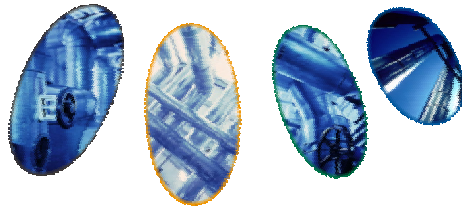


## NACE International & Pipeline Coatings

**Cliff Johnson**  
Director, Education  
**Larry Christie**  
Coatings Market Manager



### Presentation Overview

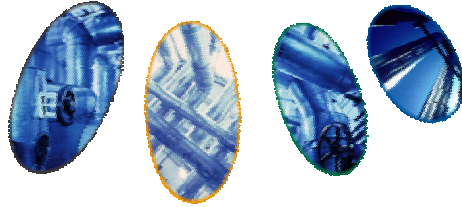


- Who is NACE International
- How Standards are Developed
- External Coating Standards for Pipelines
- Test Methods & Technical Committee Reports for Pipeline Coatings
- NACE Committee Listings for Pipeline Coatings
- Coating Applicator Training Program
- NACE Legislative Efforts



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## NACE International About us



### History

- ⚙ Founded in 1943
- ⚙ Began with the Oil & Gas Industry
- ⚙ Goals – Protect the environment, public safety, and reduce the economic impact of corrosion

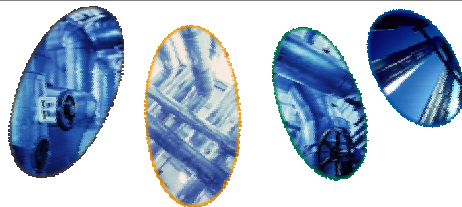
### Since 1943 NACE International has:

- ⚙ Produced over 100 standards
- ⚙ Developed numerous training and certification courses
- ⚙ Grown to almost 15,000 members worldwide



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## How NACE Standards Are Developed

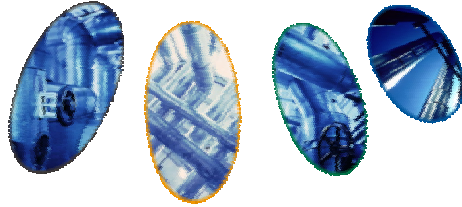


- ⚙ More than 300 NACE technical committees
- ⚙ The committees serve as the technical arm of the association
- ⚙ Committee members develop NACE standards, reports, and conduct informative meetings, symposia, and open forums to exchange state-of-the-art technical information.
- ⚙ NACE International publishes 3 classes of standards: material requirements (MR), recommended practices (RP), and test methods (TM).



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## Committee Listings for Pipeline Coatings

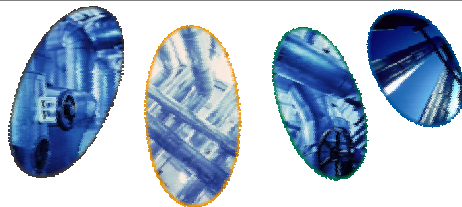


- **Specific Technology Group (STG 03)** “Coatings and Linings, Protective: Immersion and Buried Service”
- **Task Group (TG 247)** Coatings, Liquid Epoxy for External Repair, Rehabilitations, and Weld Joints on Buried Steel Pipelines
- **Task Group (TG 251)** Coatings, Tape for External Repair, Rehabilitations, and Weld Joints on Pipelines
- **Task Group (TG 265)** Coating Systems, Polyolefin Resin: Review of NACE Standard RP0185-96



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## Committee Listings for Pipeline Coatings

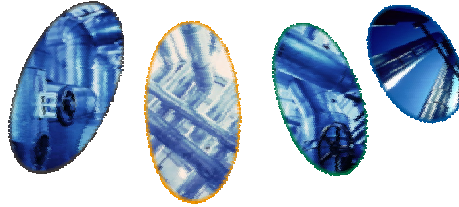


- **Task Group (TG 281)** Coatings, Polyurethane for Field Repair, Rehabilitation, and Girth Weld Joints on Pipelines
- **Task Group (TG 294)** Above Ground Techniques for the Evaluation of Underground Pipeline Coating Condition
- **Task Group (TG 296)** Coating Systems, Wax for Underground Piping Systems: Review of NACE Standard RP0375



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## Committee Listings for Pipeline Coatings

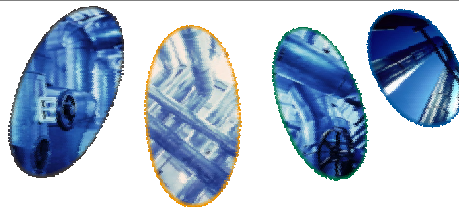


- **Specific Technology Group (STG 35)** - “Pipelines, Tanks, Well Casings”
- **Task Group (TG034)** Pipeline Coatings, External : Gouge Test
- **Technology Exchange Group (TEG) 033X** Pipeline Rehabilitation Coatings



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## NACE External Coating Standards for Pipelines

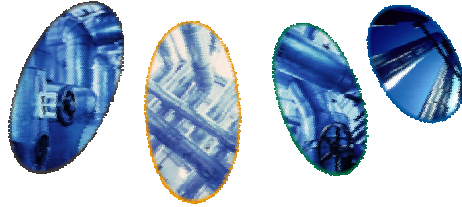


- ⚙ **RP0399-2004** Plant-Applied, External Coal Tar Enamel Pipe Coating Systems: Application, Performance, and Quality Control
- ⚙ **RP0602-2002** Field-Applied External Coal Tar Enamel Pipe Coating Systems: Application, Performance, and Quality Control
- ⚙ **RP0394-2002** Application, Performance, and Quality Control of Plant-Applied Fusion-Bonded Epoxy (FBE) External Pipe Coating
- ⚙ **RP0402-2002** Field-Applied Fusion-Bonded Epoxy (FBE) Pipe Coating Systems for Girth Weld Joints: Application, Performance, and Quality Control



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## NACE External Coating Standards for Pipelines

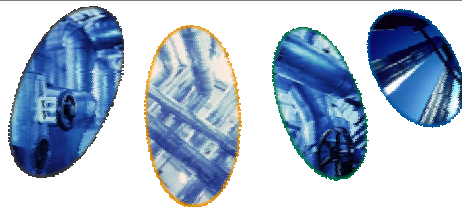


- ⚙️ [RP0303-2003](#) Field-Applied Heat-Shrinkable Sleeves for Pipelines: Application, Performance, and Quality Control
- ⚙️ [RP0490-2001](#) Holiday Detection of Fusion-Bonded Epoxy External Pipeline Coatings of 250 to 760  $\mu\text{m}$  ( 10 to 30 mils )
- ⚙️ [RP0185-96](#) Extruded Polyolefin Resin Coating Systems with Soft Adhesives for Underground or Submerged Pipe
- ⚙️ [RP0375-99](#) Wax Coating Systems for Underground Pipeline Systems



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## Test Methods for Coatings

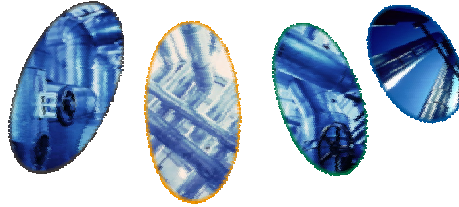


- ⚙️ [TM0102-2002](#) - Measurement of Protective Coating Electrical Conductance on Underground Pipelines
- ⚙️ [TM0174-2002](#) - Laboratory Methods for the Evaluation of Protective Coatings and Lining Materials for Immersion Service
- ⚙️ NACE Technical Committee Reports on Pipeline Coatings
- ⚙️ [NACE Publication 10D199](#) - Coatings for the Repair and Rehabilitation of the External Coatings of Buried Steel Pipelines



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## Standards Under Development

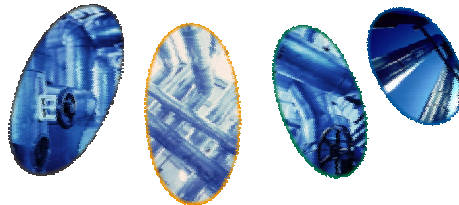


Committee Number	Document Type	Title	Status	Expected Publication Date
TG 247	Standard	Coatings, Liquid Epoxy for External Repair, Rehabilitations, and Weld Joints on Buried Pipelines	Re-balloted	October 2005
TG 251	Standard	Tape Coatings for External Repair, Rehabilitations, and Weld Joints on Pipelines	Completing Draft	October 2005
TG 265	Revision of NACE Standard RP0185-96	Review of NACE Standard RP0185-96 "Extruded Polyolefin Resin Coating Systems with Soft Adhesives for Underground or Submerged Pipe"	Ballot closed 08/2002; Open review held at C/2003	October 2005



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## Standards Under Development

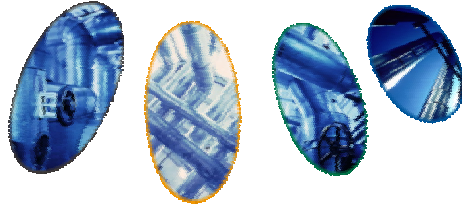


Committee Number	Document Type	Title	Status	Expected Publication Date
TG 281	Standard	Field-Applied Polyurethane Coatings for Field Repair, Rehabilitation, and Girth Weld Joints on Pipelines: Application, Performance, and Quality Control	Ballot closed 01/2003 Open Review held at CTW/2003	January 2006
TG 294	Standard	Aboveground Techniques for the Evaluation of Underground Pipeline Coating Condition	Just received draft from committee	June 2006
TG 296	Revision of NACE Standard RP0375-99	Wax Coating System for Underground Piping Systems	Re-Ballot closed 3/9/05	October 2005



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## Coating Applicator Training Program

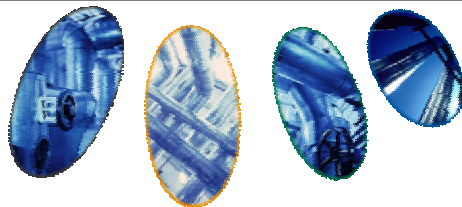


- ⚙ Action spurred by the U.S. Navy and the International Union of Paint and Allied Trades (IUPAT)
- ⚙ NACE International and SSPC are co-developing a comprehensive credentialing program for coating applicators that includes a standard on performance qualifications, training & certification



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## Coating Applicator Training Program

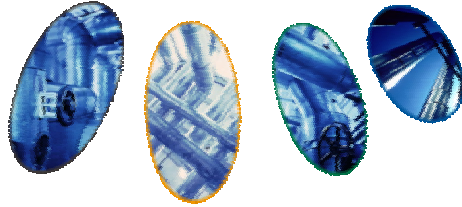


- ⚙ Task groups have been established to work on the standard and the training and certification programs.
- ⚙ Tentative plan is to offer four levels of training ranging from the “helper” level to the “master” level.
- ⚙ Plan to publish standard in January 2006. Training and certification will follow.
- ⚙ Approaching development stages
- ⚙ Hands-on training + lecture



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## Invest in the Future “Request to Congress”



- ⚙️ Corrosion Prevention Tax Credit
- ⚙️ Propose a 15% Tax Credit on Implementation of Corrosion Prevention Strategies and Methodologies
- ⚙️ Tax Credit to all businesses and in all industries based on new initiatives



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Cliff Johnson  
Director, Education  
Larry Christie  
Coatings Market Manager

Office of Pipeline Safety Workshop on  
**Advanced Coatings R&D for Pipelines and Related  
Facilities**  
June 9, 2005