



International Labour Organization  
Organisation internationale du Travail  
Organización Internacional del Trabajo

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***Updating the  
International Standard Classification of Occupations (ISCO)***

***Draft ISCO-08 Group Definitions:  
Occupations in Energy***

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# ISCO-08 Draft Definitions - Energy

## ISCO 08 Code

**3131**

## Title EN

## Power production plant operators

### Lead Statement

Power-production plant operators operate, monitor and maintain switchboards and related equipment in electrical control centres which control the production and distribution of electric or other power in transmission networks. The equipment operated includes reactors, turbines, generators and other auxiliary equipment in electrical power generating stations.

### Task statement

Tasks include:

- (a) operating, monitoring and inspecting various types of energy generating power plants; operating and controlling power generating systems and equipment including boilers, turbines, generators, condensers, and reactors in hydro, thermal, coal, oil, natural gas, and nuclear power plants to generate and distribute electrical power;
- (b) cleaning and maintaining equipment such as generators, boilers, turbines, pumps, and compressors in order to prevent equipment failure or deterioration;
- (c) controlling start-up and shut-down of power plant equipment, controlling switching operations, regulating water levels and communicating with systems operators to regulate and co-ordinate transmission loads, frequency and line voltages;
- (d) taking readings from charts, meters and gauges at established intervals, troubleshooting and performing corrective action as necessary;
- (e) completing and maintaining station records, logs and reports, and communicating with other plant personnel to assess equipment operating status.

### Included occupations

Examples of the occupations classified here:

- electric power plant operator
- hydroelectric power plant operator
- nuclear power plant operator
- solar power plant operator
- Distribution control operator
- Generating station operator
- Power system operator

### Excluded occupations

8182 Steam engine and boiler operators

### Notes

## ISCO 88 Code(s)

8161

**ISCO 08 Code****3132****Title EN****Incinerator and water treatment plant operators****Lead Statement**

Incinerator and water-treatment plant operators monitor and operate computerized control systems and related equipment in wastewater, sewage treatment and liquid waste plants to regulate the treatment and disposal of sewage and wastes, and in water filtration and treatment plants to regulate the treatment and distribution of water

**Task statement**

Tasks include:

- (a) operating and monitoring computerized control systems, machinery and related equipment in wastewater treatment, sewage treatment and liquid waste plants to regulate flow, treatment and disposal of sewage and wastes; and in water filtration and treatment plants to regulate the treatment and distribution of water for human consumption and for later disposal into natural water systems;
- (b) inspecting equipment and monitoring operating conditions, meters, filters, chlorinators, and gauges to determine load requirements and detect malfunctions;
- (c) monitoring and inspect plant equipment and systems to detect equipment malfunctions and to ensure plant systems are operating normally;
- (d) collecting and testing water and sewage samples for chemical and bacterial content, using test equipment and colour analysis standards;
- (e) analyzing test results to make adjustments to plant equipment and systems to disinfect and deodorize water and other liquids;
- (f) performing security checks in plant and on grounds;
- (g) completing and maintaining plant logs and reports.

**Included occupations**

Examples of the occupations classified here:

- incinerator/refuse disposal operator
- pumping-station/water operator
- water purification plant operator
- liquid waste process operator
- sewage plant operator
- waste water operator
- water treatment plant operator

**Excluded occupations****Notes****ISCO 88 Code(s)**

8163

**ISCO 08 Code****8182****Title EN****Steam engine and boiler operators****Lead Statement**

Steam-engine and boiler operators maintain and operate various types of steam engines, boilers, turbines and auxiliary equipment to provide power and other utility services for commercial, industrial and institutional buildings, at work sites and aboard ships or self-propelled vessels.

**Task statement**

Tasks include:

- (a) operating, cleaning, lubricating and monitoring steam engines, boilers and auxiliary equipment such as pumps, compressors and air-conditioning equipment to supply and maintain steam and power for buildings, marine vessels or pneumatic tools;
- (b) analyzing and recording instrument readings, troubleshooting and performing minor repairs to prevent equipment or system failure;
- (c) monitoring and inspecting performance of equipment for efficient operation and ensuring boiler water, chemical, and fuel levels are maintained at required levels;
- (d) firing coal furnaces by hand or with stokers and gas- or oil-fed boilers, using automatic gas feeds or oil pumps;
- (e) testing boiler water quality or arrange for testing, adjusting and taking necessary corrective action, such as adding chemicals to prevent corrosion and harmful deposits;
- (f) monitoring ship's engine, machinery and equipment indicators, recording variables and reporting abnormalities to ship engineer officer on watch;
- (g) operating and maintaining off-loading liquid pumps and valves.

**Included occupations**

Examples of the occupations classified here:

- Boiler tender
- Ship's boiler operator
- Stationary engineer
- Steam engine operator,
- Stoker
- Thermal plant operator

**Excluded occupations**

- 8189 Stationary plant and machine operators not elsewhere classified
- 8350 Ship's deck crews and related workers

**Notes****ISCO 88 Code(s)**

8162, part