1. Reads technical drawings such as standard blueprints in order to determine the appropriate material and quantity needed to place purchase orders.

2. Lists parts and materials on documents such as a control sheet in order to keep track of the job in progress.

3. Cuts steel using tools such as a power band saw, hydraulic plate shear, ironworker or hot saw in order to obtain desired lengths and shapes of steel.

4. Transfers blueprint dimensions onto steel members and shapes using tools such as a soapstone, tape measure and square (layout) in order to fabricate according to the print.

5. Drills, punches, blocks, copes and grinds steel members using tools such as a drill, punch, ironworker, cutting torch, or grinder in order to build parts necessary for jobs.

6. Fits steel pieces such as i-beams together manually in order to be welded or bolted as necessary.

7. Marks steel pieces such as i-beams or girders using a steel stencil in order to properly identify steel pieces used by erection crews.

8. Writes galvanizing list (on a form) with information as quantity, description and weight of the part(s) to be galvanized in order to supply galvanizer with such information.

9. Sorts, inspects and paints stencils with information such as the piece number and job number and parts returned from the galvanizer in order to separate and identify parts for individual jobs.

10. Straightens steel pieces such as plates in order to fix deformities caused by the galvanizing process using a hydraulic press.

11. Bands steel pieces such as handrails together by job number in order to prepare for shipment.

12. Repairs or replaces steel members and shapes such as gates, machine parts, handrails, ladders, trucks and trailers in order to fulfill requests made by various operating divisions.

13. Performs field inspections at locations such as job sites in order to determine the job conditions, manpower required for the job, and equipment and materials needed.

14. Selects proper slings for use in rigging machinery such as generator covers or generators in order to safely relocate/transport them.

15. Attaches rigging to equipment such as a crane hook in order to safely lift objects.
16. Directs crane operator using means of communication such as standard rigging hand signals or hand-held radios in order to lift pieces safely and move to designated locations.

17. Selects proper rigging and directs crane operator to invert structural elements such as turbine cases or diaphragms in order to sandblast, inspect or repair such equipment as necessary.

18. Removes bolting on generating plant equipment such as turbines using a sledgehammer, slugging wrench or cutting and heating torch as necessary in order to access areas for maintenance and/or repair.

19. Erects scaffolding in order to gain access to equipment and/or places otherwise out of reach such as electrical transformers in order to safely work on generating equipment.

20. Cuts hand railing using tools such as an oxyacetylene torch in order to gain access to areas that require maintenance, and replaces hand railing after job is completed.

21. Grinds structural steel members such as i-beams, as necessary, using a portable hand-held grinder in order to prepare the members for welding.

22. Loads and unloads vehicles and storage containers such as trucks or semi-trailers in order to transport equipment.

23. Moves steel pieces in and out of the sandblasting area using equipment such as a forklift in order to make pieces accessible to crew members.

24. Measures dimensions of projects using measuring devices such as tape measures or builder’s levels in order to accurately install structures and verify accuracy.

25. Determines quantity and availability of materials such as structural steel, either by visual check or by using an inventory, in order to procure necessary supplies for projects.

26. Installs structural steel members at field site or in shop using tools/equipment such as drills, roto-hammers, slaver bards, chain falls, hoists or tuggits in order to complete jobs as requested.

27. Welds structural steel components using techniques such as shielded metal arcs in order to maintain compliance with City and Department of Water and Power codes.

28. Acts as lead person for peers such as crew or team members, as needed, in order to provide general direction and ensure efficient completion of established objectives.