# NPJ Advertising and Advertorial Information

*For the July-August 2009 Issue*

<table>
<thead>
<tr>
<th>Pages</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>Index</td>
</tr>
<tr>
<td>2</td>
<td>Advertorial Issue Ad Planning &amp; Reservation Form</td>
</tr>
<tr>
<td>3-4</td>
<td>Full-Page Advertorial &amp; Advertising Sample</td>
</tr>
<tr>
<td>5</td>
<td>1/2-Page Advertorial &amp; Advertising Sample</td>
</tr>
<tr>
<td>6</td>
<td>1/3-Page Island Advertorial &amp; Advertising Sample</td>
</tr>
<tr>
<td>7-8</td>
<td>2009 Rate Card</td>
</tr>
</tbody>
</table>

This brochure provides information on the upcoming July-August issue which is Nuclear Plant Journal’s 2009 New Plants and Vendor Advertorial Issue. In this issue, advertisers who purchase an advertisement will receive an equivalent complimentary advertorial space. The advertorial must be provided by the client. The following guidelines may be of interest to the organizations preparing the advertorial:

The advertorial will include the participating company’s profile providing an overview of the products and services of an individual organization. The advertorial may also include highlights of an organization, including any awards received or any recent product developments, research, or other accomplishments. Visuals may be added to enhance the attraction to the advertorial page.

The profile used in the advertorial issue will also be included in, “Vendor Profile” area of Nuclear Plant Journal’s state of the art new website (www.nuclearplantjournal.com) for one year until June 2010.

This brochure includes specifications and samples for the Advertorial Issue. Advertising information is given in the Advertising Planning & Reservation Form on Page 2 and on the Rate Card on pages 7-8. You may print, complete and fax Page 2 to (630) 858-8787 to reserve advertising space. Please contact us if you have any questions or require further information.

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799 Roosevelt Road  
Building 6, Suite 208  
Glen Ellyn, IL 60137 USA  
Phone: (630) 858-6161, ext. 103  
Fax: (630) 858-8787  
E-mail: NPJ@goinfo.com  
http://www.nuclearplantjournal.com
July-August 2009

New Plants and Vendor Advertorial Issue

July-August Vendor Advertorial issue
Advertisers will be provided cost-free space for their advertorial, which will be the same size as the advertisement they have committed in the July-August issue.

The profile used in the advertorial issue will also be included in, “Vendor Profile” area of Nuclear Plant Journal’s state of the art new website (www.nuclearplantjournal.com) for one year until June 2010.

Bonus circulation for July-August 2009
Nuclear Information & Records Management Association, Las Vegas, Nevada

Ad space reservation deadline:
July 6, 2009

Advertiser’s Commitment
Reserve advertising space as marked below.

NPJ Digital Version
2009 issues of Nuclear Plant Journal are also published in digital format. To subscribe go to www.nuclearplantjournal.com.

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2009 Ad Planning & Reservation Form (APARF)
Faxing is faster! Fax: (630) 858-8787

Please mark below the 2009-2010 issues you are interested in and return this form to Nuclear Plant Journal.

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2009 Advertising Rates
(Price in US$ per black & white advertisement)

<table>
<thead>
<tr>
<th>Size</th>
<th>1x</th>
<th>3x</th>
<th>6x</th>
<th>12x</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full page</td>
<td>$3,322</td>
<td>$3,172</td>
<td>$3,017</td>
<td>$2,851</td>
</tr>
<tr>
<td>2/3 page</td>
<td>$2,662</td>
<td>$2,524</td>
<td>$2,474</td>
<td>$2,253</td>
</tr>
<tr>
<td>1/2 page</td>
<td>$2,104</td>
<td>$2,051</td>
<td>$1,988</td>
<td>$1,773</td>
</tr>
<tr>
<td>1/3 page</td>
<td>$1,422</td>
<td>$1,368</td>
<td>$1,327</td>
<td>$1,201</td>
</tr>
<tr>
<td>1/4 page</td>
<td>$1,084</td>
<td>$1,032</td>
<td>$988</td>
<td>$927</td>
</tr>
<tr>
<td>1/6 page</td>
<td>$835</td>
<td>$798</td>
<td>$750</td>
<td>$717</td>
</tr>
</tbody>
</table>

Additional Rates for Color:
• Second color: (matched or process) $500
• Four-color process, per page or fraction $850
• Four-color process, 2-page spread $1,500
• Bleed No charge

Circulation Data
• Total Qualified: 12,000
• Utilities: 4,500

Notes
1. All circulation figures are subject to BPA audit.
2. Bonus circulation plans subject to change.
3. The publisher reserves the right to change prices and circulation.

May, 2009

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Editorial Schedule

<table>
<thead>
<tr>
<th>Issue</th>
<th>Commitment Due</th>
<th>Bonus Distribution</th>
<th>Ad Size/Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Plants and Vendor Advertorial</td>
<td>July-August 2009</td>
<td>NIRMA¹, Las Vegas, NV</td>
<td>___________</td>
</tr>
<tr>
<td>Plant Maintenance &amp; PLEX²</td>
<td>Mar-Apr 2010</td>
<td>NEI³, San Francisco, CA</td>
<td>___________</td>
</tr>
<tr>
<td>Outage Management &amp; Health Phys.</td>
<td>May-June 2010</td>
<td>ANS, Ameilia Island, FL</td>
<td>___________</td>
</tr>
</tbody>
</table>

*Ad materials are due one week after the commitment deadline.

¹ NIRMA: Nuclear Information & Records Management Association
² PLEX: Plant Life Extension
³ NEI: Nuclear Energy Institute’s Annual Assembly
Abstract

The Comex Nucléaire Engineering and Intervention departments have developed and performed a metallurgical maintenance operation on the adapter lip of the canopy seal welded with the reactor control rod drive mechanisms in an Electricité de France (EDF) electrical utility pressurized-water reactor (PWR) plant. This involved removing in-situ stress corrosion cracks and rebuilding an adapter lip with the exact original geometry. A high dose rate in the repair zone necessitated the development of automated machines requiring very little human intervention. The method consisted in removing the cracked lip on 360° and rebuilding it with a weld built up deposited by orbital tungsten inert gas (TIG) welding around the adapter. The deposit is then machined by orbital milling to the initial dimensions of a new lip and controlled. The entire operation was qualified in France and was implemented on the Bugey press Unit 5 in 2001.

Introduction

The maintenance operation presented here involves repairing the canopy lip of a PWR reactor vessel head adapter by removing stress corrosion crack indications and rebuilding an identical lip by automated means.

We made the decision to present this specific maintenance operation on a large component of the PWR power plant’s main primary system because this is representative of Comex Nucléaire’s skills and means in the following areas:

- PWR environment and regulation
- Design of special remote-operated tooling (machining, welding, NDT and video monitoring)
- Development of automated welding procedures
- Intervention means in terms of human resources and equipment for all of said technologies

Defect Origin and Position

The indications noted by EDF following video-monitoring inspection and dye-penetrant inspection of the lower canopy seal joining the adapters penetrated the reactor vessel head either to the control rod drive mechanism or to the thermocouple instrument port. The crack indications subject of this repair were located at the root of the machined lip in the adapter and formed the lower section of the welded seal. This zone is in the stainless steel 304L section of the adapter above the bi-metallic weld (inconel/stainless steel 304L).

The lower canopy seal is only an integrity seal weld and the hydrostatic end force generated by the primary system pressure is entirely supported by the thread on which the control rod drive mechanism (CRDM) is screwed. Development of this type of crack could potentially lead to a primary coolant leakage on the reactor vessel head. The decision to repair was made based on this risk.

Analyses conducted by EDF revealed a risk of stress corrosion in this area. Three factors promoting this phenomenon are present:

- Welding the canopy seal to the CRDM assembly gives rise to residual tensile stress loading at the adapter lip root
- Under operation, temperature in this zone is high throughout the entire cycle
- The presence of stagnant water could present a specific chemical composition or even a water/vapor/air interface zone

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Repair Objectives and Initial Design Restraints

The repair objective was to remove the defects at the lip root and rebuild a lip to finally allow EDF to reassemble a standard CRDM by means of the usual canopy seal weld process.

For this, the given technical objectives were:

- To remove cracks at the root up to a depth of 4mm in the adapter
- To ensure that the initial design with respect to the shape and dimensions of the lip and adapter is maintained. This leads to a welding process with low deformations and to a machining process that respects complicated shapes and tight tolerances
- To ensure weldability with a standard CRDM from a metallurgical point of view
- To ensure surface conditions and surface stress loading that will not promote stress corrosion
- To control the result in accordance with French regulations
- To be able to intervene in-situ on adapters in all types of French PWRs (900MWe, 1,300MWe, 1,450MWe)
- To take significant dose rates into consideration in the work zone, which necessitates the design of procedures limiting human intervention
Free Ad Space & Free Vendor Profile on NPJ Website

Commitment Deadline: July 6, 2009
Advertisers in the July-August, 2009 New Plants & Vendor Advertorial Issue are entitled to an equivalent amount of free advertorial space in the same issue.

The profile used in the advertorial issue will also be included in, “Vendor Profile” area of Nuclear Plant Journal’s state of the art new website (www.nuclearplantjournal.com) for one year until June 2010.

NPJ Digital Version
2009-2010 issues of Nuclear Plant Journal are also published in Digital format. To subscribe go to www.nuclearplantjournal.com and click on the "Subscription" button in the middle of the top row.

Nuclear Plant Journal
Phone: (630) 858-6161, ext. 103
Fax: (630) 858-8787
http://www.nuclearplantjournal.com
E-mail: michelle@goinfo.com
The current circulation of *Nuclear Plant Journal* reaches more than 12,000 qualified recipients—the highest among U.S. publications targeted to the nuclear power industry.

The profile used in the advertorial issue will also be included in, “Vendor Profile” area of Nuclear Plant Journal’s state of the art new website (www.nuclearplantjournal.com) for one year until June 2010.

### Advertorial Issue 2009

#### Highest Circulation

The current circulation of *Nuclear Plant Journal* reaches more than 12,000 qualified recipients—the highest among U.S. publications targeted to the nuclear power industry.

The profile used in the advertorial issue will also be included in, “Vendor Profile” area of Nuclear Plant Journal’s state of the art new website (www.nuclearplantjournal.com) for one year until June 2010.

### Advertorial Issue

Advertisers will be provided a cost-free space for their advertorial, which will be the same size as the advertisement they have committed in the July-August 2009 issue.

### Annual Editorial Schedule

- **January-February**
  - International Trade and Waste & Fuel Management Issue

- **March-April**
  - Plant Maintenance & PLEX Issue

- **May-June**
  - Outage Mgmt. & Health Physics Issue

- **July-August**
  - New Plants & Vendor Advertorial Issue

- **September-October**
  - Plant Maintenance & Advanced Reactors Issue

- **November-December**
  - Annual Product & Service Directory Issue

**Contact:** Michelle Gaylord, 630.858.6161, ext. 103

[http://www.nuclearplantjournal.com](http://www.nuclearplantjournal.com)
off-the-shelf HP workstation. By means of SIVAT, the generated C-code is first automatically instrumented so that the analyses of the specified functionality can be performed by test scripts that trigger input data trajectories. Furthermore, the resultant output signals are able to be compared to specified expectations.

The following types of tests are supported by SIVAT:
- Static analysis with step-by-step modified input data
- Dynamic open-loop tests by scheduled input data trajectories
- Dynamic closed-loop tests by linking the generated code to a plant simulator code as used for the plant safety analysis

The essential advantage for ensuring that the final software quality is the same code that is intended for integration into the target system is also the object of the activities that validate the functional specification.

Furthermore, by means of SIVAT, the behavior of the TELEPERM XS system, which is to be expected after final integration, can already be assessed without the need for the availability of the target system.

The transients used for validation will be selected as representatives for the range of applicable conditions with respect to safety and operational requirements.

In order to validate in a first step the specified functionality (functional validation), the automatic code may already be generated for a single-redundancy input specification. For such a single-redundancy input specification, the input signals may be specified only as input types (e.g. coolant pressure, inlet and outlet temperature) without the need to clarify the redundancy, identification code and marshalling of the physical input signals.

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With respect to the complete TELEPERM XS engineering process, the same test scripts that are used to specify the test cases for SIVAT testing can be processed again by our test system ERBUS for system validation in the test field. This enables a simple comparison between SIVAT testing of the application software (without target
14. Premium Position Ads
   All premium position ads will be four-color. Clip-
coupons are not permitted as a part of the premium
position ads. Additional costs (indicated as a percentage
of the space rate) for premium position ads are (A) 10%
for pages 3, 4, 7 or the inside back cover (B) 15% for the
inside front cover and (C) 20% for the back cover.

15. Terms:
   A. The advertising organization, whose advertise-
      ments appears in the Journal, will be directly
      responsible for the payment to Nuclear Plant Jour-
      nal, even if such advertisements are placed by an
      agency.
   B. Advertisers must provide Nuclear Plant Journal
      with a current contact name and e-mail address or fax
      number for use in the Rapid Response Form.
   C. A price reduction or a rerun of advertisements will
      not be provided due to printing errors that do not
      impair the advertisement's message.
   D. On multiple insertion orders, the most recent ad
      copy will be inserted in the Journal, unless new
      copy is received by the material due date.
   E. Ad cancellations are not accepted after the commit-
      ment deadline. The canceled ads will be subject to full cost.
   F. Earned rates will be applied to incomplete
      contracts.
   G. All submitted ad media will be stored for one
      year and discarded thereafter unless the client
      requests its return.
   H. The publisher is not responsible for
      advertisements' contents.
   I. Position requests will be honored wherever
      possible, but they cannot be guaranteed.
   J. Bonus circulation, Internet coverage and Rapid
      Response Form services are provided at no cost. 
      Price reductions or refunds on space advertising
      costs are not allowed for any deficiency in these
      services.

16. Advertorial Issue:
   Advertisers will be provided cost-free space for their
   advertorial, which will be the same size as the advertise-
   ment they have committed in the July-August Advertorial
   issue.

17. Print-Ready Electronic Ad Specifications:
   A. Preferred Mode of File Transmittal: High resolution
      PDF: The preferred method of material transmittal is via
      high resolution CD sent to Nuclear Plant Journal's office.
      Additional specification are available via e-mail.
   B. Intimation & Proof: The advertising materials
      may also be e-mailed to NPJ@goinfo.com and
      color proof sent to Nuclear Plant Journal. PDF file
      proofs are acceptable. Any deviations in the client's
      submitted file as compared to specifications given
      below must be brought to our attention via email:
      NPJ@goinfo.com before the material deadline.
   C. Preferred File Format: PDF files are preferred as
      a finished file format. When supplying PDF files,
      please ensure the following procedures before
      creating the file. All art, fonts, graphics, images
      must be embedded prior to creating the PDF. PDFs
      should not contain: color profiles, RGB or LAB color
      images, all images must be CMYK and spot color
      unless it is intended to print. All images should be
      300 dpi (dots per inch) resolution or higher
   D. Acceptable Finished File Formats: DCS 2.0, PDF,
      Postscript, Tiff/It, Scitex CT/LW.
   E. Acceptable Native Files: QuarkXpress 4.1 or higher,
      Adobe Pagemaker 6.5.2 or higher, Adobe InDesign
      2.0.2 or higher, Adobe Acrobat 5.x or higher, Adobe
      Photoshop 2.5.2 or higher, Adobe Illustrator 5.5 or
      higher, Macromedia Freehand 5.5 or higher. Adobe
      Illustrator and Macromedia Freehand native art
      should be saved as an eps.
   F. Unacceptable File Formats: Native Illustrator and
      Freehand, Microsoft Word, Microsoft Powerpoint,
      Microsoft Excel, Microsoft Publisher and Corel Draw.
   G. Charges for banner advertising are $2,700 per 6
      months and $4,500 for the whole year. The banner
      locations will be provided on "first come" basis.
      Organizations should provide the URL to be linked
      from the banner.
1. Objectives:
- To provide educational, research, and technical information exchange among managers and engineers in the nuclear power industry worldwide.
- To promote trade among nuclear energy-related organizations in the United States and worldwide.

2. Editorial Profile:
Nuclear Plant Journal includes technical papers, informative articles and departments aimed at developing better methods, systems, products and services in the nuclear power industry. The Journal is compiled through the research efforts of managers and professional engineers who are specialists in their respective fields.

3. Editorial Schedule:
The Journal follows a cyclic editorial schedule with respective issues indicated below:

- March-April: Plant Maintenance & PLEX
- May-June: Outage Mgmt. & Health Physics
- July-August: New Plants & Vendor Advertorial
- September-October: Plant Maintenance & Advanced Reactors
- November-December: Annual Product & Service Directory

4. Audience:
Nuclear Plant Journal has a total circulation of more than 12,000 readers, including more than 4,500 utility recipients—the highest among U.S. publications serving the commercial nuclear power generation industry.

5. Commission:
An agency commission, 15% of costs on space, color and position, is allowed to recognized agencies.

6. Format:
- Full Page: $3,322, $3,172, $3,017, $2,851
- 2/3 Page: $2,662, $2,524, $2,474, $2,253
- 1/2 Page: $2,104, $2,051, $1,998, $1,773
- 1/3 Page: $1,442, $1,368, $1,327, $1,201
- 1/4 Page: $1,084, $1,032, $998, $882

7. Printing & Binding:
Web Offset (Saddle-Stitched, except the annual Directory issue, which is Perfect-Bound).

8. Advertisement Dimensions (Inches):

<table>
<thead>
<tr>
<th>Page Size</th>
<th>Format</th>
<th>Width</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Page</td>
<td>Vertical</td>
<td>7 x 10</td>
<td>16-1/2 x 10-7/8</td>
</tr>
<tr>
<td>2/3 Page</td>
<td>Vertical</td>
<td>4-9/16 x 10</td>
<td>6 x 5/8</td>
</tr>
<tr>
<td>1/2 Page</td>
<td>Vertical</td>
<td>4-9/16 x 7</td>
<td>3-3/8</td>
</tr>
<tr>
<td>1/3 Page</td>
<td>Vertical</td>
<td>3-3/8 x 10</td>
<td>2-3/16</td>
</tr>
<tr>
<td>1/4 Page</td>
<td>Vertical</td>
<td>3-3/8 x 7</td>
<td>1-1/4</td>
</tr>
<tr>
<td>1/6 Page</td>
<td>Vertical</td>
<td>2-5/16 x 7</td>
<td>2-3/16</td>
</tr>
</tbody>
</table>

9. Payment Terms:
Payment is due within 30 days from the date of the invoice. A 1.5% monthly service fee will be added for overdue accounts. A 2% discount on the net amount will be allowed for prepayment. First-time Journal advertisers must pay for advertisements prior to publication.

10. Advertorial Options:
- Second color: $500
- Four-color process, per page or fraction: $850
- Four-color process, 2-page spread: $1,500
- Bleed: No charge

11. Advertising Rates & Data

<table>
<thead>
<tr>
<th>Size</th>
<th>Format</th>
<th>Color</th>
<th>Price (US dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Page</td>
<td>Vertical</td>
<td>Black &amp; White</td>
<td>$3,322</td>
</tr>
<tr>
<td>2/3 Page</td>
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<td>Vertical</td>
<td>Black &amp; White</td>
<td>$1,084</td>
</tr>
<tr>
<td>1/6 Page</td>
<td>Vertical</td>
<td>Black &amp; White</td>
<td>$835</td>
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12. Additional Rates for Color:
- Second color: $500
- Four-color process, per page or fraction: $850
- Four-color process, 2-page spread: $1,500
- Bleed: No charge

13. Advertising Closing Dates:

<table>
<thead>
<tr>
<th>Issue</th>
<th>Commitment</th>
<th>Material Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product &amp; Service Directory - 2010</td>
<td>Nov. 25, 2009</td>
<td>Nov. 18, 2009</td>
</tr>
</tbody>
</table>

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Revision Date: November, 2008

Volume 27