Accelerating distinctiveness

Steel Tube Works
Forward-looking Statement

This presentation contains certain forward-looking statements. The Company has tried, whenever possible, to identify these forward-looking statements using words such as “anticipated,” “believes,” “estimates,” “forecasts,” “expects,” “plans,” “intends,” “targets,” and similar expressions. Similarly, statements herein that describe the Company’s business strategy, outlook, objectives, plans, intentions or goals are also forward-looking statements. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which could cause the Company’s actual results, performance or achievements to differ from those expressed in, or implied by, such statements. These risks and uncertainties may include, but are not limited to: the Company’s ability to successfully implement its strategies to restructure the steel business and reinforce its financial structure; the effects of and changes in Japanese and worldwide general economic conditions and in the steel industry in particular, including the severity of any economic slowdown, technological and other changes affecting the manufacture of and demand for the Sumitomo Metals Group’s products, changes in Japan’s and other countries’ laws and regulations, including with regard to taxation, and other risks and uncertainties set forth in subsequent press releases and in the Sumitomo Metals Group’s public filings. These statements reflect the Company’s current beliefs and are based upon information currently available to it. Be advised that developments subsequent to this presentation are likely to cause these statements to become outdated with the passage of time. The Company disclaims any intent or obligation to update these forward-looking statements.

All output figures in this presentation are metric tons.
1. Overview of Steel Tube Works
Pipe manufacturing method and material

Overview

Ugine process required (Steel Tube Works)

High Alloy OCTG

Nickel base Alloy

Higher strength and difficult to manufacture

Austenitic stainless

Duplex stainless

13Cr

Low-Cr

Carbon

Mandrel mill (Others)

High toe-angle mandrel mill (Wakayama)

Cr alloy

more

↑

less

↓

less ← Ni alloy → more
Steel Tube Works

Global No.1 site of stainless seamless pipes & tubes

- Capacity: approx. 70,000 tons
- Main Products: Stainless boiler Tube, Steam generator tubing for nuclear plants, High-alloy OCTG

Wakayama Steel Works

Mass production bases of high-end seamless pipes

- Capacity: approx. 1,200,000 tons
- Main Products: OCTG, Line pipe, Mechanical parts

Vallourec & Sumitomo Tubos do Brasil

Good access to growth markets

- Capacity: approx. 300,000 tons
- Main Products: OCTG, Line pipe

Shifting the product mix to enhance earnings power in each site.
Outline of Steel Tube Works

- Established in 1919
- **Products**
  - Seamless Pipe & Tube
    (Carbon, alloy, stainless, Ni base alloy)
- **Size range**
  - DN 6~952.5 mm
- **Production Volume**
  - Approx. 70,000 tons/year
    (Including semi-finished products)
- **Sales**
  - Approx. 100 billion yen
    (Including semi-finished products)
- **Number of Employees**
  - Approx. 750
- **Site area**
  - 519,000m²
- **Property and Equipment**
  - 35.5 billion yen
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1897</td>
<td>&quot;Sumitomo Copper Plant&quot; established</td>
</tr>
<tr>
<td>1919</td>
<td>&lt;Present: Steel Tube Works&gt; Amagasaki factory established as Japan’s first integrated seamless steel tubes and pipes mill</td>
</tr>
<tr>
<td>1921</td>
<td>Began producing hot seamless pipes and tubes</td>
</tr>
<tr>
<td>1926</td>
<td>Began producing tubing for oil and gas wells</td>
</tr>
<tr>
<td>1951</td>
<td>Began producing boiler tubes for thermal power plants</td>
</tr>
<tr>
<td>1956</td>
<td>Produced Japan’s first stainless tubular products for nuclear power plant</td>
</tr>
<tr>
<td>1983</td>
<td>Produced the world’s first high-alloy OCTG</td>
</tr>
<tr>
<td>1989</td>
<td>The world’s first application of USC boiler tubes</td>
</tr>
<tr>
<td>1994</td>
<td>Began exporting steam generator tubes for nuclear power plant</td>
</tr>
<tr>
<td>2006</td>
<td>Increased production capacity of high-alloy OCTG</td>
</tr>
<tr>
<td>2007</td>
<td>Increased production capacity of super high-end boiler tubes</td>
</tr>
<tr>
<td>2008</td>
<td>Increasing production capacity for steam generator tubes for nuclear power plant</td>
</tr>
</tbody>
</table>

"Amagasaki" is synonymous with high quality pipes.
Strong growth associated with global energy demand expansion.

- Sales: 400% change from FY00 to FY07
- Volume: 170% change from FY00 to FY07
Steel Tube Works contributes to global environmental preservation by providing cutting-edge seamless tubes and pipes.

**Product mix of Steel Tube Works**

- **Thermal power and nuclear power**
  - Boiler tubes for coal-fired thermal power plants
  - Steam generator tubes for nuclear power plant
  - 32%

- **Chemical industry and others**
  - Stainless tubes for ethylene plants
  - Stainless tubes for urea plants
  - Stainless tubes for GTL plants (GTL: gas to liquids)
  - 25%

- **Oil and natural gas development and exploration**
  - High alloy OCTG
  - Umbilical tubes for subsea completion oil & gas development
  - 43%

**FY07 Sales**

- 116 billion yen
Position of Steel Tube Works in SMI

"0.5% volume" yields "11% earnings"

Steel Tube Works

Results of FY07

Volume
Consolidated 12 million tons

Sales
Consolidated 1,744 billion yen

Operating Profit
Consolidated 274 billion yen

Accelerating distinctiveness
2. Environmentally friendly steel works
21st Century Forest Project hosted by Hyogo Prefecture:
Amagasaki is a major part of Hanshin Industrial Region.

Mayor’s visit

Greenbelts

Participated to an Environmental Festival

Tree-planting ceremony
Completed greenbelt March 2008

Planned greenbelt

Canal Revival Project
3. Main Products
**Main products of Steel Tube Works**

- **Stainless boiler tubes for coal-fired power plants**
  - Boiler Tube for High Pressure and High Temperature Service
  - For *ultra super critical boilers, Sumitomo Metals’ proprietary products "SUPER304H" and "HR3C" are the global standard.
  - **SUPER304H (18Cr-9Ni-3Cu)**
  - **HR3C (25Cr-20Ni-Nb-N)**

*Ultra Super Critical (USC)*

Steam parameters for turbine inlets in power plants are a temperature of at least 565 degrees Celsius and pressure of at least 24.5 MPa. Generating efficiency (at generator terminal) increases the higher the temperature and pressure, but this also increases the severity of the operating environment. The quality of boiler tubes is thus critical under such rigorous operating conditions.

- **Steam generator tubes for PWR nuclear power plant**
  - Tubes used in pressurized-water reactor (PWR) nuclear power plants.
  - The tubes are used for heat exchange which is a process of generating steam when hot water heated by heat generated by the nuclear reactor is conducted from the first cooling water zone to the second cooling water zone.
  - High-quality and reliability are collateralized by SMI’s original process “High pressure drawing bench (patented)”.

- **High alloy OCTG**
  - High-alloy OCTG become necessary where severe well conditions with high concentrations of H2S, CO2 and Cl- brines are encountered.
Global market & Sumitomo’s share

STW has the dominant market share in super high-end stainless tubes.

<table>
<thead>
<tr>
<th></th>
<th>FY08 global demand (thousands tons)</th>
<th>global share</th>
<th>competitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seamless stainless tubes &amp; pipes</td>
<td>400</td>
<td>16%</td>
<td>Sandvik (Sweden) Tubacex (Spain)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power plant</th>
<th>Main products</th>
<th>FY08 global demand (thousands tons)</th>
<th>global share</th>
<th>competitors</th>
</tr>
</thead>
</table>
| Oil & Gas   | High alloy OCTG | 20                                 | 90%          | Sandvik (Material) → Tenaris (Joint)  
DMV (Material) → Vallourec (Joints) |
|             | Steam generator tubes for PWR nuclear power plant | 1.8               | 33%          | Sandvik Valinox (France)            |
|             | Boiler tubes for USC coal-fired power plant     | 30                | 80%          | DMV (Germany)                       |
4. Boiler tubes for USC coal-fired power plant
Super heaters and reheaters, with the highest temperature within the plant (600 °C), are made of stainless tubes with high strength and high anti-corrosion performance.
Efficiency was improved through USC technology

- Reduction of CO2 emission per plant:
  - : efficiency improvement of 4%(39%→43%)
  \[= 440,000 \text{ tons CO2/plant-year}\]

- Sumitomo’s contribution to reduce CO2 emission globally:
  \[= 440,000 \text{ tons} \times 191 \text{ plants} \]
  \[= 83 \text{ million tons CO2/year}\]

*191 = 80<USC under operation> + 111<SMI’s backlog>*

<Reference> Japan’s total CO2 emission: 1,300 million tons / year

*Award winning technology** SUPER304H and HR3C are the global standard including Europe and China.*

Contribute to the first USC boiler in China

Demand growth in India is expected

*SUPER 304H; Technical Development Award from the Japan Institute of Metals in September 2007*
Global demand for power continues to grow. Coal fired plants will remain major supply source.

High efficiency is required for reducing CO2 emission. 1% higher efficiency translates into reduction of 110,000 tons CO2 emission per plant.

Japan leads the world in USC boilers, thus our specification is global standard.

Growth of global Coal fired power plants

Source: WEO World energy outlook 2007

TWH = trillion watt hour 3.2% p.a.

1990: 4,429 TWH
2005: 7,334 TWH
2015: 11,081 TWH
2030: 15,796 TWH

Share of Coal fire

- 38%
- 40%
- 43%
- 45%

Steam condition progress of coal fired power plant in Japan

Steam temperature

- Super critical
  - (24.1MPa)

Steam Pressure

- Ultra Super Critical

Year of the start up

1920 1940 1960 1980 2000
Strengths of Sumitomo’s boiler tubes

**SUPER304H & HR3C**: Unrivaled reliability

- Long low creep testing data: over 80,000 hours
- Unsurpassed experiences in many plants in Japan
- Certified in the specifications in Japan, U.S. and Europe

**SMI’s share**: 80%

Contribution to the CO2 emission reduction worldwide through USC power plants

**Creep test facilities in Corporate R&D laboratories**

- Development of proprietary products
- Evaluation & Analysis with customers
- Material sales
- Before Service
- After Service

- Creep test facilities in Corporate R&D laboratories
- Applied and tested in the real plants

Sumitomo Metal’s business spirit
Global demand growth of USC boiler tubes

Increase the capacity in line with growing global demand

Sumitomo’s global share: 80%

Global demand growth of USC boiler tubes (estimate)

Sumitomo’s capacity

Demand growth in overseas market

Increased capacity in Amagasaki

Mostly domestic demand

Increased capacity through OEM

Increased capacity
5. Steam generator tubes for nuclear power plant (PWR type)
Steam Generator tubes for nuclear power plant (PWR type)

Nuclear power generation is coming back < virtually zero CO2 emissions >

Global nuclear power generation

<table>
<thead>
<tr>
<th>Year</th>
<th>TWH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>2,013</td>
</tr>
<tr>
<td>2005</td>
<td>2,771</td>
</tr>
<tr>
<td>2015</td>
<td>3,083</td>
</tr>
<tr>
<td>2030</td>
<td>3,275</td>
</tr>
</tbody>
</table>

Source: WEO World energy outlook 2007

PWR share: 75% of nuclear power plants

PWR type nuclear power plants need SG (steam generator) tubes

PWR plants generate electricity in a process whereby highly pressurized boiling water produced in the reactor is sent to the steam generator, where it converts water flowing through another system into steam which is then used to drive the turbine.

http://upload.wikimedia.org/wikipedia/commons/a/a0/PressurizedWaterReactor.gif
Construction trend of nuclear power plants

- Most of the plants in operation and planned are PWR type which needs SG tubes.

- In case of reducing CO2 emission by half: 32 plants/year.

- 2012 estimate: 15 plants/year.

- Source: Japan Atomic Industrial Forum, Inc.

- Plants in operation: 439

- Under consideration: 218

- Planned: 93

- Under construction: 36

- Construction trend of nuclear power plants

- Oil crisis 1973

- Energy crisis 1979

- TMI-2 accident 1979

- Chernobyl disaster 1986

- Kyoto Protocol 1997

- Million KW

- Capacity of the plants

- In case of reducing CO2 emission by half: 32 plants/year

- 2012 estimate: 15 plants/year
Strengths of Sumitomo’s SG tubes

High pressure drawing bench (Sumitomo’s patented technology) makes tubes with precise size and shape thereby contributing to low-noise testing results for the nondestructive examination (eddy current technologies).

Much less likely to overlook cracks because of the low noise. Highly regarded by power plant operators.

<table>
<thead>
<tr>
<th>Method of manufacturing</th>
<th>High pressure cold drawing (Sumitomo)</th>
<th>Cold rolling (Competitors)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Precise size &amp; shape</strong></td>
<td><strong>Going back and forth</strong></td>
</tr>
<tr>
<td></td>
<td><img src="Image" alt="Diagram" /></td>
<td><img src="Image" alt="Diagram" /></td>
</tr>
<tr>
<td>Signal / Noise</td>
<td><strong>Lower base noise:</strong> Less likely to overlook cracks</td>
<td><strong>Higher base noise:</strong> Difficult to find cracks</td>
</tr>
<tr>
<td></td>
<td><img src="Image" alt="Diagram" /></td>
<td><img src="Image" alt="Diagram" /></td>
</tr>
</tbody>
</table>
Global demand for SG tubes and Sumitomo’s production capacity

30% increase of SG tube capacity in 2008. Considering capacity increase to expand our share, watching PWR construction trend.

Sumitomo’s contribution to reduce CO2 emission in Japan

- PWR nuclear power plants under operation in Japan ... 23 plants (19.36 million KW)
- Reduction of CO2 emission: approx. 0.8 tons CO2 / MW
  → reduction of CO2: **6.78 million tons CO2 / year**
  < assuming 50% operation ratio >
5. High alloy OCTG
(oil country tubular goods)
Oil and gas wells in operation

Requirements:
① **Mechanical strength**
   (deadweight of tubes, inner & outer pressure)
② In case of corrosive gas containment in oil or gas, tubing must have strong anti-corrosive property.

Casing

Tubing carries oil or gas from underground

Gas reserve in high temperature and high pressure

(CO2)
(H2S)
High alloy OCTG

Demand for natural gas grows rapidly because of environmental concerns.

Estimated global demand for oil and gas

- Oil
  - 1990: 2,216 Mtoe
  - 2005: 2,892 Mtoe (1.7% p.a.)
  - 2015: 3,988 Mtoe (1.3% p.a.)
  - 2030: 4,994 Mtoe

- Gas
  - 1990: 1,676 Mtoe
  - 2005: 2,354 Mtoe (2.6% p.a.)
  - 2015: 3,044 Mtoe (2.1% p.a.)
  - 2030: 3,948 Mtoe

source: WEO World energy outlook 2007
Mtoe = million tons of oil equivalent

Oil and gas wells will become deeper in the foreseeable future.

Numbers of deep wells worldwide (over 15,000 ft)

source: Spears and Associates

The demand for High alloy OCTG will grow more rapidly. Deep gas wells are generally more corrosive. Maintenance-free property of High alloy OCTG is highly regarded.
Only Sumitomo can supply all of these products. Amagasaki and Wakayama covers everything.

The customers can select optimal product suitable for each well.

90% global share in High Alloy OCTG

Relationship with customers. Products selection assisting system available.
Growing demand for High alloy OCTG and Sumitomo’s capacity

Current capacity 19,000 tons / year. Considering increase of capacity.

Demands / Product Volume (thousands tons)

Growing 10% / year

- Americas
- Europe
- Pacific
- Asia
- CIS
- Middle east
- Competitor's supply
- Sumitomo's supply

Sumitomo’s capacity
6. Other products of Steel Tube Works
Other products of Steel Tube Works

Pipes and tubes for oil refining and petrochemical plants

Sumitomo can supply from carbon steel to stainless steel and to Ni based alloy.

→ Widest lineup of products can cope with widest range of operational environments.

Examples:
- Internal finned tubes for steam cracking furnaces in ethylene producing plants.
- Duplex stainless steel tubes and pipes for urea production plants.
- Anti-metal-dusting alloy pipes for GTL (gas to liquid) plants.

Umbilical tubes

Umbilical tubes are used in subsea completion oil & gas development. They connect oil platforms with subsea wells often located several tens of kilometers distant. The system minimizes the number of new platforms that must be built and greatly reduces costs. This allows new development of many oil and gas fields which were once considered too expensive. Increasing application of this technology leads to increasing demand for this product.

- Umbilical tubes
  >>>> Super duplex stainless “DP3W (25Cr - 7Ni - 3Mo-2W)”
Internal finned tubes with wider inner surface area are used in steam cracking furnace of ethylene plant to improve yield.

Global demand for ethylene derivatives (million tons)

<table>
<thead>
<tr>
<th>Year</th>
<th>Demand (million tons)</th>
<th>Growth rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>05</td>
<td>104</td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>108</td>
<td></td>
</tr>
<tr>
<td>07</td>
<td>113</td>
<td></td>
</tr>
<tr>
<td>08</td>
<td>119</td>
<td></td>
</tr>
<tr>
<td>09</td>
<td>123</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>127</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>133</td>
<td>4%/year</td>
</tr>
</tbody>
</table>

Source: Annual survey of petrochemical in Japan

Various substances produced by converting naphtha and being distilled:
- Ethylene
- Propylene
- Butadiene
- Benzene
- Toluene
- Xylem

Distillation facilities

Lighter substance

Heavier substance

Naphtha tank

Steam cracking furnace
7. Strategy of Steel Tube Works
**R & D strategy**

**USC boiler tubes**
- Develop new material for next generation USC (650-700°C) plant and integrated coal gasification combined cycles.
- Our new material is expected to be applied for 2013 prototypes for new generation USC project in Europe.
- Sumitomo conducts material development, prototype building and evaluation for Japan’s project.

**SG tubes**
- Upgraded manufacturing facilities for the third generation reactor (latest type: large scale reactor for the economy of scale US AP1000 etc.) and increased capacity.
- Participated to the project to development next generation light water moderated reactors (aiming longer life). Develop material for future plants that combine safety and efficiency (material for reducing exposure to radioactivity).
- Participated to the project to develop SG tubes for fast breeder reactors (dream reactors).
High Alloy OCTG

- Strengthen relationships with customers.
- Material selection assisting system for various well environments.
- Expand lineup of products by continuing development of new materials.
- Material development for such as oil sand and oil shale.

Steel tubes for oil refineries and petrochemical plants

- Highly anti-corrosive material to match longer life of the plants.
- Contribute to the green energy plants (GTL, DME etc.).
- Develop new material for carbon capture and storage.
Strengths of Sumitomo’s special tube business

Advanced technology, unrivaled experiences and trust relationship with customers = Sumitomo is the only one.

**R&D**
- Experienced material researchers
- Test data that take many years
- R & D laboratories nearby: speedy development

**Manufacturing technology**
- Technology to prevent defects
- Product quality assurance technology
- Material to products, cooperation among three sites

**Quality**
- Unrivaled experiences
- Joint R & D with customers
- Test in real plants
- Thorough after-service

**Trust relationship with customers**

**Strategy**
Continue to be the undisputed leader by

- expanding the capacity to match the growth of the market and
- development of new material that suits customers’ needs,

aiming to increasing and maintaining our market share.
Deliver sustained growth in corporate value by emphasizing quality

Become a company trusted by all stakeholders