1.0 Purpose and Scope

Utilities provides steam to the campus community for space heating, hot water and research. Approximately 150 buildings are heated via the district heating system. When a failure occurs in the steam distribution system or the Central Energy Plant, the preservation of building infrastructure and contents is imperative. Steam load shedding levels are designed to be able to address a demand/supply deficit with the least impact to campus operations while conserving building heat. These seven levels of load shedding are described in general terms below. As each facility may have unique impacts, please contact Facilities Services if you have questions.

2.0 Load Shed Levels

LEVEL 1 This reduction level is expected to address short time periods (less than two hours) of steam generation limitations. Most non-residential facilities will see a slight reduction in room temperature and air flow. Unoccupied research spaces will also see this reduction in room temperature and air flow, but if motion sensors identify occupants in the space, temperatures and air flow are kept normal. This will have a negligible impact to occupants.

LEVEL 2 This reduction level is expected to address longer periods of steam generation limitations. In addition to the actions taken in Level 1, air handling systems in Atrium/Hallways, Office/Classroom/Auditoriums will reduce outside air supply and general exhaust systems are shut off. Occupants may notice cooler space temperatures.

LEVEL 3 In addition to the actions taken in Level 1 and 2, central air handling and heating systems set points will be lowered slightly. Some zones may not meet temperature and airflow set points. Occupants will experience cooler space temperatures.

LEVEL 4 In addition to the actions taken in load shed Levels 1 - 3, many air systems will only be supplied recirculated air. Atrium/Hallways, Office/Classroom/Auditoriums, and other non-critical outside air ventilation systems will be shut off. Occupants will experience significant cooling of spaces. To help conserve building heat, it is recommended that fume hoods be closed. Dining facility exhaust hoods should be shut down when feasible.

LEVEL 5 In addition to the actions taken in load shed Levels 1 - 4, temperature set points for all non-residential spaces will drop to 60 degrees. Some spaces may not maintain temperature set points and will become colder. Outside air usage will decrease to minimum values to reduce the need to heat outside air and to contain heat that is present. All lab air exchange rates will be set to unoccupied values, typically 3 or 4 air exchanges per hour. Facilities will become significantly colder. Fume hoods should be closed to conserve building heat. Hazardous material use should stop due to the reduction in air exchange rates. Dining facility exhaust hoods should be shut down when feasible.

LEVEL 6 In addition to the actions taken in load shed levels 1 - 5, all residential spaces will be set to control to 65 degrees. Residential facilities will experience significant cooling. Other campus facilities will become significantly colder. Fume hoods should be closed to conserve building heat. Hazardous material use should stop due to the reduction in air exchange rates. Dining facility exhaust hoods should be shut down when feasible.

LEVEL 7 This reduction level is the most severe reduction and is performed manually to address complete loss of steam. Priority is to protect people, research, animals, plants, and assets. Residential facilities will experience significant cooling. Other campus facilities will become significantly colder. Fume hoods must be closed to conserve building heat and hazardous material use must stop as exhaust and supply air will be shut down. Dining facility exhaust hoods must be shut down.