Nuclear Non-Proliferation Simulation Overview

This simulation demonstrates the challenges of detecting and stopping nuclear proliferation in the world. The following groups are players in the simulation:

- **Two nuclear technology-exporting nations**. One nation has strict controls on the use of its nuclear technology, while the other country has no restrictions on the use of its nuclear technology. They will provide nuclear technology to other nations.

- **Four nations interested in acquiring nuclear technology**. These nations will negotiate with the two nuclear technology-exporting nations to acquire nuclear technology from them. Two of the nations are willing to accept strict controls on their use of nuclear technology, while the others do not wish to accept restrictions on nuclear technology use.

- **The International Atomic Energy Agency (IAEA)**. This group will monitor the nuclear activities of the four nations that acquire nuclear technology, both through on-site inspections of nuclear facilities and remote observation of nations' nuclear facilities.

Nuclear facilities are simulated with BLMs of nuclear reactors, spent fuel reprocessing facilities, spare fissionable material and spent fuel storage and nuclear weapons. Plastic chips are used to simulate nuclear fuel: face-up chips represent fissionable material, while face-down chips represent spent nuclear fuel. *It is vital that no chips other than the ones which start with the two nuclear technology-exporting nations be introduced into the simulation!*

The simulation runs as follows:

1. Nations interested in acquiring nuclear technology will negotiate with the nuclear technology-exporting nations to acquire nuclear facilities. Upon successful conclusion of the negotiations, treaties between the nations will be signed and the nuclear technology-exporting nations will hand nuclear facilities and fissionable material over to the nations acquiring nuclear technology.

2. Once the nuclear facilities are handed over, the nations will operate the nuclear reactors (following the instructions on the BLMs). The nuclear technology-exporting nations will supply the other nations with fissionable material and, possibly, take spent nuclear fuel back (these will be flipped back over to heads-up and placed in the nuclear technology-exporting nation's fissionable materials).

3. One or more nations will be attempting to covertly develop nuclear weapons. Those nations will try to shield those activities from inspectors and observers. Nobody outside of that nation's group and the teacher should know for sure which nations are trying to develop nuclear weapons.

4. Nations will file regular reports on how much fissionable material and spent fuel they have to the IAEA and/or the nation which supplies them with fissionable material. The nuclear technology-exporting nations also will file reports with the IAEA. Note that not all nations are obliged to file these reports or to file them accurately.

5. Members of the IAEA will attempt to conduct on-site inspections of nations' nuclear facilities, looking for evidence of missing fissionable material and secret nuclear weapons facilities. IAEA observers will also watch from a distance for suspicious behavior. IAEA officials will also study fissionable materials reports from each nation for any discrepancies.

A nation attempting to develop nuclear weapons will "win" if it successfully tests a nuclear weapon and has at least one other weapon in its stockpile before the end of the simulation. The IAEA and the rest of the international community is trying to stop any nations from developing nuclear weapons; if proof of nuclear weapons development is detected before successful testing, then this should be brought to the attention of the other nations.