

Sewer Bypass Pumping Setup Inspection Checklist

Site / Project	_____	Address	_____
Inspector name	_____	Company	_____
Date	_____	Time	_____

Documentation aid only. Adapt this resource to the site, manufacturer instructions, and applicable local requirements. It does not replace a competent person, professional judgment, legal advice, or a required statutory form.

Inspection checklist

HDPE Fusion Welds & Piping

☐ Visually inspect all HDPE fusion welds for complete bead formation and absence of cracks or voids. (ASTM F2620)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐ Verify that all newly fused HDPE joints have passed the required pressure test (typically 1.5 times operating pressure for 2 hours). Document test results.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐ Confirm that HDPE pipe supports are spaced according to the manufacturer's recommendations (typically 8-10 feet for larger diameter pipe) to prevent sagging and stress on joints.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐ Check that the bypass piping is adequately anchored to prevent movement due to hydraulic forces, especially at bends and connections.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐ Inspect all pipe joints and connections for leaks. Address any leaks immediately to prevent spills and environmental contamination.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐ Verify proper bedding (sand or gravel) under the HDPE pipe to prevent damage from rocks or uneven surfaces. (AWWA M55)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐ Confirm that the HDPE fusion machine is calibrated per manufacturer's specifications and calibration records are available.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐ Ensure that all bypass piping is clearly labeled with flow direction and contents (e.g., 'Raw Sewage Bypass').	☐ Pass	☐ Fail	☐ N/A	Notes: _____

☐	Assess if the bypass piping is adequately protected from vehicular traffic or other potential damage sources (e.g., barriers, signage).	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Check for adequate expansion loops or flexible couplings to accommodate thermal expansion and contraction of the HDPE pipe.	☐ Pass	☐ Fail	☐ N/A	Notes: _____

Bypass Pump Operation & Monitoring

☐	Measure and record the suction lift of each bypass pump. Ensure it is within the pump manufacturer's recommended limits to prevent cavitation.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Monitor and record the discharge pressure of each bypass pump. Note any significant fluctuations that could indicate a problem.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Measure and record the flow rate of each bypass pump. Compare to the required flow rate to ensure adequate bypass capacity.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Verify that each bypass pump has adequate secondary containment (e.g., lined berm) to contain any spills or leaks.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Check the fuel level of each bypass pump and ensure an adequate supply for continuous operation. Document fuel levels.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Check the oil level of each bypass pump and add oil as needed. Document oil levels.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Listen for unusual noises or vibrations from each bypass pump. Investigate and correct any issues promptly.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	If equipped, test the automatic start/stop function of the bypass pumps to ensure proper operation in case of power failure or high-level alarm.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Inspect the pump suction screen for debris buildup and clean as needed to prevent pump cavitation and reduced flow.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Record the operating hours of each pump daily. Use this data for preventative maintenance scheduling.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Inspect the area around the pump discharge for erosion or washouts. Implement erosion control measures as needed.	☐ Pass	☐ Fail	☐ N/A	Notes: _____

Manhole Entry & Confined Space Procedures

☐	Verify that a valid confined space entry permit is in place before any manhole entry. (OSHA 1910.146)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Test the atmosphere in the manhole for oxygen levels (19.5-23.5%), flammable gases (less than 10% LEL), and toxic gases (H2S, CO) before entry and continuously during occupancy. (OSHA 1910.146)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Ensure that the manhole is adequately ventilated with a blower to remove hazardous atmospheres. (OSHA 1910.146)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Confirm that a trained attendant is stationed outside the manhole to monitor entrants and provide assistance if needed. (OSHA 1910.146)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Verify that appropriate rescue equipment (harness, lifeline, retrieval device) is available and in good working order at the manhole entry point. (OSHA 1910.146)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Ensure that fall protection measures (e.g., manhole guardrail, safety net) are in place to prevent falls into the manhole. (OSHA 1926.501)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Establish a clear communication system (e.g., two-way radio) between the entrant and the attendant. (OSHA 1910.146)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Provide adequate lighting at the manhole entry point and inside the manhole. (OSHA 1910.146)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Ensure that the manhole is properly barricaded to prevent unauthorized access. (OSHA 1926.200)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Verify that the gas monitor used for atmospheric testing is calibrated and bump tested daily. (Manufacturer Specs)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Implement Lockout/Tagout procedures for any equipment that could pose a hazard to entrants (e.g., upstream pumps). (OSHA 1910.147)	☐ Pass	☐ Fail	☐ N/A	Notes: _____

Site Conditions & General Safety

☐	Maintain a clean and organized work area to prevent trips, slips, and falls. (OSHA 1926.25)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Implement erosion control measures to prevent soil erosion and sedimentation of waterways. (EPA Regulations)	☐ Pass	☐ Fail	☐ N/A	Notes: _____

☐	Establish a traffic control plan to protect workers from vehicular traffic. (MUTCD)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Provide adequate lighting for all work areas, especially during nighttime operations. (OSHA 1926.56)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Review the site-specific emergency response plan with all personnel. (OSHA 1910.38)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Ensure that a first-aid kit is readily available and adequately stocked. (ANSI Z308.1)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Verify that fire extinguishers are readily accessible and inspected monthly. (NFPA 10)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Establish a reliable communication system (e.g., two-way radios, cell phones) for all personnel. (Best Practice)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Implement security measures to prevent unauthorized access to the site. (Best Practice)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Monitor weather conditions and adjust work activities as needed to ensure safety. (Best Practice)	☐ Pass	☐ Fail	☐ N/A	Notes: _____

Findings

#	Item	Location	Severity	Action required
1				
2				
3				
4				
5				
6				
7				
8				

Signature

Inspector signature _____

Name _____

Date _____