

REPAIR AND START-UP TEAM – WATER TREATMENT FACILITY

DESCRIPTION	The Repair and Start-Up Team - Water Treatment Facility repairs all types of water treatment facilities
RESOURCE CATEGORY	Public Works
RESOURCE KIND	Team
OVERALL FUNCTION	The Repair and Start-Up Team - Water Treatment Facility repairs water production facilities of all types and sizes, and with various settling systems, including intake facilities, raw water conveyance facilities, and treatment plants. This team does not repair pump stations.
COMPOSITION AND ORDERING SPECIFICATIONS	<ol style="list-style-type: none"> 1. Discuss logistics for deploying this team, such as working conditions, safety, length of deployment, security, lodging, transportation, and meals, prior to deployment 2. Requestor specifies treatment type, such as direct filtration, secondary disinfection, sedimentation, granular activated carbon (GAC), powdered activated carbon (PAC), or membrane 3. Requestor specifies disinfection type, such as chlorine, bleach, chloramines, ozonation, or ultraviolet (UV) 4. Requestor provides lead operator familiar with the treatment process and plant shut-down and start-up procedures 5. Requestor provides plant schematics 6. Requestor specifies types of facilities and processes needing assessment and repair 7. Requestor specifies facility capacity in millions of gallons per day (MGD) 8. Requestor specifies necessary certifications, such as Hazardous Waste Operations and Emergency Response (HAZWOPER) or operator certifications 9. Requestor provides external support, such as vehicle fuel and power for phones, computers, and other rechargeable devices 10. Requestor specifies any necessary safety qualifications and equipment, such as confined-space entry, trenching, and shoring capabilities

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
MINIMUM PERSONNEL PER TEAM	4	Not Specified
MANAGEMENT AND OVERSIGHT PERSONNEL PER TEAM	1 - National Incident Management System (NIMS) Type 1 Water Operations Team Leader	Not Specified
SUPPORT PERSONNEL PER TEAM	3 - NIMS Utility Worker Specialist - Water Sector Infrastructure	The NIMS Utility Worker Specialist - Water Sector Infrastructure can be a welder, electrician, or mechanic. Requestor specifies worker specialty based on mission needs.
SPECIALIZED EQUIPMENT PER TEAM	1 - Air compressor 1 - Mud pump 1 - Heavy-duty pick-up truck with equipment boom	Equipment includes pneumatic tools, small power tools, and hand tools necessary for the repairs indicated.

COMPONENT	SINGLE TYPE	NOTES
PERSONAL PROTECTIVE EQUIPMENT (PPE) PER TEAM MEMBER	<ol style="list-style-type: none"> 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.
ELECTRONICS EQUIPMENT PER TEAM	<ol style="list-style-type: none"> 1. Laptop computer 2. Digital camera 3. GPS 4. Appropriate software 	<ol style="list-style-type: none"> 1. Appropriate software includes word processing, spreadsheet, and database management programs. 2. Consider other equipment and supplies as necessary based on ordering specifications.
COMMUNICATIONS EQUIPMENT PER TEAM	<ol style="list-style-type: none"> 1. Cell phone 2. Portable radio 	<ol style="list-style-type: none"> 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.
TRANSPORTATION EQUIPMENT PER TEAM	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.

REFERENCES

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