## STATE OF MISSOURI DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



### GENERAL PERMIT for SEWER EXTENSION CONSTRUCTION

The Missouri Department of Natural Resources hereby issues a permit to:

Construction Permit ID: Title of Project:	MOGSE0541 Adams Street Utility Ir	nnrovements	
Owner: Address:	City of Nevada 110 South Ash Street	nprovenients	
	NEVADA, MO 64772		
	te and usable collection system	e scope and purpose of the project and will include all the necessar.  The construction of this project will be in the vicinity of the countries.	
County:	Receiving Permit ID:		
for the construction of (describe	d construction project):		
• •		tely 1347 If of 12-inch PVC SDR-26 and 50 If of 8 manholes to replace existing gravity sewer lines.	
discharges to an existing City	of Nevada collection system to	4 in the City of Nevada, Vernon County and be treated at Nevada Municipal WWTF, signed the Application for Construction Permit.	
RSMo, and regulation promulga As the Department does not example approvation of the control of t	ted thereunder, or this permit n mine structural features of design of these features.	with the provisions of the Missouri Clean Water Law, Chapter 644, nay be revoked by the Department of Natural Resources (Department of the efficiency of mechanical equipment, the issuance of this control components; it does not apply to other environmentally	
April 20, 2023		hoffh-	
Issue Date	John Hoke, Direction		
January 02, 2025			
Expiration Date			

#### **APPLICABILITY**

- 1. This permit authorizes the construction of gravity sewer extensions, force mains, and lift stations. Non-earthen flow equalization storage basins at lift stations and inline storage, which flows back into the lift station or collection system, are also included.
- 2. A site specific sewer extension construction permit may be required by the Department due to compliance and enforcement actions.
- 3. Projects located within an Approved Sewer Program as noted in the operating permit of the receiving wastewater treatment facility are not required to obtain a construction permit from the Department of Natural Resources (Department).
- 4. This permit does not apply to:
  - A. Earthen storage basins;
  - B. Exempt projects unless requested by the applicant or required by enforcement.

#### **PREREQUISITES:**

- 1. The General Sewer Extension Construction Permit application, appropriate fee, and documentation in accordance with 10 CSR 20-6.010(5)(G).
- 2. The plans and specifications each signed and sealed by a professional engineer registered in the State of Missouri in accordance with 10 CSR 20-8 and 10 CSR 20-6.010.
- 3. The Design Certification form or Engineering Report or Summary of Design signed and sealed by a professional engineer registered in the State of Missouri certifying the design of the system was prepared in accordance with 10 CSR 20-6 and 10 CSR 20-8.
- 4. A statement from the continuing authority, as defined in 10 CSR 20-6.010, accepting the wastewater for treatment and indicating the permitted treatment facility has the available capacity.
- 5. A statement from the continuing authority, as defined in 10 CSR 20-6.010, accepting the responsibility for operation and maintenance of these facilities.

#### **PERMIT CONDITIONS:**

- 1. This permit authorizes the activities and scope of work detailed in the plans and specifications submitted with the request.
- 2. The construction must be in accordance with the final plans and specifications approved by the Department.
- 3. State and Federal Law does not permit bypassing of raw wastewater; therefore steps must be taken to ensure that raw wastewater does not discharge during construction. If a sanitary sewer overflow or bypass occurs, report the appropriate information to the Department's regional office per 10 CSR 20-7.015(9)(E)2., or through the Online Bypass/SSO Reporting system found at https://dnr.mo.gov/eservices.htm under Water Protection.

#### **PERMIT CONDITIONS: (continued)**

- 4. Protection of drinking water supplies must meet the requirements of 10 CSR 23-3.010.
  - A. There shall be no physical connections between a public or private potable water supply system and a sewer, or appurtenance thereto, which would permit the passage of any wastewater or polluted water into the potable supply.
  - B. Sewers shall be laid at least fifty feet (50') in a horizontal direction from any existing or proposed public water supply well or other water supply sources or structures.
- 5. Manholes shall be located with the top access at or above grade level.
- 6. In addition to the requirements for a construction permit, see 10 CSR 20-6.200 for land disturbance requirements to obtain a Missouri State Operating Permit to discharge stormwater. The permit requires Best Management Practices sufficient to control runoff and sedimentation to protect waters of the state. Land disturbance permits will only be obtained by means of the Department's ePermitting system available online at <a href="https://www.dnr.mo.gov/env/wpp/epermit/help.htm">www.dnr.mo.gov/env/wpp/epermit/help.htm</a>.

See <u>www.dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm</u> for more information.

7. A United States (U.S.) Army Corps of Engineers (COE) permit (404) and a Water Quality Certification (401) issued by the Department or permit waiver may be required for the activities described in this permit. This permit is not valid until these requirements are satisfied. If construction activity will disturb any land below the ordinary high water mark of Jurisdictional Waters of the U.S. then a 404/401 will be required. Since the COE makes determinations on what is jurisdictional, you must contact the COE to determine permitting requirements. You may call the Department's Water Protection Program at 573-751-1300 for more information.

See www.dnr.mo.gov/env/wpp/401/ for more information.

- 8. If this project eliminates a wastewater treatment facility under the jurisdiction of the Department, then a full closure plan shall be submitted with a Facility Closure Request Form, Form MO 780-2512 to the Department's appropriate regional office for review and approval. In accordance with 10 CSR 20-6.010(12), the closure plan must meet the requirements outlined in Standard Conditions Part III, of the Missouri State Operating Permit. Closure shall not commence until the submitted closure plan is approved by the Department.
- 9. If this project is part of a project to resolve an enforcement action or is receiving funding from the Department, submit a statement of work complete following the completion of construction



### MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM

# APPLICATION FOR CONSTRUCTION PERMIT – SEWER EXTENSION

APP NO.	CP NO.
FEE RECEIVED	CHECK NO.

NOTE ► Please Read the accompanying in					
<b>1.0 APPLICATION INFORMATION</b> (Note – If considered incomplete and returned.)	any of the	e questions in this section	on are answ	ered NO, this app	lication may be
1.1 Is this a Federal/State funded project?	YES	✓ N/A Funding Age	ncy:	1	Project #:
1.2 Has the Department of Natural Resource  TYES Date of Appro	s approve val:	ed the proposed project's	s engineerin	ig report*?	<b>№</b> N/A
1.3 Is a copy of the appropriate plans* and sp	ecification	ns* included with this ap	plication?	✓ YES □ NO	6
If the project is using standard specification	ons, name	e of community:			
1.4 Is a summary of design* included with thi					
1.5 Is the appropriate fee or JetPay confirmation See Section 7.0	tion includ	ded with this application	? 🗹 YES	□NO	
* Must be affixed with a Missouri registered pr	ofessiona	al engineer's seal, signa	ture and dat	te.	
2.0 PROJECT INFORMATION	1				
2.1 NAME OF PROJECT Adams St Utility Improvements					
Address Address	CITY		STATE	ZIP CODE	COUNTY
200 N Adams St	Nevada		МО	64772	Vernon
2.2 Legal Description: 1/4, SW 1/2	, SW	1/4, Sec. 4	T 35N	, R 31W	
2.3 Project Components (check all that apply Gravity sewers Pumping station Pu	s ☐ Fo	ravity sewer line, 50 LF ng relocated to avoid co er maintenance in the fu	nflict with a	ter gravity sewer I n existing/propose	ed storm sewer line.
<ul> <li>A. Population or number of lots to be served</li> <li>B. Estimated flow to be contributed by this extended</li> <li>C. Industrial Wastes: Type:</li> <li>D. Receiving Sewer: Size: 18 inches</li> <li>E. Does this project (check all that apply):</li> <li>✓ Connect to an existing treatment plant</li> <li>F. Estimated number of onsite systems being</li> <li>G: Estimated costs associated with piping: \$</li> </ul>	tension: Flo Ca Resolve g removed	Design Average Flow: ow: gpd pacity: 1600 gpm e enforcement issue  d:	gpd ] Eliminate	Design Peak Ho	ourly Flow: gph existing treatment plant
3.0 PROJECT OWNER	102 70				
NAME City of Novada		TELEPHONE NUMBER WITH A 417-448-5509	AREA CODE	mmitchell@ne	evadamo.gov
City of Nevada  ADDRESS	CITY	717-440-0000	STATE	ZIP CODE	
110 S Ash St	Nevada		МО	64772	
CHARTER NUMBER (SECRETARY OF STATE) or REGISTERED	AGENT				
City of Nevada					

4.0 CONTINUING AUTHORITY: A continuing authority is a company, business, entity, or person(s) that will be legally responsible for ensuring compliance with the permit requirements and provide continuous stable oversight of the permitted facility or activity. The Continuing authority should be a relatively permanent entity responsible for the ongoing operation, maintenance and modernization, when needed, of the permitted facility or activity. A continuing authority is not, however, an entity or individual that is contractually hired by the permittee to sample or operate and maintain the system for a defined time period, such as a certified operator or analytical laboratory. To access the regulatory requirement regarding continuing authority, 10 CSR 20-6.010(2), please visit Clean Water Commission Chapter 6. A continuing authority's name must be listed exactly as it appears on the Missouri Secretary of State's (SoS's) webpage: Missouri Secretary of State, unless the continuing authority is an individual(s), government entity, or otherwise not required to register with the SoS. TELEPHONE NUMBER WITH AREA CODE EMAIL ADDRESS NAME 417-448-5509 mmitchell@nevadamo.gov City of Nevada ZIP CODE STATE ADDRESS CITY MO 110 S Ash St 64772 Nevada CHARTER NUMBER (SECRETARY OF STATE) City of Nevada 4.1 Has appropriate continuing authority acceptance been provided as follows: A letter from the continuing authority accepting responsibility for continued maintenance of the sewer (if the continuing authority is different than the original owner of the construction), or a properly executed "Continuing Authority and Receiving Wastewater □ NO N/A Treatment Facility Acceptance" Form 780-2584. ☐ YES 5.0 ENGINEER ENGINEER NAME / COMPANY NAME TELEPHONE NUMBER WITH AREA CODE EMAIL ADDRESS john.briggs@amce.com John Briggs, PE - Allgeier, Martin and Associates, Inc. 417-680-7200 ZIP CODE ADDRESS CITY STATE 64804 7231 E 24th St Joplin MO 6.0 RECEIVING WASTEWATER TREATMENT FACILITY EMAIL ADDRESS TELEPHONE NUMBER WITH AREA CODE mmitchell@nevadamo.gov Nevada Municipal WWTF 417-448-5509 REMAINING CAPACITY (GPD) MISSOURI STATE OPERATING PERMIT # COUNTY MO-0089109 Vernon No additional contribution from Project. 6.1 If different from the owner, has a letter been provided from the receiving treatment facility demonstrating that they agree to accept the expanded flow or has a properly executed Continuing Authority and Receiving Wastewater Treatment Facility Acceptance MO 780-2584 form been provided? ☐ YES ☐ NO ☑ N/A 6.2 A letter from the receiving wastewater treatment facility, if different than the continuing authority, is included with this application. □ NO N/A ☐ YES 6.3 If the receiving treatment plant or continuing authority is regulated by the Public Service Commission (PSC) for sewer activities, a N/A Certificate of Convenience and Necessity has been received? Yes - Date: ΠNo OPTIONAL QUESTIONS REGARDING MILITARY SERVICE Have you or an immediate family member ever served in the ✓ No ☐ Yes U.S. Armed Forces? If yes, would you like information about military-related services ☐ Yes No No in Missouri? 7.0 Application Fee ✓ JetPay Confirmation Number ☐ Check Number 8.0 PROJECT OWNER: I certify under penalty of law this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. PROJECT OWNER SIGNATURE PRINTED NAME 2023 Mark Mitchell TELEPHONE NUMBER WITH AREA CODE TITLE OR CORPORATE POSITION mmitchell@nevadamo.gov 417-448-5115 City Manager Mail completed copy to: Submit completed electronic copy to: MISSOURI DEPARTMENT OF NATURAL RESOURCES Missouri Department of Natural Resources WATER PROTECTION PROGRAM at DNR.WPPEngineerSection@dnr.mo.gov PO BOX 176 JEFFERSON CITY, MO 65102-0176

MO 780-1632 (10-22)

a. 8.110(9)(B) Is there a detailed plan showing tributary area, boundaries, pertinent elevations, topography, existing and proposed facilities?  4. 8.120(2) Does the sewer exclude water from roofs, streets, groundwater from foundation drains and combined wastewater?  5. 8.120(3)(A) Is the pipe installation, embedment and backfill designed to prevent damage to the pipe and its joints?  6. 8.120(3) (A)1 Is all sewer pipe constructed with a slope to obtain mean velocities of not less than 2 feet per second?  7. 8.120(3)(A)2 Is the pipe covered with at least 36" of soil or sufficiently insulated to prevent freezing?  8. 8.120(3)(B) Is deflection testing specified to ensure no pipe exceeds a deflection of 5% of the inside diameter?  9. 8.120(4)(A) Are manholes located at the end of each line, at all changes in grade, size or alignment and at all intersections?	9.0 SE	WER EXTENSION	N CHECKLIST						
1. 8.170(3)(A) Is the design flow based on actual flow data for an existing system?	SEWE applica	R EXTENSION D able to the design	<b>ESIGN CERTIFICATION:</b> Answer all questions yes or N/A. Answer N/A only if the question is of the proposed sewer extension.						
2. 8.110(3)(B)		REGULATION		YES					
calculated?    Calculated?	1.	8.110(3)(A)	Is the design flow based on actual flow data for an existing system?		V				
topography, existing and proposed facilities?  1. 8, 120(3) (A) Is the pipe installation, embedment and backfill designed to prevent damage to the pipe and its joints?  1. 8, 120(3) (A) Is the pipe installation, embedment and backfill designed to prevent damage to the pipe and its joints?  1. 8, 120(3) (A) Is a sewer pipe constructed with a slope to obtain mean velocities of not less than 2 feet per second?  2. 8, 120(3) (A) Is the pipe installation, embedment and backfill designed to prevent damage to the pipe and its joints?  3. 8, 120(3) (A) Is the pipe covered with at least 36° of soil or sufficiently insulated to prevent freezing?  3. 8, 120(3) (B) Is deflection testing specified to ensure no pipe exceeds a deflection of 5% of the inside dameter?  4. 8, 120(4) (A) Are manuloes at least 42 inches in diameter with a clear opening of 22 inches on sewer and at all intersections?  4. 8, 120(4) (C) Are manuloes at least 42 inches in diameter with a clear opening of 22 inches on sewer like large three 8°.  4. 8, 120(4) (C) Are manuloes at least 42 inches in diameter with a clear opening of 22 inches on sewer like large three 8°.  4. 8, 120(4) (C) Are manuloes at least 42 inches in diameter with a clear opening of 22 inches on sewer like large three 8°.  4. 8, 120(4) (E) Are the manuloes at least 42 inches in diameter with a clear opening of 22 inches on sewer like large three 8°.  4. 8, 120(4) (E) Are the manuloes at least 42 inches in diameter with a clear opening of 22 inches on sewer like large three 8°.  4. 8, 120(4) (E) Are the manuloes at least 42 inches in diameter of the parallel to the diameter of pipes can be an analysis of 8 inches or 18 inches	2.	8.110(3)(B)	calculated?		V				
combined wastewater?    Social Signature   Social	3.	8.110(9)(B)	topography, existing and proposed facilities?	V					
and its joints?  8. 120(3) (A)1   Is all sewer pipe constructed with a slope to obtain mean velocities of not less than 2 feet per second?  7. 8. 120(3)(A)2   Is the pipe covered with at least 36° of soil or sufficiently insulated to prevent freezing?   □    8. 8. 120(3)(A)2   Is the pipe covered with at least 36° of soil or sufficiently insulated to prevent freezing?  9. 8. 120(4)(A)   Are manholes located at the end of each line, at all changes in grade, size or alignment and at all intersections?  9. 8. 120(4)(C)   Are manholes at least 42 inches in diameter with a clear opening of 22 inches on sewer line larger than 8°?  11. 8. 120(4)(C)   Where cleanouts are used at the end of a lateral instead of a manhole, they are a minimum diameter of 8 inches or larger and equal to the diameter for pipes < 8°?  12. 8. 120(4)(E)   Are the manholes waterlight, constructed and installed in accordance with the manufacturer's recommendations and procedures?  13. 8. 120(4)(F)   Do the specifications include a requirement for inspection and testing for manholes?   □    14. 8. 120(5)(A)   Is the sewer free from physical connections to a potable water supply system and no water pipes come in contact with a sewer manhole?   □   □    15. 8. 120(5)(B)   Are sewers and manholes located at least 50 feet horizontally from any existing or proposed water supply well, sources, structures?  10.0 PRESSURE SEWERS, GRINDER PUMP. STEP AND STEG SEWER CHECKLIST  REGULATION   Does the cleaning velocity of ≥ 2 ft/s happen more than once per day?   □    17. 8. 125(5)(A)2.   Is the diameter of the pressure sewer main pipe at least 1.5°?   □    18. 8. 125(5)(B)2.   Are appurtenances compatible with the piping system?   □    19. 8. 125(5)(D)1.   Does finder pump stations service only a single equivalent dwelling unit (EDU)? I.e.   1 residence −1 grinder pump.   1 residence −1 grinder pump stations service only a single equiva	4.	8.120(2)	Does the sewer exclude water from roofs, streets, groundwater from foundation drains and combined wastewater?	V					
per second?  1. 8. 120(3)(A)2 Is the pipe covered with at least 36" of soil or sufficiently insulated to prevent freezing?  8. 8. 120(3)(B) Is deflection testing specified to ensure no pipe exceeds a deflection of 5% of the inside diameter?  9. 8. 120(4)(A) Are manholes located at the end of each line, at all changes in grade, size or alignment and at all intersections?  10. 8. 120(4)(C) Are manholes to least 42 inches in diameter with a clear opening of 22 inches on sewer line larger than 8"?  11. 8. 120(4)(C) Where cleanouts are used at the end of a lateral instead of a manhole, they are a minimum diameter of 8 inches or larger and equal to the diameter for pipes 4.8"?  12. 8. 120(4)(E) Are the manholes watertight, constructed and installed in accordance with the manufacturer's recommendations and procedures?  14. 8. 120(5)(A) Is the sewer free from physical connections to a potable water supply system and no water pipes come in contact with a sewer manhole?  15. 8. 120(5)(B) Are sewers and manholes located at least 50 feet horizontally from any existing or proposed water supply well, sources, structures?  10.0 PRESSURE SEWERS, GRINDER PUMP, STEP AND STEG SEWER CHECKLIST  REGULATION  16. 8. 125(5)(A)2. Is the diameter of the pressure sewer main pipe at least 1.5"?  17. 8. 125(5)(B) Are appurtenances compatible with the piping system?  19. 8. 125(5)(B) Are isolation valves located: upstream of major pipe intersections; both sides of stream, primal prima	5.	8.120(3)(A)	and its joints?	V					
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diameter?    Section   Se	7.	8.120(3)(A)2		V					
and at all intersections?  10. 8.120(4)(C) Are manholes at least 42 inches in diameter with a clear opening of 22 inches on sewer line larger than 8"?  11. 8.120(4)(C) Where cleanouts are used at the end of a lateral instead of a manhole, they are a minimum line larger than 8"?  12. 8.120(4)(E) Are the manholes watertight, constructed and installed in accordance with the manufacturer's recommendations and procedures?  13. 8.120(4)(F) Do the specifications include a requirement for inspection and testing for manholes?  14. 8.120(5)(A) Is the sewer free from physical connections to a potable water supply system and no water pipes come in contact with a sewer manhole?  15. 8.120(5)(B) Are sewers and manholes located at least 50 feet horizontally from any existing or proposed water supply well, sources, structures?  16. 8.122(5)(A)1. Does the cleaning velocity of ≥ 2 ft/s happen more than once per day?  17. 8.125(5)(A)2. Is the diameter of the pressure sewer main pipe at least 1.5"?  18. 8.125(5)(A)2. Is the diameter of the pressure sewer main pipe at least 1.5"?  19. 8.125(5)(B)2. Are isolation valves located: upstream of major pipe intersections; both sides of stream, bridge and RR crossings; at terminal end of system?  20. 8.125(5)(D)1.A Are isolation valves located: upstream of major pipe intersections; both sides of stream, bridge and RR crossings; at terminal end of system?  21. 8.125(5)(D)1.B Are multiple unit pump stations service only a single equivalent dwelling unit (EDU)? i.e. residence – 1 grinder pumpt.  22. 8.125(5)(D)1.B Are multiple unit pump stations owned, operated and maintained by an approved continuing authority?  23. 8.125(5)(D)3. Is there at least 70 gallons of storage in the grinder pump unit?  24. 8.125(5)(D)4. Po grinder pump stations have shutoff valves, check valves and anti-siphon valves (where siphoning could occur) that are accessible from the ground surface?  25. 8.125(5)(D)3. Are units serviceable and replaceable under wet conditions without electrical hazard and is electrical equ	8.	8.120(3)(B)		V					
line larger than 8"?   line larger than 9"   li	9.	8.120(4)(A)	and at all intersections?	V					
diameter of 8 inches or larger and equal to the diameter for pipes < 8"?  12. 8.120(4)(E) Are the manholes watertight, constructed and installed in accordance with the manufacturer's recommendations and procedures?  13. 8.120(4)(F) Do the specifications include a requirement for inspection and testing for manholes?  14. 8.120(5)(A) Is the sewer free from physical connections to a potable water supply system and no water pipes come in contact with a sewer manhole?  15. 8.120(5)(B) Are sewers and manholes located at least 50 feet horizontally from any existing or proposed water supply well, sources, structures?  10.0 PRESSURE SEWERS, GRINDER PUMP, STEP AND STEG SEWER CHECKLIST  REGULATION  16. 8.125(5)(A)1. Does the cleaning velocity of ≥ 2 ft/s happen more than once per day?  17. 8.125(5)(A)2. Is the diameter of the pressure sewer main pipe at least 1.5"?  18. 8.125(5)(B) Are appurtenances compatible with the piping system?  19. 8.125(5)(B)2. Are appurtenances compatible with the piping system?  20. 8.125(5)(B)2. Are appurtenances compatible with the piping system?  21. 8.125(5)(D)1. Do service line pipes have a minimum diameter of 1.25"?  22. 8.125(5)(D)1. Do simplex grinder pump stations service only a single equivalent dwelling unit (EDU)? i.e. 1 residence − 1 grinder pump stations service only a single equivalent dwelling unit (EDU)? i.e. 1 residence − 1 grinder pump stations owned, operated and maintained by an approved continuing authority?  23. 8.125(5)(D)1. Are multiple unit pump stations owned, operated and maintained by an approved continuing authority?  24. 8.125(5)(D)3. Is there at least 70 gallons of storage in the grinder pump unit?  25. 8.125(5)(D)4. Do grinder pump stations have shutoff valves, check valves and anti-siphon valves (where siphoning could occur) that are accessible from the ground surface?  26. 8.125(5)(D)3. Representations and replaceable under wet conditions without electrical hazard and is electrical equipment suitable for hazardous locations (National Electrical Code, Class I,	10.	8.120(4)(C)	line larger than 8"?	V					
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18. 8.125(5)(B) Are appurtenances compatible with the piping system?		24 555 55							
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			Are duplex pumps provided for the design flow of 1,500 gallons or greater?						

11.0 PUMP STATION CHECKLIST									
	REGULATION					YES	N/A		
29.	8.125(7)(C)	Is the minimum diameter s			EG sewer at least 4"?				
30.	8.130(2)(A) 8.140(2)(B)	Is the pump station designed to withstand the 100-year flood?							
31.	8.130(3)(A)	Is the dry well completely separate from the wet well and is a suitable and safe means of access provided to each?							
32.	8.130(3)(B)	If the design flow is 1,500 gpd or more, are there at least 2 pumps or pneumatic ejectors provided?							
33	8.130(3)(D)	Are valves located outside wet well unless integral to a pump or its housing?							
34.	8.130(3)(F) 8.140(8)(J)	Do wet and dry wells have separate ventilation systems?							
35.	8.130(3)(G)	Does all potable water bro	ought to pump sta	ations comply with 8.1	40(7)(D)?				
36.	8.130(6)	Is an alarm system provid-	ed with uninterru	pted power?					
37.	8.130(7)(A)	Is there 2 hours retention retention of the peak hour	of the peak hour	ly flow for a design floogn flow < 100,000 gpd	w > 100,000 gpd or 4 hrs ?				
38.	8.130(7)(B)	Are there independent utility substations provided for emergency power capable of starting and operating the pump station at its rated capacity?							
39.	8.130(8)(A)	Is the force main velocity	of ≥ 2 ft/s mainta	ined?					
40.	8.130	Are there complete operation instructions for the pumpting stations provided that include emergency procedures, maintenance schedules, special tools and spare parts that may be necessary?							
12.0 5	UCTION LIFT PU	MP AND SUBMERSIBLE F	PUMP STATION	CHECKLIST		1	T		
	REGULATION					YES	N/A		
41.	8.130(4)	Are the suction lift pumps	•	·			Ц		
42.	8.130(4)(A)	Is the combined total of dynamic suction lift at the "pump off" elevation and required net positive suction head at design operating conditions less than or equal to 22 feet?							
43.	8.130(4)(B)	Are there dual vacuum pumps capable of removing air from the suction lift pump?							
44.	8.130(5)(A)	Are submersible pumps readily removable and replaceable without personnel entering, or disconnecting any pipe in the wet well?							
		ON CHECKLIST CERTIF	<b>ICATION STAT</b>				1,		
For an		ered "N/A" provide an expla	nation. Also pro	vide any useful genera	al comments regarding desig	n for rev	riew		
1		acement of an already exis	ting gravity sewe	er line. This project will	not generate additional was	tewater	flow.		
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				OF MISS	The state of the s				
Misso	ouri Professional E	ngineer's seal, signature an	nd date:	TE CONTENT	<b>W</b>				
				JOHN T. BRIGGS	1*\				
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Nam	e: John Briggs, PE		N. C.	PE-2010019510					
Addr	ess: 7231 E 24th	St		ARCHAIL					
City:	Joplin	State	; MO		ZIP Code: 64804	-пичае-п			
Tele	Telephone Number with Area Code: 417-680-7200 Email:john.briggs@amce.com								
MO 780-	1632 (10-22)	LANGE CONTRACTOR OF THE PARTY O							