

QA/QC Checklist

PENNSTATE



Construction Services

DIVISION 01 – General Requirements

01 33 23 – Special Submittal Procedures

	General Information	Programming/Design	Bidding/Preconstruction	Installation/Construction	Closeout/Warranty
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01 General

1. Engineering Services (ES) has requested that certain submittals (shop drawings, product data, tests, etc) from the Contractor to the design Professional should be “flagged” for ES to conduct an additional review. These submittals generally include equipment items that have historically been problematic in the past due to misinterpretation of PSU Design Standards, improper sizing, critical equipment, etc., and are listed in the sections below.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Construction Services (CS) shall inform the Contractor that an electronic submittal or, two (2) ADDITIONAL hard copies of the submittal items identified in the following sections should be given to PSU when the Contractor sends (or uploads) submittals to the Professional for their review/approval.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Review of these items DOES NOT take the place of the formal, contractual submittal review process between the Contractor and the Professional.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. ES will review these items concurrently with the Professional.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. ES will return any comments/notes regarding the submittal item in a timely manner to CS. CS will send the comments/notes to the Professional for inclusion in their review of the submittal item.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

02 Plumbing

1. Send submittals to the Facility Mechanical Engineer for the appropriate PSU Area where the project is located. Refer to the Area of Responsibility directory at the end of this document.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Water meters (unless supplied by OPP Utility Services)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Oil/water separators or oil interceptors	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Instantaneous water heaters	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Large, packaged specialty plumbing systems (vacuum pumps, laboratory gases, air compressors, etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Large, packaged water treatment systems (water softeners, DI systems, etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Fire/jockey pumps	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

03 HVAC

1. Send submittals to the Facility Mechanical Engineer for the appropriate PSU Area where the project is located. Refer to the Area of Responsibility directory at the end of this document.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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2. Chillers	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Cooling towers	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Chilled water meters (unless supplied by OPP Utility Services)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Steam meters (unless supplied by OPP Utility Services)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Boilers	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Air handling units (not fan coils or VAV boxes) or rooftop units	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Primary heating/cooling pumps	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Primary/central HVAC fans, special duty fans (laboratory/fume hood exhaust, kitchen exhaust, etc.), and controls	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

04 Electrical Distribution

1. Send submittals to Cyle Vogt (cdv5002@psu.edu ; (717-994-7903), Electrical Engineer	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Main service electrical switchgear	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Transformers (unless supplied by OPP Utility Services)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Electrical meters (unless supplied by OPP Utility Services)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Low Voltage (less than 600 volts) distribution equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Engine/Generators	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Automatic transfer switches	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Electrical testing reports (Electrical Acceptance Tests, System Function Tests, Thermographic Surveys, Electromagnetic Field Tests, and Voltage Drop Tests). See checklist 26 05 10 – Electrical Testing.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Power system engineering studies (Coordination Study, Fault-Current/Short-Circuit Study, and Arc Flash Hazard Analysis). See checklist 26 05 73 – Engineering Power Studies.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

05 Lighting

1. Send submittals to Jon Walker (Jcw5009@psu.edu ; OPP Electrical Engineer.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Interior and exterior lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Lighting controls	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

06 Controls/Building Automation Systems (BAS)

1. Send submittals to Jon Kay (jpk189@psu.edu ; OPP DDC Specialist.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Controls components and devices	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Sequence of Operation for all systems	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Facility Mechanical Engineer Areas of Responsibility

University Park

Click on the link below to determine the appropriate PSU Area for your project:

[Area Services Map](#)

Area 1	Harry Gebhardt	139H Physical Plant Building, hwg101@psu.edu , 814-865-1048
Area 2	Don Partsch	139E Physical Plant Building, DFP2@psu.edu , 814-863-9488
Area 3	Pete Clarke	139 Physical Plant Building, pvc5004@psu.edu , 814-863-8741
Area 4	Bill Rittelmann	139F Physical Plant Building, wdr11@psu.edu , 814-865-2823
Area 5	Steve Garbini	139C Physical Plant Building, SPG15@psu.edu , 814-867-5530
Area 6	Ray Alexander	W-005D Millennium Science Complex, rha12@psu.edu , 814-863-0435

Commonwealth Services

Eastern Region

Pete Clarke: Hazleton, Lehigh Valley, Schuylkill, Worthington-Scranton, Wilkes-Barre

Steve Garbini : Abington, Berks, Brandywine, Great Valley, Philadelphia EEB Hub (Navy Yards)

Central Region

Ray Alexander: Altoona, Hershey Medical Center, Mont Alto, SEAREC (Manheim)

Don Partsch: Dickinson, Fruit Research Center (Biglerville), Harrisburg, Penn College, Shaver's Creek, Stone Valley/Forestry, York

Western Region

Harry Gebhardt: Behrend (Erie), Dubois, Erie Co. Field Research Lab, Erie Forestry, New Kensington

Bill Rittelmann: Beaver, Fayette, Greater Allegheny, Shenango