Michael Davis' Commentary on "Dealing with a Costly Error"

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Dealing with a Costly Error

This is a complicated case. But the underlying theme seems to be what to do with potentially useful information. So, it is worth pointing out right away that most large organizations under-use information, especially information generated near the "bottom." They don't do this intentionally but by creating an atmosphere in which information does not move to where it is needed. Employees see problems but don't report them because (in Rick Duffy's words) "it's somebody else's concern" or because they suppose (again in Duffy's words) "[the company doesn't] want to put out the money to change it."

Most companies should do more to ensure that the higher-ups get the information available to those at the bottom. The Japanese are better at that than we are. Our larger companies are only now beginning to adopt such Japanese practices as "quality circles." But even the Japanese could do more.

New to the job, Carl Lawrence, engineer, is an important resource. He is looking at the plant with new eyes. He might well pick up things invisible to those used to things as they are. He won't be able to do that for long. Kevin Rourke, the plant manager, should ask him for suggestions. But, even if Rourke does not, Lawrence should tell Rourke what is bothering him abut the caustic distribution system. He should, of course, do this with due modesty. He has a lot to learn. There might be a good reason for the difference between the acid distribution system and the caustic distribution system. Still, part of being a good engineer is seeing ways to improve exiting systems. Lawrence has seen something, or at least thinks he has. He owes it to his employer to pass that information along.

The problem Lawrence faces several months later again concerns information. He forgot that no one was working during the early afternoon on the side of the building where the C-2 valve was. Whether or not he was to blame for forgetting that, the

fact that he forgot is important. Perhaps his forgetting shows a need for an automatic shut-off valve or, at least, for a written procedure, including a checklist, for handling emergencies like the one that just occurred. Everyone makes mistakes; the smart ones learn from them. The company will learn less from this one if Lawrence does not report what he did wrong. That is why, according to NSPE Code III.1, engineers are supposed to "admit and accept their own errors when proven wrong and refrain from distorting or altering the facts in an attempt to justify their decision."

Lawrence should be slower about identifying Duffy as responsible for leaving the valve open. A manager who blames his subordinates is like the carpenter who blames his tools. Rourke will press Lawrence if he thinks who left the valve open is important. But, even if Rourke does not press him, Lawrence will have to decide whether Duffy's part was important. If Duffy's conduct was extraordinary, something unlikely ever to happen again, there is no need to consider changing the physical plant. Duffy was the problem. If, however, Duffy's conduct was not all that unusual, this was an accident waiting to happen. The plant, or its procedures, is the problem.

If Duffy's conduct was important, Lawrence probably should tell Rourke the whole story while withholding Duffy's name. Rourke can demand Duffy's name if he wants it. In the meantime, the etiquette of protecting subordinates will have been observed. If, however, Duffy's part was incidental, Lawrence should simply say so: "It could have been anyone. I'd just as soon not say who it was."

Of course, Lawrence's connection with Duffy makes the decision harder. Duffy is not just another employee. He is more like a friend. So, Lawrence has a conflict of interest. His judgment may favor Duffy in a way it would not favor just anyone he supervises. He should tell Rourke that too. Hearing that, Rourke may not be so inclined to rely on Lawrence's judgment concerning Duffy. His not relying on Lawrence's judgment does not necessarily mean Rourke will fire Duffy. We have no reason to suppose that Rourke's heart is made of stone. But should he decide to fire Duffy, knowing Duffy and Lawrence are close should make Rourke less inclined to assign Lawrence the painful job of delivering the bad news.

Rourke's doubts about reporting the caustic spill differs little from Lawrence's doubts about reporting what he knows to Rourke. True, the information Rourke has is needed by the water treatment works rather than by someone inside the company. The organization having trouble using the information available to some of its

members is society as a whole. Where does Rourke's ultimate loyalty lie? For an engineer, there is only one answer, with the public. An engineer is, as such, committed to "hold paramount the safety, health, and welfare of the public in performance of his professional duties." (NSPE Code II.1) Rourke, an engineer acting in his professional capacity, can prevent serious harm to a public facility, harm for which the plant he runs would be responsible. He certainly should notify the waste treatment works about the caustic waste headed its way, and he should be as candid as necessary to prevent the harm that would otherwise occur.

Protecting the public interest in these circumstances will probably serve Rourke's employer as well. The public tends to make life miserable for businesses that don't pay enough attention to the public interest. But engineers do not hold the public safety, health, and welfare paramount for that reason (or, at least, for that reason alone). Individuals organize into professions in part to protect themselves from being pressured into doing what they do not want to do. There is strength in a common code of conduct. Engineers, whose knowledge gives them the power to do the public great harm, have agreed to make the public interest paramount to assure that they will not be forced to harm the public. Each engineer can say, "If you didn't want the problem handled in this way, why did you want an engineer for the job?"

What should Lawrence do when someone considering Duffy for a job calls, quotes Lawrence's letter of reference, and asks whether he has omitted any negatives? Here again one person has information that would be useful to another. Here, however, we also have concerns about deception and about confidentiality, both Duffy's and the company's. What should Lawrence say?

I don't think he can honestly say there are no negatives. Causing a significant chemical spill (with thousands of dollars in losses) is a negative in anyone's book. That negative is, however, not necessarily decisive, and the full story is not that damaging to Duffy. He clearly understood he had done wrong. He did not lie about it. He was repentant. He might now be a safer worker than someone who had never seen how much harm his carelessness can do. Why not tell Duffy's prospective employer the whole story? The story will do Emerson Chemical no harm (assuming it behaved properly). Duffy might still get the job. And, if he does, he will not get it under false pretenses.

Unfortunately, Lawrence probably cannot tell the full story without getting Emerson Chemical's permission. Insofar as Lawrence will be telling more than the media have

already reported, he will be revealing confidential information. An engineer should not "disclose confidential information concerning the business affairs or technical processes of any present or former client or employer without his consent." (NSPE Code III.4) By preserving the confidences of their employers, engineers make it easier for their employers to share information with them and so, easier for them to do a good job. Lawrence should probably tell his caller something like this: "I can't talk now. I'll call you back in an hour or so." He can then get clearance from whoever has authority to give it.

Telling Duffy's potential employer a "white lie" is not a justified (or even excusable) alternative to this cumbersome process. Duffy has no right to expect Lawrence to lie for him. And, under the circumstances, it is hard to see how such a lie could be morally justified or excused. Such a lie would therefore be a violation of an engineer's professional obligations as well. Being morally inexcusable, such a lie would amount to "conduct...likely to discredit the profession" (NSPE Code III.3) and fall well short of "the highest standards of integrity" (NSPE Code III.1).

Nurrevo has no more right to expect Andrea Smith to lie for it than Duffy had to expect Lawrence to lie for him. But that is not what Nurrevo is asking of Smith. Once Nurrevo learned that Rourke's action would take care of both spills, it also knew that the public interest was no longer at stake. The only question was who would pay for the disaster for which Nurrevo was a responsible as Emerson Chemical. There is, strictly speaking, no "cover-up". Nurrevo has not denied its responsibility. It has said nothing. Nurrevo is asking Smith to keep this dirty secret. Smith owes her employer that much. (NSPE Code III.4)

That is not to say all is well at Nurrevo. There is a good chance that Fred Barnes did not tell his superiors about the problem, that Nurrevo is developing a collection of dirty secrets, and that those secrets will soon be numerous enough to make everyone fearful of open communication. Nurrevo will not be a pleasant place to work. If I were Smith, I would start looking for another job.