

## REPAIR AND START-UP TEAM – WASTEWATER TREATMENT FACILITY

<b>DESCRIPTION</b>	The Repair and Start-Up Team - Wastewater Treatment Facility repairs all types of wastewater treatment facilities, making them operational
<b>RESOURCE CATEGORY</b>	Public Works
<b>RESOURCE KIND</b>	Team
<b>OVERALL FUNCTION</b>	The Repair and Start-Up Team - Wastewater Treatment Facility repairs wastewater treatment facilities of all types and sizes, and with various treatment systems, conveyance facilities, treatment plants, and pump stations. This team does not make structural repairs and other repairs of similar scale.
<b>COMPOSITION AND ORDERING SPECIFICATIONS</b>	<ol style="list-style-type: none"> <li>1. Discuss logistics for deploying this team, such as working conditions, safety, length of deployment, security, lodging, transportation, and meals, prior to deployment</li> <li>2. Requestor specifies treatment type, such as primary, secondary, tertiary, or biological nutrient removal (BNR)</li> <li>3. Requestor specifies disinfection type, such as chlorination or ultraviolet (UV)</li> <li>4. Requestor provides lead operator familiar with the treatment process and plant shut-down and start-up procedures</li> <li>5. Requestor provides plant schematics</li> <li>6. Requestor specifies control systems used, such as electronic, pneumatic, or hydraulic</li> <li>7. Requestor specifies facility capacity in millions of gallons per day (MGD)</li> <li>8. Requestor specifies gallons per minute (GPM) capacity, maximum solids handling capacity, necessary equipment head, and equipment suction</li> <li>9. Requestor specifies necessary certifications, such as Hazardous Waste Operations and Emergency Response (HAZWOPER) or operator certifications</li> <li>10. Requestor provides external support, such as vehicle fuel and power for phones, computers, and other rechargeable devices</li> <li>11. Requestor specifies any necessary safety qualifications and equipment, such as confined-space entry, trenching, and shoring capabilities</li> </ol>

Each type of resource builds on the qualifications of the type below it. For example, Type 1 qualifications include the qualifications in Type 2, plus an increase in capability. Type 1 is the highest qualification level.

COMPONENT	SINGLE TYPE	NOTES
<b>MINIMUM PERSONNEL PER TEAM</b>	4	Not Specified
<b>MANAGEMENT AND OVERSIGHT PERSONNEL PER TEAM</b>	1 - National Incident Management System (NIMS) Type 1 Wastewater Operations Team Leader	Not Specified
<b>SUPPORT PERSONNEL PER TEAM</b>	3 - NIMS Utility Worker Specialist - Water Sector Infrastructure	The NIMS Utility Worker Specialist - Water Sector Infrastructure can be a welder, electrician, mechanic, or instrumentation technician. Requestor specifies worker specialty based on mission needs.
<b>SPECIALIZED EQUIPMENT PER TEAM</b>	1 - Air compressor 1 - Mud pump 1 - Heavy-duty pick-up truck with equipment boom	Equipment includes a full complement of industry-specific tools necessary for the operations indicated.

COMPONENT	SINGLE TYPE	NOTES
<b>PERSONAL PROTECTIVE EQUIPMENT (PPE) PER TEAM MEMBER</b>	1. Hard hat 2. Reflective vest 3. Gloves 4. Protective clothing 5. Protective footwear 6. Flashlight	PPE is mission-specific and may vary by work environment; it includes protective footwear, protective clothing for skin exposure, eye and ear protection, respirators, gloves, and masks.
<b>ELECTRONICS EQUIPMENT PER TEAM</b>	1. Laptop computer 2. Digital camera 3. GPS 4. Appropriate software	1. Appropriate software includes word processing, spreadsheet, and database management programs. 2. Consider other equipment and supplies as necessary based on ordering specifications.
<b>COMMUNICATIONS EQUIPMENT PER TEAM</b>	1. Cell phone 2. Portable radio	1. Consider alternate forms of communication, such as satellite phones, based on the mission assignment and team needs. 2. Requestor provides radio specifications. 3. Provider supplies necessary chargers and backup batteries for battery powered portable equipment.
<b>TRANSPORTATION EQUIPMENT PER TEAM</b>	1 - Truck/SUV	Vehicle must be capable of traversing rough terrain, flood conditions, and adverse environmental conditions, and must carry equipment necessary for maintaining vehicle operation.



## NOTES

Nationally typed resources represent the minimum criteria for the associated component and capability.

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## REFERENCES

1. FEMA, NIMS 508: Operations Team – Wastewater Treatment Facility
2. FEMA, NIMS 509: Utility Worker Specialist – Water Sector Infrastructure
3. FEMA, NIMS 509: Wastewater Operations Team Leader
4. FEMA, National Incident Management System (NIMS), October 2017
5. FEMA, National Response Framework, June 2016