Online Ethics Center
FOR ENGINEERING AND SCIENCE

Dissent About Quality

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Year

1992

Description

A new engineer fears voicing dissent at a meeting.

Abstract

This case is one of thirty-two cases which address a wide range of ethical issues that can arise in engineering practice provided by the Center For the Study of Ethics in Society, Western Michigan University.

Body

I

A recent graduate of Engineering Tech, Bernie Reston has been employed in the Research and Development (R&D) Chemical Engineering Division of Larom, Inc. for the past several months. Bernie was recommended to Larom as the top Engineering Tech graduate in chemical engineering.

Alex Smith, the head of Bernie's unit, showed immediate interest in Bernie's research on processes using a particular catalyst (call it B). However, until last week, his work assignments at Larom were in other areas.

A meeting of engineers in Bernie's unit is called by Alex. He announces that the unit must make a recommendation within the next two days on what catalyst should be used by Larom in processing a major product. It is clear to everyone that Alex is anticipating a brief, decisive meeting. One of the senior engineers volunteers, "We've been working on projects like this for years, and catalyst A seems to be the obvious choice." Several others immediately concur. Alex looks around the room and, hearing no further comments, says, "Well, it looks like we're in accord on this. Do we have consensus?"

So far Bernie has said nothing. He is not sure what further testing will show, but the testing he has been doing for the past week provides preliminary evidence that catalyst B may actually be best for this process. This is also in line with what his research at Engineering Tech suggested with somewhat similar processes. If catalyst B should turn out to be preferable, a great deal of money will be saved; and, in the long run, a fair amount of time will be saved as well. Should he mention his findings at this time, or should he simply defer to the senior engineers, who seem as determined as Alex to bring matters to closure?

II

Bernie somewhat hesitantly raises his hand. He briefly explains his test results and the advantages catalyst B might provide. Then he suggests that the unit might want to delay its recommendation for another two weeks so that he can conduct further tests.

Alex replies, "We don't have two weeks. We have two days." He then asks Bernie to write up the report, leaving out the preliminary data he has gathered about catalyst B. He says, "It would be nice to do some more testing, but we just don't have the time. Besides, I doubt if anything would show up in the next two weeks to change our minds. This is one of those times we have to be decisive--and we have to look decisive and quit beating around the bush. They're really getting impatient on this one. Anyway, we've had a lot of experience in this area."

Bernie replies that, even if the data on B is left out, the data on A is hardly conclusive. Alex replies, "Look you're a bright person. You can make the numbers look good without much difficulty--do the math backwards if you have to. Just get the report done in the next two days!"

Bernie likes working for Larom, and he feels lucky to have landed such a good job right out of Engineering Tech. He is also due for a significant pay raise soon if he plays his cards right.

What do you think Bernie should do? Explain your choice.

1. Write up the report as Alex says.
2. Refuse to write up the report, saying he will have no part in falsifying a report.
3. Other.

III

[Following II. 1.]

Bernie decides to write up the report. When he is finished, Alex asks him to sign it. Bernie now has second thoughts. He wonders if he should sign his name to a report that omits his preliminary research on catalyst B. Should he sign it?

IV

Bernie has now had more time to do research on catalyst B. After several weeks his research quite decisively indicates that, contrary to the expectations of Alex and the other more experienced engineers in the unit, catalyst B really would have been, far and away, the better choice. What should Bernie do now?

1. Keep the data to himself--don't make trouble.
2. Tell Alex and let him decide what, if anything, to do.
3. Other.

V

Bernie decides to say nothing. Although Larom has lost a lot of money by investing in an inferior catalyst, it is quite possible that this is the end of the matter for Bernie. The customer never complains, and no one outside at Larom raises any questions. However, it might go otherwise. Suppose a Larom competitor discovers that catalyst B is better for this type of work and it begins receiving contracts that Larom would normally be awarded. Further, what if Alex's superior then makes an inquiry into why his unit has missed out on this development?

VI

[Following II. 3.]

Bernie tries to convince Alex that a straightforward report should be submitted. Since there is a virtual consensus in the unit that catalyst A is best, A can be recommended. But the preliminary evidence about B can also be mentioned. After all, Bernie suggests, if the entire unit is convinced that A is best despite the preliminary evidence about B, why wouldn't those outside the unit be persuaded by the received wisdom of the unit? If they aren't persuaded, perhaps they will grant the unit more time to continue the research on B.

Somewhat to his surprise, Bernie finds Alex and the others receptive to his suggestion. The preliminary evidence about catalyst B is included in the report, even though A is recommended.

Unfortunately, Alex's superiors are very upset with the recommendation. They are unwilling to go ahead with the project without further testing, but they bitterly complain that the further delay will be very costly. Alex is severely criticised for not having a more convincing set of data. He, in turn, blames his staff, especially Bernie, the new specialist in this area. Bernie, Alex tells his superiors, failed to complete the necessary testing in a timely fashion. Alex tells his superiors that he should have supervised Bernie's work more closely, and he assures them that he will not let matters get out of control again. Although Bernie is not fired, he is not promoted and his salary is frozen for another year. What should he do?

1. Nothing. No good will come from complaining.
2. Confront Alex, telling him what you think of what he has done, but carrying it no further.

3. Other.

VII

Bernie decides he has nothing to gain from complaining to Alex or anyone else about becoming the "scapegoat" of the project. So, he keeps quiet. Sometime later, Alex is being considered for promotion to another division. Members of Bernie's unit are privately interviewed about his performance in the unit. Bernie is told that his comments will be kept confidential. What should he say in his interview?

VIII

Bernie says nothing negative about Alex in the interview. None of the others in the unit do either. Alex is promoted to another division. However, a year later it is discovered that he has directed someone in his new division to falsify data for reasons very similar to those in Bernie's original situation. The new person does what Alex asks. The result is a significant loss of money to Larom--only this time there is an expensive product-liability lawsuit relating to an unsafe Larom product. An inquiry takes place. The person who has falsified the report says that Alex has often requested that data be falsified--and that he typically has gotten young engineers to do the "dirty work" for him. So, it comes back to Bernie. He is asked why he didn't report Alex's orders to falsify data when the matter first came up. Bernie is accused of being partly responsible for allowing Alex to be promoted--with the resulting harm to others and loss of money and reputation to Larom.

Notes

This case is inspired by two brief case studies presented by Roy V. Hughson and Philip M. Kohn in Chemical Engineer, May 5, 1980: "The Falsified Data" and "The Falsified Data Strike Back." These are two of several brief case studies that they present. You might enjoy looking at the others. They are on pp. 100-107 of that issue.

Case study originally published in "Teaching Engineering Ethics: A Case Study Approach," by Michael Pritchard. Center for the Study of Ethics in Society, Western

Michigan University, 1992.

Originally titled: "Larom."

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Resource Type

Case Study / Scenario

Parent Collection

Cases for Teaching Engineering Ethics

Publisher

Online Ethics Center
Authoring Institution
Center for the Study of Ethics in Society at Western Michigan University