

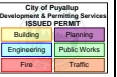
MECHANICAL COMPLIANCE SUMMARY

2018 WSEC Compliance Forms for Commercial Buildings including Group R2, R3 & R4 over 3 stories and all R1

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Project & Applicant Information	Project Title	PSE Operational Training Center - 2018 WSEC	For Building Department Use: PRCNC20240216 Date: Nov 21, 2023
	Project Address	325 Todd Road NW Puyallup, WA 98371	
	Applicant Name	Matt Reeves	
	Applicant Phone	360-734-4744	
	Applicant Email	matt@zervasgroup.com	
For questions about this report, contact WSEC Commercial Technical Support at 360-539-5300 or via email at com.techsupport@waenergycodes.com			

Full-Sized legible color report is required to be provided by the Permittee on site for all Inspections



General Occupancy	All Commercial		General Building Use Type	Education, Vocational	Building Cond. Floor Area	33,837
General Project Types	New Building	New Building or Addition Mechanical Scope	Central Plant Systems Single Zone Systems & Equipment Multiple Zone Systems & Equipment	Alteration Mechanical Scope	Project Cond. Floor Area	33,837
					Floors Above Grade	1
					Compliance Method	Compliance Method 1 - General
Mechanical Project Description	Install a VRF system to provide heating and cooling to the building. Install a DOAS unit to provide ventilation to the building. Install a new Exhaust Fan for flue venting in the Gas Appliance Lab. Install a new Make-Up Air unit in the Gas Appliance Lab. Install a new Gravity Ventilator Hood with a motorized damper to allow heat to reject out of the Gas Appliance Lab. Install new Electric Wall mount heaters for perimeter non-conditioned spaces.					

Mechanical Compliance Scope and Method	Project Type	Mechanical Scope	Economizer Exception(s) Applied?	DOAS Ventilation Provided?	Higher Equipment Efficiency Option Applied?	Equipment Efficiency Compliance Verification
	Building Addition	Central Plant Systems	Yes	NA	NA	COMPLIES
	New Building	Single Zone Systems & Equipment	Yes	Yes	NA	COMPLIES
	New Building	Multiple Zone Systems & Equipment	No	Yes	NA	COMPLIES
Additional Efficiency Credits Included (AEC)						
Does building include occupancy classifications requiring DOAS?	Yes	Does project include DOAS equipment?				Yes
Based on project scope do TSPR requirements apply?	Yes	Do all systems comply with Appendix D standard reference design or qualify for an exception to TSPR?				Yes

Scope & Space Conditioning	NEW CONSTRUCTION - CENTRAL PLANT SYSTEMS	Compliance Verification	COMPLIES
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VRF Multi-Split Systems Category - Heat pump outdoor unit, applied (water or ground loop, groundwater)

Cooling Equipment Efficiency Information												
System ID	Cooling System Type	Specific Type	Cooling Capacity (Btu/h)	AEC Efficiency Multiplier	Econo Exception Multiplier (FL & PL)	Combined Efficiency Multiplier (AEC & Econo)	Proposed Cooling Efficiency	CE Units	Proposed Part Load Efficiency	PL Units	Efficiency Compliance Verification	
CU-R-01	VRF air-cooled HP	Heat pump w/ heat recovery	192,000	1	1.0	1	13.0	EER	25.3	IEER	COMPLIES	
CU-R-02	VRF air-cooled HP	Heat pump w/ heat recovery	192,000	1	1.0	1	13.0	EER	25.3	IEER	COMPLIES	
CU-R-03	VRF air-cooled HP	Heat pump w/ heat recovery	432,000	1	1.0	1	10.0	EER	15.0	IEER	COMPLIES	
CU-R-04	VRF air-cooled HP	Heat pump w/ heat recovery	432,000	1	1.0	1	10.0	EER	15.0	IEER	COMPLIES	
CU-R-05	VRF air-cooled HP	Heat pump w/ heat recovery	96,000	1	1.0	1	14.1	EER	26.7	IEER	COMPLIES	

Heating Equipment Efficiency Information									
System ID	Heating System Type	Specific Type	Heating Capacity (Btu/h)	Cooling Capacity (Btu/h) (Same as Cooling Table)	AEC Efficiency Multiplier	Proposed Heating Efficiency	HE Units	Efficiency Compliance Verification	
CU-R-01	VRF air-cooled HP, heating	Heat pump w/ heat recovery	215,000	192,000	1	3.8	COP	COMPLIES	
CU-R-02	VRF air-cooled HP, heating	Heat pump w/ heat recovery	215,000	192,000	1	3.8	COP	COMPLIES	
CU-R-03	VRF air-cooled HP, heating	Heat pump w/ heat recovery	480,000	432,000	1	3.2	COP	COMPLIES	
CU-R-04	VRF air-cooled HP, heating	Heat pump w/ heat recovery	480,000	432,000	1	3.2	COP	COMPLIES	
CU-R-05	VRF air-cooled HP, heating	Heat pump w/ heat recovery	55,400.0	96,000	1	3.3	COP	COMPLIES	

Equipment Details			
System ID	Location in Documents - Plan/Detail #	Quantity of Fan Coil Units in VRF System	
CU-R-01{{detail-2499}}	M0.03{{detail-2337}}	5{{detail-2341}}	
	Economizer Compliance Method: Applying air-side economizer exception		Air-side economizer exception applied?: Exp 1 - DOAS paired with cooling system (Note equip location limitations)
	WSEC Equipment Efficiency Reference Table: Table C403.3.2(1)C - VRF Air-to-Air & Applied Heat Pumps		
CU-R-02{{detail-2499}}	M0.03{{detail-2337}}	5{{detail-2341}}	
	Economizer Compliance Method: Applying air-side economizer exception		Air-side economizer exception applied?: Exp 1 - DOAS paired with cooling system (Note equip location limitations)
	WSEC Equipment Efficiency Reference Table: Table C403.3.2(1)C - VRF Air-to-Air & Applied Heat Pumps		
CU-R-03{{detail-2499}}	M0.03{{detail-2337}}	4{{detail-2341}}	
	Economizer Compliance Method: Applying air-side economizer exception		Air-side economizer exception applied?: Exp 1 - DOAS paired with cooling system (Note equip location limitations)
	WSEC Equipment Efficiency Reference Table: Table C403.3.2(1)C - VRF Air-to-Air & Applied Heat Pumps		
CU-R-04{{detail-2499}}	M0.03{{detail-2337}}	6{{detail-2341}}	
	Economizer Compliance Method: Applying air-side economizer exception		Air-side economizer exception applied?: Exp 1 - DOAS paired with cooling system (Note equip location limitations)
	WSEC Equipment Efficiency Reference Table: Table C403.3.2(1)C - VRF Air-to-Air & Applied Heat Pumps		
CU-R-05{{detail-2499}}	M0.03{{detail-2337}}	1{{detail-2341}}	
	Economizer Compliance Method: Applying air-side economizer exception		Air-side economizer exception applied?: Exp 1 - DOAS paired with cooling system (Note equip location limitations)
	WSEC Equipment Efficiency Reference Table: Table C403.3.2(1)C - VRF Air-to-Air & Applied Heat Pumps		

Scope & Space Conditioning	NEW BUILDING - SINGLE ZONE SYSTEMS & EQUIPMENT	Compliance Verification	COMPLIES
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Single Zone Air Systems Category - Air conditioner, unitary, thru-wall, SDHV

Air Systems Summary Information								
System/Equip ID	Quantity of Items	Supply Airflow Control	Ventilation Standard	Ventilation CFM (Total if Multiple Items)	Ventilation Air Source	Paired with DOAS	Ventilation energy recovery	Energy Recovery Efficiency (%)
SCU-R-01		Constant volume	IMC Ventilation	100	Separate DOAS	DOAS-R-01	Provided but not required	81
SCU-R-02		Constant volume	Unoccupied, no ventilation requirement					
SCU-R-03		Constant volume	Unoccupied, no ventilation requirement					

Air Systems & Equipment - Cooling											
System/Equip ID	Cooling System/Equip Type	Specific Type	Cooling Capacity per item (Btu/h)	AEC Efficiency Multiplier	Econo Exception Multiplier (FL & PL)	Combined Efficiency Multiplier (AEC & Econo)	Proposed Cooling Efficiency	CE Units	Proposed Part Load Efficiency	PL Units	Efficiency Compliance Verification
SCU-R-02	Air conditioner, air cooled	Split system DX	24,000	1	1.15	1.15	19.6	SEER		IEER	COMPLIES
SCU-R-03	Air conditioner, air cooled	Split system DX	18,000	1	1.15	1.15	20.2	SEER		IEER	COMPLIES
SCU-R-01	Air conditioner, air cooled	Split system DX	42,000	1	1.0	1	16.1	SEER		IEER	COMPLIES

Air Systems & Equipment Details		
System/Equip ID	Area(s) Served	Location In Project Documents - Plan/Detail #
SCU-R-01{{detail-2289}}	COMM ROOM 104{{detail-2255}}	M0.03{{detail-2272}}
	Heating Section/Auxiliary Heating Type: Electric resistance (or None)	
	Air-side economizer exception applied: Exp 1 - DOAS paired with cooling system (Note equip location limitations)	
	Economizer Compliance Method: Applying air-side economizer exception	
	WSEC Equip Efficiency Reference Table - Cooling: Table C403.3.2(1)A - Unitary Air Conditioners & Condensing Units	

SCU-R-02{{detail-2289}}	SECURITY 103{{detail-2255}}	M0.03{{detail-2272}}	
	Heating Section/Auxiliary Heating Type: Electric resistance (or None)		Economizer Compliance Method: Applying air-side economizer exception
	Air-side economizer exception applied: Exp 11a - Server/equip/telecom room		WSEC Equip Efficiency Reference Table - Cooling: Table C403.3.2(1)A - Unitary Air Conditioners & Condensing Units
SCU-R-03{{detail-2289}}	IDF 121{{detail-2255}}	M0.03{{detail-2272}}	
	Heating Section/Auxiliary Heating Type: Electric resistance (or None)		Economizer Compliance Method: Applying air-side economizer exception
	Air-side economizer exception applied: Exp 11a - Server/equip/telecom room		WSEC Equip Efficiency Reference Table - Cooling: Table C403.3.2(1)A - Unitary Air Conditioners & Condensing Units

Scope & Space Conditioning	NEW BUILDING - MULTIPLE ZONE SYSTEMS & EQUIPMENT	Compliance Verification	COMPLIES
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