10.40 DEFINITIONS

SYSTEM/SURROUNDINGS (ENVIRONMENT)

STATE OF A SYSTEM - IDENTIFIED BY PROPERTY VALUES REQUIRED REPRODUCE THE SYSTEM

SIMPLE SYSTEM - DEVOID OF ANY INTERNAL ADIABATIC, RIGID, IMPERMEABLE BOUNDARIES, NO EXTERNAL FORCE FIELDS OR INERTIAL FORCES, CAN BE SINGLE OR MULTI-PHASE

COMPOSITE SYSTEM - 2 OR MORE SIMPLE SYSTEMS

PHASE - REGION OF UNIFORM PROPERTIES

EXTENSIVE/INTENSIVE PROPERTIES - FIRST/ZERO ORDER IN MASS

PRIMITIVE PROPERTY - MEASURABLE

DERIVED PROPERTY - DEFINED IN TERMS OF CHANGES IN THE STATE OF A SYSTEM

OPEN VERSUS CLOSED SYSTEMS - WITH RESPECT TO MASS FLOW

STATE VERSUS PATH FUNCTIONS

ISOLATED SYSTEM - NO INTERACTIONS WITH SURROUNDINGS

QUASI-STATIC, REVERSIBLE, AND IRREVERSIBLE PROCESSES

BOUNDARIES

-ADIABATIC/DIATHERMAL
-PERMEABLE/IMPERMEABLE/SEMI-PERMEABLE
-RIGID/MOVABLE