**Case 3. Exposing Workers to Plutonium**

In August 1999 it was learned that several thousand uranium workers in a 750 acre plant in Paducah, Kentucky, had been exposed to plutonium and other radioactive materials. The exposures occurred at the Paducah Gaseous Diffusion Plant, which is owned by the Department of Energy of the U.S. government and is still in operation today. The 1,800 workers in the plant once labored to produce material for bombs from uranium dust. The radioactive contaminants that caused the exposure also spilled into ditches and eventually were carried into wildlife areas and private water wells. Some of the material had been deliberately dumped into landfills and nearby fields. In the last few years the enriched uranium produced at the plant has been sold to commercial nuclear power plants.

 Many records on plutonium contamination were kept in archives, but workers were never told of potential risks to health. Recent studies indicate that the workers have experienced higher rates of cancers from the ionizing radiation. Because they were never altered to the risks, workers did not wear sufficient protection while working with the harmful products. Workers were told that there were insignificant amount of plutonium and were not monitored to determine the actual levels of exposure. High levels of radiation have been discovered in the plant, and more recently, reports indicate that plutonium has been found to 1 mile from the plant. In several locations half a mile from the plant, tests in the year 2000 revealed that plutonium levels were above 20 times the maximally acceptable limit. Groundwater cleanups have been underway since 1988, when the serious level of pollution in wells was discovered. Individuals continue not to draw water from personal wells that may be contaminated.

 Union Carbide managed the plant for a 32-year period, when most of the pollution occurred. Lockheed Martin and Martin Marietta managed the plant during the 1980s and 1990s. The federal government for decades took the position that the amounts of exposure were too small to amount to a threat to health. However, internal documents show that Martin Marietta was very concerned during this same period about significant environmental damage that had occurred. Workers now maintain that even if their health not jeopardized, not disclosing levels of pollution and failing to monitor for health problems were serious moral failures.

 In September 1999 the Clinton administration announced that it would spend several million dollars to compensate workers harmed by the exposures at the Paducah Gaseous Diffusion Plant. According to the plan, workers may receive a lump sum of $100,000 or may negotiate another compensation package that covers medical costs, lost wages, and job retraining. The Department of Energy announced that it would allot $21.8 million in new spending for environmental cleanup in the region.

**Questions**

1. Identify the problems identified in the case. Evaluate the options of possible solutions presented by the authors.

2. Should management in the plant make a full disclosure of known risks, even when the risks are believed to be insignificant?

3. Did the government have the responsibility to pay the workers for the risks that they were asked to undertake as well as the health effects that resulted?

4. In failing to make a full disclosure, are the plant owner and managers guilty of a moral violation? What is the moral violation, and is some form of punishment in order?

 5. What was the author's recommend solution? Do you agree or disagree with their recommendation? Why or why not?