

ILLINOIS DEPARTMENT OF CENTRAL MANAGEMENT SERVICES
CLASS SPECIFICATION

REPRODUCTION SERVICE TECHNICIAN SERIES

<u>CLASS TITLE</u>	<u>POSITION CODE</u>
REPRODUCTION SERVICE TECHNICIAN I	38203
REPRODUCTION SERVICE TECHNICIAN II	38204
REPRODUCTION SERVICE TECHNICIAN III	38205

Effective: 4-16-89

SERIES DISCUSSION:

The Reproduction Service Technician series encompasses positions engaged in high volume reproduction of quality printed materials. Reproduction Service Technicians engage in the operation of a range of equipment including offset and/or direct process duplicators, as well as such support equipment as folders, binders, collators, plate makers, process cameras, film developers, inserters, labelers to produce a diversity of products including letterhead, pamphlets, forms, brochures, and envelopes. Such activities involve the use of paper stock varying in weight and may include the production of half tones, duotones, and multicolor work.

In addition to positions engaged in offset press shop operations, this series includes Quick Copy Center operators engaged in high volume print reproduction activities. Such positions not only operate high volume xerographic (electrostatic) copiers, but also operate an array of peripheral equipment including folders, cutters, padders, inserters, and binders, and may operate other non-offset duplicators (e.g., Diazo).

Specifically excluded from this series are those positions engaged in and limited to the operation of lesser volume xerographic copiers (typically characterized as user friendly) which may include a limited array of attached accessories, such as collators and staplers. Such positions should be allocated to other clerical classes.

The Reproduction Service Technician series includes those positions which serve in a leadership capacity over other Reproduction Service Technicians. However, positions vested with full line supervisory responsibilities are excluded from this series; the Reproduction Service Supervisor classes encompass supervisory positions in offset shop operations.

DEFINITION OF TERMS:

The principal function of Reproduction Service Technicians is aligned with equipment operation. Although lower level functions may be performed on more sophisticated equipment, in many cases the type of equipment operated serves as an indicator of position complexity and decision making responsibility. The following description of equipment-related specification terms is provided to clarify level distinctions within the series.

DEFINITION OF TERMS (Continued)

Large Production Xerographic and Other Direct Process Duplicators - Large production xerographic duplicators require skill (2 days of training from the manufacturer is typically required) in the set up (programming), utilization of options, and maintenance. Diazo duplicators are utilized for the reproduction of large scale maps, engineer plans, and other complex line drawings where exacting reproduction is critical. Although such equipment may not be considered high volume, it is included here due to the skill required to adjust development times and imaging for exacting copies. Skill is required in the operation and set up of the equipment. However, it is considered lower in level to that required in the operation of complex peripheral, dark room or offset press equipment. This is primarily due to the level of automation found in xerographic equipment which significantly limits skill requirements of the operator in setting up, monitoring and adjusting the equipment during copy runs.

Peripheral Equipment - In the production of printed materials, peripheral equipment is used to collate, bind, insert, fold, trim, drill, and package printed materials, and is commonly referred to as bindery equipment. The complexity of operating such equipment is related to functional capabilities of the machine and subsequent job set up and adjustment requirements. Basic peripheral equipment includes drills, padders, cutters, stitchers, wrappers, collators, mail inserters and single phase folders. Such equipment is considered basic as it requires a minimum amount of set up and adjustment and typically performs a single operation per pass through the machine. Complex peripheral equipment includes multi-stage folders, collators and binders requiring skill in performing the multiple steps and checks involved in the set up and adjustment for a particular job run. Multi-stage equipment, where multiple operations are conducted per pass through the machine (e.g., double fold; collate, fold and stitch) requires skill in the set up, alignment and timing of products through the machine.

Darkroom and Plate Making Equipment - Offset presses do not copy directly from the original, but instead require that the image from the original be transferred to an offset plate. This plate is then placed on an offset press for the production of copies. The production of offset plates may be fully automated, or semi-automated (requiring various manual steps in the production of a plate). Fully automated systems are typically limited to line copy (typed material, line drawings); more sophisticated equipment may require adjustment of automated camera and developer settings or the use of separate camera and darkroom equipment. Darkrooms are used to photograph the original and develop a film negative. The developed negative is stripped (placed) on a flat (a sheet of goldenrod with markings indicating the exact placement for transfer to the plate). The flat is then placed in a plate developer which transfers the image from the negative onto an offset plate. Each of the steps indicated in these processes are highly critical in producing exacting copies of the original. A high level of skill is required in calculating and adjusting for proper camera settings (exposure time, lens opening, reduce or enlarge settings, etc.), subsequent developing of the film and plate, and measuring and aligning materials for placement on the flat and plate developer.

DEFINITION OF TERMS (Continued)

Offset Presses - Operations of offset presses range from basic operation of a single head (machine part housing ink and water distributors and the plate cylinder) sheet fed press in the production of single color, line copy to the highly complex operation of large multi-tower web fed (paper rolls) presses in the production of two sided multiple color, half tone, or duotone work. Multiple color work involves the process of printing more than one color onto one side of a sheet; half tones refer to reproduction of photographs; duotones, the reproduction of photographs in two colors. Regardless of whether the operation involves single or multiple head sheet fed presses, high speed dual impression envelope presses, small two tower web fed presses or automated offset press systems, a high level of skill is required to operate such equipment. Such skill is necessary for the many measurements and adjustments performed in machine set up and job run including; setting paper feed, roller, cylinder and blanket pressures and timing; water and ink balance, plate cylinder registration and press run speed.

Large Multi-Tower Web Press (Multi-Tower 17" Web Press) - The most complex of offset presses, requires a level of skill significantly higher than is required to operate other types of offset shop equipment. Such skill is required due to the size of the machine (20 feet long or more) and the number of additional components operated including three or more printing towers, a tinting tower, and various finisher towers including numberers, perforators and slitters. The size and multiple components require the operator to make accurate and speedy decisions to identify and correct malfunctions and errors with minimal supply loss, and assure quality production on a high volume basis.

Duotone and Color Process Work - The printing of color photographs and other materials containing tone variations, using more than one ink for each of the color and shades to be included in the final product. The process involves multiple impressions (overlays) being placed on the same side of the page, one for each of the inks required (a single color reproduction is referred to as a half tone). Photographs reproduced by the offset method do not contain lines of information (such as a typed page), but instead are comprised of a series of dots which differ in size depending on the gradation of tones in the original. Process work is complex, and requires a high level of skill in determining proper overlay sequence, assuring proper dot and ink density and color, and assuring proper color to color registration and evenness of each color across the page. Detailed sample inspection using magnifying and other inspection instruments and necessary machine adjustments to assure quality output on a production basis are performed.

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REPRODUCTION SERVICE TECHNICIAN I

POSITION CODE: 38203

DISTINGUISHING FEATURES OF WORK:

Under immediate supervision, serves as an agency's Quick Copy Center operator; or, where offset press operations are present, operates basic peripheral equipment and/or receives training in the operation of the more complex equipment including offset presses, darkroom and plate making equipment, and complex multi-stage peripheral equipment. Positions at this level are typically limited to the operation of lower level high volume reproduction equipment or receive training and gain skill in the operation of the more difficult offset shop equipment.

ILLUSTRATIVE EXAMPLES OF WORK:

1. Operates an agency's Quick Copy Center reproduction equipment; reviews job requests and determines production requirements including quantity, paper stock and bindery work; adjusts copy machine settings or programs, loads paper and initiates runs; operates collators, drills, stitchers and inserters, setting order of product, counters, page size, etc.; maintains equipment, cleans sensors, filters and screens, adds toners, fuser oil and developer.
2. Operates basic peripheral equipment as part of offset shop operations; cuts, drills, collates, pads, stitches and folds materials according to job order tickets; determines page order, calculates settings and makes necessary adjustments to the machine for page order, stitch, or drill hole placement, paper cut size, etc.; prepares product for shipment, operates shrink wrapper, boxes finished product and labels for return to originator; completes job ticket indicating completion.
3. Receives training in the operation of the more complex offset shop equipment including multi-stage peripheral equipment, offset presses and/or darkroom and plate making equipment; acquires knowledge regarding the proper use of various chemicals used in offset operations including film and plate developers, inks, cleaning and preserver solutions; gains skill in the set up, monitoring, adjustment and maintenance of equipment; receives instruction regarding methods used to calculate such items as film exposure and developer times, offset press feeder, register, pressure, speed, and ink and water settings; gains skill in determining and making necessary adjustments to correct product errors.
4. Completes necessary logs and forms indicating job completion and production counts; prepares Quick Copy Center production, maintenance and supply reports.
5. Receives orientation and instruction regarding general Quick Copy Center or offset press shop procedures, and chemical and equipment safety.
6. Performs other duties as required or assigned which are reasonably within the scope of those enumerated above.

REPRODUCTION SERVICE TECHNICIAN I (Continued)

DESIRABLE REQUIREMENTS:

Education and Experience

Requires knowledge, skill and mental development equivalent to the completion of high school.

Knowledges, Skills and Abilities

Requires elementary knowledge of office practices and procedures.

Requires elementary knowledge of math.

Requires elementary knowledge of mechanical equipment operation principles and safety procedures.

Requires ability to follow oral and written instructions.

Requires ability to lift and move 50 pound paper cartons.

Requires skill and dexterity in the operation of mechanical equipment.

REPRODUCTION SERVICE TECHNICIAN II

POSITION CODE: 38204

DISTINGUISHING FEATURES OF WORK:

Under direct supervision, at a journey level, operates complex offset shop equipment which may include offset presses, darkroom and plate making equipment and/or complex peripheral equipment; or, serves as a lead worker to Reproduction Service Technicians engaged in Quick Copy Center operations. Positions at the journey level determine project needs and output quality while operating and monitoring highly sophisticated equipment in the production of letterhead, booklets, posters, business cards, envelopes and other work which may involve half tones, multicolor line and other close registration work; Quick Copy Center lead workers assign, review, and monitor work activities of Reproduction Service Technicians operating high volume xerographic and associated peripheral equipment.

ILLUSTRATIVE EXAMPLES OF WORK:

1. Operates offset presses, including single head or multi-head sheet fed, high speed envelope or small, two tower web fed presses; produces line, half tone, and multi-color line work; reviews work order, determines paper and ink types and colors; fills ink and water solution reservoirs, paper feed tray, and mounts reproduction plate on plate cylinder; checks for proper feeder settings, water and ink distribution, pressure settings, plate alignment, blanket pressure, and press speed; performs test run and makes adjustments to correct for quality output on a production basis; tears down and cleans machine after job run.
2. Operates complex multi-stage peripheral equipment as part of offset shop operations; determines project needs and assures output quality; makes necessary calculations and collates, folds, perforates, trims, and inserts in accordance with the job request; makes various adjustment settings to the multi-stage equipment including pressure and gripper settings, and assures perfect alignment of the product through the various stages of the machine process.
3. Operates dark room and offset plate making equipment; calculates reduction/enlargement proportions, camera aperture and timer settings; focuses original and shoots; develops film, measuring, mixing and preparing developer, stop rinse and fixer solutions; immerses exposed film according to predetermined time limits or gray scale settings; places negative on light table and opaques image defects; attaches negative to masking sheet, measuring and marking for squareness, position, and proper registration; cuts necessary windows, scribes lines and reference points; positions unexposed plate and flat on plate developer (burner) and develops according to gray scale or other predetermined timing method; coats plate with gum preserver solution.
4. Performs the full range of printing functions in a small offset shop; reviews job request, prepares offset plate, operating and performing necessary darkroom and plate making functions; sets up and operates the offset press; subsequently performs necessary bindery work, cutting, collating, folding, stitching, padding, and packaging the finished product for return to the requester; performs necessary maintenance and repair.

REPRODUCTION SERVICE TECHNICIAN II (Continued)

5. As a designated lead worker to Quick Copy Center staff, assigns, reviews, and controls subordinate work on an ongoing basis; coordinates production assignments; provides guidance and direction to staff; provides input to line supervisor for subordinate performance evaluations.
6. Performs equipment repair and maintenance functions; uses various chemicals to clean and lubricate moving parts as indicated by manuals or shop procedures; replaces such items such as blankets, rollers, grippers, feeders, chains, cylinders and gears according to specifications.
7. Discusses printing needs and priorities with the requester; completes necessary job logs and production reports; completes and submits supply requests to the immediate supervisor; recommends equipment purchases.
8. Performs other duties as required or assigned which are reasonably within the scope of those enumerated above.

DESIRABLE REQUIREMENTS:

Education and Experience

Requires knowledge, skill and mental development equivalent to the completion of high school, supplemented by one year of experience in the print reproduction trade.

Knowledges, Skills and Abilities

Requires working knowledge of offset press, bindery, darkroom and/or direct process duplicator (e.g., xerographic) equipment principles, operations, maintenance and repair procedures.

Requires working knowledge of paper stocks and weights, ink types and printing chemicals used in offset or quick copy operations.

Requires working knowledge of shop safety procedures.

Requires elementary knowledge of math.

Requires skill in the operation of complex equipment to produce quality materials on a production basis.

Requires ability to follow oral and written instructions.

Requires ability to recognize production errors and correct with limited waste of materials.

May require ability to provide leadership, guidance, instruction and training to lower level Reproduction Service Technicians.

REPRODUCTION SERVICE TECHNICIAN III

POSITION CODE: 38205

DISTINGUISHING FEATURES OF WORK:

Under general supervision, serves as a specialist, coordinating the activities of lower level Reproduction Service Technicians engaged in offset shop operations; or, operates multi-tower 17" web fed presses or, operates an offset press in the production of duotone or color process work; may serve as a lead worker to positions engaged in offset shop operations. Positions at this level hold leadership responsibility for the work activities of others, or perform the most difficult shop procedures (operation of a multi-tower 17" web fed press or production of process work).

ILLUSTRATIVE EXAMPLES OF WORK:

1. Serves as a specialist, coordinating activities for an area (e.g., bindery, darkroom, or press operations) of a large offset press shop or for multiple areas of a smaller offset shop; as requested, assigns jobs to lower level Technicians and assures timely completion; directs staff regarding project needs and equipment to be used; advises staff and demonstrates methods of adjusting equipment for optimal production output; trouble shoots equipment malfunctions and corrects by making necessary adjustment or repairs.
2. Operates one or more large multi-tower web fed presses; reviews job order and sets up machine accordingly, fills necessary ink and water reservoirs; brings tinter, numberer, perforators, cutters and other mechanisms on-line in accordance with the request; adjusts roller, impression and blanket pressure settings, water and ink distributors, cylinder alignment and timing for each web tower; performs test run assuring proper web tension, registration across printing towers and alignment of finishing mechanisms; monitors job run and makes necessary adjustments for quality production at a high operating speed; tears down machine and cleans tower and accessory components; performs necessary maintenance and repairs.
3. Performs difficult shop operations; operates offset presses in the production of duotones and color process work requiring skill in performing detailed sample inspections to assure proper color to color registration, dot density and overall quality, making necessary machine adjustments to assure quality output on a production basis; produces negatives and plates of difficult detailed half tones, duotones and multicolor work.
4. Serves as a designated lead worker to lower level Reproduction Service Technicians engaged in offset shop operations; assigns, reviews and controls work assignments; provides guidance and direction to staff; advises supervisor concerning employee work performance; maintains necessary production control logs and records.
5. Serves as supervisor in the absence of the line supervisor; receives work order requests and coordinates job assignments according to staff availability and project priority; trouble shoots equipment malfunctions; discusses work order requirements and time frames with originator; advises supervisor of shop operations/problems encountered.

REPRODUCTION SERVICE TECHNICIAN III (Continued)

6. Completes and maintains production logs and records; maintains supply and equipment maintenance and repair records; orders supplies and/or notifies supervisor of needed supplies and equipment.
7. Performs other duties as required or assigned which are reasonably within the scope of those enumerated above.

DESIRABLE REQUIREMENTS:

Education and Experience

Requires knowledge, skill and mental development equivalent to the completion of four years of high school supplemented by three years of experience in the operation of offset presses, dark room or complex peripheral equipment, such as is typically gained by journey level Reproduction Service Technicians II.

Knowledges, Skills and Abilities

Requires extensive knowledge of offset press, bindery and/or darkroom equipment principles, operations, maintenance and repair procedures.

Requires extensive knowledge of paper stocks and weights, ink types, and chemicals used in offset shop operations.

Requires extensive knowledge of printing chemicals and their use.

Requires extensive knowledge of shop safety procedures.

Requires elementary knowledge of math.

Requires skill in the operation of equipment to produce quality materials on a production basis.

Requires ability to follow oral and written instructions.

Requires ability to recognize and correct complex operations errors and machine malfunctions.

Requires ability to provide leadership, guidance, instruction and training to lower level Reproduction Service Technicians.