



**Washington Group International**

Integrated Engineering, Construction, and Management Solutions

# Seversk Plutonium Production Elimination Project

*Working Together to Make the World  
A Safer Place*

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Washington Group International, Inc.**



# Seversk Plutonium Production Elimination Project (SPPEP)



- ◆ Seversk Plutonium Production Elimination Project is part of the Elimination of Weapons Grade Plutonium Production Program (EWGPP)
- ◆ The program is being executed by the National Nuclear Security Administration (NNSA) on behalf of the United States Department of Energy (DOE) through an agreement with the Russian Federal Agency for Atomic Energy



# Seversk Plutonium Production Elimination Project (SPPEP)



**ADE-3 & ADE-4 At Seversk Site**



**ADE-2 Reactor Site - ZPPEP**

- ◆ EWGPP Mission:  
Shut down the remaining three weapons-grade plutonium production reactors in the Russian Federation.
- ◆ The EWGPP Objective:  
To complete the Mission by Refurbishment of the Existing Coal Power Plant at Seversk, and Construction of a New Coal Power Plant at Zheleznogorsk



# Seversk Plutonium Production Elimination Project (SPPEP)

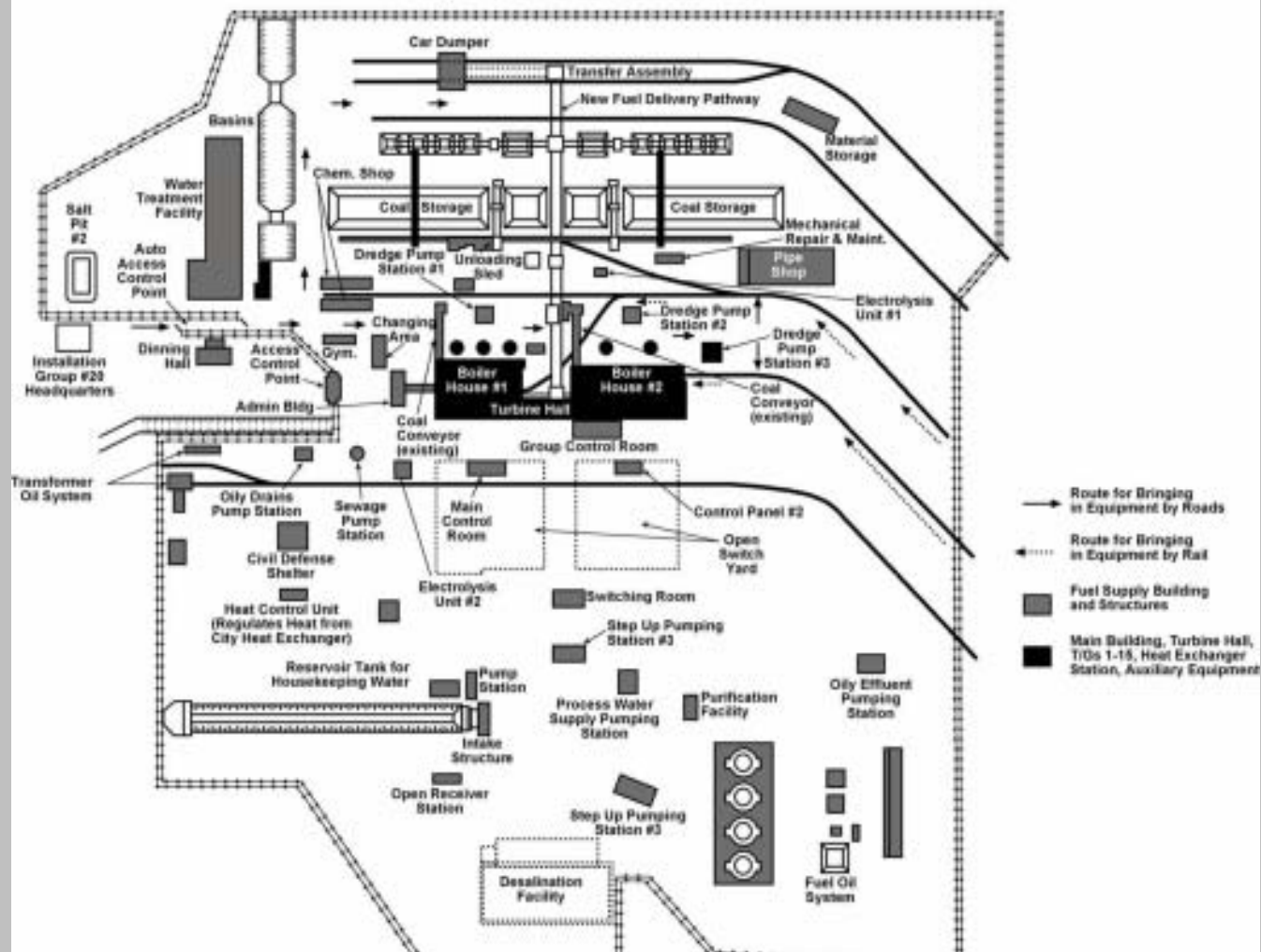


- ◆ Seversk Plutonium Production Elimination Project includes:
  - ◆ One (1) new boiler, replacement or retubing of existing boilers, replacement of existing electric generating steam turbines, and replacement of existing auxiliary systems



# Seversk Plutonium Production Elimination Project (SPPEP)

Layout of TETs Structures



# Seversk Plutonium Production Elimination Project (SPPEP)



Turbine #8 Area



# Seversk Plutonium Production Elimination Project (SPPEP)



Coal Train Car Dumper Building



# Seversk Plutonium Production Elimination Project (SPPEP)



MUNICIPAL HEATING HEAT EXCHANGERS





# Seversk Plutonium Production Elimination Project (SPPEP)

- ◆ Washington Group International, Inc. (WGI) is the U.S. Integrating Contractor
  - ◆ WGI's approximately 26,000 employees provide the talent, innovation, and proven performance to deliver integrated engineering, construction, and management solutions for businesses and governments in over 30 countries worldwide.
- ◆ WGI's SPPEP role is to represent NNSA through contracting, oversight, verification, and payment.



# Seversk Plutonium Production Elimination Project (SPPEP)

- ◆ Rosatomstroy (RAS) is the Russian Federation Integrating Contractor
- ◆ Rosatomstroy's role on Seversk Plutonium Production Elimination Project is:
  - ◆ Planning,
  - ◆ Design and permitting,
  - ◆ Refurbish and construction,
  - ◆ Inspecting, and certifying for operations and beneficial occupancy.



# Seversk Plutonium Production Elimination Project (SPPEP)

- ◆ WGI and RAS (The Team) are working closely with the Federal Agency for Atomic Energy and the Siberian Chemical Combine (SCC)
- ◆ The Team is combining RF & US methods by:
  - ◆ Following US requirements for technical, cost and schedule reviews and approvals, while using
  - ◆ RF technology and companies, and ensuring
  - ◆ All RF regulatory requirements are met.



# Seversk Plutonium Production Elimination Project (SPPEP)



- ◆ Current Status - The Team:
  - ◆ Began Current Work August, 2003
  - ◆ Performed Joint Site Inspection December, 2003
  - ◆ Completed first portion of Phase 1 in March, 2004, and
  - ◆ Now are doing Pre-preliminary design and Preparing For Selected Long Lead Equipment Purchasing
  - ◆ Identifying work that can be done early
  - ◆ Preparing to work with SCC for Project Cost Optimization



# Seversk Plutonium Production Elimination Project (SPPEP)



- ◆ Schedule
  - ◆ DOE Critical Decision Expected – May 2004
  - ◆ Start Construction - January 2005
  - ◆ Complete 1st Boiler – December, 2005
  - ◆ Complete 1st Turbine – December, 2005
  - ◆ Complete All Work Complete Reactors Shutdown – September 2008

