Profile SFR-76

Material Processing Facility

USA

GENERAL INFORMATION

NAME OF THE FACILITY	Material Processing Facility
ACRONYM	n.a.
COOLANT(S) OF THE FACILITY	n.a.
LOCATION (address):	Oak Ridge National Laboratory (ORNL)
OPERATOR	Processing and Joining Group, Materials Science and Technology Division
CONTACT PERSON (name, address, institute, function, telephone, email):	Dave Harper, One Bethel Valley Rd, Oak Ridge, TN37831-6083 ORNL, 865-574-4353, harperdc@ornl.gov

STATUS OF THE FACILITY	Available for high temperature processing such as cutting, annealing, hot-rolling, hot-forging, and hot-extrusion of the lab scale heats up to 30lb.
Start of operation (date):	n.a.

MAIN RESEARCH FIELD(S)

- ☐ Zero power facility for V&V and licensing purposes
- ☐ Design Basis Accidents (DBA) and Design Extended Conditions (DEC)
- ☐ Thermal-hydraulics
- ☐ Coolant chemistry
- ☒ Materials
- ☐ Systems and components
- ☐ Instrumentation & ISI&R

TECHNICAL DESCRIPTION

Description of the facility

Material Processing Facility belongs to the Processing & Joining Group (PJG) in Materials Science and Technology Division, ORNL, which performs research and development on the processing of metal and ceramic materials for both structural and functional applications. The group's research programs are sponsored by the U. S. Department of Energy (DOE), DARPA, NASA, and DOD, as well as cooperative research with industrial companies and non-profit industrial associations. The facility is available in the processing of refractory metal and other

high-temperature structural materials including intermetallic and ceramic materials. Hot-rolling, hot-forging, and hot-extrusion of the lab scale heats up to 30lb are available.

Acceptance of radioactive material
No

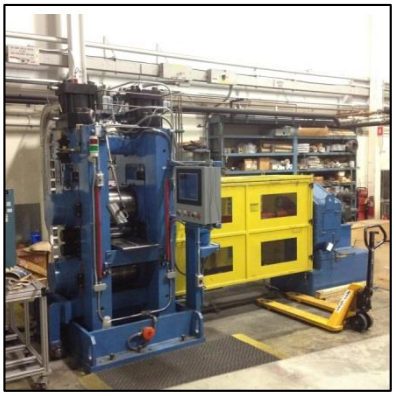
Scheme/diagram
n.a.

3D drawing/photo

Cutting saw

Aging furnaces

4 high mill (rolling)



350 ton press (forging)

1200 ton press (extrusion)

FIG. 1. Views of the Material Processing Facility

COMPLETED EXPERIMENTAL CAMPAIGNS: MAIN RESULTS AND ACHIEVEMENTS

PLANNED EXPERIMENTS (including time schedule)

TRAINING ACTIVITIES

n.a. (operated by trained technical staff at ORNL)

REFERENCES (*specification of availability and language*)