



Online Ethics Center
FOR ENGINEERING AND SCIENCE

The Persistent Engineer

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Description

Is it within an engineer's responsibility to fight against a public danger, even if it is not within his area of expertise?

Body

Part I

You are a civil engineer and work with the AAA (Water and Sewer Authority). While driving through a small town you notice a large storage tank filled with chlorine gas sitting next to an urbanization. The land on which the storage tank is located and the storage tank itself are owned by a local manufacturing company which uses chlorine for various business related purposes.

This is a disaster-in-the-making. Given the right conditions (a leak in the storage tank, wind blowing in a certain direction), an accident could occur that would endanger the lives of the people living in the urbanization. After all, chlorine gas was used during World War I to kill soldiers hiding in trenches.

Should you do something about this given that it is not a part of your job and that, as a civil engineer, it is not within your area of expertise?

Part II

You decide to find a way to get the company to move its tank to a safer location. First, you approach officials from the local government; they tell you that they do not have the authority to make the company move the tank. They suggest that you go directly to the company and ask them to move it. But the company tells you that this is none of your business; they point out that you work for the water authority and have no right to tell them where they can and cannot store materials.

Questions:

1. Should you push this matter farther? What could be done given the intransigence of the both the local government and the private company that owns the storage tank?
2. How would you respond to the following argument? This engineer is a civil engineer working for the AAA. The safety or risk of the location and contents of the storage tank are beyond his job and professional qualifications. Hence it is neither obligatory nor permissible for him to try to force the company to change its location. This is someone else's problem. Furthermore, such actions, while well meaning, cost companies and consumers a great deal of trouble and money.
3. Suppose the engineer persisted in his efforts to relocate the tank. Furthermore, suppose that he finally got the company to remove the it. (This really happened.) Would this constitute an example of good works as set forth by Michael Pritchard? Why?
4. What virtues constitute a good engineer? Could we count persistence among them?

Notes

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