

Identifying Intersecting Priorities: The Case of Radiation Exposure on Construction Workers

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Description of the Organization:

Hatch is a multidisciplinary company specializing in engineering and development services. They provide engineering, project and construction, business consulting, and operational services to the mining, energy and infrastructure companies. Their group companies employ more than 9000 employees in over 70 offices. They are a private and employee-owned company based in Ontario. They are named one of Canada's Top Employers by Forbes.

The construction team includes a manager and 40 employees. The daily activities of the construction workers are operating equipment, building and fixing structures. They rotate when taking breaks throughout the day.

Description of the Incident:

Derek is an equipment operator working on construction. He is a healthy 40 year old man who remains physically active on the job. He has had no previous work-related illnesses or injuries. His construction team recently started working on a new site outdoors where he is required to work underground most of the time. Lately, he has been experiencing loss of appetite, headaches, and fatigue after coming home from work. As several days pass, his symptoms worsen to continuous vomiting and diarrhea.

Derek reports his symptoms to his Regional Health and Safety Manager, Jeanette. She mentions to Derek that other construction workers working underground have reported similar issues. Jeanette then investigates a possible cause of these illnesses. After communicating this issue with others working on the construction site and discussing this with the environmental experts, there seems to be a radiation exposure caused naturally from underground radon exposure.

Jeanette is determined to manage the radiation exposure to improve the health and safety of the construction workers. She can determine the hierarchy of controls to figure out options to handle the situation. She believes that the first step is to measure how much radiation the workers are exposed to. She also needs to know how long the workers are exposed to the radiation. She has to determine whether there should be work rotations in place to limit exposure or if the shift should go through eight hours straight. In addition she needs to determine if any equipment is needed to contain the exposure such as dosimeters, and personal protective equipment.

She brings up this issue to the environmental and construction teams, however, there are opposing opinions on what actions are best to take. The environmental team needs to find out if there are any permit issues, if there is transportation for removing these dangerous materials, and what kind of packaging is needed to store these materials. Whereas the construction team requires a specific schedule that they need these vendors because the construction workers need to do their work.

She has to navigate legislation and procedures to find a solution that works best for all stakeholders such as employees, environment, government, managers, etc. and consider what each team needs.

Discussion Questions:

Why do you think the construction site did not know that radiation was present?

If you were Derek, would you have informed your construction coworkers about your symptoms before reporting your symptoms to the Health and Safety Manager?

How significant is this health and safety hazard? If so, do you think the decision making process should be done sooner?

Do you think it is necessary to have all the teams input on what should be done?

How do you think Jeanette should navigate through multiple team opinions while also following the correct legislation and procedures?