

REVIEW

A bimonthly publication of the Institute of Nuclear Power Operations

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IN THIS ISSUE

Industry participation strengthens Academy seminars

INPO coordinators provide training assistance

Same mission, but methods to change with the times

INPO looks to the future

There'll be some changes ahead in how INPO supports its members. New techniques. Better use of technology. Different ways of thinking in response to changing times.

But in a sea of change, one thing will remain constant: INPO's focus

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INPO's focus on
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— excellence —
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on safety and reliability — excellence — in nuclear plant operation.

"INPO must remain the industry's standard-bearer for excellence in safety and reliability," Jim Rhodes, INPO chairman, president and CEO said recently in an INPO employee meeting. "But how we approach our mission must change with the times. INPO should lead the way in recognizing and staying ahead of changes in our industry."

What this means, Rhodes says, is that INPO will be looking at a number of actions to improve its value to its members. These actions fall into three themes:

- Being constantly aware of changes in the industry and adapting as needed
 - Doing all INPO can do, within its mission, to help the industry
 - Looking for opportunities to expand to areas where INPO can make a difference
- "INPO needs to be flexible and able to change — not change for

able with change, both individually and as an organization."

Adapting to change

Competition, consolidation and regulatory changes are the key factors driving change in the nuclear utility industry. Wes Taylor, president of the Generation Division of TXU Electric & Gas, was a guest speaker at INPO's employee meeting. Taylor says INPO is charting its course in the midst of an ever-changing environment.

"In spite of these changes, there are two things I'm sure of," Taylor says.

"First, our country needs nuclear power to meet the growing demand for electricity. And second, our industry will continue to depend on INPO to help us continue to operate successfully and to secure our role as a reliable and safe supplier of electricity. INPO has the broad, independent overview that is necessary for an industry like ours to survive and grow."

Some of the actions INPO is considering to better meet the changing

- Developing new tools to help plants prevent recurring events (This will include strengthened follow-up on Significant Operating Experience Reports during plant evaluations.)
- Developing additional expertise to help the industry in areas where needs aren't being fully met (For example, INPO may consider taking a larger role in areas such as BWR reactor vessel internals issues, circuit breakers, design engineering and switchyards.)

- Reviewing the INPO Web site and finding ways to make it more useful and accessible

"I firmly believe the nuclear power industry is essential and vibrant," Rhodes says. "Certainly, there is still unprecedented change in the industry. But despite these changes — maybe even because of them — the outlook for the industry is brighter than it has been for years. INPO will remain the standard-bearer and the industry conscience

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change sake, but to achieve specific, defined business results," Rhodes says. "This means becoming comfort-

needs of its members include:

- Using risk insights where appropriate in INPO's activities

with regard to operational excellence – and our methods will evolve to meet industry needs." ■

Lessons learned project shares results with industry

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In 1998, INPO launched a study of several plants that have experienced unexpected long-term shutdowns. Dubbed the "lessons learned project," the initiative had two goals: to identify factors that contributed to the shutdowns (see below) and to help INPO and the industry recognize these problems sooner as a way to prevent long-term shutdowns.

INPO's emphasis now is working closely with the industry to better identify and handle these issues. To accomplish this, INPO is meeting with utility and plant personnel to discuss problems common to the plants in extended shutdown. "Utilities want to understand what led to the shutdowns and if their nuclear plants are vulnerable," explains Gary Leidich, INPO executive vice president.

For example, Catawba Nuclear Station held an employee meeting to discuss results from the lessons learned project. "We use semi-annual all-hands meetings to share information – from both inside and outside the company – with employees," says Gary Peterson, Duke Power vice president, Catawba Nuclear Station. "In our postmeeting surveys, our employees said the information INPO provided was informative and would be valuable in ensuring the same traps had not been set here."

But whatever forum a utility or plant uses – be it a meeting with senior staff or an employee meeting –

the message is consistent: To move forward, you must be self-critical. You can't be overconfident or complacent.

More information exchange

INPO has briefed the Nuclear Regulatory Commission about the lessons learned project. Project results are also discussed in the professional development seminars and courses sponsored by the National Academy for Nuclear Training. These include the CEO Seminar, the Senior Nuclear Executive Seminar, the Senior Nuclear Plant Management Course and seminars for shift managers, maintenance supervisors and engineering supervisors.

"Our goal is to help people understand what the shutdown plants experienced. We encourage people to look at their situations to better address problems before they lead to a shutdown," Leidich says.

Improving the cornerstones

INPO is also incorporating project results into its cornerstone activities. To encourage more executive awareness of plant events, for example, INPO executives now discuss significant events with site vice presidents or chief nuclear officers.

INPO's internal meetings also make use of the lessons learned study. "INPO now spends more time talking subjectively about the plant," Leidich explains. "Previously, we primarily dis-

cussed objective, substantiated weaknesses at our meetings. Now, we include some subjective observations – things we may not be able to quantitatively substantiate, but that appear to be potential trouble spots based on an evaluator's experience. We want to make the plant aware of these potential trouble spots as early as possible."

In the future

INPO is considering several other actions, including developing case studies plants can use as learning tools.

"Many industry people have suggested that we also compile a list of things plants need to do well in order to run safely and reliably," Leidich explains. "In other words,

point out what needs a plant to be successful."

Leidich says the lessons learned project is all about reinforcing the basics. "It's still possible for a plant to get into trouble even though the industry has reams of paperwork on what it takes to run a plant well and what to watch out for," he says. "The lessons learned project reinforces the need for constant vigilance and sticking to the basics. As an industry, focusing on the basics and addressing problems in a more timely manner will help prevent extended shutdowns." ■

Contact: Gary Leidich, (770) 644-8231, leidichg@inpo.org.

Factors contributing to extended shutdowns

During the lessons learned study, INPO received comments from many industry players, including senior utility executives and representatives from the Nuclear Energy Institute and the Nuclear Regulatory Commission. The study provided valuable information about factors that contributed to these shutdowns. Some of these factors are listed below.

- Overconfidence
- Isolationism
- Weakness in Operations and Engineering
- Inappropriate production priorities
- Ineffective change management
- Insufficient follow-through on plant events
- Leadership weaknesses
- Failure to be self-critical

Industry participation strengthens Academy seminars

Steve Brown really didn't want to attend the Maintenance Supervisor Professional Development Seminar. As electrical maintenance manager at Browns Ferry Nuclear Plant, he was too busy preparing for an upcoming outage to take time out for training.

"Attending one of these seminars is one of the best investments you can make if you plan to stay in this business."

— Steve Brown

His supervisor insisted. Brown attended — and received what he describes as "extremely rewarding" professional development.

"After about two hours into the seminar, I began to soften up," Brown says. "By the end of the first day, I was convinced it was a valuable use of time."

Brown is one of more than 320 industry supervisors who will participate in professional development seminars

sponsored by the National Academy for Nuclear Training this year. The Academy holds seminars for maintenance supervisors, shift managers and engineering supervisors.

Sharing with peers

The National Academy conducts all three seminars nine times a year at the Institute of Nuclear Power Operations in Atlanta. Participants are nominated by their management to attend. Sharing experience among peers is a hallmark of each seminar. Key seminar topics include:

- Leadership
- Teamwork
- Safety Culture
- Human Performance
- Case studies on plant events, major nonnuclear industry events
- Presentations by nuclear managers and experts from outside the nuclear industry

"There is a huge exchange of information," Brown says. "Some nights we discussed issues — voluntarily — until 7 or 8 o'clock. Then we continued with 'shop talk' at a restaurant over dinner. Attending one of these seminars is one of the best investments you can make if you plan to stay in this business."

Suggesting improvements

INPO assesses course content based

INPO provides "mini-MSPDS" for new Callaway supervisors

Jim Gloe had a training opportunity in the making. Five workers with little previous supervisory experience had been promoted at the same time to supervise crews at Callaway

on current topics in the industry.

Seminar participants also suggest ways to improve the sessions. The Academy made several improvements to the seminars in 1999. These include:

- Scheduling Shift Manager, Maintenance Supervisor and Engineering Supervisor professional development seminars to run concurrently
- Increasing the Engineering Supervisor seminar from one week to eight-and-one-half days
- Including seminar modules attended jointly by shift managers and maintenance and engineering supervisors.

"The interdisciplinary sessions are a good opportunity," says Jim Gloe, maintenance manager at Callaway Nuclear Plant. Gloe has participated twice as a mentor for the maintenance supervisor course. "These sessions help participants from operations, engineering and maintenance better understand each other's perspective. This is a good chance for discussion."

Planning classes of 2000

In July, the National Academy

will ask industry managers to nominate professional development seminar candidates for courses to be held in 2000. Slots for 1999 seminars are full, although candidates can be added to wait lists at the manager's request.

"The professional development seminars give participants a chance to share their experiences, perspectives and methods with peers from domestic and international utilities," says Dave Linnen, manager, INPO training activities department. "The small course size of about 12 participants helps encourage close relationships and an exchange of ideas and information. We continually use input from participants and mentors to improve the courses and help make them valuable tools for career development." ■

Contact: Lou Cortopassi (Shift Manager seminar), (770) 644-8832; Rick Reynolds (Maintenance Supervisor seminar), (770) 644-8392; or Thomas Lekas (Engineering Supervisor seminar), (770) 644-8546. Or, see the Accreditation and Training section on the INPO Web site, www.inpo.org

On-loan employees

Brad Blome joined the process management department as an evaluator. He was on special assignment, nuclear, at Omaha Public Power District's Fort Calhoun Station.

John McCarty joined the radiological protection department as a senior evaluator. He was quality assessment supervisor at New York Power Authority's James A. FitzPatrick Nuclear Power Plant.

Brett Plummer joined the operations department as a senior evaluator. He was operations shift manager at North Atlantic Energy Service Corp.'s Seabrook Station.

Walter F. Smith joined the accreditation and training department as a senior

Jim Gloe had a training opportunity in the making. Five workers with little previous supervisory experience had been promoted at the same time to supervise crews at Callaway Nuclear Station. Gloe, Callaway maintenance manager, wanted to give the new group a boost in supervisory knowledge and skills.

"Having been a mentor in the Maintenance Supervisor Professional Development Seminar, I know the course's value for experienced supervisors," Gloe says. "But for first-line supervisors — especially new ones — that kind of training wasn't available. So, I asked INPO to customize a course for us."

The result was a three-day seminar held at INPO as part of an overall development program for the group. The seminar included modules modified from MSPDS as well as other sessions.

"INPO's training and maintenance groups worked with Jim to develop this seminar," says Tom Galloway, senior evaluator, INPO maintenance department. "It was the first of its kind — we hadn't done one like this before. It was a way we could help Callaway meet its needs."

Gloe says the seminar was an effective experience for the new supervisors. "Six weeks after the seminar I still hear members of the group reference the sessions," Gloe says. "It's a chance to recheck against the values and beliefs we discussed in the seminar."

Contact: Jim Gloe, (573) 676-8277, jimgloe@cal.ameren.com; Tom Galloway, (770) 644-8623, gallowaytj@inpo.org

New document issued

INPO 99-001, *WANO Performance Indicators for the U.S. Nuclear Utility Industry*, provides U.S. industry results for the WANO performance indicators through year-end 1998. This document is available from the INPO document request line, (770) 644-8513, or via e-mail at documentrequest@inpo.org. Selected documents are also available on the Institute's secure member Web site, www.inpo.org.

was operational since midnight at a South Atlantic Energy Service Corp. station.

Walter F. Smith joined the accreditation and training department as a senior evaluator. He was shift manager at STP Nuclear Operating Company's South Texas Project Electric Generating Station.

Reverse loan employee

Jerry Bregg, assistant manager, maintenance department, joined New York Power Authority's James A. FitzPatrick Nuclear Power Plant. Bregg is instrument in and control manager.

Upcoming working meetings

Working meetings focus on specific operational issues and are small-group forums for sharing information among nuclear personnel with similar concerns. These meetings are held at INPO offices in Atlanta.

Chemistry working meeting
June 21

Pressurized water reactor chemistry managers

Engineering working meetings
June 22-23

Switchyard equipment

July 20-22

New engineering managers

Maintenance working meeting
June 22-23

Multidiscipline work teams

Operations working meeting
June 7-8

Operations managers

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INPO organizational changes

Bill Webster, formerly vice president, plant support division, has transferred to vice president, plant evaluation division. INPO's team managers and evaluation support department report to him.

Gary Fader, formerly manager, events analysis department, has been promoted to division director, plant support division. Engineering, maintenance and process management departments report to him.

Bob Heublein, formerly division director, plant evaluation division, has transferred to serve as executive assistant to Sig Berg, senior vice president.

Jim Lynch has been promoted to manager, events analysis department.

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Significant event reports issued to industry

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Significant Event Evaluation and Information Network documents recently issued include the following:

SER 3-98, Recurring Event, Flooding of ECCS Rooms Caused by Fire Protection System Water Hammer (Revision 1)

Flooding event at a plant in cold shutdown. This revision includes contributing factors the utility identified after the initial report was released.

- Smoke from a welding activity triggers smoke detectors and actuates the fire protection system.
- A severe fire protection system water hammer ruptures a 12-inch valve.
- Water from the ruptured fire protection system floods a stairwell and two emergency core cooling system pump rooms, submerging the RHR pump and motor.
- A floor drain isolation valve in the RHR room fails open, allowing water to flood the low pressure core spray room and pump to just below the pump motor.
- Before the fire pumps are stopped, about 163,000 gallons of water are spilled.

Contact: Steve Nichols, (770) 644-8519, nicholse@nipo.org

SEN 194, Work on 4-kV Vital Bus Causes Loss of Shutdown Cooling

Loss of shutdown and spent fuel pool cooling for approximately 26 minutes due to loss of power to a 4-kV vital bus.

- While racking out a breaker to establish a clearance, the breaker becomes stuck in its cubicle.
- Workers believe that discharging the closing springs will prevent the breaker from closing.
- With the breaker racked in, discharging the closing springs causes the breaker to close, creating a path to ground through the reserve auxiliary transformer ground disconnects.

Contact: Jim Voorhees, (770) 644-8458, voorheesj@nipo.org

SEN 195, Unplanned Entry into Reduced Inventory Conditions During Refueling Cavity Draindown

Plant event where operators unintentionally lower refueling cavity level approximately 43 inches below the reactor vessel flange while preparing for reactor vessel head installation.

Professional Development Seminar Graduates

Shift Manager Professional Development Seminar



Graduates of the 70th Shift Manager Professional Development Seminar are, from left (standing), **Nelson Larry Lane**, seminar mentor, **North Anna Power Station**; **Casper M. Jernigan**, **Shearon Harris Nuclear Power Plant**; **Randall L. Rahrig**, **Braidwood Station**; **Charles R. Smith**, **Donald C. Cook Nuclear Plant**; **Thomas W. Garot**, **Point Beach Nuclear Plant**; **William E. Smith**, **Indian Point Station Unit No. 2**; **Henry D. Coates**, **H. B. Robinson Steam Electric Plant**; **James M. Bonfiglio**, **Davis-Besse Nuclear Power Station**; (seated) **Frednie Forrest**, **Arkansas Nuclear One**; **Keith J. Polson**, **Dresden Station**; and **Graham P. Finn**, **Dungeness B Power Station (United Kingdom)**.

Maintenance Supervisor Professional Development Seminar



Graduates of the 36th Maintenance Supervisor Professional Development Seminar are, from left (standing), **Christopher C. Rose**, **Vermont Yankee Nuclear Generating Station**; **Miles F. Daubenhoyer**, **Arkansas Nuclear One**; **Timothy L. Irving**, **Diablo Canyon Power Plant**; **Thomas M. Fox**, **Cooper Nuclear Station**; **Thomas P. Roe**, **Clinton Power Station**; **Craig A. Conklin**, **Duane Arnold Energy Center**; **Maurio Cortés Gómez**, **Loguna Verde Nuclear Power Plant (Mexico)**; **Mark H. Seay**, **North Anna Power Station**; **Bruce W. Cummins**, **Palisades Nuclear Plant**; **Timothy B. Mitchell**, **Shearon Harris Nuclear Power Plant**; (seated) **James W. Holt**, seminar mentor, **St. Lucie Nuclear Power Plant**; **Michael S. Bennett**, **Kewaunee Nuclear Power Plant**; **James M. Reilly**, **Crystal River Unit 3**.

than 105 inches.

- The crew does not know the actual height of the flange and has no recent experience draining the cavity to the top of the seal plate.
- The crew relies on closed-circuit television and refueling level indicators to monitor refueling cavity level. They do not station an observer in containment.
- The crew decision to operate two shutdown cooling pumps with the cavity level below 137 inches also contributes to the event.

Contact: Bob Ciminel, (770) 644-8310, ciminelb@inpo.org

SEN 196, Recurring Event, Inadvertent Reactor Vessel Level Decrease During Shutdown Cooling Loop Transfer

Event where valve mispositioning while transferring shutdown cooling loops leads to an inadvertent reactor vessel level decrease.

- A control room operator does not verify the minimum flow valve closed, as required by the procedure, when starting the A loop of shutdown cooling.
- Approximately 7,000 gallons of water transfer from the reactor to the torus, resulting in a level decrease of about 35 inches.
- Key contributors include deficiencies in procedure use, prejob briefings and maintaining appropriate crew oversight.
- Lessons learned from similar station and industry events were not used to prevent this event.

Contact: Paul DiRito, (770) 644-8472, diritopj@inpo.org

SEN 197, Tank Truck Containing Sodium Hydroxide Inadvertently Connected to Sulfuric Acid Storage Tank

Event that resulted from communication errors and procedure deficiencies.

- A tank truck delivering sodium hydroxide (caustic) is inadvertently connected to a sulfuric acid storage tank.
- Operations personnel do not check the cargo manifest. They assume the truck contains sulfuric acid, as communicated to them by security personnel.
- After the truck is connected, a security guard asks operators what the term "caustic acid" means. This prompts further investigation, and operators discover that the truck contains sodium hydroxide.
- If the isolation valve to the sulfuric acid storage tank had been opened, an exothermic reaction would have occurred as the acid and caustic mixed, endangering any personnel in the vicinity of the storage tanks.

Contact: Bob Ciminel, (770) 644-8310, ciminelb@inpo.org

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Graduates of the 26th Engineering Supervisor Professional Development Seminar are, from left (standing), Garrett D. Edwards, seminar mentor, PECO Energy Company; Frank A. Bloise, Indian Point 3 Nuclear Power Plant; David M. Viener, Waterford 3 Steam Electric Station; Stanley E. Donikaitis III, Cooper Nuclear Station; Gary T. Shanker, Palo Verde Nuclear Generation Station; Lee E. Eaton, Grand Gulf Nuclear Station; Christopher C. Eckert, Vogtle Electric Generation Plant; Stephen M. Kotowski, North Anna Power Station; Joseph McManara, Point Beach Nuclear Plant; Neil J. Shorter, Dungeness B Power Station (United Kingdom); Robert T. Hanson, Diablo Canyon Power Plant; (seated) Stephen Smith, Indian Point 3 Nuclear Power Plant; Donald J. Gaudenberger, Susquehanna Steam Electric Station; Ted E. Williams, Crystal River Unit 3.

Senior Nuclear Plant Management Course



Graduates of the 50th Senior Nuclear Plant Management Course are, from left (standing), Kevin H. Bronson, Vermont Yankee Nuclear Generating Station; Dhira M. Jamil, McGuire Nuclear Station; Glenn D. Miller, PPL, Inc.; David A. Heacock, North Anna Power Station; Michael J. Pacilio, Dresden Station; Dick Farrell, Point Beach Nuclear Plant; Kenneth H. Weinbauer, Kewaunee Nuclear Power Plant; Karl Keckeis, Isar 1 Nuclear Power Plant (Germany); Dean A. Curtland, Duane Arnold Energy Center; M. Dwayne Carnes, Palo Verde Nuclear Generating Station; (seated) Murdo Allan, British Energy plc; and James R. Becker, Diablo Canyon Power Plant.

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Academy coordinators provide training assistance

Do you know about ATCs? They're training coordinators for the National Academy for Nuclear Training. Their mission: to help National Academy branch managers improve training effectiveness and avoid or solve training-related problems.

INPO assigns an ATC, typically a training evaluator, to every member plant. ATCs become familiar with a plant's training organization to better understand the health of training programs and the history of training-related problems. "The ATC serves as the plant's primary contact for training-related assistance," says Mark Peifer, vice president, INPO accreditation division. "In that regard, we expect the ATC to be the plant's advocate for training matters at INPO."

Staying in touch

ATCs keep in frequent contact with plant training managers, exchanging information on topics such as accreditation performance objectives criteria, training guidelines, training system development and job and task analysis. ATCs also discuss training issues with the plant's INPO SEE-IN contact and senior representative.

"This ongoing communication benefits INPO and the plants," says Dennis Koutouzis, ATC for Diablo Canyon Power Plant, Comanche Peak Steam Electric Station and South Texas Project Electric Gen-

erating Station. "It gives INPO a better picture of the plant's training strengths and areas for improvement. As a result, INPO can tailor training-related services and products to meet plant needs."

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—Mark Peifer

An industrywide view

ATCs also give plants valuable industrywide training information. "Our ATC keeps us up-to-date on industry changes in accreditation and training," says Russ Coon, Braidwood Station's training manager. For example, Rusty Shoemaker, ATC for Braidwood and Byron Stations, often meets with training personnel to discuss training challenges. "We benefit from Rusty's overall knowledge of industry training," Coon says. "He knows the key issues and communicates these so we can further improve our training programs."

Training managers also contact their ATCs to locate training-related information. As training evaluators, ATCs visit many U.S. plants and see some of the industry's best practices. ATCs share their industry knowledge with their respec-

tive plants. "We needed information on engineering training programs," says Coon. "Rusty pointed us in the right direction." Likewise, when Byron wanted to revise its shift technical advisor program, Shoemaker

help our crews do their jobs better," says Mitch Lucas, maintenance manager at the plant. "Training standards continue to get higher, so everyone, not just the training manager, needs to stay involved."

ATCs often facilitate requests for training assistance and, when appropriate, recommend assistance activities to address training-related problems. In addition, ATCs work with INPO plant evaluation team managers. ATCs and evaluation team managers coordinate contacting the plant's training manager within six months after the plant evaluation report has been issued. This follow-up helps INPO learn the utility's perspective about how useful the evaluation report was for making training-related improvements.

All these activities — from ongoing contact with the training manager to follow up on plant evaluation reports — help ATCs build strong relationships with plant training organizations. As a result of this rapport, many plants view their ATCs as integral parts of the training team.

"We've incorporated Dennis into our organization chart," explains Tim Blake, director of learning services, Diablo Canyon Power Plant. "We want people to know that, as our ATC, he serves as a resource when we need assistance in training." ■

Contact: Bill Fitzpatrick, accreditation and training department manager, (770) 644-8503, fitzpatrickw@inpo.org

provided the plant with several industry contacts.

It's important for ATCs to continually encourage this exchange of ideas, according to Shoemaker.

"When a plant shares information about training, as well as other issues, it reduces the likelihood that the plant will become isolated," he says. "The plant remains connected to the industry as a whole."

Looking at line involvement

ATCs also look at line management involvement, support and monitoring of training. In addition to the training manager, Koutouzis regularly contacts line managers and craft personnel. For example, he recently met with Comanche Peak's electrical and maintenance crews. "When Dennis meets with our crews, he discusses industrywide training techniques and what could

Academy coordinators provide training assistance

Do you know about ATCs? They're training coordinators for the National Academy for Nuclear Training. Their mission: to help National Academy branch managers improve training effectiveness and avoid or solve training-related problems.

INPO assigns an ATC, typically a training evaluator, to every member plant. ATCs become familiar with a plant's training organization to better understand the health of training programs and the history of training-related problems. "The ATC serves as the plant's primary contact for training-related assistance," says Mark Peifer, vice president, INPO accreditation division. "In that regard, we expect the ATC to be the plant's advocate for training matters at INPO."

Staying in touch

ATCs keep in frequent contact with plant training managers, exchanging information on topics such as accreditation performance objectives criteria, training guidelines, training system development and job and task analysis. ATCs also discuss training issues with the plant's INPO SEE-IN contact and senior representative.

"This ongoing communication benefits INPO and the plants," says Dennis Koutouzis, ATC for Diablo Canyon Power Plant, Comanche Peak Steam Electric Station and South Texas Project Electric Gen-

erating Station. "It gives INPO a better picture of the plant's training strengths and areas for improvement. As a result, INPO can tailor training-related services and products to meet plant needs."

"The ATC serves as the plant's primary contact for training-related assistance. In that regard, we expect the ATC to be the plant's advocate for training matters at INPO."

—Mark Peifer

An industrywide view

ATCs also give plants valuable industrywide training information. "Our ATC keeps us up-to-date on industry changes in accreditation and training," says Russ Coon, Braidwood Station's training manager. For example, Rusty Shoemaker, ATC for Braidwood and Byron Stations, often meets with training personnel to discuss training challenges. "We benefit from Rusty's overall knowledge of industry training," Coon says. "He knows the key issues and communicates these so we can further improve our training programs."

Training managers also contact their ATCs to locate training-related information. As training evaluators, ATCs visit many U.S. plants and see some of the industry's best practices. ATCs share their industry knowledge with their respec-

tive plants. "We needed information on engineering training programs," says Coon. "Rusty pointed us in the right direction." Likewise, when Byron wanted to revise its shift technical advisor program, Shoemaker

help our crews do their jobs better," says Mitch Lucas, maintenance manager at the plant. "Training standards continue to get higher, so everyone, not just the training manager, needs to stay involved."

ATCs often facilitate requests for training assistance and, when appropriate, recommend assistance activities to address training-related problems. In addition, ATCs work with INPO plant evaluation team managers. ATCs and evaluation team managers coordinate contacting the plant's training manager within six months after the plant evaluation report has been issued. This follow-up helps INPO learn the utility's perspective about how useful the evaluation report was for making training-related improvements.

All these activities — from ongoing contact with the training manager to follow up on plant evaluation reports — help ATCs build strong relationships with plant training organizations. As a result of this rapport, many plants view their ATCs as integral parts of the training team.

"We've incorporated Dennis into our organization chart," explains Tim Blake, director of learning services, Diablo Canyon Power Plant. "We want people to know that, as our ATC, he serves as a resource when we need assistance in training." ■

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provided the plant with several industry contacts.

It's important for ATCs to continually encourage this exchange of ideas, according to Shoemaker.

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