

NEW

from
the

GROUND

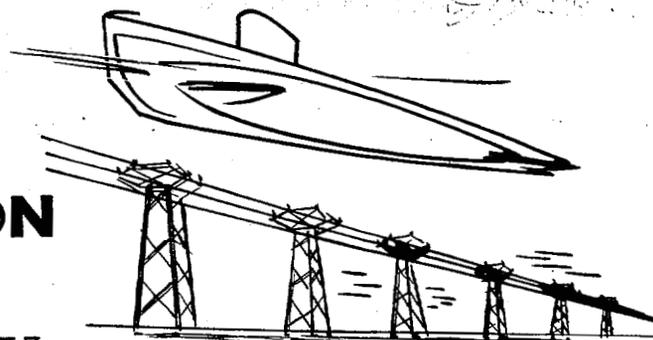
UP

NUCLEAR REACTOR CORE MATERIALS FABRICATION PLANT

for **SHIP PROPULSION**

for **POWER PRODUCTION**

for **RESEARCH**



The D. E. Makepeace Division of Engelhard Industries Inc., with its background of experience in fabricating precious metal mill products and manufacturing complex devices, for critical chemical, physical and electrical applications has accepted the challenge offered by the requirements of the nuclear reactor core. Makepeace has built a new fuel element fabricating plant — new from the ground up. It has equipped it with the latest designs of specialized equipment; it has staffed it with skilled craftsmen and an experienced engineering and supervisory staff.

ENGELHARD INDUSTRIES, INC.

D. E. MAKEPEACE DIVISION
ATTLEBORO, MASS.

BROAD EXPERIENCE in NUCLEAR APPLICATIONS

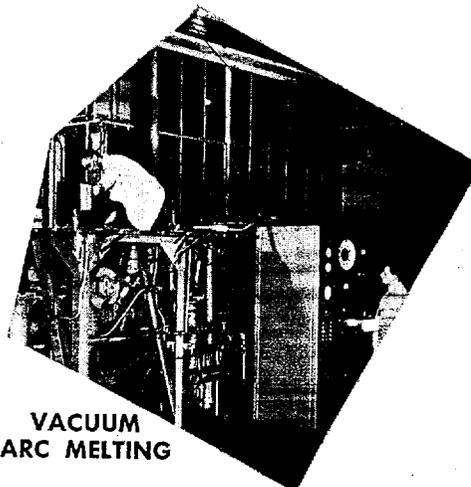
Engelhard Industries Inc. is associated with numerous vital aspects of the development of Atomic Energy. This association began with the company's work on catalysts used in the production of heavy water. The special properties of precious metals have solved many problems for the nuclear energy program. Engelhard Inc. became the first private organization to enter the business of recovering enriched uranium from metallic fabricating scrap, an operation vital to the future economic feasibility of electric power production.

Its most extensive venture is in the fabrication of nuclear fuel elements and core components which is conducted by the D. E. Makepeace Division in Attleboro, Massachusetts. The following illustrates the facilities and outlines the talents of the Plainville Nuclear Materials Plant which is a recognized fabricator of reactor core components and fuel elements.

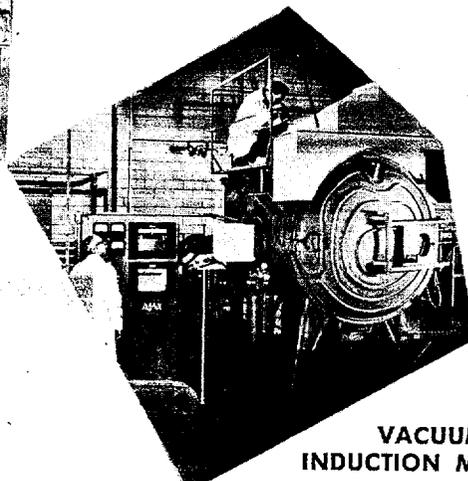
FORGING



VACUUM
ARC MELTING

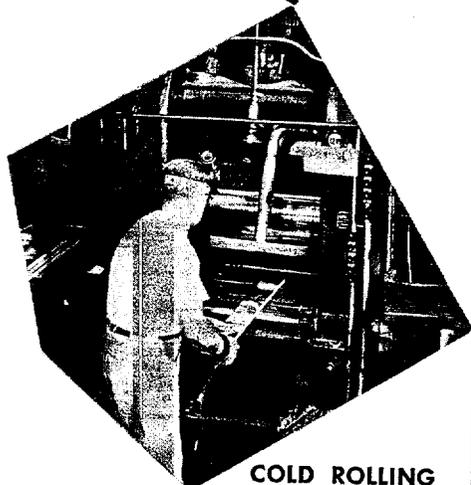


VACUUM
INDUCTION MELTING

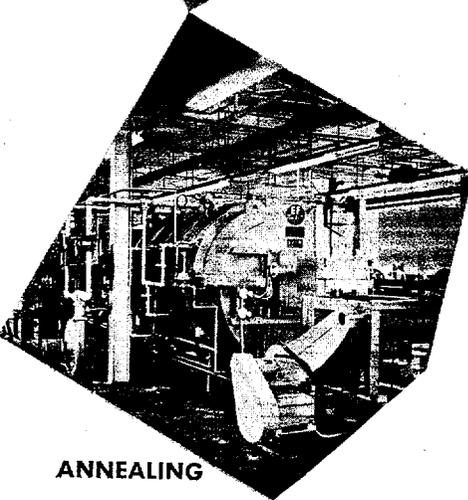


MAKEPEACE
is experienced in
the handling of nuclear
fuels and poisons in
METALLIC, OXIDE,
or other POWDER FORMS
ALSO
STRUCTURAL and
Cladding materials
in
ALUMINUM
STAINLESS STEEL
ZIRCONIUM
and
ZIRCALOY

COLD ROLLING



ANNEALING



HOT ROLLING



APPROVED and LICENSED for NUCLEAR MATERIALS

These specialized facilities which enable Makepeace to handle the nuclear metals are supported by tool room, equipment, engineering, administrative and management of D. E. Makepeace Division in its main plant. Much of the equipment is duplicated in the main plant which permits economical production of components which do not require handling in an exclusion area.

Situated between Boston, Mass. and Providence, Rhode Island within a half a mile of U. S. route 1. Makepeace is easily reached by public or private transportation.

Makepeace facilities are suited for fabrication of fuel elements and components for ship propulsion, research and training or electric power generating application.

Details on equipment and capacities are given in a separate list which is periodically revised to keep pace with new acquisitions and expansion.

A copy of the Makepeace Nuclear Facilities List will be furnished upon request.

**DIMENSIONAL
INSPECTION**



**ZYGLO
TEST**



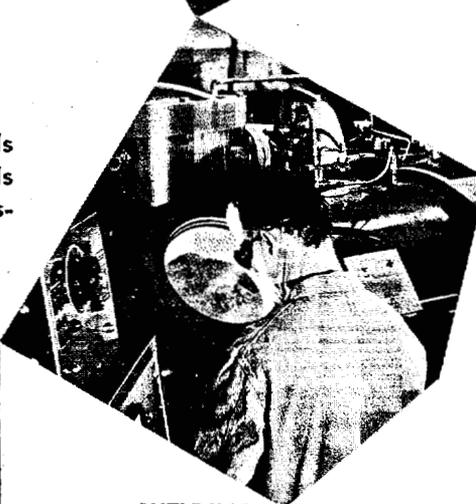
**ULTRASONIC
INSPECTION**

**The MAKEPEACE
PLAINVILLE NUCLEAR
FACILITY**
*is Atomic Energy Commission
approved for*
**ACCOUNTABILITY
CRITICALITY
HEALTH and SAFETY
SECURITY**

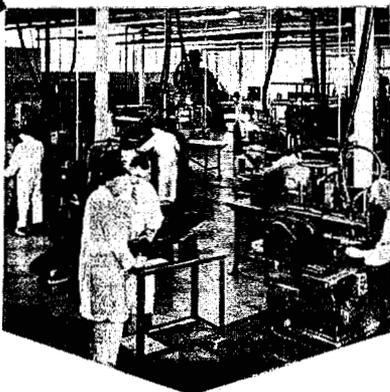
It holds A E C Source Materials
and Special Nuclear Materials
Licenses to assure maximum cus-
tomer convenience.



DRAWING



WELDING



MACHINING

MILL SERVICES BACK NUCLEAR FUEL FABRICATION

In addition to its interests in the fabrication of fuel elements and core components, Makepeace also produces a variety of mill products which include:

Rods and Tubing both round and rectangular, Wire, Sheet, Strip, Foils, and Contour rolled shapes. Many of these can be produced with a variety of metal cladding.

Makepeace has fabricating experience with the following metals.

ALUMINUM	IRON	TANTALUM
BORON	LEAD	THORIUM
CADMIUM	MAGNESIUM	TIN
COLUMBIUM	NICKEL	TITANIUM
COPPER	PALLADIUM	URANIUM
GOLD	PLATINUM	VANADIUM
HAFNIUM	RHODIUM	ZINC
INDIUM	RUTHENIUM	ZIRCONIUM
IRIDIUM	SILVER	

AMERICAN PLATINUM AND SILVER DIVISION
AMERSIL QUARTZ DIVISION
BAKER SETTING DIVISION
BAKER CONTACT DIVISION
BAKER PLATINUM DIVISION
BAKER DENTAL DIVISION
CHEMICAL DIVISION
EAST NEWARK INDUSTRIAL CENTER DIVISION
HANOVA LAMP DIVISION
HANOVA LIQUID GOLD DIVISION
IRVINGTON-BAKER REFINING DIVISION
NATIONAL ELECTRIC INSTRUMENT DIVISION
RESEARCH AND DEVELOPMENT DIVISION
H. A. WILSON DIVISION

ENGELHARD INDUSTRIES, INC.

D. E. MAKEPEACE DIVISION
ATTLEBORO, MASSACHUSETTS