KURION
廃棄物の環境からの隔離

# Kurion Mobile Processing System for Fukushima
# March 5, 2015

# Background

Following the catastrophic natural disaster of an earthquake and tsunami in Japan in 2011, the Fukushima Daiichi Nuclear Power Plant lost reactor core coolant resulting in reactor core meltdown. To stop the runaway core reactions, they introduced ocean water to the exposed nuclear cores (3 melted), ultimately resulting in creating thousands of gallons of contaminated water stored in 200,000 gallon tanks.

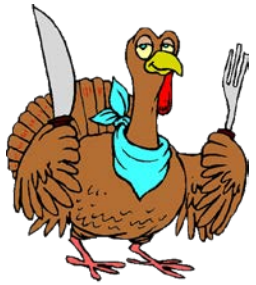
# Background

TEPCO contracted with Kurion to design, fabricate, systemize, test and commission a mobile system to remove strontium from the tank water at the Fukushima Daiichi Nuclear Power Plant site.

The first-of-a-kind Kurion Mobile Processing System (KMPS-1), initiated in January 2014, was designed, fabricated, tested and put into operation September, 2014.


# General Overview of What We Did

- August 19, 2014 Quick Letter
  - Objective – provide design to include approved modifications, fabricate, systemize, test and commission a 2nd KMPS system to remove strontium from the tank water at the Fukushima Daiichi Nuclear Power Plant site.
  - Contract Delivery (end date) – January 23, 2015
- To meet this date would require system be ready to ship by mid-December, 2014
- Kurion completed the work scope and the system was ready-to-ship November 26, 2014



# Challenges

- Critical Path Acceleration – ready-to-ship date
- Schedule Antonov (risk of delay)
- Language/Communications
  - Client meetings and interfaces with team participants required interpreter
  - Every email and project document required translating English →Japanese and Japanese →English

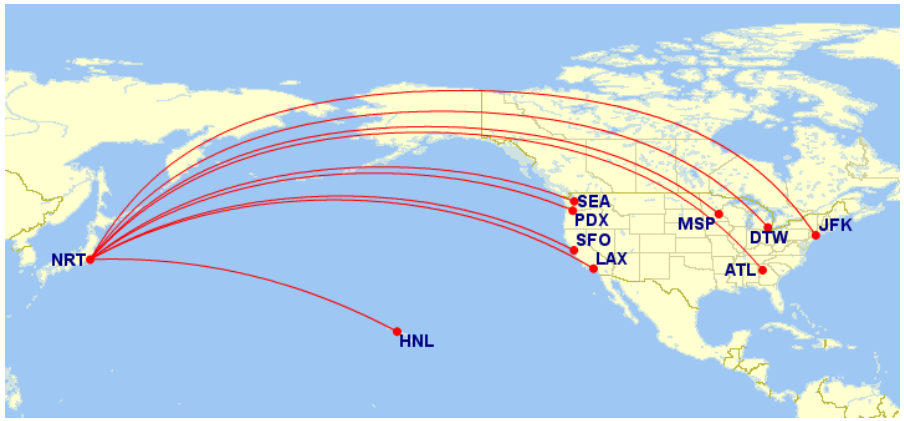
# 変更1:脱水システム
# Change 1:  Dewatering System

雪の中での脱水システムの1Fへの移動準備Dewatering System prepared for transport to 1F, with a little snow

- システムの試験/試運転は1月9日に完了/Testing/Commissioning of the System was completed Friday, January 9
- 1Fへのシステム発送準備完了-1月10日/System prepared for shipping to 1F January 10-11
- 1Fへのシステム移動完了-1月13日/System transported to 1F January 13
- 遮蔽ハンガーは1月16日着/Shield Hangers to arrive January 16

# Challenges

- Logistics
  - Commissioning a system in Japan
  - 4P meeting Participation in Japan




- Personnel issue with Commissioning Manager while in Japan

# Unique Experiences

- Learning how to work effectively in a different culture (Ken helped ALOT!)
- Woman project manager on male dominant job
- Safety risk of wild boar, wild monkey and bear

# Significant Accomplishments (and Unique Experience)


The KMPS-2 system arrived in Japan safely and was loaded onto trailers for transport to the commissioning site without incident

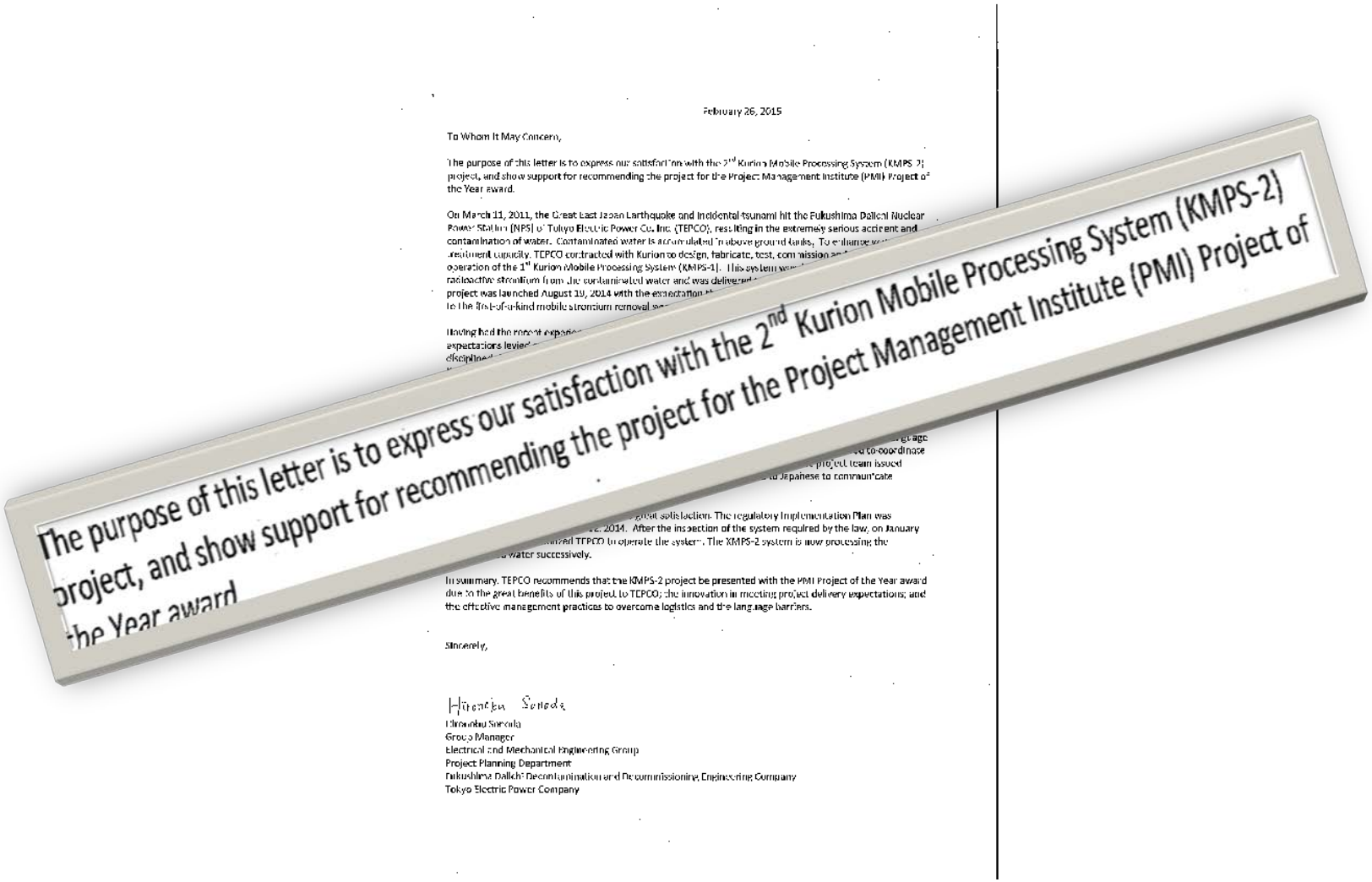
# Significant Accomplishments


We enjoyed working together as a team!

# Significant Accomplishments


The KMPS-2 system is fully operating at the 1F Site

# Significant Accomplishments



February 26, 2015

To Whom It May Concern,

The purpose of this letter is to express our satisfaction with the 2nd Kurion Mobile Processing System (KMPS-2) project, and show support for recommending the project for the Project Management Institute (PMI) Project of the Year award.

On March 11, 2011, the Great East Japan Earthquake and Incidental tsunami hit the Fukushima Daiichi Nuclear Power Station (NPS) of Tokyo Electric Power Co. Inc. (TEPCO), resulting in the extremely serious accident and contamination of water. Contaminated water is accumulated in above ground tanks. To enhance w... treatment capacity, TEPCO contracted with Kurion to design, fabricate, test, commission an... operation of the 1st Kurion Mobile Processing System (KMPS-1). This system w... radioactive strontium from the contaminated water and was deliver... project was launched August 19, 2014 with the expectation t... to the first-of-a-kind mobile strontium removal sy...

Having had the recent experi... expectations levied ... disciplined ...

...gage ...to-coordinate ...project team issued ...to Japanese to communicate

...great satisfaction. The regulatory implementation Plan was ...2, 2014. After the inspection of the system required by the law, on January ...rized TEPCO to operate the syster... The KMPS-2 system is now processing the ...water successively.

In summary, TEPCO recommends that the KMPS-2 project be presented with the PMI Project of the Year award due to the great benefits of this project to TEPCO; the innovation in meeting project delivery expectations; and the effective management practices to overcome logistics and the language barriers.

Sincerely,

Hiroaki Senoda

Hiroaki Senoda
Group Manager
Electrical and Mechanical Engineering Group
Project Planning Department
Fukushima Daiichi Decontamination and Decommissioning Engineering Company
Tokyo Electric Power Company

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