

ENF Environmental Notification Form

For Office Use Only
Executive Office of Environmental Affairs

EOEA No.: **12864**
 MEPA Analyst: **Janet Hutchins**
 Phone: 617-626-**1023**

The information requested on this form must be completed to begin MEPA Review in accordance with the provisions of the Massachusetts Environmental Policy Act, 301 CMR 11.00.

| | | |
|--|--|----------------------------------|
| Project Name: University of Massachusetts at Amherst Central Heating Plant | | |
| Street: Mullins Way | | |
| Municipality: Hadley | Watershed: Connecticut River | |
| Universal Transverse Mercator Coordinates: 18 702828 E 46 96866 N | Latitude: 42° 39' 95" N | Longitude: 72° 53' 56" W |
| Estimated commencement date: Fall 2003 | Estimated completion date: Winter 2005 | |
| Approximate cost: \$80 million | Status of project design: | 25 %complete |
| Proponent: University of Massachusetts Building Authority | | |
| Street: One Beacon Street – 26 th Floor | | |
| Municipality: Boston | State: MA | Zip Code: 02108 |
| Name of Contact Person From Whom Copies of this ENF May Be Obtained: Doug Vigneau | | |
| Firm/Agency: BSC Group, Inc. | Street: 33 Waldo Street | |
| Municipality: Worcester | State: MA | Zip Code: 01068 |
| Phone: 508-792-4500 (x4519) | Fax: 508-792-4509 | E-mail: dvigneau@bscgroup.com |

- Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?
 Yes No
- Has this project been filed with MEPA before?
 Yes (EOEA No. _____) No
- Has any project on this site been filed with MEPA before?
 Yes (EOEA No. _____) No
- Is this an Expanded ENF (see 301 CMR 11.05(7)) requesting:
- | | | |
|--|--|--|
| a Single EIR? (see 301 CMR 11.06(8)) | <input checked="" type="checkbox"/> Yes (see cover letter) | <input type="checkbox"/> No |
| a Special Review Procedure? (see 301CMR 11.09) | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| a Waiver of mandatory EIR? (see 301 CMR 11.11) | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| a Phase I Waiver? (see 301 CMR 11.11) | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

Identify any financial assistance or land transfer from an agency of the Commonwealth, including the agency name and the amount of funding or land area (in acres): There will be no financial assistance or land transfer required from an Agency of the Commonwealth.

Are you requesting coordinated review with any other federal, state, regional, or local agency?
 Yes (Specify: DEP) No

List Local or Federal Permits and Approvals:
 NPDES – General Permit for Construction Activities
 Federal Aviation Administration – Notice of Proposed Construction (stack beacons)

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03):
 ENF Air Threshold 11.03 (8) (b) (2)

- | | | |
|---------------------------------|---|--|
| <input type="checkbox"/> Land | <input type="checkbox"/> Rare Species | <input type="checkbox"/> Wetlands, Waterways, & Tidelands |
| <input type="checkbox"/> Water | <input type="checkbox"/> Wastewater | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Energy | <input checked="" type="checkbox"/> Air | <input type="checkbox"/> Solid & Hazardous Waste |
| <input type="checkbox"/> ACEC | <input type="checkbox"/> Regulations | <input type="checkbox"/> Historical & Archaeological Resources |

| Summary of Project Size & Environmental Impacts | Existing | Change | Total | State Permits & Approvals |
|--|----------------------|--|--|--|
| LAND | | | | <input type="checkbox"/> Order of Conditions <input type="checkbox"/> Superseding Order of Conditions <input type="checkbox"/> Chapter 91 License <input type="checkbox"/> 401 Water Quality Certification <input type="checkbox"/> MHD or MDC Access Permit <input type="checkbox"/> Water Management Act Permit <input type="checkbox"/> New Source Approval <input checked="" type="checkbox"/> DEP or MWRA Sewer Connection/ Extension Permit <input checked="" type="checkbox"/> Other Permits <i>(including Legislative Approvals) – Specify:</i> DEP-Air Plan Approval – Comprehensive Plan Application |
| Total site acreage | 20.1 | | | |
| New acres of land altered | | 12.06 | | |
| Acres of impervious area | 1.98 | 1.46 | 3.43 | |
| Square feet of new bordering vegetated wetlands alteration | | 0.0 | | |
| Square feet of new other wetland alteration | | 0.0 | | |
| Acres of new non-water dependent use of tidelands or waterways | | 0.0 | | |
| STRUCTURES | | | | |
| Gross square footage | 0 | 65,949 | 65,949 | |
| Number of housing units | 0 | 0 | 0 | |
| Maximum height (in feet) | 0 | Stack 125' Building 40'-60' | Stack 125' Building 40'-60' | |
| TRANSPORTATION | | | | |
| Vehicle trips per day | 68* | (28) | 40 | |
| Parking spaces | 20** | (1) | 19 | |
| WATER/WASTEWATER | | | | |
| Gallons/day (GPD) of water use | 180,820 | 40,000± | 220,820 (20-yr. ave.) | |
| GPD water withdrawal | 0 | 0 | 0 | |
| GPD wastewater generation/treatment | 13,700 | 7,567 | 21,267 | |
| Length of water/sewer mains (in miles) | Sewer in Mullins Way | W – 2,582 lf WWR – 1,270 lf S – 378 lf | W – 2,582 lf WWR – 1,270 lf S – 378 lf | |

* To existing CHP and Coal Storage Facility at Tillson Farm site

** At existing CHP and Coal Storage Facilities

CONSERVATION LAND: Will the project involve the conversion of public parkland or other Article 97 public natural resources to any purpose not in accordance with Article 97?

Yes (Specify _____) No

Will it involve the release of any conservation restriction, preservation restriction, agricultural preservation restriction, or watershed preservation restriction?

Yes (Specify _____) No

RARE SPECIES: Does the project site include Estimated Habitat of Rare Species, Vernal Pools, Priority Sites of Rare Species, or Exemplary Natural Communities?

Yes (Specify _____) No Confirmation letter received from NHESP on March 7, 2002. The NHESP anticipates that the project will not result in impacts to any rare species within Estimated/Priority Habitat WH 5029/PH554 (Letter Enclosed).

HISTORICAL /ARCHAEOLOGICAL RESOURCES: Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?

Yes (Specify _____) No The project site is the existing Derby RunningTrack and surrounding playing fields.

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?

Yes (Specify _____) No

AREAS OF CRITICAL ENVIRONMENTAL CONCERN: Is the project in or adjacent to an Area of Critical Environmental Concern?

Yes (Specify _____) No

PROJECT DESCRIPTION: The project description should include (a) a description of the project site, (b) a description of both on-site and off-site alternatives and the impacts associated with each alternative, and (c) potential on-site and off-site mitigation measures for each alternative (*You may attach one additional page, if necessary.*)

The project consists of the construction of a new 65,949 square foot (50,000 square foot building) Central Heating Plant (CHP) at the University of Massachusetts at Amherst campus. The new CHP will consist of three conventional package boilers each rated at 175,000 ponds per hour steam, a new combustion turbine generator rated at 10 megawatts (MW) and 100,000 lb/hr heat recovery steam generator (HRSG). The building will include equipment bays, a control room, employee facilities, parts and maintenance rooms, tool cages, and employee locker and shower rooms. The heating facility tank farm will consist of two, 115,000-gallon fuel oil storage tanks (each 32' x 20'); a 200,000-gallon raw water tank (36' x 26') (includes storage for fire protection purposes); a 650,000 gallon condensate storage tank (60' x 32'); and, a 10,000 gallon ammonia storage tank (10' x 18' horizontal). The CHP will be high efficiency, "green technology" cogeneration facility that will produce both steam and electricity.

The CHP will burn primarily natural gas and utilize transportation grade fuel oil (very low sulfur content of less than 0.05% sulfur by weight) as back up. Operating conditions will be determined in consultation with the Department of Environmental Protection and memorialized in applicable required permits. The facility will produce approximately 10 MW of electricity at 13.8 kilovolts to meet campus base load requirements. Approximately three-plus MW will be provided for base load demand to the west side electrical substation located off Campus Center Way, and six-plus MW for base load demand to the eastside electrical substation located near Tillson Farm. The electrical system will be modified as necessary to retain a high degree of operational flexibility. A black-start diesel generator will be provided at the CHP to facilitate start-up in the event of off-site power failure.

Following an extensive siting analysis and the preparation of a Site Evaluation Report (included in Section 6 of this Expanded ENF), the preferred site for the new CHP is located off Mullins Way at the Derby Track and in the vicinity of the Lorden Baseball Field and playing fields in the central southwest portion of the UMass campus. The new CHP will be located entirely within the Town of Hadley east of the Mill River (but outside of all wetland resource areas, including the 200-foot riverfront protection area associated with the Mill River and its tributary to the north). The new CHP will replace the existing aged steam producing facility located in the central core of the campus on Campus Center Way (hereinafter referred to as the "existing or Campus Center Way plant"). This facility, when constructed some 60 years ago was at the time at the campus outskirts; however, the campus has since grown around the facility and its present location is poorly situated and not in conformance with current campus master planning.

The site at Derby Track offers several advantages. Co-locating the CHP adjacent to the Amherst Wastewater Treatment Facility, and nearby to campus steam distribution, condensate, and electric distribution systems, will make plant operations more efficient and less costly. The location provides a large buffer zone between the proposed plant, local neighborhoods and the campus community.

Two redundant, 20-inch main steam transmission lines, each rated at approximately 450,000 pounds of steam per hour, will be placed in a new underground concrete trench with access manholes. The new steam lines will be constructed from the Track Site to the existing CHP site for interconnection with the campus transmission and distribution system emanating from this location. The new steam lines will be designed to cross, existing utilities and if necessary, those utilities will be modified or relocated to accommodate steam line construction. A new natural gas feedline will be constructed in upland locations to the new CHP from the line existing in Massachusetts Avenue.

The new CHP will result in marked improvements to the environment above those associated with the existing CHP facility. The existing coal burning facility will be replaced by a combustion turbine and package boilers designed to burn either natural gas or transportation grade fuel oil. This change in fuel will result in improved air emissions, use considerably less potable water and eliminate the need for coal deliveries, coal stockpiling and coal-runoff treatment. The new CHP will use water from the Amherst public water supply system. The University will also continue to investigate the use of treated wastewater effluent from the Amherst Wastewater Treatment Facility as its main industrial water supply source. If this option comes to fruition, approximately 180,000 gpd of potable water currently consumed at the existing facility will be conserved. In addition, the project has been designed so as to avoid any impact to wetland resource areas, including riverfront and bordering land subject to flooding. The project site and specifically all tankage, will be fully self-contained and all on site stormwater will be treated and managed in compliance with the DEP's Stormwater Management Policy Guidelines.

The new CHP will reduce truck traffic in and around the Amherst campus. All construction vehicle traffic will be required to use the highway system serving the greater Amherst/Northampton area. Primary traffic routing in the immediate vicinity of the project site will be from Route 116 to Massachusetts Avenue to Mullins Way.

After commissioning the new CHP, the existing CHP will be demolished, the site will be remediated and planning for the future uses of the site contemplated. The existing heating plant building, stacks, above ground steam lines, outdoor structures, and all equipment will be dismantled and removed from the site for proper disposal at fully licensed facilities. The UMBA's specifications for the disposal of demolition debris requires that the contractor maximize recycling of all recyclable materials (i.e., asphalt, brick, concrete, steel, etc.). Remediation of the site will be required and that work will be conducted under separate contract to the University and in full compliance with the Massachusetts Contingency Plan (MCP). In compliance with the University's Master Plan, preliminary reuse plans for the existing CHP site include redevelopment into an expanded parking garage and multi-modal center. The Master Plan for the west side of campus calls for a reduction in the amount of surface parking and in structured parking garages.