results (which are under PELs) you note several safety related concerns in your report including some frayed cords, flexible cords placed through some wall and doors, and a worker platform that is 7 feet high and is missing a mid-rail.

The site VP calls you 6 months after the report was issued because an OSHA inspector received an employee complaint about IH concerns. She wants you to eliminate the reference to the safety concerns in your report because the OSHA inspector only requested air sample data.

Case Study #2 (Continued)

- The site VP calls you 6 months after the report was issued because an OSHA inspector received an employee complaint about IH concerns. She wants you to eliminate the reference to the safety concerns in your report. What should you do?
- Apply the resolution principles (Which line of reasoning seems most relevant and persuasive to this case study?) (there may be more than 1 answer)

1 on 1 CS #2

Case Study #3

You are called upon to evaluate worker fall risk during rooftop work. Upon arrival on-site the client asks you to evaluate the skylights on-site as part of the evaluation. The building owner has no data regarding fall protection requirements on the skylights, which there are three brands, so you are forced to gather data from the manufacturer of each skylight. Data from 2 of the manufacturers supports fall protection load requirements, but the third one does not. Further, the third brand of skylight is placarded as a fall hazard. You bring this to the building owners attention and he states that the third brand of skylight was retrofitted with a grid, and he wants you to state in your report that the 3rd skylight meet the fall protection requirements.


RISK OF FALL
KEEP OFF
THIS SIDE DOWN

Case Study #3 (Continued)

- Apply the resolution principles for the rooftop evaluation example (Which line of reasoning seems most relevant and persuasive to this case study?) There may be more than 1 answer.
- On the rooftop example, what is the most ethical decision in the interest of worker safety?

1 on 1 CS #3