In 1986 a flawed reactor, Chernobyl forever changed the small Ukrainian town. During an annual testing of how long the reactor would produce energy once cut off from electricity the interaction of the hot fuel and cooling fluid created a jump in pressure inside the reactor. Previous tests had power shut off more gradual allowing the system to properly cool down without exceeding maximum pressure. Two explosions occurred because of this killing two plant workers. The nuclear power plant failed to warn the community of Chernobyl when the incident first occurred. For two days they poured sand and other products to try and stop the radiation leak. On April 27, two days after the incident, they told the public and began evacuation. If they told the public earlier, many people and babies born after the nuclear meltdown would have been saved.

Individuals in the surrounding area experienced radiation doses on an average 100 mSv. To stop the spread of radiation, Reactor number 4 sits under its' "sarcophagus," of metal and concrete cover built after the accident. The reactor sits in the middle of a 1,000-square-mile "Exclusion Zone" which is quarantined and considered no-man's land. The exclusion zone is complete with border guards, passport control and radiation monitoring. Inside the Zone are hundreds of unmarked burial sites where machinery from the cleanup after the accident was dumped.

In 79 A.D. Mount Vesuvius, Italy, erupted destroying the entire city of Pompeii. Because seismic activity was so common in the area, the people of Pompeii paid little attention to the several quakes that shook the earth beneath Herculaneum and Pompeii in early August. Since no one paid much attention to the earth quakes, they were unprepared for the explosion that happened around noon on August 24th.
the life cycle of a volcano it is important to know the stages of an eruption. If the citizens of Pompeii had known that the frequent shakes would cause an eruption that laid 6 inches of ash an hour on the city, their lives may have been saved and they could have evacuated.

There is not much of a plan for the city of Naples is Mt. Vesuvius is to erupt again. The worst case scenario is that 3 million people must be evacuated. Scientist debate on how to go about the evacuation because they do not fully understand the volcano, it has been over 60 years since the last eruption and no one knows exactly what to expect. A simple change in wind can cause the ash of another explosion to head in a different direction which will force any evacuation plan to be changed. Scientist agree that there really is no way to plan for the next eruption except to sound sirens in case of an immediate emergency.

Work Cited:
