

## **31 Questions About Nuclear Weapons and Nuclear Power**

Prepared by Joseph Gerson, American Friends Service Committee

### **1. What is nuclear fission?**

A. A nuclear reaction in which a heavy nucleus, uranium for example, splits into two lighter nuclei.

### **2. What is nuclear fusion?**

A. A nuclear reaction resulting in two nuclei being fused, resulting in a new molecule and the massive release of energy.

### **3. Which woman physicist informed Otto Hahn that nuclear fission could be instigated by humans?**

A. Lisa Meitner, 1939

### **4. Where was the first human initiated sustained chain reaction?**

A. University of Chicago, December 2, 1941

### **5. Which scientist informed President Roosevelt that it would be possible to create a bomb which could destroy an entire city?**

A. Albert Einstein

### **6. When was the first atomic bomb detonated?**

A. July 16, 1945, the Trinity Test

### **7. The president of which leading U.S. university initially proposed that Japanese cities with military functions and “densely packed workers homes” should be the criteria for identifying the cities to be targeted by the first atomic bombs?**

A. James Conant of Harvard University

### **8. In how many second was the city of Hiroshima destroyed?**

A. Nine

### **9. Which famous scientist joined with Lord Bertrand Russell in 1955 to urge the complete abolition of nuclear weapons?**

A. Signing the Russell-Einstein Manifesto was among the last acts of Albert Einstein before his death.

### **10. What are the three pillars, one of them unfortunate, of the Nuclear Non-proliferation Treaty?**

A. The nuclear powers agreed to good faith negotiations to completely eliminate their nuclear arsenals in exchange for the non-nuclear nations' commitment never to develop or possess nuclear weapons and recognition of their inalienable right to develop and use nuclear power for peaceful purposes.

**11. The witness survivors of the Hiroshima and Nagasaki A-bombs are called Hibakusha. Are there U.S. Hibakusha?**

A. Yes, victims of uranium mining and the production of nuclear weapons, victims of the fallout of U.S. nuclear tests, and "Atomic Vets", many of whom were deliberately exposed to radioactive fallout.

**12. What happened at Three Mile Island, Chernobyl and Fukushima?**

A. A disastrous melt down of nuclear power plant cores, resulting in the release of radioactive fallout

**13. As part of his statement commitment to work for a nuclear weapons free world, has President Obama reduced U.S. spending on nuclear weapons?**

A. No, he's increased it. In his deal with Senate Republicans to win ratification of the New START Treaty with Russia, President Obama committed to spend an additional \$185 billion over the next decade to expand the U.S. nuclear weapons production infrastructure and to "modernize" U.S. nuclear weapons and their delivery systems.

**14. How many nuclear power plants are there in the U.S., and what percentage of U.S. energy do they produce?**

A. 104 plants. 19.6% of U.S. electricity consumption

**15. Which country has surpassed the U.S. in the production of solar technologies?**

A. China

**16. Which two nations recently reiterated their commitment to completely eliminate their nuclear power production?**

A. Germany and Italy

**17. Name the nuclear powers, declared and undeclared.**

A. The U.S., Russia, China, France, Britain, India, Pakistan, Israel, North Korea

**18. The average strategic nuclear warhead, roughly 5,000 of which are currently deployed by the nuclear powers, is how many times more powerful than the Hiroshima A-bomb?**

A. Fourteen

**19. Who is Sam Lovejoy?**

A. On 22 February 1974, Washington's Birthday, organic farmer Sam Lovejoy took a crowbar to the weather-monitoring tower which had been erected at the site of the proposed Montague nuclear reactor. Lovejoy felled the tower and then took himself to the police, taking full responsibility for the action. He was tried on charges of malicious destruction and acquitted on a technicality.

**20. The occupation by anti-nuclear activists of the Wyle power plan production site in which country inspired the occupation of the Seabrook site at which 1414 activists were arrested for their nonviolent resistance?**

A. Germany

**21. The Federation of American Scientists estimates that the U.S. has how many nuclear weapons deployed on alert and available in its stockpiles?**

A, 8,500

**22. The Federation of American Scientists estimates that there are how many nuclear weapons in the world?**

A. 20,500

**23. During crises and conflicts, how many times has the United States prepared and/or threatened to initiate nuclear war in order to enforce its Middle East hegemony and its resulting privileged access to Middle East oil?**

A. Eleven. (1946 re: Iran, 1956 Suez Crisis, 1958 Lebanese Civil War & Iraq Revolution, 1967 October War, 1970 during Black September War, 1980 announcement of Carter Doctrine, 1990-91 First Gulf War, 1996 threat against Libya, 1998 Iraq, 2002 run up to invasion of Iraq, 2006-2011 “all options are on the table” threats by Bush & Obama against Iran.)

**24. Which of the nuclear powers have prepared and/or threatened to initiate nuclear war during international crises and wars?**

A. All of them.

**25. What did the people of Rongelap atoll in the Marshall Islands and the crew of the Japanese tuna fishing boat Lucky Dragon #5 have in common?**

A. They were exposed to the fall out of the Bravo H-bomb test in 1954, whose explosive power was roughly 1,000 times that of the Hiroshima A-bomb. Many of islanders and fishermen soon succumbed to radiation disease and cancer. (The bikini swimsuit derives its name from the shocking power of this explosion.)

**26. How many petition signatures urging nuclear weapons abolition were delivered to the United Nations on May 2, on the eve of the 2010 Nuclear Non-proliferation Treat Review Conference?**

A. More than 17 million

**27. In 1980, in what state were the first referenda held urging a freeze in the nuclear arms race?**

A. Massachusetts

**28. The legislatures of which two states have adopted resolutions calling for the U.S. to engage in negotiations leading to the complete elimination of nuclear weapons?**

A. Vermont and Massachusetts

**29. The Bulletin of the Atomic Scientists Doomsday clock tells us that it is how many minutes before midnight (i.e. how close we are to a nuclear doomsday)?**

A. 6 minutes

**30. What will you do next week to press for the elimination of nuclear power production?**

A. \_\_\_\_\_

**31. What will you do next week to press for the complete elimination of nuclear weapons?**

A. \_\_\_\_\_

**Produced by the American Friends Service Committee**

For additional information write: [JGerson@afsc.org](mailto:JGerson@afsc.org)