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NWI CONSULTING, LLC

Operations Training

SIMULATOR TRAINING – ARE YOU GETTING YOUR MONEY'S WORTH?

By Bill Lindsey, NWI Consultant

In this bottom-line environment, could you write a business plan for your control room simulator that would show a return on investment to be greater than your investment? As we know the simulator is a mandatory investment but this ROI approach may be an appropriate viewpoint for every management observer to consider. How can we reach the highest potential in the use of this expensive training tool?

As we move about the industry, we see plants that are exercising unique and beneficial approaches in the use of their simulators and others that are just scheduling simulator training to meet training programs requirements. Where is your plant?

- The simulator is a place for licensed operators to come practice procedures with the training staff running the simulator. Training sessions look like an evaluation with little instructor intervention.
- The initial operator simulator trainers are out of touch with the current management input that is generously fed into license operator continuing training.
- Every cycle of retraining has a defined focus on 2-3 human error prevention tools but the focus areas receive little or no discussion during the exercise critiques.
- The majority of the simulator instructors are certified SROs with little control room experience.
- Management observations (by Operations, Training, and Plant Management) are conducted to meet a management expectations quota.

If any of these situations sound familiar, your Operations and Training departments may want to consider the following good practices or others observed through meaningful benchmarking.

- Simulator instructor continuing training conducted on a regular basis with the initial and continuing training instructors being trained together.
- An independent instructor or management observer assigned to focus exclusively on the "focus of the week" on the floor providing real time feedback.
- One plant's approach for improvement included using the simulator on off days with two exercises. One with the

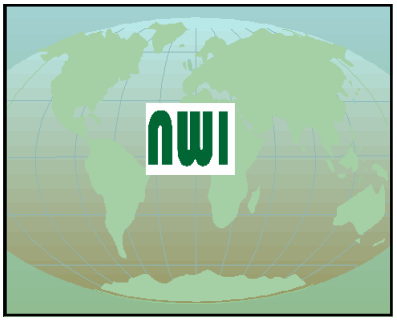
NUCLEAR REGULATORY COMMISSION, IP-71111.11 INSPECTIONS

By Bill Lindsey, NWI Consultant

So it's time for the annual licensed operator requalification examination and the Nuclear Regulatory Commission (NRC) is coming to watch. Correction!!! They're not coming to watch. They are coming to conduct an inspection. Are you ready?

There are two ways to ensure that you are. One is running your requalification program correctly on a daily, yearly and biennial basis. Do you have a training plan that ensures the correct content? Do you monitor all operator performance trends and feedback streams and incorporate content to correct declining trends? Are the results of your weekly requalification exams and simulator evaluations addressed with solid remedial training? Are these weekly exams and evaluations prepared using the same guidelines as those found in the 600 series chapters of the Operators Licensing

Inside this issue:



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initial simulator instructors as the crew with the continuing training instructors as the instructors. The second exercise run with the roles reversed.

- Increase the control room observations by simulator instructors using the same standards as used in the simulator to improve instructor observations skills as well as control room operator performance.

There is no silver bullet answer to achieving the best possible ROI from the simulator training, but when everyone involved; students, trainers, and management, fully understand the benefits of effective simulator training can you reach that potential. Write your management observations demanding the training improvements that produce performance results.

The Million Dollar Examination

By Steve Pettinger, NWI Consultant

By the time a license candidate takes an NRC license exam, he or she has invested about 2000 hours in training to prepare for the exam. He or she has also spent many years gaining experience to be admitted to a license program. The site has also invested a considerable amount of money covering job vacancies, hiring instructors, etc. to prepare the candidate for licensure. Based on the salaries (including benefits) most NRC License classes are at least million dollar investments. A poorly developed exam can undermine this investment. Even partial failures could result in additional expenses of half a million when you consider retraining, additional exam development, and program changes.

Exam development should be considered a Site High Risk evolution. Planning for the exam should begin about 9 months to 1year from the administration date. This planning should include assigning an Exam Project Manager to develop a project plan. The Exam Project Manager should be a site employee assigned to oversee the exam development project. Although this person may not have exam development experience, it is very important to provide ownership of the exam at the site level.

Exam Team personnel required for exam development and oversight should be identified and submitted with the exam project plan. This will ensure site and department management are aware of the resource loading necessary for a successful exam. There should be at least two exam developers assigned with no concurrent duties. One of these exam developers may be a contract employee hired for exam development but one should be a certified or licensed SRO for the site. One of the developers should have previous experience developing successful NRC exams. This person should act as a mentor to the second developer.

Additional support personnel will be needed throughout the process to ensure a successful exam. Planning for Operations Department Personnel for review and validation should

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Examination Standard, NUREG-1021? Has your annual examination been prepared and being administered under strict compliance with the Examiner's Standard? Hopefully the answer to all of these questions is an emphatic, "Yes".

The second means to ensure you're ready is to complete a dry run of the NRC inspection as a self-assessment. The NRC is coming to your site for this inspection with IP-71111.11, Inspection Procedure in-hand. This document spells out the; who, what, when and how the NRC's License Operator Requalification Program inspection will be conducted. This 15 page document directs the inspection team to look at all aspects of your program and is freely available to you. To certify that your requal program is meeting the commission's requirements, a self-assessment using IP-71111.11 as a guide could be the key to a successful inspection during your annual examination. This inspection procedure includes four attachments that could be used directly by your self-assessment team in evaluating your test material, conducting interviews, evaluating simulator fidelity and maintenance, and ensuring your written exam (if applicable) security is beyond compromise.

As in all self-assessments an independent look sometimes reveals views that might not be seen if your team members are limited to those involved in day-to-day administration of your requalification program. An industry peer, hopefully some

TRAINING SELF-ASSESSMENTS…

By Terry Schmidt, NWI Consultant

Are your training programs consistently improving? Are they staying current with worker, station and industry needs and standards? How do you know? How effective are your self-assessments and subsequent corrective actions? Are your corrective actions sustainable? Are they actually improving performance as intended? These and many more questions can be answered with a comprehensive training department self-assessment program/process. History has shown that weak self-assessment programs and processes are at the heart of many accreditation and/or probation issues. Training managers who have had training programs go on probation have stated that weak self-assessment programs/processes were a significant contributor.

Many training programs today use generic site self-assessment procedures to control and direct the special needs of training. Many lack detail and focus that will ensure consistent high quality results every time. The quality of your self-assessment program is dependent on what you've put in.

Take a moment to review your current procedure/process. Does it contain specific detail in the following areas?

- Clear definitions of the self-assessment activities required/conducted, reports written, and actions taken.
- Clearly defined roles and responsibilities for all who are involved with the self-assessment process.
- A well defined and clearly written self-assessment plan/schedule.
- Self-assessment team composition and qualification.
- Team training requirements.
- How to conduct the actual self-assessment.
- An all inclusive self-assessment preparation checklist.
- A template to ensure consistency in writing the self-assessment plan.
- A guide for team members to complete as a part of their training.
- A template for writing the final report.

If you find you may need detail in any of these areas contact us for a review of your current self-assessment procedure/process.

The Million Dollar Examination

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be included. Exam development should be started early to allow time for problem resolution.

Expect NRC exam development and administration to take about 1400 person-hours including validation, oversight, and administration.

Since the Audit exam is not subject to NRC review, it will take fewer person-hours to review and validate the exam. Expect Audit exam development and administration to take about 1000 person-hours including validation, oversight, and administration.

The Plant Manager, Operations Manager, and Training Manager should meet for approval of the Exam Project Plan, resources, and budgeting. The Operations Manager should be assigned ownership for the overall quality of the examinations.

(Next Time: Exam Preparation Best practices)

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one who recently experienced this inspection, can be an invaluable self-assessment team member.

A solid requalification program, early cooperation with your assigned inspection team, combined with an early hard self-examination should result in a successful inspection that will allow both you and the NRC to continue to achieve your respective responsibilities.

Reference: http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html

For more information, contact:
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865-385-6166

NWI Offers an ANSI SRO Certification Course…

Bill Hensley, NWI Consultant

In 20 Weeks Total, NWI can provide a turnkey ANSI SRO Certification course to your site. The course consists of;

- 5 Weeks of Generic fundamentals (e.g., Thermodynamics (1.5 weeks), Reactor Theory (2 weeks), Components (1.5 weeks)). GFES includes sectional exams and a 50 Question GFES final exam).
- 8 Weeks Plant Systems utilizing NWI generic objectives and client materials, Basic NSSS, Basic Secondary systems. For example, for PWR sites…
  - NSSS - RCS, PZR, RCP, ECCS, EDG, SSPS, CCW, CVCS, RPS, RHR, NIS
  - Secondary - Main Steam, Turbine and Auxiliary's, Condensate, Feed Water, FW Heaters, SGWLC, Steam Dumps, SX, NESX, Electrical Distribution, Instrument Power, Aux. Feed Water, Generator, Circ water.
  - Classroom instruction is followed by simulator demonstrations, where applicable, plus Bi-Weekly Written Exam with a comprehensive systems final.
- 7 Weeks Simulator - NOP (1.5 weeks including SU Cert), AOP (1.5 weeks), EOP (4 weeks including final exams) Classroom/Simulator, Topical Written and Simulator Performance Exams NOP, AOP, EOP, Final Startup Certification, Static and Performance Examinations.

Advantages are numerous:

- Cost shared by student sponsored department (e.g., RP, Engineering, Corporate)
- Minimal impact on training organization or budget
- Remediation activities done by NWI
- Vendor supplied training governance by Training Procedures
- NWI works back shift not site training personnel
- Prep, delivery time and expenses included in fixed price
- NWI training staff multiple years of diverse OE and training experience throughout industry
- All examinations developed using client materials/database and graded by NWI

The class size is limited to about 4-6 students. If more students are needed by you, NWI can accommodate up to about 12 for a modest increase in the standard price.

We wish to express special thanks to the following clients for making NWI a preferred consulting company.

- AEP's D.C. Cook Nuclear Power Plant
- Constellation's Nine Mile Nuclear Power Station
- Energy Northwest—Columbia Station
- Exelon's Three Mile Island, Dresden, LaSalle and Quad Cities Nuclear Stations
- Exelon's Outage and Reactor Services
- FPL's Seabrook, St. Lucie, and Turkey Point Stations
- NMC's Monticello Station

We add value to your business at a reasonable cost!

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Our program specialties include: Human Performance, Training and Accreditation, Simulator Instructor Training, Operations Training, Engineering Services, Corrective Actions Program Improvement, Root Cause Analysis and Self-Assessment, NRC Exam Writing, CBT for Dry Cask Storage/ RadWaste Training, and many Human Performance Trainers.

We're on the Web! See us at www.nwiconsulting.com