

## Knoxville Chapter

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2014  
**NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS**  
**MILTON F. LUNCH ETHICS CONTEST**

**SIGNING OFF ON CHANGE ORDER BY STATE DEPARTMENT OF**  
**TRANSPORTATION ENGINEER**

**Facts:**

Engineer A works for the State X Department of Transportation and is the in-house project manager on a construction project being performed by Contractor Q for State X. Contractor Q submits a change order for Engineer A's approval on work already performed by Contractor Q. The normal practice is for a contractor to first seek review and approval of a change order by the project manager (in this case, Engineer A) before commencing the work. Engineer A believes, in his engineering judgment, the change order is actually the result of Contractor Q's faulty workmanship and not the result of any changes directed or required by State X. Following a lengthy conversation between the Engineer A and Contractor Q during which Engineer A informs Contractor Q that he will not sign off on the change order, Contractor Q contacts Supervisor B who supervises Engineer A. The next day, Supervisor B who is not a professional engineer, directs Engineer A to sign off on the change order.

**Question:**

Would it be ethical for Engineer A to sign off on the change order?

**References:**

*Section II.1 - NSPE Code of Ethics: Engineers shall hold paramount the safety, health, and welfare of the public.*

*Section II.1.a - NSPE Code of Ethics: If engineers' judgment is overruled under circumstances that endanger life or property, they shall notify their employer or client and such authority as may be appropriate.*

*Section II.4 - NSPE Code of Ethics: Engineers shall act for each employer or client as faithful agents or trustees.*

*Section III.2.b - NSPE Code of Ethics: Engineers shall not complete, sign, or seal plans and/or specifications that are not in conformity with applicable engineering standards. If the client or employer insists on such unprofessional conduct, they shall notify proper authorities and withdraw from further service on the project.*

**Discussion:**

This case raises a fundamental issue concerning the professional integrity of engineers and the ethical obligations engineers owe to their employers, clients, and others. How far must engineers go in stating concerns in matters which directly involve their judgment as professional engineers and their responsibilities to their employers but do not directly impact upon the public health and safety?

Engineers with project management responsibilities regularly face situations involving both engineering and contract management. These situations also can, at times, place them in conflict with non-engineer supervisors. The engineers' ability to navigate their professional responsibilities in such complex situations will have a significant effect upon their professional lives, their employers, and others. To be successful, engineers in project management must be able to address such complex situations in a variety of ways, taking into account the corporate culture in which they practice, the nature of the professional disagreement, the engineer's personal background, and other factors.

The Board of Ethical Review, over the years, has examined cases with some similarities to this present case. For instance, in BER Case 82-5 an engineer employed by a large defense industry firm documented and reported to his employer excessive costs and time delays by subcontractors. The Board ruled that the engineer did not have an ethical obligation to continue his efforts to secure a change in the policy after his employer rejected his reports, or to report his concerns to proper authority, but has an ethical right to do so as a matter of personal conscience. The Board noted that the case did not involve a danger to the public health or safety, but related to a claim of unsatisfactory plans and the unjustified expenditure of public funds. The Board indicated that it could dismiss the case on the narrow ground that the Code does not apply to a claim not involving public health and safety, but that was too narrow a reading of the ethical duties of engineers engaged in such activities.

Other BER Cases with some similarities to the present one include 84-5, 88-5, 04-5, and 08-2. However, the present case is somewhat different in that Engineer A has both the authority to sign off on the change order on behalf of the State X Department of Transportation and the responsibility to ensure the contract requirements for its preparation, review and approval are followed.

Regardless of the objective merits of positions of Engineer A, Contractor Q, and

Supervisor B, it is clear that relevant contract procedures have not been followed - or followed completely - in preparing and reviewing the change order. In this case, the change order was prepared after the work was accomplished, not before. Contractor Q informally contacted Supervisor B after Engineer A objected. Supervisor B then informally directed Engineer to sign off on the change order. However, change orders in State-funded construction projects routinely occur and, when they do, it is the responsibility of the project manager - in this case, Engineer A - and their supervision - in this case Supervisor B - to ensure they are properly prepared and reviewed before being approved.

Until the change order is properly prepared and reviewed, regardless of the objective merits of Contractor Q's and Supervisor B's position, Engineer A must "stand firm" in not signing off on it. Instead, Engineer A needs to get the change order preparation, review and approval process back on track with the contract requirements, consistent with the duty to be a "faithful agent or trustee" of the State X Department of Transportation. He **should carefully document** his efforts and their results. Although the public health and safety is not directly involved, when Supervisor B directed Engineer A to sign off on the improperly prepared and reviewed change order, Supervisor B crossed a line that Engineer A must defend as an engineer and trusted employee of the State X Department of Transportation.

**Conclusion:**

It would not be ethical for Engineer A to sign off on the change order as Supervisor B directed. Engineer A must try to get the change order preparation, review and approval process back on track with the contract requirements. He should carefully document his efforts to do so. If Supervisor B continues to insist that Engineer A sign off on the improperly prepared and reviewed change order, then Engineer A must bring the matter to the attention of appropriate authorities.

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