





# Gap Analysis Tool

## Electrical & Instrumentation Technologist Grade 3

In the rows below, select "Do It All The Time", "Limited Experience" or "Never Do This" based on your current knowledge and experience. Based on your responses, you can assess your overall preparedness for each Domain.

	Do It All The Time	Limited Experience	Never Do This
301. Apply advanced knowledge of electrical and instrumentation principles to perform complex corrective and preventive maintenance tasks using equipment such as precision measuring devices, special and general electrical and instrumentation test meters.			
302. Safely and properly use all electrical test equipment, PPE, power and hand tools.			
303. In an employee training setting, teach staff electrical and instrumentation principles and applications.			
304. Interpret and apply federal, state and local environment and safety orders and National Fire Protection Association (NFPA) 70E & 820 regulations, and National Electric Code (NEC).			
305. Coordinate predictive/preventive maintenance and repair of electrical and instrumentation equipment related to power production systems including co-generation generators, standby generators, pumps, centrifugal blowers and compressors.			
306. Maintain electrical and instrumentation, power, control and communication systems of water quality treatment plants, pump stations and recycled water facilities.			
307. Using appropriate communications technology, effectively communicate verbal and written reports and technical information to maintenance, operations and management staff.			
308. Establish and maintain cooperative working relationships with agency staff, engineering and management outside vendors, and consultants.			
309. Evaluate, modify and design advanced electrical and instrumentation circuits and control loops.			
310. Accurately recognize, diagnose, and repair electrical and instrumentation equipment problems and recommend upgrades and improvements.			
311. Interpret, implement and document complex maintenance requirements, electrical and instrumentation testing and calibration routines and remote process control systems.			
312. Perform advanced wastewater and electrical mathematical calculations.			
Total Per Category			
You may want to focus your studying in the areas where you selected "Limited Experience" or "Never Do This". See Electrical & Instrumentation Technologist Candidate Handbook.			

# Gap Analysis Tool

## Electrical & Instrumentation Technologist Grade 4

In the rows below, select "Do It All The Time", "Limited Experience" or "Never Do This" based on your current knowledge and experience. Based on your responses, you can assess your overall preparedness for each Domain.

	Do It All The Time	Limited Experience	Never Do This
401. Implement management directives utilizing comprehensive knowledge of methods, materials and equipment used in the corrective maintenance, preventive maintenance and construction of various types of electrical/instrumentation systems and components in water quality treatment plants, pumping stations and recycled water facilities.			
402. Apply comprehensive knowledge of confined space work entries and safety principles established by OSHA, NFPA (National Fire Protection Association) 70E and state safety orders to all aspects of electrical and instrumentation work, equipment and training of personnel.			
403. Professionally and effectively lead staff by managing employee schedules, assignment of tasks and responsibilities, training requirements, motivation, and performance evaluations, and other staffing functions.			
404. Manage a maintenance program through planning, budgeting and scheduling effective use of personnel, equipment and materials.			
405. Plan, organize, direct and control maintenance tasks associated with water treatment facilities, electrical and instrumentation systems and equipment.			
406. Using appropriate communications technology, effectively communicate verbal and written reports and technical information to maintenance, operations and management staff.			
407. Interpret and apply pertinent internal policies, federal, state, and local laws, codes and regulations such as safety and environmental protection to tasks associated with water treatment plant, pumping stations and recycled water facilities.			
408. Establish and maintain effective working relationships including relationships with staff from other agencies, a variety of government officials and the general public.			
409. Ability to oversee all processes associated with electrical and instrumentation circuits and control loops including planning, coordinating and implementing evaluations, modifications and designing.			
410. Manage all aspects of a project to completion including initiation, planning, executing, monitoring, and controlling.			
411. Direct all electrical and instrumentation resources used in water quality treatment plant, pump station and recycled water facilities.			
412. Prepare clear and concise reports of budgets, maintenance activities and operation of equipment.			
413. Mastery of wastewater math and electrical and instrumentation principles.			
Total Per Category			

You may want to focus your studying in the areas where you selected "Limited Experience" or "Never Do This". See Electrical & Instrumentation Technologist Candidate Handbook.

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