U. S. NUCLEAR REGULATORY COMMISSION
REGION I

DOCKET/REPORT NO: 50-443/95-12

LICENSEE: North Atlantic Energy Service Corporation

FACILITY: Seabrook Station

DATE: August 14 - September 1, 1995

INSPECTORS: Paul Bissett, Senior Operations Engineer
Joseph D'Antonio, Operations Engineer
Roger Reyes, Operations Engineer

INSPECTOR: _____ 10/5/95
Paul Bissett, Sr. Operations Engineer Date
Operator Licensing and Human
Performance Branch
Division of Reactor Safety

APPROVED BY: _____ 10/5/95
Glenn W. Meyer, Chief Date
Operator Licensing and Human
Performance Branch
Division of Reactor Safety

EXECUTIVE SUMMARY
SEABROOK MAINTENANCE
INSPECTION DATES: AUGUST 14 - SEPTEMBER 1, 1995 (REPORT NO. 50-443/95-12)

Three inspectors assessed the Seabrook Station maintenance program during the weeks of August 14 - 18 and August 28 - September 1, 1995. This broad-based assessment of the maintenance program included an inspection of the facility's preparation, and performance and management oversight of maintenance and maintenance-related activities.

Operations

The inspectors determined that maintenance activities were effectively controlled by the operations department. Daily scheduling and work performance meetings (both morning and afternoon) were held during that time in which the facility was operating at 100% power. All onsite department representatives were present to review a daily plan, including a rolling 5-day look-ahead of scheduled maintenance and surveillance activities. The inspectors found these meetings to be well controlled, brief, to the point, and well planned. Also, a questioning attitude was prevalent in many instances in which coordination of work groups for a given work activity was essential.

Maintenance

The inspectors found the conduct and control of maintenance and maintenance-related activities to be good. Maintenance program control and implementing procedures were in place for most facets of maintenance activities. Maintenance personnel were knowledgeable of their responsibilities. Craftsmen were also knowledgeable and possessed many years of experience at the Seabrook station.

Management oversight of maintenance activities was evident and had been specified in a governing procedure. Also, a program was in place that places a supervisor in charge of routinely touring the plant on a daily basis for a week at a time.

Interface and cooperation between maintenance and other organizational departments was very good. The effectiveness of this interface was witnessed by the inspectors on numerous occasions, including daily scheduling and planning meetings. Also, this interaction provided additional controls for minimizing the risk to plant safety during the conduct of on-line maintenance.

One unresolved item was identified regarding scheduled preventive maintenance being performed beyond due dates, which resulted from a supervisor's misinterpretation of due dates for materials in storage. Also, the performance of one calibration test, witnessed by the inspectors, did not meet management expectations. In this instance, it was determined that the work instructions were less than adequate. One instance was also observed in which the initial tagging order did not adequately identify all applicable energized circuits, however, a routine safety check prior to the initiation of work identified the omission.

The program for managing industry information notices was effective and well managed. Also, the corrective and preventive maintenance backlog was appropriately managed.

Engineering

The inspectors noted active and effective involvement between engineering and other organizational groups located onsite. Instances were observed where engineering, together with operations and maintenance personnel, convened to discuss and evaluate various planned maintenance activities. Also, discussions by the inspectors with representatives of the engineering and maintenance departments indicated that cooperation existed between the two departments. System engineers maintained excellent oversight of those systems for which they were responsible. This oversight included the generation of a system annual performance report, which provides key performance data, major equipment failures, significant trends, and any planned improvements. Also, for those work packages reviewed, the responsible engineer provided excellent detailed work instructions. PRA evaluations are routinely made for system week maintenance activities.

Plant Support

The inspectors noted that support organizations were present during the daily meetings and the planning of various maintenance activities. For those work activities observed, the presence of quality control personnel for oversight of maintenance activities and also the effective monitoring of personnel activities by radiation control personnel, was noted.

DETAILS

1.0 INTRODUCTION

The purpose of this inspection was to evaluate the effectiveness of the performance of maintenance, and the extent of management oversight in ensuring the operability of structures, systems, and components important to the safe operation of the plant.

2.0 WORK PLANNING, SCHEDULING, AND CLOSEOUT

Work scheduling and work control were accomplished with plan-of-the-day meetings, system-of-the-week meetings, outage coordination meetings, and meetings for the coordination of specific large jobs. Operations or former operations personnel were present at applicable meetings for evaluation of technical specification implications of planned work. These meetings appeared to work well and to be attended by the appropriate personnel level. Also, a questioning attitude prevailed throughout the majority of the meetings attended by the inspectors.

Seabrook demonstrated an effective work control process designed to ensure that work was properly evaluated, planned, and coordinated with other work and required plant conditions. The planning and scheduling process incorporated a central work planning and scheduling group, which coordinates with the individual discipline shops to prioritize and schedule work. The individual discipline work groups had designated planners who communicate and coordinate with the respective mechanical, electrical, and instrumentation and controls (I&C) disciplines to effectively plan scheduled and unscheduled work. The majority of work effort in this area involved preventive maintenance. System engineers were responsible for the development of work packages for unscheduled or scheduled corrective maintenance work and design change packages. Planners and system engineers were responsible for assembling the work order package, scoping out the job, requisitioning parts necessary to perform the work, identification of the appropriate procedures, and coordinating and interfacing with the various department representatives when necessary. Also, they coordinated their efforts with operations personnel in order to facilitate the proper execution of equipment downtime.

The centralized scheduling and outage planning group had been established with efforts focusing on the control of a 48 system week rolling maintenance schedule. This 48-week schedule incorporated system outage work week windows for 1 train of each system during an operating cycle. Also, the scheduling group maintained a 5-day look-ahead of scheduled maintenance and surveillance activities, which was reviewed on a daily basis during the routinely scheduled morning station meeting.

Initiation, control, and post maintenance work activities were controlled through the work control center. The work control center was staffed with licensed operators who rotate in and out of this position on a regularly scheduled basis of approximately 1 week at a time. The inspectors discussed and reviewed plans with the work control supervisor in regard to proposed changes to the work control center. Essentially, the major change involved the permanent staffing of licensed operators to the work center for at least 2 years. It was felt by both the facility and the inspectors that this proposed

change would ensure better control and oversight of maintenance activities and would alleviate past errors as a result of turnover oversights. Also, the work control supervisor felt that there would be better control in regard to ensuring that maintenance activities started and progressed on schedule.

The inspectors reviewed a selection of completed work packages involving both corrective and preventive maintenance activities. No errors or omissions were noted in the paperwork reviewed. Appropriate scope changes had been generated, where necessary, to complete the work. The inspectors determined from this review that engineering, planning and scheduling, and maintenance personnel did an excellent job in two areas: 1) preparation of detailed task descriptions/work instructions where a pre-existing procedure was not available or additional guidance was deemed necessary; and, 2) subsequent documentation of work performed. Documentation of work performed was extremely legible and complete. Also, extensively detailed documented maintenance activities provided a chronological record of what was done and difficulties encountered. There were no "loose ends" in the form of problems mentioned that were not dispositioned in some manner under the descriptions of work performed.

Although the detailed work instructions generated by the system engineers were of excellent quality, as previously stated, in the case of some reactor coolant pump work packages, these work instructions were over 20 steps in addition to the pre-existing procedure for the work. Also, in many instances, more steps were added to address as many as seven scope changes. The inspectors concluded that if this much additional instruction was necessary, it was perhaps time to modify the procedure to accommodate all necessary additional steps. The RCS system engineer stated that he was already considering doing so based on his experience with the work packages reviewed by the inspectors.

The inspectors reviewed MA 3.1 to evaluate the guidance provided for work package preparation. The procedure was generally effective with the exception that no guidance was provided on the generation of detailed work instructions other than the statement that such instructions should be provided for complex tasks. Despite this omission, work instructions in the work packages reviewed by the inspectors were generally very detailed and of excellent quality as previously stated. Interviews with individual shop discipline supervisors indicated however, that work instruction quality varies somewhat, dependent upon who prepares the work order. The inspectors stated that consistency of work instruction could be improved by developing guidance concerning terminology, level of detail, skill of the craft assumptions, and at what point to consider generating a procedure for one-time use in preparing work order task descriptions.

The work packages reviewed are listed below.

94RM22683600: Replace 1C RCP seal package

94W001287: Remove and reinstall interferences to allow RCP cartridge seal work.

94RM13308001: 1C RCP motor inspection/ cable megger, check operability of motor heater.

94RM10898001: 1B RCP inspect motor/ megger cable

94W002155: Repair turning vane bolting on RCP 1A

94W000054: Remove 1A RCP motor for repairs

94R04602A001: Bus E5 offsite power transfer operability test

94RM19608600: 4.16KV breaker inspection

94RM11434001: Replacement of ferro-resonant capacitors

94RM41744001: Replace failed AmpCap

3.0 MAINTENANCE PERFORMANCE ASSESSMENT

The inspectors observed several maintenance and surveillance activities during the inspection, and noted that in most instances, activities were conducted in a professional, conscientious manner. The inspectors observed all or portions of the following work activities:

95W001198: Modifications to circ water screen controls to allow slow or fast speeds in both auto and manual.

95RM40836003: RCP Undervoltage/Underfrequency testing.

95RM43354600: Overload testing of 480V breaker for 1EAH-FN-180B.

94W002678: Replace casing flange gasket on CS-E-4

95RI02081001: Calibration of letdown HX outlet temperature monitor

All work observed was performed with work packages present and in active use. Supervisors and system engineers checked jobs frequently, as witnessed by the inspectors. Mechanics and technicians were experienced and knowledgeable of their assigned tasks and performed them well. The tasks were coordinated well with operations and the procedures, in most instances, provided clear instructions to the worker for completing the task. When applicable, appropriate radiation control measures were observed, ALARA considerations were evaluated, and quality control personnel were often at the work location continuously observing work practices.

The inspectors witnessed one calibration activity in which the technician incorrectly chose a piece of calibration equipment that did not meet the range requirements per station administrative procedural requirements. Also, during the performance of this calibration, the technician failed to consider hysterisis effects, however, this oversight was corrected by another technician who was assisting him during the performance of the calibration. Preliminary review of this task by the inspectors revealed that the repetitive task sheet (RTS) was not as detailed in work instructions as expected. Subsequent review revealed that only recently had RTSs been in the process of being reviewed and updated. As a result of the ongoing preventive maintenance optimization process, RTSs were subsequently being revised, which included the designation of equipment needed, including desired ranges, along with detailed instructions in regard to the performance of the task. In this particular instance, the technician had used an RTS that had yet to be reviewed and updated. This RTS had included only the task to be performed because a calibration task of this nature had previously been viewed as being within the skills of the craftsmen. Maintenance supervision had been informed of the inspector's observations and management agreed that the technician had not met their expectations, regardless of the fact that the RTS had yet to be revised. A complete review of the activity, together with a discussion with the technician, was planned by supervisory personnel. The inspector judged the error to be isolated and the corrective actions appropriate.

During another activity witnessed by the inspectors, an electrician performing safety checks found a live lead to a breaker that he needed to remove from its cubicle for testing. This was resolved quickly by hanging an additional tag, which the facility stated would not have been necessary if the testing had been possible with the breaker in place. The inspector considered this a tagging weakness since the original tagging order did not completely de-energize the cubicle in which the electricians were working.

3.1 Preventive Maintenance Program

The inspectors reviewed the preventive maintenance (PM) program and concluded that the programmatic controls in place were effective in maintaining control of scheduled PMs. Regularly scheduled PMs are accomplished through the issuance of repetitive task sheets (RTS). RTSs are essentially the maintenance work packages to which the maintenance work activity is performed. The inspectors reviewed a computer-generated report that was used to track overdue PMs for the maintenance department. The inspectors interviewed a number of maintenance department personnel to determine the status of the overdue PM backlog. It was noted by the inspectors, from the review and discussions, that overdue RTSs encompassed approximately 1 percent of the total RTSs generated in a year's time. Overdue backlog levels had essentially remained constant during the period reviewed by the inspectors and was attributable primarily to unavailability of manpower or equipment to be worked on.

3.2 Corrective Maintenance Backlog

The inspectors reviewed the corrective maintenance backlog and concluded that the backlog was being appropriately managed. The facility had established a backlog downward trend such that they had met their initial goal of 850 outstanding work requests. Once having met the goal, management lowered the goal to 650 items. Initially, the downward trend continued; however, in recent months, the backlog had leveled off at a level of approximately 700. Management informed the inspectors that no one primary contributor was attributable to this recent leveling off, however, efforts would continue to focus on attaining a backlog significantly less than the industry norm. The inspectors determined that the corrective maintenance backlog reviewed was effectively managed. The backlog was reasonable in number, most of the items were new in the past year, were either working or ready to work, and did not appear to affect equipment operability.

3.3 Operating Experience and Assessment/Commitment Tracking

The inspectors reviewed Seabrook's program for the control, distribution and subsequent evaluation of industry events and notices, and found the program to be effective. Discussions were also held with those individuals who were responsible for ensuring that appropriate actions were taken when deemed necessary. The inspectors also provided to the responsible supervisor three NRC Information Notices, 94-76, 94-44, and 91-45 and asked that he provide the applicable documentation that evaluated and resolved their applicability to the Seabrook station. The supervisor subsequently provided to the inspectors the paperwork that dispositioned all three information notices. The inspectors concluded the programmatic controls were effective and the program was well managed. The completed actions were well documented and appropriately handled. The program supervisor appeared to maintain excellent accountability of the program and maintained a system that held individual departments responsible for completing any assigned actions.

3.4 Storage of Materials

Discussions were held with the supervisor responsible for maintaining the storage of equipment and materials. Included in this review was also a tour of the onsite storage facilities. Equipment and materials were found to be adequately stored, identified and maintained. However, during this review, a problem was encountered with the completion of the preventive maintenance schedule for numerous pieces of equipment in storage. PMs were scheduled and completed through the issuance of repetitive task sheets (RTS). Upon further review of the scheduled PM due dates and actual completion dates, it was determined that completed PMs for items in storage had, in actuality, been completed after their scheduled due date. The inspectors recognized the fact that all PMs had been successfully completed, however, there existed the possibility that equipment degradation may have occurred during that time frame in which the PM was due and the time in which the PM was actually performed.

Further investigation of the problem by Seabrook station personnel revealed that personnel responsible for ensuring the completion of scheduled PMs had misinterpreted the meaning of "due" dates. Inventory supervisory personnel, not realizing that a scheduled due date had already included a 25% amount of grace time, were often completing the PMs after adding an additional 25% grace time. Once the problem had been identified, Seabrook Station generated an adverse condition report (ACR). This ACR included a description of the problem and corrective actions to be taken in an effort to determine if any equipment had degraded as a result of untimely completion of scheduled RTSs. Preliminary review had indicated that there were no problems of equipment or parts degradation for any issued to the plant within the past year. However, a review also had to be done of that equipment in storage that had exceeded its RTS due date, and until this review is complete, this item will remain unresolved (443/95-12-01).

3.5 LCO Maintenance

The facility had developed an on-line maintenance policy. This policy defined on-line maintenance as maintenance involving voluntary technical specification entry, major standby components, or equipment that may be of significant value in mitigating transients or preventing trips. The policy simply required management approval of such maintenance and adequate planning to complete the task in 50% of a technical specification allowed outage time. The inspectors observed a meeting held to evaluate why this policy did not prevent an incident where the allowed outage time was exceeded during a nuclear instrument calibration. Management subsequently suspended the performance of any technical specification-related maintenance activities until the problem was fully evaluated and understood by all. During this meeting, it appeared to the inspector that facility personnel did not fully understand their on-line maintenance policy. The facility was still evaluating the event, but the problem was essentially a failure by personnel in the planning and approval process to understand the duration of the task and the status of plant equipment during the work.

4.0 TRAINING AND QUALIFICATION

The inspectors reviewed the extent of technical training provided to all disciplines, mechanical, electrical, and instrumentation and controls and determined that the qualification and training of craft personnel was well developed and maintained. Each maintenance department discipline has its own training specialist. Detailed discussions were held with the supervisor of the three respective departmental training representatives in an effort to assess the responsibilities and actions of these training specialists regarding qualification. Departmental training specialists are responsible for ensuring that individual craft personnel are scheduled to attend appropriate training classes in order to maintain their qualification current. They also monitor the progress towards qualification of personnel in performing certain tasks. Qualification status for each individual was maintained within each discipline's shop such that foremen could readily refer to these qualification postings prior to assignment of an individual to any particular maintenance activity. The inspectors noted a couple of occasions in which this qualification status board was utilized. Department training

representatives were always in attendance at the regularly scheduled shop meetings and often provided training schedules for personnel and qualification status prior to work activity assignments. Also, each department maintains a qualification manual on all assigned individuals.

The inspectors also toured the site technical training center and noted that the facility had made good use of mockups for training. At the technical training center, it was noted that numerous pump and valve components existed for disassembly and reassembly training. Also, various setups existed for training on flow controller calibrations by I&C personnel and electrical breaker maintenance by electricians. The inspectors observed the actual conduct of one classroom lab training session and noted that class size was limited to six - eight individuals to better achieve an effective student/instructor interface. Training personnel indicated that they are continually acquiring additional equipment in which they are able to develop new "hands-on" training sessions.

Job performance measures (JPM) training is used extensively by the training department when certifying an individual's understanding of identified maintenance/surveillance tasks. JPM evaluators certify that an individual is qualified to perform a particular maintenance task without supervision. JPM evaluators are experts in various areas and are periodically reevaluated to maintain their qualifications as a JPM evaluator.

Each discipline's training specialist serves as a primary focal point with the site to ensure that any training needs of the maintenance department are identified and subsequently acted upon. Also, during scheduled outages, the training instructors were temporarily assigned to their respective onsite disciplines to assist with various maintenance activities.

The training and qualification program, and training in general, appeared to be well regarded by plant personnel. The training department has provided training in response to department requests and regularly-scheduled meetings with the training department to further evaluate additional department training needs. The inspectors also attended a regularly scheduled mechanical maintenance curriculum advisory committee (CAC) meeting which covered, in detail, numerous issues involving training of maintenance personnel. The inspector found the CAC meeting to be well represented by appropriate maintenance and training personnel. This particular CAC meeting was viewed by the inspectors as being very detailed and comprehensive, and entailed such issues as qualification guides, lesson plans, training feedback, management observation of training, and future training needs. Significant effort was devoted towards the evaluation of various means to which one could upgrade and maintain the skills of the mechanical maintenance worker.

5.0 QUALITY ASSURANCE/QUALITY CONTROL

The inspectors held discussions with quality control (QC) and quality assurance (QA) personnel and reviewed associated documentation, including QC surveillances, inspections and QA audits. Based upon these discussions and reviews, the inspectors determined that effective oversight and coverage of maintenance activities were being conducted by both groups. The inspectors

determined that a concerted effort was implemented between various quality assurance and quality control groups in an attempt to cover as many areas as possible without duplication and optimize the use of resources. Oversight of plant maintenance activities included audits of both the maintenance and I&C organizations and the conduct of numerous job monitoring efforts (surveillances).

The inspectors determined, following a review of several completed surveillances, inspections and audit reports, that the quality services organization at the Seabrook station was actively involved in the oversight of ongoing maintenance activities. The inspection, surveillance, and audit reports were detailed and clearly denoted any observations or findings. Also, corrective actions taken, if needed, were also included with all completed reports.

6.0 ENGINEERING

The inspectors held several discussions with engineering management and system engineers to assess engineering's day-to-day involvement with the maintenance department. Through these discussions and observations while on site, the inspectors determined that there was an active involvement of engineering with the maintenance department. The engineering manager stated that with engineering being onsite, maintenance personnel has immediate access to engineering for assistance in solving not only daily maintenance problems but also coordination and contact involving plant design change requests and plant equipment trends. The inspectors noted throughout the inspection period instances in which other departments contacted engineering requesting their assistance.

The inspectors also noted that Seabrook Station system engineering had more extensive, effective involvement in the conduct of maintenance activities. At present, the system engineers write the detailed task description for the work order as well as determining detailed technical requirements. This task is in addition to the performance monitoring function for which system engineers are more commonly used. However, the facility is in the process of transferring the work order tasks over to the planners in order to allow the system engineers to concentrate more fully on their performance monitoring responsibilities. Planners presently put together only repetitive task sheet work packages for routine, repetitive, preventive maintenance type work.

Predictive maintenance was found to be well controlled and maintained by engineering at the Seabrook station. This aspect of the maintenance program includes the control of the inservice testing program for pumps and valves per ASME Section XI requirements, vibration monitoring and analysis for pumps, fans, compressors and motor generator sets, thermography surveys of electrical and mechanical components, lube oil analysis, acoustical signature monitoring, and ultrasonic measurements.

Seabrook engineering also has made excellent and impressive use of a local area computer network and Windows-based software, in conjunction with the main plant computer to facilitate system performance monitoring and communication of relevant information. The plant computer broadcasts approximately eight

thousand data points to the network in real time. The individual system engineers then use a commercial software called DMACS to pick which points they want to monitor for their systems, create graphs or other graphic displays, and set software alert/alarm points for their own use independent of plant setpoints. The effectiveness of this new monitoring program is yet to be determined since it had just recently been put into place. In addition, manual data from walkdowns can be entered. Any data or displays the system engineer considers of interest to management can be E-mailed, or can be incorporated into a group of network shared items of interest. The inspectors previewed condensate and feedwater system displays which had detected a feedwater heater tube leak, condenser performance monitoring displays, and RCP seal monitoring displays. This system had been in use with real time data for approximately the past 6 months.

Discussions were also held with the reliability and safety system engineer in regard to the station's usage of probabilistic risk analysis (PRA). The engineer stated that the station's PRA was a living document, and that its usefulness was used on a weekly basis to evaluate and validate the system week outage maintenance schedule. Any changes to the system week outage schedule also involved a reanalysis of any additional risks involved. Often guidance is provided to planning and scheduling engineers whenever changes occur. Also, PRA training overview has been provided to operations, engineering, and planning and scheduling personnel.

7.0 MANAGEMENT INVOLVEMENT AND OVERSIGHT

Management involvement and oversight of maintenance activities were reviewed and determined to be acceptable. This determination was based upon discussions with various personnel and the observations of management oversight during the conduct of maintenance field activities or plant tours in general. Discussions with supervision indicated that the program for management oversight of field activities included a formal system for documentation of observations, including both favorable and unsatisfactory observations. The inspectors noted a very low threshold for initiation of adverse condition reports, especially in regard to personnel safety and plant housekeeping issues.

Management's emphasis on personnel safety was further emphasized during the conduct of weekly safety meetings held by the mechanical maintenance department supervisor. Also, any adverse condition reports and/or personnel injuries are brought to the attention of upper management during every daily morning meeting.

The inspectors also reviewed recently completed departmental self assessments. Discussions were held with supervisory personnel to gain a better perspective of their understanding of the results of these reviews. These general discussions indicated that management and supervisory personnel were well aware of the need to become more involved and maintain a certain degree of supervisory oversight in order to meet departmental goals and objectives.

8.0 OPEN ITEMS

(Closed) Unresolved Item (443/92-21-01). The inspectors reviewed Unresolved Item 92-21-01, which dealt with operator response to RCS subcooling below 40 degrees in Steps 9 and 28 of ES-1.1 "SI Termination." During a previously administered NRC requalification examination, it had been noted that at Step 9, inadequate subcooling would direct the crew to the loss of coolant procedure, E-1, but the same condition at Step 28 did not. This discrepancy has since been corrected, and both steps now direct the operators to start SI pumps as necessary and proceed to E-1. Based upon the corrective actions taken, this item is closed.

9.0 EXIT MEETING

At the conclusion of the inspection, an exit meeting was conducted on September 1, 1995. During the meeting, the inspector reviewed the scope and findings of the inspection. The facility representatives present at the meeting agreed with the inspector's comments. Personnel present at the exit meeting are listed below:

Seabrook Station

J. Adams, Mechanical Maintenance Department Supervisor
A. Callendrello, Licensing Manager
R. Cooney, Assistant Station Director
T. Cooper, Maintenance Supervisor
L. Gehrke, Mechanical Maintenance Supervisor
T. Grew, Technical Training Manager
M. Harrington, MRD Supervisor
C. Kokoszka, Utility Engineer
W. Leland, Chemistry/HP Manager
N. Levesque, Electrical Maintenance Supervisor
R. Lieder, Engineering Supervisor
R. Lizotte, Administrative Services Manager
J. Malone, Assistant to Executive Director
G. McDonald, Nuclear Quality Manager
J. Peterson, Maintenance Manager
N. Pillsbury, Director of Quality Programs
B. Seymour, Security & Safety Manager
G. Shamis, Construction Department Supervisor
J. Sobotka, NRC Coordinator
G. St. Pierre, Assistant Operations Manager

U.S.N.R.C.

P. Bissett, Sr. Operations Engineer
J. D'Antonio, Operations Engineer
R. Reyes, Operations Engineer
J. Rogge, Section Chief, DRP