

# JAPAN

## Demonstration Tour

### no 4

PowerPlus DCU Returns from the Japanese Nuclear Incident with New Insight Japan continues to respond to its Fukushima Daiichi nuclear incident. The current state of Japan's recovery efforts were on full display as a group of PowerPlus DCU experts, equipped with state-of-the-art diagnostic equipment, performed cleanup tests.

From January 22 to February 4, 2013, PowerPlus DCU and the ARS Nuclear Testing Company deployed a five-man radiation decontamination team to Japan. The team's assignment was to decontaminate several types surfaces including dirt, bio-mass, grass, and a porous asphalt produced locally in Japan. Each of these surface types shared the characteristics of being able to drain rain and other

water through to lower layers of material, thereby making surface contaminants problematic and spreading contaminants into ground water.

Since the efforts of the Japanese government have not embraced PowerPlus DCU technology thus far, they have chosen to remove the top 6 inches and sometimes up to 14 inches of contaminated soil without addressing the growing ground water issues. The problem of long-term storage of the resulting radioactive debris is also being ignored.

Mr. Kevin Wang, CEO of PowerPlus DCU, stated that;

- *"PowerPlus DCU is heartbroken but eager to assist Japan's recovery process and minimize the unnecessary suffering and damage to the country's people and economy."*

### Conditions and Lessons Learned

Mr. Wang recounted some of the highlights of the trip;

- *"Our first day of work was conducted in a wind storm with temperatures around 32° F. Work was performed the second day in a blizzard in 28° F."*
- *"Even though we were not originally asked to work on porous surfaces when challenged with porous asphalt, we were able to remove 60% of the contamination on our first attempt. Our usual result is up to 95%."*
- *"After working with these types of surfaces for the first time, we are already in the process of redesigning one of our clean and capture tools to increase the rate of decontamination on porous asphalt in the future. We also encountered frozen ground which became much more workable after being thawed using a proprietary method we have developed."*
- *"During the trial period, PowerPlus DCU decontamination efforts were successful."*

Fourth Demo in Japan

### Discovery of a Serious Problem

During our investigation and testing, the PowerPlus DCU team discovered a very serious problem: removing contaminants becomes increasingly difficult over time. The longer Japanese authorities wait to complete the removal of radioactive contamination, the more difficult it becomes to efficiently do so. The team theorized about why this phenomenon is occurring and is developing solutions to make removal systems and procedures more effective to offset these difficulties.”

### Cleanup Costs Compared

Mr. Wang also spoke of Japan’s current approach versus his company’s methodologies:

*“When you compare our short-term cleanup costs to Japan’s long-term storage costs, we estimate them to be only 1.5% of what they would spend for hard surface cleanup and only 6% of what they would spend over time for soft surfaces.”*

*“Furthermore, the likely risk of contamination from stored material, the fear of the future health impact, and decreased trust in the international community due to an ongoing radioactive hazard are all devastating. No country can afford that kind of psychological uncertainty.”*

*“PowerPlus DCU has proven the speed and effectiveness of our methodology under the scrutiny of every major Japanese governmental agency. We are now waiting for the Japanese government to allow us the honor of participating in the decontamination efforts.”*



### Opportunity to Assist

Mr. Wang urgently stated:

*“The current situation in Japan presents a major opportunity to assist Japan with detection and characterization training for the following reasons:*

- **Japan is still not consistently testing for Alpha or Beta emissions.** *When they do, it is with a plastic bag over the detectors, which prevents an accurate reading.*
- *Having cross-checked the Japanese detection meters in the field and on this tour, it has been discovered that **Japan is consistently under-detecting by 70%.***
- **Japan is only searching for a single contaminant – Cesium.** *PowerPlus DCU readings detected over 15 other contaminants.*
- **To properly demonstrate the true reduction of radiation after our decontamination demonstrations, the use of proper shielding is also needed.** *Without it, the “cross talk” between neighboring geographical areas bleeds through the poor shielding and conceals the true reading.”*

### Decontamination Sample

For an example, the Japanese hand-picked a difficult item to decontaminate: a volume of radioactive plant leaves and stems (biomass). PowerPlus DCU employees performed an initial decontamination procedure and it yielded amazing results. However, a great deal of just how well they did was hidden due to the lack of proper shielding during testing. The following values reveal the results:

DECONTAMINATION TEST RESULTS		
Value after radioactive contamination - before any decontamination procedures	Value after first decontamination attempt in Japan. Tested on-site in high radiation	Value after the material was transported to the U.S. and tested in our clean lab
185 CPS / 135 uR/Hr	135 CPS / 70 uR/Hr	38 CPS / 23 uR/Hr / 0.21u Sv/h

## Fourth Demo in Japan Decontamination Test Results

These results illustrate the tremendous need for fully equipped labs that are outside the affected area using proper test methods, equipment, shielding, software, low background radiation, correct mathematical conversions, and correction factors.

### Health Implications

Mr. Wang warns: *"We cannot overstate the health implications for Japanese citizens and workers that results from inaccurately measuring radioactivity. Japan has already accepted exposure levels of 50 uS/Hr for its workers. This is four times the limit that would mandate evacuation in the USA, Coupled with only reading 30% of the actual radiation, it means that its workers are likely receiving upwards of 350 uS/Hr without knowing it. As a result, citizens, workers, and land are being certified as safe, but they are truly not."*

*"We passionately welcome the opportunity to assist the government and contractors who are really trying but need the proper training. Loss of life due to cancer and other health complications ultimately is almost certain yet avoidable."*

### The Technology Exists

Mr. Wang reiterated: *"The technology needed to clean up this disaster exists. Our test results satisfied Japan's own test criteria and the techniques are proven to be quick and cost-effective. Therefore, it appears that the government of Japan has rejected them because they are foreign-developed. If Japan wants to save trillions of dollars, ease the public's mind, move forward again with the nuclear power foundation that is of great benefit to the country, and show the world it can overcome this disaster, these barriers must be removed."*

### Cleanup is Possible



**WORKING HARD DESPITE WEATHER CONDITIONS**

Mr. Wang again had some encouragement for the country of Japan: *"For most people considering the overwhelming effects of a nuclear disaster, it may seem impossible to believe that it can actually be afford-*

*ably and quickly cleaned up. The results of our testing in Japan prove many times over that it is possible. We await the invitation to partner with this great nation to overcome this seemingly insurmountable disaster. Japan has great potential to do this right."*

disaster Cleanup Company as no company in the world has resolved more or larger disasters than PowerPlus DCU.

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*- Kevin Wang (President PowerPlus DCU)*

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PowerPlus DCU is a leading-edge technology decontamination and cleaning company. With over 30 years of experience, PowerPlus DCU brings health and healing to environmentally compromised regions through disaster management by providing innovative, creative, and customized solutions. PowerPlus DCU prides themselves as the #1 Global Di-