

TRAIL Spotlight

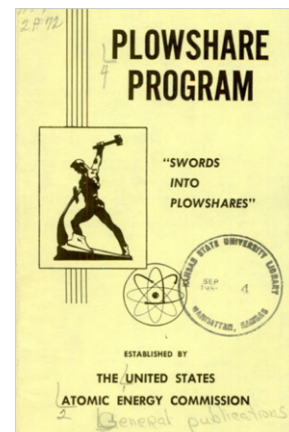


The United States emerged from World War II with technical knowledge about nuclear power, but very few options to use that power for positive outcomes. One attempt to funnel this knowledge into beneficial use was the Plowshare Program: “Swords Into Plowshares” established by the United States Atomic Energy Commission (AEC) to study and develop peaceful uses for nuclear explosives in science and industry. Plowshare advocates proposed using nuclear explosions to create craters to be used for excavations for projects such as canals and harbors, and deep underground explosions to be used for mining as well as recovery of oil and gas. The plowshare program pamphlet (<https://catalog.hathitrust.org/Record/100611354>) explains these basic processes.

A second report is the letter “Nuclear Excavation” from GH Higgins of the Lawrence Radiation Laboratory to Robert E Miller of the AEC in the Nevada Operations Office. Higgins is addressing the question of “Why are nuclear excavation

experiments needed now?” and not “Why is nuclear excavation important?” Miller was trying to explain why the experiments were needed to establish the feasibility of implementing nuclear excavations. Assumptions and calculations needed to be shown as accurate prior to implementing a policy of large-scale excavations. Miller expresses a “deep concern” about the US Government assessing nuclear excavation applications without performing high-yield cratering experiments to back up the assessments.

https://digital.library.unt.edu/ark:/67531/metadc679355/m2/1/high_res_d/443203.pdf



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