<table>
<thead>
<tr>
<th>Alignment of Competency with Functional Roles</th>
<th>Often Aligned with Facility Management roles (24/43 Core Competencies)</th>
<th>Often Aligned with Building Operations Professional roles (24/43 Core Competencies)</th>
<th>Often Aligned with Energy Management Role (7/43 Core Competencies)</th>
<th>Often Aligned with more than one role (6/43 Core Competencies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.1. Demonstrate familiarity with Building Systems.</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

| 2. Review the course objective(s) that have been submitted as being aligned with required FPPTA performance criteria. Review the learning methods in the course that will support that learning objective(s). |
|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| Learning Objective(s) Associated with this Certificate Program Course: | Replace and/or maintain complicated HVAC systems, check for air leaks, replace and/or maintain plumbing systems, check for leaks, repair damaged pipes and valves, recognize, set up, and maintain a reliable and effective fire protection system. | Lecture, Group Work, Quizzes, Practice Exam, 3rd Party Proctored Final Exam. | 24 Hours |
| Delivery and Learning Methods (delivery methods may include online instruction, classroom instruction, or other means, and learning methods could include lectures, group work, essay work, quizzes, or other learning activities): | Instructor Led Online, Self-Study, Live Classroom/Concurrent Review. Learning Methods: lecture, group work, quizzes, practice exams, and proctored final exam. | 24 Hours |

| Training Provider: BOMI International | Provider Address Information (primary physical location, including address, city, state, zip code): One Park Place Suite 475, Annapolis, MD 21401 | Provider’s primary point of contact for this learning resource (name, primary physical location (if different from provider address information), phone, and email): Ron Bishop, (410) 974 1410 x1259, rbishop@bomi.org | Title of this training resource: Air Handling, Water Treatment, and Plumbing Systems | Type of training course: Property and Facilities Management |

| Does this course provide CEUs (Continuing Education Units) and if so, how many and for what occupation or field? | Yes, 24 CE hours towards LEED Credential Maintenance Program. | Other Materials Reviewed: | Other Materials Submitted: | Other Materials Requested: |

| FORM FOR SCORING OF TRAINING RESOURCE TO FULLY FULFIL FEDERAL BUILDING PERSONNEL TRAINING ACT (FPPTA) CORE COMPETENCIES | The FPPTA requires Federal building personnel to demonstrate compliance with a set of Core Competencies. The General Services Administration (GSA) accepts submissions for courses, certificates, accreditations, registrations, licenses, and other qualifications that demonstrate alignment with the FPPTA Core Competencies. GSA will post resources that sufficiently map to FPPTA Core Competencies requirements on the FPPTA webpage (www.PPPTA.gov) and may incorporate them into the Core Competency Tool. The Tool will allow Federal building personnel to immediately claim credit for courses completed by completing an e-resource training. GSA and the Core Competency Tool Team help Federal employees identify appropriate training, and allow Federal agencies to share information on training resources. To qualify for consideration, submitters complete this form describing how a specific training resource, certification, license, or other resource aligns with FPPTA Core Competencies. | To qualify for consideration, submitters complete this form describing how a specific training resource, certification, license, or other resource aligns with FPPTA Core Competencies. | Initial Review Completed By: Maria Fara | Initial Review Submission Completion Date: August 30, 2013 | Technical Review Completed By: Angela Lewis | Technical Review Submission Completion Date: January 3, 2014 |
Air Handling Operations - Course focuses on global overview of HVAC balancing, Ventilation Comfort, Air Preheating, Duct Design, Air Handling, Duct Systems and Principles of Thermal Control Devices, HVAC control output, utilization of ducts and function of the handling system, HVAC system monitoring, duct maintenance, building pressurization, air movement and comfort control strategies, ventilation, diagnostic testing and maintenance.

Yes, based on review of the learning objectives and skills/materials covered, this course provides learners with the opportunity to maintain HVAC, plumbing or sprinkler systems.

LO 1.4 = Name the sources of heat loads placed on a building's HVAC; duct pressure data, ventilation, and other steps characteristic of predictive maintenance. In this course, data, and other steps characteristic of predictive maintenance. In this course, predictive maintenance is addressed in fan performance and air-handling unit maintenance in addition to the use of the Psychrometric Chart to manage building comfort levels and strategies to minimize as well as timing of these are discussed in relation to individual<br>Building pressurization and measurement is a complete topic in chapter 3 of this course. Additional content regarding operating data can be found in BOMI's Refrigeration Systems and Accessories Course.

LO 2.1 = Landmarks of HVAC, Refrigeration System Cycle as outlined in the BOMI Refrigeration Systems and Accessories Course.

LO 2.3 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 2.4 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 3.2 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 3.3 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 4.2 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 4.3 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 4.4 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 5.2 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 5.3 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 5.4 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 5.5 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 6.2 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 6.3 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 6.4 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 6.5 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 7.2 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 7.3 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 7.4 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 7.5 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 8.2 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 8.3 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 8.4 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 8.5 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 9.2 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 9.3 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 9.4 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 9.5 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 10.2 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 10.3 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 10.4 = Landmarks of HVAC, Refrigeration Systems and Accessories course.

LO 10.5 = Landmarks of HVAC, Refrigeration Systems and Accessories course.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding the role of water in building design and construction</td>
<td>Understanding the role of HVAC systems in building design and construction</td>
<td>Understanding the role of plumbing systems in building design and construction</td>
<td>Understanding the role of fire protection systems in building design and construction</td>
<td>Understanding the role of electric systems in building design and construction</td>
<td>Understanding the role of telecommunication systems in building design and construction</td>
<td>Understanding the role of safety systems in building design and construction</td>
<td>Understanding the role of environmental systems in building design and construction</td>
</tr>
</tbody>
</table>

**2.2.6. Demonstrate knowledge and ability to maintain plumbing fixtures, as well as backflow preventers.**

- **2.2.4. Demonstrate knowledge and ability to maintain plumbing fixtures, sewage ejectors, and water heaters.**
  - **2.1.7. Demonstrate knowledge and ability to repair all HVAC systems.**
    - **No, based on review of the learning objectives, there is no opportunity to gain knowledge or the ability to maintain drains and backflow preventers.**
    - **Yes Yes Yes Yes Yes Yes**
    - **Request clarification. It is clear that the course will provide learners with the opportunity to gain knowledge of drains and backflow preventers. However, it is not clear that the information or course material.**
    - **Partial. Based on the scope of this course, there is opportunity to gain knowledge of maintenance plumbing fixtures, sewage ejectors, and water heaters. However, it is not clear that the information or course material.**

**2.2.6. Demonstrate knowledge and ability to maintain plumbing fixtures, as well as backflow preventers.**

- **2.2.4. Demonstrate knowledge and ability to maintain plumbing fixtures, sewage ejectors, and water heaters.**
  - **2.1.7. Demonstrate knowledge and ability to repair all HVAC systems.**
    - **No, based on review of the learning objectives, there is no opportunity to gain knowledge of maintenance plumbing fixtures.**
    - **Yes Yes Yes Yes Yes Yes**
    - **Request clarification. It is clear that the course will provide learners with the opportunity to gain knowledge of drains and backflow preventers. However, it is not clear that the information or course material.**
    - **Partial. Based on the scope of this course, there is opportunity to gain knowledge of maintenance plumbing fixtures.**

**2.2.6. Demonstrate knowledge and ability to maintain plumbing fixtures, as well as backflow preventers.**

- **2.2.4. Demonstrate knowledge and ability to maintain plumbing fixtures, sewage ejectors, and water heaters.**
  - **2.1.7. Demonstrate knowledge and ability to repair all HVAC systems.**
    - **No, based on review of the learning objectives, there is no opportunity to gain knowledge of maintenance plumbing fixtures, sewage ejectors, and water heaters.**
    - **Yes Yes Yes Yes Yes Yes**
    - **Request clarification. It is clear that the course will provide learners with the opportunity to gain knowledge of drains and backflow preventers. However, it is not clear that the information or course material.**

**2.2.6. Demonstrate knowledge and ability to maintain plumbing fixtures, as well as backflow preventers.**

- **2.2.4. Demonstrate knowledge and ability to maintain plumbing fixtures, sewage ejectors, and water heaters.**
  - **2.1.7. Demonstrate knowledge and ability to repair all HVAC systems.**
    - **No, based on review of the learning objectives, there is no opportunity to gain knowledge of maintenance plumbing fixtures, sewage ejectors, and water heaters.**
    - **Yes Yes Yes Yes Yes Yes**
    - **Request clarification. It is clear that the course will provide learners with the opportunity to gain knowledge of drains and backflow preventers. However, it is not clear that the information or course material.**


<table>
<thead>
<tr>
<th>Topic</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding the role of water in building design and construction</td>
<td>Understanding the role of HVAC systems in building design and construction</td>
</tr>
<tr>
<td>Understanding the role of plumbing systems in building design and construction</td>
<td>Understanding the role of fire protection systems in building design and construction</td>
</tr>
<tr>
<td>Understanding the role of electric systems in building design and construction</td>
<td>Understanding the role of telecommunication systems in building design and construction</td>
</tr>
<tr>
<td>Understanding the role of safety systems in building design and construction</td>
<td>Understanding the role of environmental systems in building design and construction</td>
</tr>
</tbody>
</table>

**BOMI courses that offer specific system knowledge include:**

- Electrical Systems and Accessories
- Refrigeration Systems and Accessories
- Building Design & Maintenance
- Illumination
- Boilers, Heating Systems and Applied Mathematics
- Energy Management
- The Design Operations & Maintenance of Building Systems Part I
- The Design Operations & Maintenance of Building Systems Part II

Simulations are used to show system flows versus immerse students in actual hands on practice. Building tours review system types and components and walk students in relation to building drainage. Building tours review system types and components and walk students in relation to building drainage.