DAVIS-BESSE ATOMIC ENERGY CAMPOREE

Guidelines and Prerequisites

All of us at the Davis-Besse Nuclear Power Station are excited about hosting this program and we hope you are excited about attending.

To process the large number of Scouts expected, each Troop is asked to ensure that all Scouts have met the following prerequisites.

It is recommended that each Scout has a general overview of the Nuclear Science Merit Badge pamphlet (Requirements have been updated for 2026 – check here for current version https://www.scouting.org/merit-badges/nuclear-science/) to have better interactions/discussions with our facilitators.

In order to complete the merit badge by the end of the Camporee, the following prerequisites must be covered during Troop meetings prior to the Camporee.

1. Read and be familiar with the Nuclear Science Merit Badge pamphlet.
2. Ensure the Scouts are familiar with Requirements 1b, 1c, 1d, 1e, 2a, 4c, 5a, 6b, 7 and 8. ***These requirements will be covered at the Camporee.***
3. ***Complete requirement 1a***: Explain radiation and the difference between ionizing and nonionizing radiation.
4. ***Complete requirement 2b***: Choose an element from the periodic table. Construct 3-D models for the atoms of three isotopes of this element, showing neutrons, protons, and electrons. Write down the isotope notation for each model including the atomic and mass numbers. In a separate model or diagram, explain or show how quarks make up protons and neutrons.
5. ***Complete requirements 3a AND 3b***:
   3a: Explain how a particle accelerator works.
   3b Do ONE of the following:
   (1) Visit an accelerator, research lab, or university and discuss with a scientist how they study the properties of the nucleus or nucleons.
   (2) List three particle accelerators and describe several experiments conducted and their associated basic science and practical applications.
6. ***Complete requirement 4a OR 4b***:
   4a:Build an electroscope. Show how it works. Place a radiation source near the electroscope ball and explain the effect it causes.
   4b:Make a cloud chamber. Show how it can be used to see the tracks caused by radiation. Explain what is happening.

A Scouter from your troop will be responsible for checking completion of these requirements prior to the Camporee.

If you have any further questions regarding the event, please feel free to contact Tim Rudolph at (419) 356-5210 or email supersierragt@gmail.com

NUCLEAR SCIENCE MERIT BADGE REQUIREMENTS

The following Scouts have **completed** requirements 1a, 2b, 3a and 3b, 4a or 4b for the Nuclear Science Merit Badge prior to attending the Davis-Besse Atomic Energy Camporee.

Name	Rank	Age	Indicate which was completed 4a OR 4b

Bring this completed form with you to the Camporee.

Troop _____ _____ Signature

_____ Scoutmaster Name (printed)