FACILITY ACTION PLAN

FACILITY Mortvedt Library		SITE ID	DATE
CURRENT ENERGY USE INDEX (EUI) 59 kBtu/Sq Ft 18.9kWh/Sq Ft Note: All steam heat is coming from UC's main plant	TARGET EUI 40 kBtu/Sq Ft 15 kWh/Sq Ft	AVERAGE EUI (BENCHMARK) FOR THE FACILITY TYPE 110.38 kBtu/Sq Ft 15.7 kWh/Sq Ft	
FACILITY LIASON(S) Diane Harris Fran-Lane Rasmusin	FACILITY RCM TEAM MEMBERS (NAME AND POSITION) 1. Christine Cooley – Sustainability Coordinator		

POTENTIAL CONSERVATION MEASURES, OPERATIONAL IMPROVEMENTS, OR MODIFICATIONS	
MEASURE SUMMARY (*LIST HIGH PRIORITY MEASURES FIRST*)	FOLLOW UP BY (*PERSON AND DATE*)
1. Temperature Set Point Policy needs to be programmed into pneumatic controls. Each zone can be set.	1.
2. Turn off computers at night	2.
3. Install occupancy sensors to control the lighting	3.
4. Perform refurbishment of existing cooling tower	4.
5. Install VFD	5.
6. Upgrade and optimize CHW system	6.
7. DDC upgrade	7.
8. Replacing single pane windows with more energy efficient ones.	8.

DETAILED MEASURE DESCRIPTIONS / NEEDS (OPTIONAL)	
DESCRIPTION	INSERT PHOTO HERE (*OPTIONAL*)
1. Temperature Set Point Policy needs to be programmed into pneumatic controls. Each zone can be set.	RESOURCES REQUIRED Validate possibility with ACCOUNTABLE PARTY Bruce Broussard SUPPORT STAFF Sean Lynn SCHEDULE FOR COMPLETION July- University adoption of policy August 2010 – have the building's capabilities assessed
2. Turn off computers at night 	RESOURCES REQUIRED Implementation within the I&TS department ACCOUNTABLE PARTY David Allen Mark Pever SCHEDULE FOR COMPLETION December 2010, with ongoing monitoring
3. Install occupancy sensors to control the lighting (100 occ sensors) how many and where? In main stacks on all three floors  	RESOURCES REQUIRED $114,480.00 ACCOUNTABLE PARTY Lyle Kendoll SUPPORT STAFF contractors SCHEDULE FOR COMPLETION June 2011
4. Perform refurbishment of existing cooling tower. Refurbishment scope includes: • Cleaning and resurfacing the lower tower interior basin and sidewall, including new fire resistant Evapliner coating • Reconditioning the existing fan snouts, replacing existing fill with new fill and fill supports • Refurbishment of existing steel supports and tower piping above the roof line	RESOURCES REQUIRED Engineering study/design ACCOUNTABLE PARTY Dave Kohler SCHEDULE FOR COMPLETION 2019

• Replacement of existing mechanical shaft bearings Install new 20 HP VFD on existing CT-1 fan and provide new controls to modulate fan speed to maintain CDW set point. Additionally, as an alternate, two new 6" each manual isolation valves can be installed on the existing tower for future maintenance needs.	

5. HVAC: Install VFD for SF-1, SF-2 and RF. (Motor upgrade is not included in the scope). Upgrade the existing built-up air handling unit (main supply fans, return fan and associated damper and valve actuators and temperature/ pressure sensors) in basement mechanical room to a direct digital control (DDC) system. Implement enhanced time of day (TOD) scheduling, optimal start, morning warm-up, and static pressure reset. Note that this measure excludes upgrading any of the terminal boxes, as it is expected that this would be cost prohibitive. Lighting: Install three new lighting control panels (one per floor) that will turn all of the lights on and off based on a programmable time of day schedule. New lighting panels to be interfaced with new HVAC control system.	RESOURCES REQUIRED Capital project funding $132,042.00 ACCOUNTABLE PARTY Dave Kohler SUPPORT STAFF SCHEDULE FOR COMPLETION

6. Upgrade and optimize CHW system in basement mechanical room: Remove existing 150 ton CH-1 and replace with new three new 50 ton/ each modular water cooled modular chillers. Replace existing CHW pump and CDW pumps like-for-like with new pumps. Connect new modular CH-1 to the existing CHW and CDW piping. Provide new DDC controls to operate new CH-3.	RESOURCES REQUIRED Capital project funding $627,935.00 ACCOUNTABLE PARTY Dave Kohler SCHEDULE FOR COMPLETION

7. Full DDC upgrade to all terminal boxes and zone t-stats. Implement energy saving features to terminal boxes such as DAT reset and night setback.	RESOURCES REQUIRED Capital project funding $39,000.00 ACCOUNTABLE PARTY Dave Kohler SCHEDULE FOR COMPLETION

8. Replacing single pane windows with more energy efficient ones.  	RESOURCES REQUIRED Engineering study/design ACCOUNTABLE PARTY Dave KohlerSCHEDULE FOR COMPLETION 2019