

ILLINOIS DEPARTMENT OF CENTRAL MANAGEMENT SERVICES  
CLASS SERIES

RAILROAD SAFETY SERIES

CLASS TITLE	POSITION CODE
RAILROAD SAFETY SPECIALIST I	37601
RAILROAD SAFETY SPECIALIST II	37602
RAILROAD SAFETY SPECIALIST III	37603
RAILROAD SAFETY SPECIALIST IV	37604

Effective: 12-20-01

SERIES DISCUSSION:

The Illinois Commerce Commission is designated as the regulatory body for all intrastate and interstate rail carrier operations within Illinois (Illinois Vehicle Code, Chapter 95 1/2, Sub-chapter 7).

Positions classified into the Railroad Safety Series perform the professional, inspection, engineering, regulatory and enforcement functions necessary for the provision of quality rail services, and railroad and highway crossing safety.

The nature of the work requires extensive overnight travel and access to a personal vehicle at all times. Consequently, employees must maintain an appropriate valid driver's license. Employees must also be in reasonable physical condition, as the duties require long periods of walking, in a wide variety of terrain and weather conditions.

On a rotational basis, employees, at any level in the series may be required to serve as duty officer or first responder ("chaser").

The "Duty Officer" role involves the receipt of rail accident/incident reports and the contact of appropriate personnel (chasers) for first response. The "chaser" (serving as a 24-hour contact) investigates hazardous material incidents, accidents, and derailments. These first responders: 1) determine the scope and severity of the incident, 2) coordinate the emergency response with other state and local agencies, and 3) assist authorities with the clean-up. In addition, employees may be called upon to serve as an expert witness in formal/informal hearings concerning violations, incidents, closures or improvements to track, grade crossings, bridges or other facilities.

The employing agency is responsible for the screening of applicants and the filling of vacant positions. The requirements sections in this series, set forth the general background sought. Individual positions may require knowledges, skills, or abilities unique to the specific position.

RAILROAD SAFETY SPECIALIST I

POSITION CODE: 37601

## DISTINGUISHING FEATURES OF WORK:

Under general supervision, performs routine field inspections and maintains the Railroad Safety Program record and data system for the Illinois Commerce Commission; responds to and coordinates Freedom of Information Act requests and subpoenas regarding railroad-highway crossing matters, including follow-up to clarify or eliminate discrepancies; functions as liaison to other agencies with regard to coordination of current information on track and rail crossing conditions, and hazardous material transportation in the State; drafts stipulated agreements and orders; makes Operation Lifesaver presentations to students, civic groups and organizations, provides materials and works with presenters in scheduling presentations.

## ILLUSTRATIVE EXAMPLES OF WORK:

1. Maintains the section's computerized data system for track and rail crossing conditions and hazardous material transportation data; utilizing held information, prepares various statistical reports and documents as requested from program management; reviews files and reports routed, and resolves discrepancies.
2. Attends Stipulated Agreement meetings; drafts formal letters, memoranda, orders, and Stipulated Agreements; responds to inquiries for information and assistance from attorneys, local government agencies, and the public; responds to Freedom of Information Act requests and subpoenas.
3. Completes field inspections and investigations; prepares reports on crossing complaints; surveys rail crossings for grade improvements and submits recommendations.
4. As assigned, functions as duty officer; receives accident/incident reports; contacts appropriate specialist ("chaser") and dispatches the "chaser" to the accident/incident site.
5. Functions as liaison with other agencies; coordinates information and exchanges data with other state and federal agencies; makes necessary adjustments to held data.
6. Performs other duties as required or assigned which are reasonably within the scope of those duties enumerated above.

## RAILROAD SAFETY SPECIALIST I (Continued)

## DESIRABLE REQUIREMENTS:

Education and Experience

Requires knowledge, skill and mental development equivalent to the completion of four years of college, preferably with coursework in engineering or a related field (4 years experience in the railroad safety field will substitute for the required college).

Knowledge, Skills and Abilities

Requires thorough knowledge of Illinois Vehicle Code (Chapter 95 1/2, paragraph 18c), 92 Ill. Adm. Code 1535 and 92 Ill. Adm. Code 1515.

Requires working knowledge of computers for the purpose of input, maintenance, and control of data, and report generation, pertaining to the Commission's crossing information system.

Requires working programming skills for generating new computer programs.

Requires ability to perform field investigations and apply Commission administrative codes to complaints and requests for crossing warning systems.

Requires ability to maintain satisfactory working relationships with railroad officials, local authorities, and other state agencies.

RAILROAD SAFETY SPECIALIST II

POSITION CODE: 37602

**DISTINGUISHING FEATURES OF WORK:**

Under direction, performs professional inspections related to the proper identification, handling, and transportation of hazardous materials; or performs railroad grade crossing inspections and grade separation investigations; or inspects railroad track for compliance with state and federal standards and regulations; reviews and investigates railroad operations, complaints, inquiries, accidents and fatalities; testifies in formal proceedings as needed; reviews carrier held records for accuracy/compliance and prepares correspondence, statistical and investigatory reports; drafts stipulated agreements, orders and reports concerning railroad safety matters.

**ILLUSTRATIVE EXAMPLES OF WORK:**

1. Inspects rail carrier facilities and operations associated with shipments of hazardous materials; verifies condition of cars transporting hazardous materials; examines cars for proper placarding and positioning in the train; applies federal and state regulations and standards during inspections.
2. Observes humping operations (car switching facilities located in uneven terrain) and flat switching of cars containing hazardous materials; watches for equipment malfunctions; issues railroad violation notices; notifies authorities of negligent findings, or corrective actions needed.
3. Examines waybills, bills of lading, switch lists, wheel reports (carrier's list of cars to be added to or switched out of the train), notifications of the car position of hazardous materials and shipping papers; determines accuracy of records; prepares and analyzes violations and accident reports; reviews railroad reports and documents; prepares statistical reports.
4. Attends hazardous material seminars; attends and conducts railroad hazardous materials presentations for railroad personnel and public emergency response officials; coordinates efforts with other agencies and the public to promote understanding of, and compliance with hazardous material regulations.
5. Prepares information for, and testifies at, formal and informal Commission public and legal proceedings as an expert witness concerning proposed projects, railroad violations, accidents, policies and technical matters involving railroad hazardous materials operations.
6. Participates in grade crossing and grade separation investigations; completes vehicular traffic surveys, directional traffic studies and surveys and physical layout of the area surrounding particular crossing(s); prepares charts, graphs and diagrams illustrating the results under study and proposed safety recommendations; participates in formal hearings concerning grade crossing and bridge closures/improvements.

## RAILROAD SAFETY SPECIALIST II (Continued)

7. Meets with railroad representatives, local officials and highway authorities to resolve controversies arising from rail safety issues; assists with programs to promote public awareness of safety, at rail-highway crossings; attends workshops and seminars; reviews detailed estimates of costs for rail-highway crossing improvements; negotiates cost divisions for Stipulated Agreements within agency policy directives; prepares Stipulated Agreements and Commission Orders for Issuance.
8. Assists higher level track, hazardous materials and crossing warning device inspectors; investigates and analyzes the cause of train accidents, derailments and other incidents, including those resulting in fatalities; recommends remedial measures; conducts accident surveys, including track measurements, photographs and drawings.
9. Performs other duties as required or assigned which are reasonably within the scope of those duties enumerated above.

## DESIRABLE REQUIREMENTS:

Education and ExperienceProgram Options:

- 1) Hazardous Materials  
Requires a bachelor of science degree in chemistry or a related field; equivalent experience in the chemical or railroad industries may be substituted for the degree requirement on a one-year-for-one-year basis.  
Requires Federal Railroad Administration certification as a Certified Hazardous Materials Inspector within two years of date of hire.
- 2) Track Safety  
Requires a bachelor of science degree in engineering or the equivalent. Four years related experience may be substituted for a college degree.  
Requires Federal Railroad Administration certification as a Certified Track Inspector within two years of date of hire.
- 3) Grade Crossing  
Requires a bachelor of science degree in engineering or a related technical field.
- 4) Crossing Warning Devices  
Requires a bachelor of science degree in engineering or a related technical field; five years experience in railroad signal construction or maintenance may be substituted for the education requirement.  
Requires certification by the Federal Railroad Administration as a Certified Highway-Rail Grade Crossing Inspector within two years of date of hire.

## RAILROAD SAFETY SPECIALIST II (Continued)

Knowledge, Skills and AbilitiesProgram Options1) Hazardous Materials

Requires working knowledge of federal hazardous material regulations, Illinois Commercial Transportation Law and Illinois Commerce Commission regulations.

Requires working knowledge of chemical agents and precautionary measures sufficient to protect self and others in the event of a hazardous materials accident/incident.

Requires ability to recognize safety defects in the transport of hazardous materials.

Requires ability to prepare charts, graphs, and diagrams for the preparation of detailed surveys and reports.

Requires ability to complete additional training resulting in Certified Inspector status, as a condition of continued employment.

Requires ability to collect and review data and field information in order to render preliminary findings, conclusions and recommendations both informally and at formal hearing.

Requires ability to utilize personal computers to create and manage computer databases and generate reports.

Requires ability to establish and maintain working relationships with fellow employees, the public, local and state authorities, Federal Railroad Administration and railroad employees.

Requires ability to communicate effectively in English both orally and in writing.

2) Track Safety

Requires working knowledge of track inspection techniques, track maintenance methods and track equipment.

Requires ability to recognize track safety defects.

Requires ability to prepare charts, graphs, and diagrams for the preparation of detailed surveys and reports.

Requires ability to complete additional training resulting in Certified Inspector status, as a condition of continued employment.

Requires ability to collect and review data and field information in order to render preliminary findings, conclusions and recommendations both informally and at formal hearing.

Requires ability to utilize personal computers to create and manage computer databases and generate reports.

Requires ability to establish and maintain working relationships with fellow employees, the public, local and state authorities, Federal Railroad Administration and railroad employees.

Requires ability to communicate effectively in English both orally and in writing.

## RAILROAD SAFETY SPECIALIST II (Continued)

3) Grade Crossing

Requires working knowledge of crossing surface construction and automatic crossing warning devices.

Requires ability to recognize grade crossing safety defects.

Requires ability to prepare charts, graphs, and diagrams for the preparation of detailed surveys and reports.

Requires ability to communicate effectively in English both orally and in writing.

Requires ability to understand and apply Commission policies on selection of crossing improvement projects and cost allocations.

Requires ability to collect and review data and field information in order to render preliminary findings, conclusions and recommendations both informally and at formal hearings.

Requires ability to utilize personal computers to create and manage computer databases and generate reports.

Requires ability to establish and maintain working relationships with fellow employees, the public, local authorities, Federal Railroad Administration and railroad employees.

4) Crossing Warning Devices

Requires working knowledge of electricity and the ability to use electrical test equipment in direct current and alternating current circuits.

Requires working knowledge of highway-rail grade crossing inspection and maintenance methods and procedures.

Requires ability to recognize grade crossing safety defects.

Requires ability to prepare charts, graphs, and diagrams for the preparation of detailed surveys and reports.

Requires ability to complete additional training resulting in Certified Inspector status, as a condition of continued employment.

Requires ability to collect and review data and field information in order to render preliminary findings, conclusions and recommendations both informally and at formal hearings.

Requires ability to utilize personal computers to create and manage computer databases and generate reports.

Requires ability to establish and maintain working relationships with fellow employees, the public, local and state authorities, Federal Railroad Administration and railroad employees.

Requires ability to communicate effectively in English both orally and in writing.

RAILROAD SAFETY SPECIALIST III

POSITION CODE: 37603

## DISTINGUISHING FEATURES OF WORK:

Under general direction, performs the most complex inspections, and provides additional training and work guidance to lower level railroad safety specialists in either the hazardous material, crossing warning device, track safety grade crossing or rail-highway bridge safety improvement programs; reviews grade crossing signal and control circuitry installation and modification plans for Commission approval; plans inspection itineraries; provides input on performance evaluations of less experienced specialists coordinates the preparation of testimony and recommendations.

## ILLUSTRATIVE EXAMPLES OF WORK:

1. Reviews the work of lower level specialists; investigates, and responds to, complaints from railroad employees, unions and the public.
2. Provides input on performance evaluations of less experienced specialists; reviews and prepares inspection reports, violation notices, Commission orders, Stipulated Agreements drafted for approval and issues recommendations; attends and conducts railroad safety seminars for railroad personnel and public emergency response officials.
3. As a federally certified track inspector, provides guidance, direction, and continued training to less experienced specialists; inspects track, via hi-rail equipment (vehicles adapted to travel on railroad track) or on foot; inspects to determine proper operation and compliance with Federal Railroad Administration Track Safety Standards; investigates compliance and respond to inquiries concerning unsafe/defective trackage.
4. As a federally certified operating practices inspector, conducts inspections for the purpose of determining compliance with all sections of the Federal operating practice regulations and the Hours of Service Act, to make reports of those inspections, and to recommend the institution of enforcement actions when appropriate to promote compliance.
5. As a federally certified Hazardous Materials Inspector, provides guidance, direction, and continued training to less experienced specialists; conducts transportation facility inspections of private shipping and consignee facilities, to ensure compliance with loading/unloading procedures; inspects rail cars, facilities, and containers for proper marking, stenciling, placarding, technical and safety defects, valve and tank test dates; reviews carrier' documentation and maintains records of inspections; investigates the cause(s) of hazardous material accidents, determines the extent of damages, recommends remedial measures, necessary repairs and proper clean-up procedures.

## RAILROAD SAFETY SPECIALIST III (Continued)

6. Testifies as an expert witness at formal Commission public and legal proceedings concerning proposed projects, railroad violations, accidents, policies and technical matters involving railroad hazardous materials operations; receives depositions from involved parties in preparation for violation cases.
7. Directs and promotes the Operation Lifesaver Program; meets with industry, government, labor and safety groups devoted to reducing accidents, improving grade crossings, and resolving controversies rising from rail safety issues; assists with programs to promote public awareness of the safety, at rail-highway crossings; attends workshops and seminars.
8. Attends field meetings and testifies as an expert witness in connection with grade crossing and grade separation matters including need for and type of warning devices, grade separation construction or reconstruction, reviews details of grade crossing warning devices for compliance with Commission regulations; reviews detailed estimates of costs for rail-highway crossing improvements and negotiates satisfactory cost divisions for stipulated agreements with Commerce Commission policy.
9. Performs railroad crossing signal inspections for compliance with Federal Railroad Administration grade crossing signal maintenance rules; reviews interconnected railroad crossing devices with traffic signals; recommends changes/alteration of crossing warning devices and controls.
10. Performs field inspections of rail/highway grade separations (bridges) relating to the structural integrity, maintenance requirements and sufficiency rating of existing bridges; prepares written reports on bridge condition, recommendations for improvements/renewal/repairs and correspondence to implement same; prepares and presents testimony in Commission formal cases regarding bridge safety either separately or in conjunction with other grade crossing and/or bridge closures and/or improvements; prepares Commission stipulated agreements and Commission orders relating to same.
11. Performs other duties as required or assigned which are reasonably within the scope of those duties enumerated above.

## RAILROAD SAFETY SPECIALIST III (Continued)

## DESIRABLE REQUIREMENTS:

Education and Experience

## Program Options:

- 1) Hazardous Materials  
Requires a bachelor of science degree in chemistry or a related field and two years recent experience in the railroad industry or hazardous materials industry; experience in the railroad industry or hazardous materials industry may be substituted for the degree requirement on a two-year-for-one-year basis.  
Requires Federal Railroad Administration certification as a certified hazardous materials inspector within six months of date of hire.
- 2) Track Safety  
Requires a bachelor of science degree in engineering or the equivalent and two years recent experience in the track maintenance field; experience within the railroad industry may be substituted for the college on a two-year-for-one-year basis.  
Requires Federal Railroad Administration certification as a certified track inspector within six months of date of hire.
- 3) Grade Crossing  
Requires a bachelor of science degree in engineering or a related field and four years progressively responsible experience in the railroad grade crossing safety field.
- 4) Crossing Warning Devices  
Requires a bachelors of science degree in engineering and at least two years of recent experience in highway-rail grade crossing construction or maintenance, or a bachelor's degree in an engineering related technical specialization and four years of recent experience in railroad-highway grade crossing construction or maintenance. Successful completion of an apprentice training program administered by the Federal Railroad Administration may be substituted for the four years of this experience requirement. Ten years railroad signal construction or maintenance experience, with at least five years at the level of signal supervisor or above may substitute for the education and experience requirement.  
Requires Federal Railroad Administration certification as a Highway Crossing Inspector within six months of date of hire. Current Federal Railroad Administration certification as a Signal and Train Control Inspector may be substituted for all of the foregoing.

## RAILROAD SAFETY SPECIALIST III (Continued)

5) Bridge

Requires a bachelor of science degree in engineering or a related field; also requires four years of progressively responsible experience in bridge maintenance/construction in the railroad safety field.

6) Operating Practices

Requires a bachelor of science degree in engineering or the equivalent and two years recent experience in developing or administering railroad operating rules; experience within the railroad industry may be substituted for the college on a two-year-for-one-year basis.

Requires Federal Railroad Administration certification as a certified operating practices inspector within six months of hire.

Knowledge, Skills and AbilitiesProgram Options:1) Hazardous Materials

Requires extensive knowledge of federal hazardous materials regulations, Illinois Commercial Transportation Law and Illinois Commerce Commission regulations.

Requires extensive knowledge of chemical agents and precautionary measures sufficient to protect self and others in the event of a hazardous materials accidents/incident.

Requires extensive knowledge of legal procedures and administrative proceedings related to railroad violations of hazardous material regulations.

Requires ability to direct less experienced personnel, review their work, provide training and assess performance.

Requires ability to collect and review data and field information in order to render preliminary findings, conclusions and recommendations both informally and at formal hearing.

Requires ability to utilize personal computers to create and manage computer databases and generate reports.

Requires ability to establish and maintain working relationships with fellow employees, the public, local and state authorities, railroad and Federal Railroad Administration employees.

Requires ability to communicate effectively in English both orally and in writing.

2) Track Safety

Requires extensive knowledge of Federal Railroad Administration Track Safety Standards, Illinois Commercial Transportation Law and Illinois Commerce Commission regulations.

Requires extensive knowledge of track inspection techniques, track maintenance methods and equipment.

## RAILROAD SAFETY SPECIALIST III (Continued)

2) Track Safety (Continued)

Requires ability to oversee less experienced personnel, review their work, provide training and assess performance.

Requires ability to collect and review data and field information in order to render preliminary findings, conclusions and recommendations, both informally and at formal hearing.

Requires ability to utilize personal computer to create and manage computer databases and generate reports.

Requires ability to establish and maintain working relationships with fellow employees, the public, local and state authorities, railroad and Federal Railroad Administration employees.

Requires ability to communicate effectively in English both orally and in writing.

3) Grade Crossing

Requires extensive technical knowledge concerning the design, installation and maintenance of grade crossing signal and control circuitry systems.

Requires extensive technical knowledge concerning the design and construction and reconstruction of grade separation structures, connecting roads to access grade crossings and crossing surfaces.

Requires extensive knowledge of the Illinois Commercial Transportation Law and Illinois Commerce Commission regulations.

Requires ability to oversee less experienced personnel, review their work, provide training and assess performance.

Requires ability to collect and review data and field information in order to render preliminary findings, conclusions and recommendations both informally and at formal hearings.

Requires ability to understand and apply Commission policies on selection of grade crossing improvement projects and cost allocations.

Requires ability to utilize personal computers to create and manage computer databases and generate reports.

Requires ability to establish and maintain working relationships with fellow employees, the public, local and state authorities, railroad and Federal Railroad Administration employees.

Requires ability to communicate effectively in English both orally and in writing.

4) Crossing Warning Devices

Requires extensive knowledge of highway-rail grade crossing nomenclature, inspection techniques, maintenance requirements, and methods.

Requires extensive knowledge of the requirements of Federal Railroad Administration Grade Crossing Signal System Safety Rules, including the remedial action required to bring highway-rail grade crossing signal systems into compliance with those rules.

## RAILROAD SAFETY SPECIALIST III (Continued)

4) Crossing Warning Devices (Continued)

Requires extensive knowledge of railroad signal systems sufficient to ensure that highway-rail grade crossing warning systems and inspections of those systems do not adversely affect the safety of railroad signal systems.

Requires working knowledge of highway-rail grade crossing standards contained in the Manual on Uniform Traffic Control Devices and the Commission's rules.

Requires ability to understand and detect, and ability to recognize the safety significance of, deviations from crossing signal system maintenance, inspection and testing standards and the Federal Railroad Administration Grade Crossing Signal System Safety Rules.

Requires ability to oversee less experienced personnel, review their work, provide training and assess performance.

Requires ability to collect and review data and field information in order to render preliminary findings, conclusions and recommendations both informally and at formal hearings.

Requires ability to understand and apply Commission policies on selection of grade crossing improvement projects and cost allocations.

Requires ability to establish and maintain working relationships with fellow employees, the public, local and state authorities, railroad and Federal Railroad Administration employees.

Requires ability to communicate effectively in English both orally and in writing.

5) Bridge

Requires extensive knowledge of the Illinois Commercial Transportation Law and Illinois and Illinois Commerce Commission Regulations.

Requires extensive knowledge of bridge design, construction and maintenance which qualifies incumbent to review and inspect bridges to assure safety and recommend necessary maintenance or reconstruction.

Requires working knowledge of crossing surface construction and automatic crossing warning devices.

Requires the ability to perform inspections of bridges and prepare written reports on the condition of bridges.

Requires the ability to prepare comprehensive reports, correspondence, stipulated agreements and orders dealing with improvement/replacement of rail/highway bridges and/or improvement/modification of rail/highway grade crossings.

Requires the ability to understand and apply Commission policies on the selection of bridge improvement/replacement projects and cost allocations.

Requires the ability to utilize personal computers to create and manage computer database and generate reports.

## RAILROAD SAFETY SPECIALIST III (Continued)

5) Bridge (Continued)

Requires the ability to establish and maintain working relationships with fellow employees, the public, local and state authorities, railroad and federal railroad administration employees.

Requires ability to collect and review data and field information in order to render preliminary findings, conclusions and recommendations both informally and at formal hearings.

Requires the ability to understand and apply Commission policies on selection of crossing improvements projects and cost allocations.

Requires ability to communicate effectively in English both orally and in writing.

6) Operating Practices

Requires extensive knowledge of Federal Railroad Administration operating practices regulations and the Hours of Service Act.

Requires extensive knowledge of Illinois Commercial Transportation Law and Illinois Commerce Commission Regulations.

Requires the ability to make reports of field inspections and to recommend the institution of enforcement actions when appropriate to promote compliance of federal and state regulations.

Requires the ability to collect and review data and field information in order to render preliminary findings, conclusions and recommendations, both informally and at formal hearings.

Requires the ability to utilize the personal computer to create and manage computer databases and generate reports.

Requires the ability to establish and maintain working relationships with fellow employees, the public, local and state authorities, railroad and Federal Railroad Administration employees.

Requires ability to communicate effectively in English both orally and in writing.

RAILROAD SAFETY SPECIALIST IV

POSITION CODE: 37604

## DISTINGUISHING FEATURES OF WORK:

Functions as Assistant Program Administrator with the development and implementation of policies and procedures concerning the annual safety programs for Grade Crossings, Bridges, Track Safety, Hazardous Materials, Traffic Signal Devices, and Crossing Warning Devices; also serves as lead worker to lower level specialists on railroad grade crossing and grade separation safety projects; reviews and approves correspondence, stipulated agreements and draft orders prepared by technical staff concerning rail-highway crossing safety issues and engineering projects.

## ILLUSTRATIVE EXAMPLES OF WORK:

1. Functions as Assistant Program Administrator concerning the development and implementation of policies and procedures regarding the annual safety programs of Grade Crossings, Bridges, Track Safety, and Hazardous Materials.
2. Functions as lead worker in directing, assigning, reviewing, and assisting in performance evaluations of lower level specialists on railroad grade crossing and grade separation safety projects.
3. Prepares and submits administrative reports on progress toward program goals; reviews budget requests for appropriateness; assists the program administrator with the preparation of the budget; reviews and approves programming and operating plans of new and existing crossing warning devices and traffic signals, including those at locations where the highway traffic signals are interconnected with railroad warning device. Prepares written reports on interconnected traffic signal systems, recommends improvements, renewals and repairs and drafts correspondence to implement same.
4. Testifies as an expert witness in contested formal Commission proceedings involving policy and technical issues concerning grade crossing and grade separation engineering projects; presents testimony in hearings regarding interconnected traffic signal systems either separately or in conjunction with other technical staff members; prepares Commission stipulated agreements and Commission orders relating to same.
5. Directs and promotes the Operation Lifesaver Program; meets with industry, government, labor and safety groups devoted to reducing accidents, improving grade crossings, and resolving controversies rising from rail safety issues; assists with programs to promote public awareness of the safety, at rail-highway crossings; attends workshops and seminars.

## RAILROAD SAFETY SPECIALIST IV (Continued)

6. Represents the Commission at meetings with state, federal and industry representatives and elected officials involving policy, program implementation and technical issues concerning grade crossing and grade separation engineering matters and resolves disputes; conducts statewide field inspections of interconnected crossing warning devices and traffic signal interconnect systems and recommends corrective action if deficiencies are found.
7. Reviews correspondence, stipulated agreements and draft orders prepared by technical staff concerning grade crossing safety issues and grade separation safety projects; reviews, travel itinerary cards/vouchers and requests for time off by technical and support staff.
8. Conducts statewide field inspections of interconnected crossing warning device systems and interconnected traffic signal interconnect systems and recommends corrective action if deficiencies are found.
9. Makes recommendations concerning the modification and enhancement of traffic and crossing warning device control system software/hardware that will improve the operation of the railroad-traffic signal interconnect system.
10. Assists program administrator in 24-hour duty officer responsibilities concerning ICC response to railroad accidents/incidents.
11. In the absence of the program administrator, assumes administrative responsibility for all operations of the Railroad Safety Program.
12. Performs other duties as required or assigned which are reasonably within scope of those duties enumerated above.

## DESIRABLE REQUIREMENTS:

Education and Experience

Requires a bachelor of science degree in engineering or a related field; also requires a minimum of eight years of progressively responsible experience in the railroad safety field.

1) Traffic Signal Devices

Requires bachelor of science degree in engineering or traffic engineering; also requires a minimum of six years of progressively responsible experience in the highway traffic signal field.

## RAILROAD SAFETY SPECIALIST IV (Continued)

2) Crossing Warning Devices

Requires a bachelor of science degree in engineering and at least four years of recent experience in highway-rail grade crossing design, construction and maintenance, or a bachelor's degree in an engineering related technical specialization and eight years of recent experience in railroad-highway grade crossing construction or maintenance. Fifteen years railroad signal design, construction and maintenance experience may substitute for the education and experience requirement.

3) Bridge

Requires bachelor of science degree in engineering or a related field; also requires six years of progressively responsible experience in bridge maintenance/construction in the railroad safety field.

Knowledge, Skills and Abilities

Requires thorough knowledge of the Illinois Commercial Transportation Law, Illinois Commerce Commission regulations and of highway-rail grade crossing standards contained in the manual on Uniform Traffic Control Devices.

Requires extensive knowledge of grade crossings and grade separations, crossing signalization, track, and hazardous materials transportation.

Requires extensive knowledge of legal procedures and administrative proceedings related to railroad safety matters.

Requires extensive knowledge concerning the design, installation and maintenance of grade crossing signal and control circuitry systems and those systems which are interconnected with highway traffic signals.

Requires extensive knowledge of Federal Railroad Administration Hazardous Materials, Track Safety, and Grade Crossing Signal System Safety regulations.

Requires extensive knowledge concerning the design and construction and reconstruction of grade separation structures, connecting roads to access grade crossings and crossing surfaces.

Requires the ability to supervise subordinate specialist staff and support personnel.

Requires ability to understand and apply Commission policies on selection of grade crossing improvement projects and cost allocations.

Requires the ability to prepare comprehensive reports, correspondence, stipulated agreements and orders dealing with improvement/replacement of rail-highway bridges and/or improvement/modification of rail-highway grade crossings.

Requires the ability to utilize personal computers to create and manage computer databases and generate reports.

Requires the ability to establish and maintain working relationships with fellow employees, the public, local and state authorities, railroad and Federal Railroad Administration employees.

Requires the ability to communicate effectively in English both orally and in writing.

## RAILROAD SAFETY SPECIALIST IV (Continued)

Traffic Signal Devices

Requires thorough knowledge of traffic signal design, construction, operation, and maintenance.

Requires thorough knowledge of traffic signal systems interconnected with grade crossing warning devices.

Requires extensive knowledge of grade crossing warning device nomenclature, operations and methods.

Requires ability to oversee less experienced personnel, review their work, provide training and assess performance.

Requires ability to collect and review data and field information in order to render preliminary findings, conclusions and recommendations both informally and at formal hearings.

Requires the ability to prepare comprehensive reports, correspondence, stipulated agreements and orders dealing with improvement/replacement/modification of traffic signals which are interconnected with grade crossing warning devices.

Requires ability to utilize personal computers to create and manage computer databases and generate reports.

Requires ability to understand and apply Commission policies on selection of grade crossing improvement projects and cost allocations.

Requires ability to establish and maintain working relationships with fellow employees, the public, local and state authorities, railroad and Federal Railroad Administration employees.

Requires ability to communicate effectively in English both orally and in writing.

Crossing Warning Devices

Requires extensive technical knowledge concerning the design, installation and maintenance of grade crossing signal and control circuitry systems.

Requires extensive knowledge of highway-rail grade crossing nomenclature, inspection techniques, maintenance requirements, and methods.

Requires extensive knowledge of the requirements of Federal Railroad Administration Grade Crossing Signal System Safety Rules, including the remedial action required to bring highway-rail grade crossing signal systems into compliance with those rules.

Requires extensive knowledge of railroad train control signal systems.

Requires extensive knowledge of highway-rail grade crossing standards contained in the Manual on Uniform Traffic Control Devices and the Commission's rules.

Requires ability to understand and detect, and ability to recognize the safety significance of, deviations from crossing signal system maintenance, inspection and testing standards and the Federal Railroad Administration Grade Crossing Signal System Safety Rules.

Requires ability to oversee less experienced personnel, review their work, provide training and assess performance.

## RAILROAD SAFETY SPECIALIST IV (Continued)

Crossing Warning Devices (continued)

Requires ability to collect and review data and field information in order to render preliminary findings, conclusions and recommendations both informally and at formal hearing.

Requires ability to understand and apply Commission policies on selection of grade crossing improvement projects and cost allocations.

Requires ability to utilize personal computers to create and management computer databases and generate reports.

Requires ability to establish and maintain working relationships with fellow employees, the public, local and state authorities, railroad and Federal Railroad Administration employees.

Requires ability to communicate effectively in English both orally and in writing.

Bridge

Requires extensive knowledge of the Illinois Commercial Transportation Law and Illinois and Illinois Commerce Commission Regulations.

Requires extensive knowledge of bridge design, construction and maintenance which qualifies incumbent to review and inspect bridges to assure safety and recommend necessary maintenance or reconstruction.

Requires working knowledge of crossing surface construction and automatic crossing warning devices.

Requires the ability to perform inspections of bridges and prepare written reports on the condition of bridges.

Requires the ability to prepare comprehensive reports, correspondence, stipulated agreements and orders dealing with improvement/replacement of rail/highway bridges and/or improvement/modification of rail/highway grade crossings.

Requires the ability to understand and apply Commission policies on the selection of bridge improvement/replacement projects and cost allocations.

Requires the ability to utilize personal computers to create and manage computer database and generate reports.

Requires the ability to establish and maintain working relationships with fellow employees, the public, local and state authorities, railroad and federal railroad administration employees.

Requires ability to collect and review data and field information in order to render preliminary findings, conclusions and recommendations both informally and at formal hearings.

Requires the ability to understand and apply Commission policies on selection of crossing improvements projects and cost allocations.

Requires ability to communicate effectively in English both orally and in writing.