

A/E REVIEW CHECKLIST

STEAM GENERATION

Reviewers should - Use Checklists when reviewing any type of VA construction project for the following disciplines:

- Site and Landscape,
- Architectural,
- Structural,
- Plumbing, Fire Protection, and Sanitary,
- Heating, Ventilating, and Air Conditioning (HVAC),
- Steam Generation,
- Steam Distribution,
- Incineration/Solid Waste, and
- Electrical.

Reviewers should - Insure that A/E Submission Instructions (PG-18-15) for Schematic, Design Development, and Construction Documents are followed for various types of VA construction projects.

Reviewers should - Insure that every VA construction project is in compliance with all life safety issues.

Reviewers should - Be aware that these checklists are not all-inclusive but only provide minimum review items.

A/E CHECKLIST

TITLE _____ **PROJECT NO.** _____
LOCATION _____ **DATE** _____
REVIEWED BY _____
ORGANIZATION _____

GENERAL INFORMATION FOR REVIEWERS	
STEAM GENERATION REVIEWS	
<p>The reviewer should be thoroughly familiar with the following VA standards before conducting a design review. These are available on <i>Internet</i>: http://www.va.gov/facmgt/standard/</p>	
1.	DESIGN MANUALS (PG-18-10)
2.	MASTER CONSTRUCTION SPECIFICATIONS (PG-18-1)
3.	STANDARD DETAILS (PG-18-4) (Available in AutoCADD 2000 Format)
4.	DESIGN AND CONSTRUCTION PROCEDURES (formerly Construction Standards) (H-18-3) (Policies defining the minimum level of excellence in the design of VA facilities)
5.	DESIGN GUIDES (PG-18-12) (Graphic information on specific programs in the design development of VA facilities)
6.	DESIGN ALERTS (These alerts are issued on a regular basis for design and construction related issues)
7.	A/E QUALITY ALERTS (These alerts are issued to guard against common and repeat design errors)
8.	A/E SUBMISSION INSTRUCTIONS (PG-18-15)
9.	TECHNICAL SUMMARIES (The summaries of HVAC design requirements for special and critical areas)
10.	NATIONAL CAD STANDARD
11.	VA NATIONAL CAD STANDARD APPLICATION GUIDE

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SCHEMATIC 1		
STEAM GENERATION REVIEW		
NO.	ITEM	COMMENTS/ YES/NO/NA
1	Have A/E Submission Requirements (PG-18-15) for this review been met? List omissions.	
2	Is seismic anchoring and bracing necessary?	
3	Does A/E have latest VA Master Spec sections?	
4	Does A/E have latest VA Standard Details?	
5	Does A/E have latest VA Design Manual?	
6	Compliance with VA National CAD Standard Application Guide and applicable National CAD Standard modules.	

SCHEMATIC 2		
STEAM GENERATION REVIEW		
NO.	ITEM	COMMENTS/ YES/NO/NA
1	Have A/E Submission Requirements (PG-18-15) for this review been met? List omissions.	
2	Equipment selection and location complies with Steam Generation Design Manual.	
3	Life cycle cost method complies with NIST Handbook 135?	
4	Acceptable responses to previous comments?	
5.	Compliance with VA National CAD Standard Application Guide and applicable National CAD Standard modules.	

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DESIGN DEVELOPMENT 1		
STEAM GENERATION REVIEW		
NO.	ITEM	COMMENTS/ YES/NO/NA
1	Have A/E Submission Requirements (PG-18-15) for this review been met? List omissions.	
2	Equipment selection and location complies with Steam Generation Design Manual.	
3	Equipment sizing calculations acceptable?	
4	Pipe sizing calculations acceptable?	
5	Plan views and sections of major equipment show proper access to equipment?	
6	Piping plans and sections show proper allowance for thermal expansion?	
7	Flow diagrams for all piping systems conform to VA Standard Detail?	
8	Acceptable responses to previous comments?	
9	Coordination with other disciplines	
10.	Compliance with VA National CAD Standard Application Guide and applicable National CAD Standard modules.	

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DESIGN DEVELOPMENT 2		
STEAM GENERATION REVIEW		
NO.	ITEM	COMMENTS/ YES/NO/NA
1	Have A/E Submission Requirements (PG-18-15) for this review been met? List omissions.	
2	Are calculations complete including pipe and equipment sizing, control and regulating valves, flowmeter systems, steam traps, heating systems, pipe stress?	
3	Are Master Specs to be utilized of current issue?	
4	Do all pump calculations include suction head, NPSH, discharge head (with adequate safety factor), including accurate list of fittings for friction loss?	
5	Is all pipe stress (major steam lines) within ASME B31.1 limits?	
6	Are boiler steam nozzle loadings (forces and moments) within acceptable range?	
7	Is adequate clearance shown around all equipment, including fire tube boiler tube pull space and front and rear door opening?	
8	Does design comply with VA Design Manual?	
9	Acceptable responses to previous comments?	
10	Coordination with other disciplines	
11	Compliance with VA National CAD Standard Application Guide and applicable National CAD Standard modules.	

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CONSTRUCTION DOCUMENTS 1		
STEAM GENERATION REVIEW		
NO.	ITEM	COMMENTS/ YES/NO/NA
1	Have A/E Submission Requirements (PG-18-15) for the review been met? List omissions.	
2	Have all calculations been revised per comments in last review?	
3	Have any major steam pipes been relocated since last review? This would require a revised stress analysis.	
4	Are all valves shown in plans and sections and in accessible locations?	
5	Are boiler access catwalks shown to scale in proper relation to boiler valves?	
6	Do structural and architectural drawings show catwalks and equipment pads?	
7	Are all spring type and roller pipe hanger locations shown?	
8	Are seismic brace locations shown and braces detailed?	
9	Acceptable responses to previous comments?	
10	Coordination with other disciplines	
11	Compliance with VA National CAD Standard Application Guide and applicable National CAD Standard modules.	