



RLI DESIGN PROFESSIONALS
Design Professionals Learning Event

Evaluating Professional Ethics and Conduct Through Case Studies

DPLE 159

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DIFFERENT WORKS

Course Description

Even landmark projects and respected design professionals face dilemmas relating to ethical considerations and codes of conduct. This course will use a case study to review common challenges and some methods to address them while balancing business, ethics, and successful project outcomes.

Learning Objectives

**Participants
in this
session will:**

- Identify the general obligations imposed by codes of ethics and professional conduct.
- Evaluate challenging situations through a decision making process that balances business and ethical considerations.
- Implement strategies to translate problems into successful outcomes.
- Develop best practices for making difficult project decisions.



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Section 1: The Case

NSPE Board Of Ethical Review (BER)

- *The NSPE Board of Ethical Review (BER) considers ethical cases involving either real or hypothetical matters submitted to it from NSPE members, other engineers, public officials and members of the public. The BER reviews each case in the context of the NSPE Code and earlier BER opinions. The facts contained in each case do not necessarily represent all of the pertinent facts submitted to or reviewed by the BER.*
- *Each opinion is intended as guidance to individual practicing engineers, students and the public. In regard to the question of application of the NSPE Code to engineering organizations (e.g., corporations, partnerships, sole-proprietorships, government agencies, university engineering departments, etc.), the specific business form or type should not negate nor detract from the conformance of individuals to the NSPE Code. The NSPE Code deals with professional services—which must be performed by real persons. Real persons in turn establish and implement policies within business structures.*
- *This opinion is for educational purposes only.*

Signing and Sealing of Work—Making Changes

Case No. 02-2

Today we'll cover:

The Facts

The
Question

References

The
Discussion

The
Conclusion

Facts

Engineer A is a professional engineer with expertise in electronics engineering and radio communications.

Engineer A designs specialized antenna systems for broadcast stations in City X.

A particular antenna system design was necessitated by the location of a large municipal highway department maintenance facility on the radio station's property.

Engineer A designs a specialized antenna system and signed and sealed those preliminary drawings.

Facts

The construction of a **new building for the highway department** was about to begin.

A **meeting** was called so that all parties involved could wrap up **last minute details** so the project could proceed expeditiously.

During the meeting, **Engineer A** was asked to **clarify some details** about the **antenna system's relationship to the foundation of the building** and to address some **other technical questions**.

Engineer A was **unable to answer the questions** about the building foundation because Engineer A was **never provided with the final plans for the building**— Engineer A was only provided preliminary drawings for the building and a site plan.

Facts

Following the meeting, the **project manager** sent **Engineer A** a **full set** of drawings.

Engineer A's preliminary drawings were **included with the final plans**, but an **unknown person** had **crossed out Engineer A's notes** on each page of Engineer A's signed and sealed drawings without Engineer A's knowledge or permission.

Facts

The **project manager**, not a licensed engineer, subsequently **revealed** to Engineer A that **Engineer B**, one of the **prime consultants**, **made the changes** to Engineer A's plans, and **signed and sealed the drawings** and that the **changes should not have been made without Engineer A's approval**.

The project manager said that the **changes were made to avoid a delay** in distributing the bid documents.

Question

Was it **ethical** for **Engineer B**,
a prime consultant,
to **make changes to Engineer A's work**?

References

Section II.2.b. – NSPE Code of Ethics: Engineers shall not affix their signatures to any plans or documents dealing with subject matter in which they lack competence, nor to any plan or document not prepared under their direction and control.

Section II.2.c. – NSPE Code of Ethics: Engineers may accept assignments and assume responsibility for coordination of an entire project and sign and seal the engineering documents for the entire project, provided that each technical segment is signed and sealed only by the qualified engineers who prepared the segment.

Section III.7.a. – NSPE Code of Ethics: Engineers in private practice shall not review the work of another engineer for the same client, except with the knowledge of such engineer, or unless the connection of such engineer with the work has been terminated.

Discussion: Significance

The **signing and sealing** of engineering documents involves **fundamental issues** relating to the practice of engineering.

The signature and seal on a set of engineering drawings is an indication that the **signing and sealing engineer** is taking **personal and professional responsibility** for the contents of the work.

Discussion: Health, Safety, Welfare

The NSPE Code of Ethics addresses this issue in considerable detail and the NSPE Board of Ethical Review (Board) considered this issue on numerous occasions.

In addition, **state engineering licensure boards maintain strict rules and policies on the signing and sealing of engineering documents for the public health, safety, and welfare.**

Discussion: Relevant Case

The **Board** has reviewed and considered issues relating to the **signing and sealing of engineering work** on a **variety of occasions**.

For example, in **BER Case 86-2**, **Engineer A** was the **chief engineer** within a **large engineering firm** and **affixed his seal** to some of the **plans prepared by licensed engineers working under Engineer A's general direction** who did not affix their seals to the plans.

Discussion: Relevant Case

At times, **Engineer A** also sealed plans prepared by **non-registered, graduate engineers** working under his general supervision. Because of the size of the organization and the large number of projects being designed at any one time, **Engineer A** found it impossible to give a detailed review or check of the design.

He believed he was ethically and legally correct in not doing so because of his confidence in the ability of those he hired and who were **working under his general direction and supervision.**

Discussion: Relevant Case

By **general direction and supervision**, Engineer A meant that he was involved in helping to **establish the concept, the design requirements, and review elements** of the design or project status as the design progressed.

Engineer A was consulted about **technical questions** and he **provided answers and direction** in these matters.

In finding that it was **unethical** for Engineer A to seal plans that were not prepared by him, or which he has not checked and reviewed in detail, the Board established criteria for **“direction and control”** in the NSPE Code, Section II.2.b.

Discussion: Relevant Case

In BER Case 86-2, the Board said “It is clear that **‘direction and control’** have a meaning which when combined would suggest that an **engineer** would be required to **perform all tasks** related to the **preparation** of the **drawings, plans, and specifications** in order for the engineer to **ethically affix his seal.**”

Discussion: Leading to the Findings

Even though the facts and circumstances in the two cases are quite different, the Board believes BER Case 86-2 is instructive in the present case because it identifies the requirements for the appropriate signing and sealing of work by an engineer and also describes situations where it is unethical for a professional engineer to sign and seal work prepared by others.

In the preparation of engineering documents, there is a clear need for close collaboration between all parties involved in the design elements of a project in order for there to be good coordination.

Discussion: Leading to the Findings

Every member of the design team brings **different levels of design and management expertise** to the process and having a **clear and straightforward procedure for review and approval** of the work is a responsibility of each party involved.

While BER Case 86-2 presents a situation where an engineer's oversight did not reach the necessary threshold in order to ethically sign and seal the work as required by the NSPE Code of Ethics, the **present case involves a basic disregard for the work product of another licensed professional engineer.**

Both situations are unacceptable under the language of the NSPE Code.

Discussion: Leading to the Findings

Specifically, under the language of the NSPE Code, while **Engineer B** may have had a **general right to sign and seal a set of final drawings as the prime design engineer**, it is also clear that **Engineer B could not ethically sign and seal drawings that were prepared by another engineer, were preliminary in nature and then represent those drawings as final, regardless of the time constraints involved.**

Discussion: Leading to the Findings

While it is frequently a **basic reality** in today's engineering practice that **time is of the essence**, **time considerations should never supersede to the need for competent engineering practice** and the need for those with the appropriate level of knowledge and expertise to provide the necessary technical information as required in order to make the project successful for **the benefit of the client and for the protection of the public.**

In the present case, the facts suggest that **Engineer B may not have had the necessary level of technical competence and did not exercise appropriate direction and control over the work** in order to assume responsibility for the work.

Conclusion of the NSPE BER

It was not ethical for Engineer B,
a prime consultant,
to make changes to Engineer A's work.

BOARD OF ETHICAL REVIEW

E. Dave Dorchester, P.E., NSPE

Louis L. Guy, Jr., P.E., F.NSPE

William D. Lawson, P.E., NSPE

Robert L. Nichols, P.E., F.NSPE

Harold E. Williamson, P.E., NSPE

William J. Lhota, P.E., NSPE, Chair



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Section 2: Evaluating Codes of Ethics

The AIA Code of Ethics

Members of The American Institute of Architects are dedicated to the highest standards of **professionalism, integrity, and competence**. This Code of Ethics and Professional Conduct states guidelines for the conduct of Members in fulfilling those obligations. The Code is arranged in **three tiers** of statements:

Canons, Ethical Standards, and Rules of Conduct:

- **Canons** are **broad principles** of conduct.
- **Ethical Standards** are more **specific goals** toward which Members should aspire in professional performance and behavior.
- **Rules of Conduct** are **mandatory; violation** of a Rule is **grounds for disciplinary action** by the Institute. Rules of Conduct, in some instances, implement more than one Canon or Ethical Standard.

Measuring Against It

- Apply technical **knowledge** and **skill** which is **ordinarily applied** by architects of good standing practicing in the same locality.
- If, in the course of their work on a project, the **Members become aware** of a **decision** taken by their employer or client which **violates any law or regulation** and which will, in the Members' judgment, **materially affect adversely the safety to the public** of the finished project, the Members shall:
 - a) **advise** their employer or client against the decision,
 - b) **refuse to consent** to the decision, and
 - c) **report the decision to the local building inspector or other public official** charged with the enforcement of the applicable laws and regulations, unless the Members are able to cause the matter to be satisfactorily resolved by other means.

The NSPE Code of Ethics--Preamble

Engineering is an important and learned profession. As members of this profession, engineers are expected to exhibit the **highest standards of honesty and integrity.**

Engineering has a direct and vital impact on the **quality of life** for all people. Accordingly, the services provided by engineers require **honesty, impartiality, fairness, and equity,** and must be dedicated to the **protection of the public health, safety, and welfare.**

Engineers must perform under a standard of professional behavior that requires **adherence to the highest principles of ethical conduct.**

The ASCE Code of Ethics

Canon 1.

Engineers shall hold **paramount** the **safety, health and welfare of the public** and shall strive to comply with the principles of sustainable development in the performance of their professional duties.

Canon 3.

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

New York State Guidelines for Practice

Plans, specifications, and reports to which the **seal** of a **professional engineer** has been applied, must also be stamped with **appropriate wording warning** that it is a **violation** of this law for any person **to alter a document in any way, unless acting under the direction of a licensed professional engineer.**

If a document bearing the seal of an engineer is altered, the **altering engineer shall affix to the document their seal and the notation "altered by"** followed by their **signature** and the **date** of such alteration, and a **specific description** of the alteration.



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Section 3: Best Practices

Best Practices

Work for and with ethical people.

Prepare for the worst case scenario.

Review substitutions closely.

Protect public health, safety, and welfare.

“Panic appropriately.”

Best Practices

Work for and with ethical people.

Prepare for the worst case scenario.

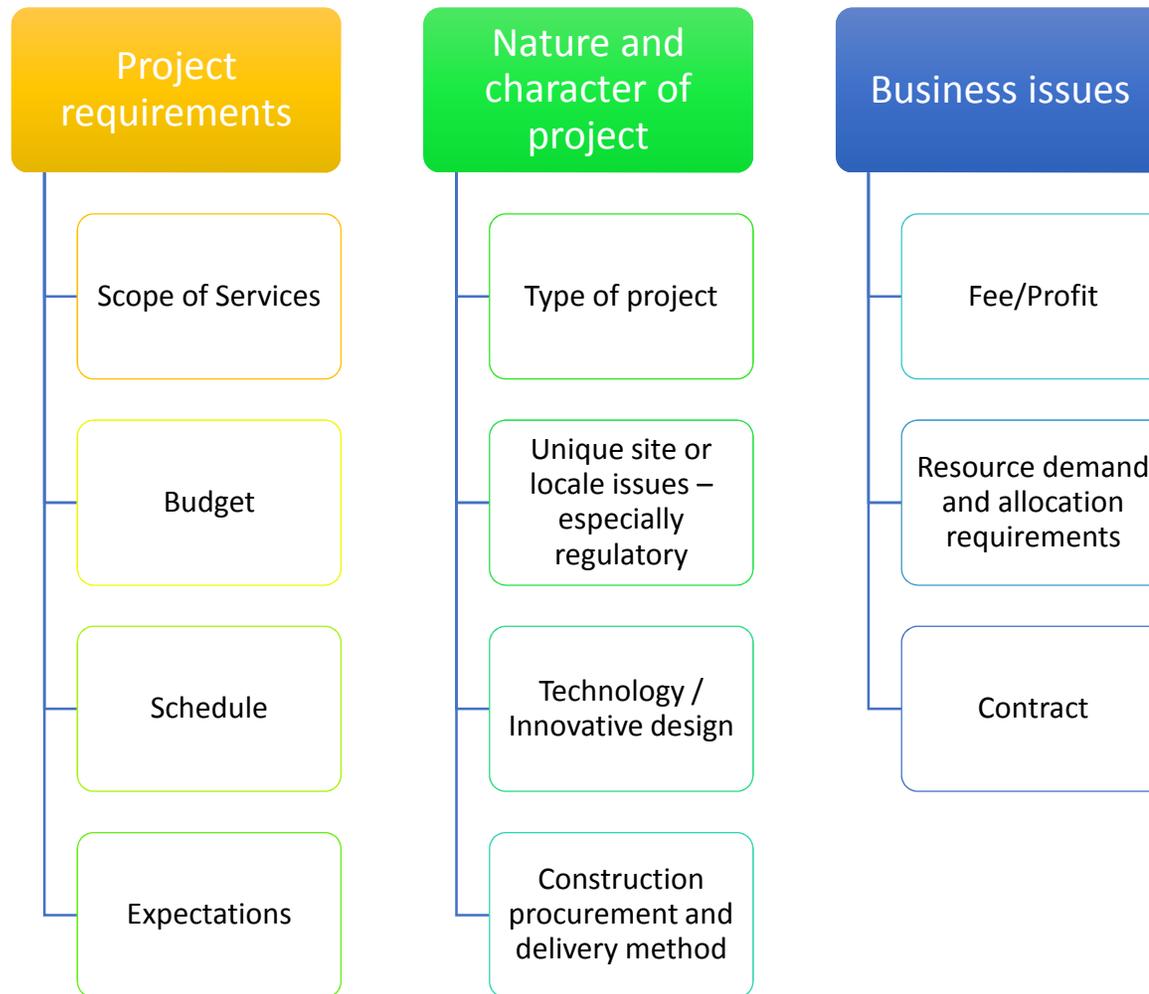
Review substitutions closely.

Protect public health, safety, and welfare.

“Panic appropriately.”

Work for and with Ethical People

Go/No Go Project Selection Process



Work for and with Ethical People

Subconsultant Best Practices—Evaluate:

Proposals

Qualifications

Expertise

Size

Special
Requirements

Reputation

Fees

Financial
Stability

Availability

Insurance
Coverage

Location

Prepare for the Worst Case Scenario

Suspension Provisions in the Contract

§9.1 If the Owner fails to make payments to the Architect in accordance with this Agreement, such failure shall be considered substantial nonperformance and cause for termination or, at the Architect's option, cause for suspension of performance of services under this Agreement. If the Architect elects to suspend services, the Architect shall give seven days' written notice to the Owner before suspending services. In the event of a suspension of services, the Architect shall have no liability to the Owner for delay or damage caused the Owner because of such suspension of services. Before resuming services, Owner shall pay the Architect all sums due prior to suspension and any expenses incurred in the interruption and resumption of the Architect's services. The Architect's fees for the remaining services and time schedules shall be equitably adjusted.

AIA Document B101-2017

Prepare for the Worst Case Scenario

Termination Provisions in the Contract

§9.4 Either party may terminate this Agreement upon not less than seven days' written notice should the other party fail substantially to perform in accordance with the terms of this Agreement through no fault of the party initiating the termination.

§9.6 If the Owner terminates this Agreement for its convenience pursuant to Section 9.5, or the Architect terminates this Agreement pursuant to Section 9.3, the Owner shall compensate the Architect for services performed prior to termination, Reimbursable Expenses incurred, and costs attributable to termination, including the costs attributable to the Architect's termination of consultant agreements.

§9.7 In addition to any amounts paid under Section 9.6, if the Owner terminates this Agreement for its convenience pursuant to Section 9.5, or the Architect terminates this Agreement pursuant to Section 9.3, the Owner shall pay to the Architect the following fees...

AIA Document B101-2017

Protect Public Health, Safety, and Welfare

Key Considerations



Confirm that your **contract** explicitly states that you're **not responsible for construction site safety**.



Don't interject yourself into site **safety procedures** or meetings.



If you **observe** an **unsafe condition**, inform the **contractor's superintendent** and **document** the situation to both the Contractor and the Owner.



If you observe **imminent danger**, take **immediate action** up to and including **pulling an employee out of harm's way**.

Review Substitutions Closely

If properly contracted, this can be an **additional service** (AIA Document B101 §4.2.2.5).

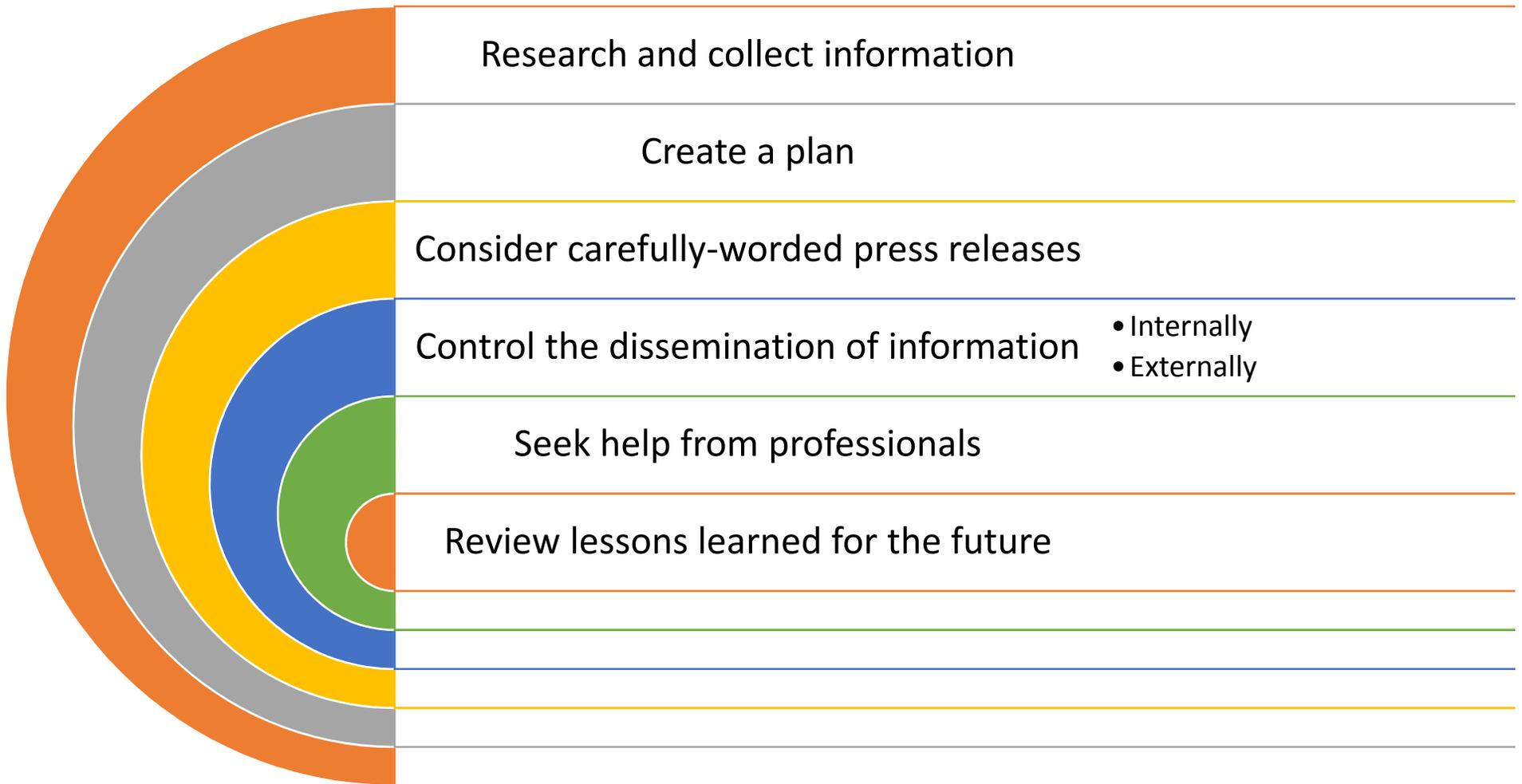
Don't approve proposed substitutions unless you've **researched them** or have **prior knowledge** or **experience**.

Document any **observed differences** to your client and the Contractor.

If the Owner approves a substitution despite your objections, confirm that you have **clearly stated your position**.

“Panic Appropriately”

Crisis Communication Tactics



“Panic Appropriately”

Effective Delegation starts with:

Defining the
desired **outcome**

Identifying the
best **candidate** for
each delegated
task, based on:

- Time
- Skills
- Commitment

Clarifying the
task(s) and the
timeframe

Maintaining
proper **oversight**

“Panic Appropriately”

Observe/Inspect/Supervise—Choose Carefully

Observe

- Review the construction under defined rules to keep the owner apprised of construction progress and quality
- **Resource:** AIA Document G711—Architect’s Field Report

Inspect

- Examine the work carefully or critically
- Investigate and test officially
- **Goal:** Determine Substantial and Final Completion Dates

Supervise

- Be in charge
- Watch and direct

Thank you for your time!

QUESTIONS??

**This concludes The American Institute of Architects
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