Nuclear Grade Zirconium Alloy Market Outlook

Analyzing the Future for Zircaloy

UxC, LLC (UxC), a global leader in nuclear market information services, market research, and analysis, is pleased to present the seventh edition in its report series Nuclear Zirconium Alloy Market. Since 2008, UxC has presented this report as an in-depth look at the nuclear zirconium alloy industry. The highly favorable response to each successive edition of this report has convinced us that there is an ongoing need for current information and analysis on this unique marketplace. Thus, we have added the Nuclear Zirconium Alloy Market to our list of periodic reports, and our latest findings and conclusions are presented in this new May 2019 edition.

Nuclear-grade zirconium alloys and products are used in the fabrication of fuel assemblies used in the vast majority of current and future nuclear reactor designs around the world. Even as the nuclear renaissance has been derailed by the Fukushima accident and other negative nuclear policy and electric power market developments, many aspects of the international nuclear fuel supply chain continue to be of great interest. The supply of nuclear-grade zirconium - from zircon mineral sand through the cladding and components used in finished fuel assemblies - has also not escaped this scrutiny. Therefore, the primary objective of this report is to factually and analytically approach the current and expected future direction of the nuclear-grade zirconium alloy market with the aim of reaching some clear conclusions about how producers of fuel assemblies for nuclear reactors will obtain the zirconium alloys needed to create their finished products.

This updated report offers UxC's latest analysis of the various sectors that make up the nuclear-grade zirconium sponge, alloy, materials, and tubing markets. Using proprietary demand modeling and other unique research results, we identify the latest major trends in this industry by analyzing the global and regional supply and demand balances for nuclear-grade zirconium sponge, alloy, and tubing as well as the supply and demand situation based on reactor fuel types.

What's New in the 2019 Edition?

This 2019 edition of UxC's Nuclear Zirconium Alloy Market report includes the following new and updated elements:

- Enhanced analysis of the latest zirconium minerals market trends, including assessment of the recent rebound in prices for zircon raw materials since 2016 and the subsequent impacts on the nuclear zirconium alloy market
- Increased analysis of the nuclear zirconium alloy production cycle and the technologies deployed in this industry
- Updated supply capacities and production data for all producers in the nuclear-grade zirconium supply chain
- Post-Fukushima updated nuclear reactor and zirconium demand forecasts
- Updated supply forecasts with extended outlook through 2035 for each of the nuclear zirconium sponge, alloy, and tubing markets
- A new section on emerging market trends has been added to this 2019 report to provide broader context to key issues, including trade and government policies affecting the zirconium sector, the evolution of accident tolerant nuclear fuels, and the hafnium market
- Updated nuclear-grade zirconium sponge and alloy market price estimates and future price assessments
- Improved discussion on the design of BWR and PWR fuel assemblies, the zirconium alloy components of which they are constructed, and the fuel fabrication process

Standard Features

- **General Zirconium Overview** provides a broad summary of the zirconium mineral occurrence, resource base, and industrial applications, including the role of zirconium alloy production for the nuclear fuel industry. This helps put the specific nuclear zirconium market analysis in perspective.
- **Manufacturing Processes for Nuclear Fuel Components** discusses the manufacturing processes and the overall "zirconium cycle" for production of the materials and components used in nuclear fuel assemblies.
- **Nuclear Zirconium Alloy Materials & Product Suppliers** offers updated descriptions of each company involved in nuclear-grade zirconium alloy materials and product supply. This includes all firms in the world involved in zirconium sponge and alloy
production and processing through manufacture of tube-reduced extrusions (TREX), as well as separate tubing manufacture.

- **Nuclear Fuel Fabricators & Zircaloy Tubing Supply** provides a review of the nuclear fuel fabrication business and processes while indicating where fabricators acquire their zirconium fuel assembly components.

- **Nuclear Zirconium Supply & Demand Analysis** offers UxC's proprietary data and analysis of the global supply and demand balance for nuclear fuel-related zirconium sponge, alloy, and products. In addition, this chapter includes regional breakdowns as well as supply and demand analysis based on the different global reactor fuel types.

- **Overall Conclusions & Market Analysis** completes our nuclear-grade zirconium market analysis with final thoughts on emerging and future market trends as well as expectations for price developments.

### Pricing Information

- Full standard price: **US$4,000.00**
- UxC Market Report Customers: **US$3,500.00** (must be a subscriber to one of UxC's *Market Outlook* report packages - UMO/CMO/EMO/FMO)
- **Repeat Customers: US$3,500.00** (a special discounted price is available for customers of previous editions of UxC's *Nuclear Zirconium Alloy Market* reports)
- **Special Package Offer with FMO:** A discounted package price is available for customers who purchase UxC's *Fabrication Market Outlook* (FMO) report together with the *Nuclear Zirconium Alloy Market*.

UxC's 2019 *Nuclear Grade Zirconium Alloy Market Outlook* report is available for immediate purchase. Please see our product flier and the table of contents in Adobe Acrobat PDF format.

An **online order form** is now available.