

CLUBROOT MANAGEMENT SYSTEM EQUIPMENT CLEANING / DECONTAMINATION

International Clubroot Workshop

Delta Edmonton South, Edmonton, AB

June 21, 2013

Sean Hannigan, President

Swift Environmental Ltd.

Edmonton, Alberta

www.swiftenv.com

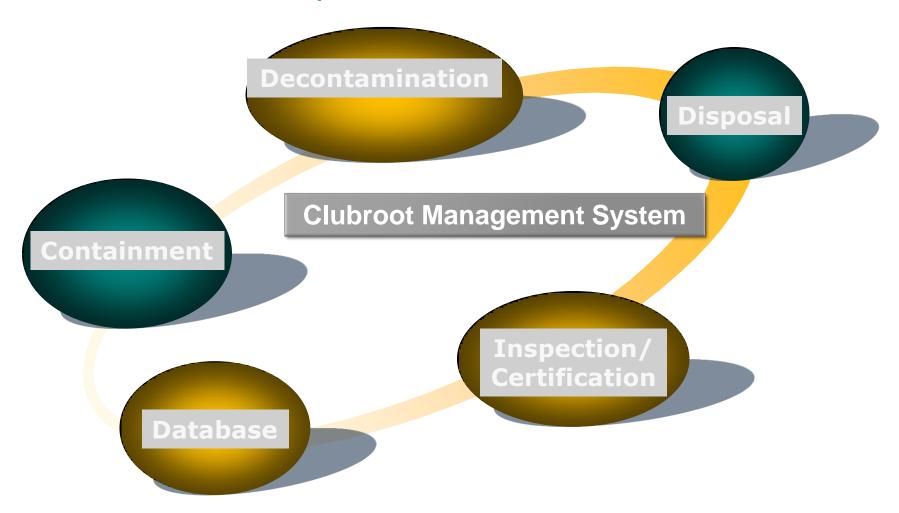
Swift

In 2008, Swift developed a high level equipment cleaning/ decontamination program due to stringent access conditions imposed on our client from a landowner.

Required program components

- Define risk & outline cleaning levels (High/Med/Low)
- Stringent cleaning protocols and techniques
- Inspection protocols
- Certification documentation (acknowledges equipment has been properly cleaned prior to moving on/off the project site)
- Data base (records)
- Sample collection procedures
- Training

Important Elements





Certificate of Authorization

Your Company

Is an authorized applicator of

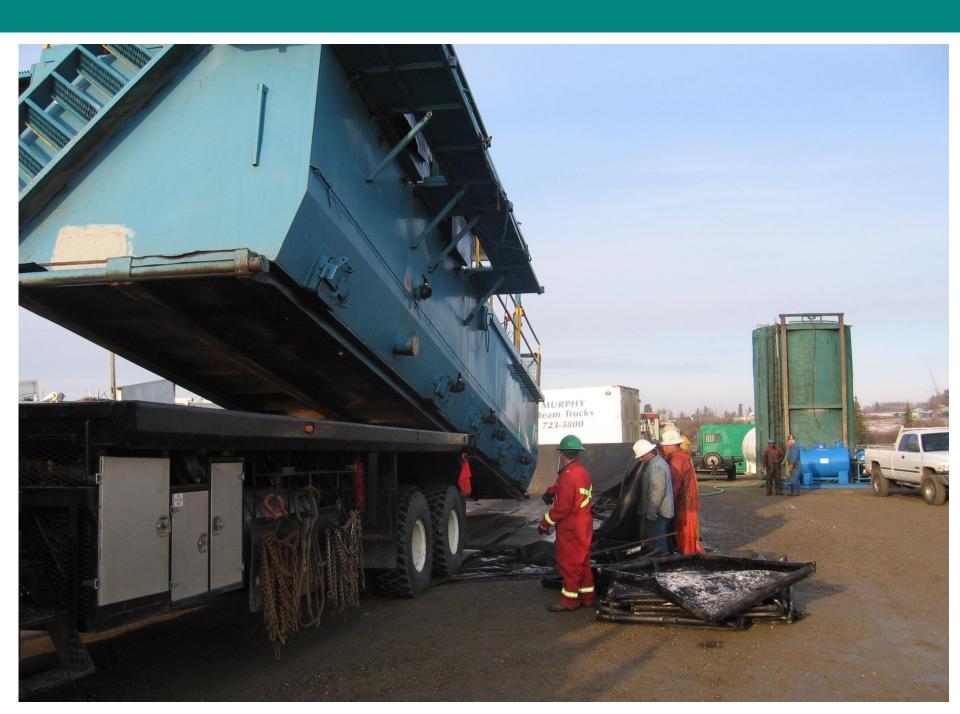
Swift's Clubroot Management System

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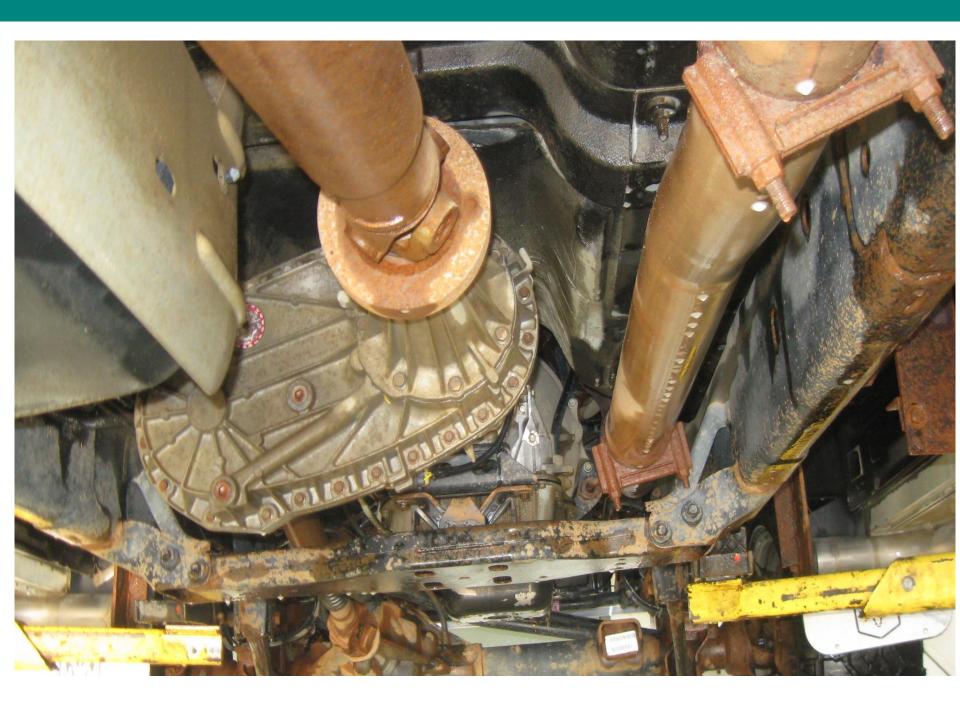
Industry: What's happening?

Various Stakeholders



Licensee (project owner)

- Prevention awareness increasing (Very Positive)
- Some require all Equipment / Vehicles to be cleaned prior to mobilization to their project site
- Monitoring efforts increasing
- In some cases, the Licensee is organising all decontamination efforts
- Cleaning levels are determined by risk assessment (High/Med/Low) site specific
- Most Licensee's have adopted stringent Environmental Protection Plans (EPP) as their corporate mandate
- Some Licensee's target earning a higher level social license, to go beyond compliance



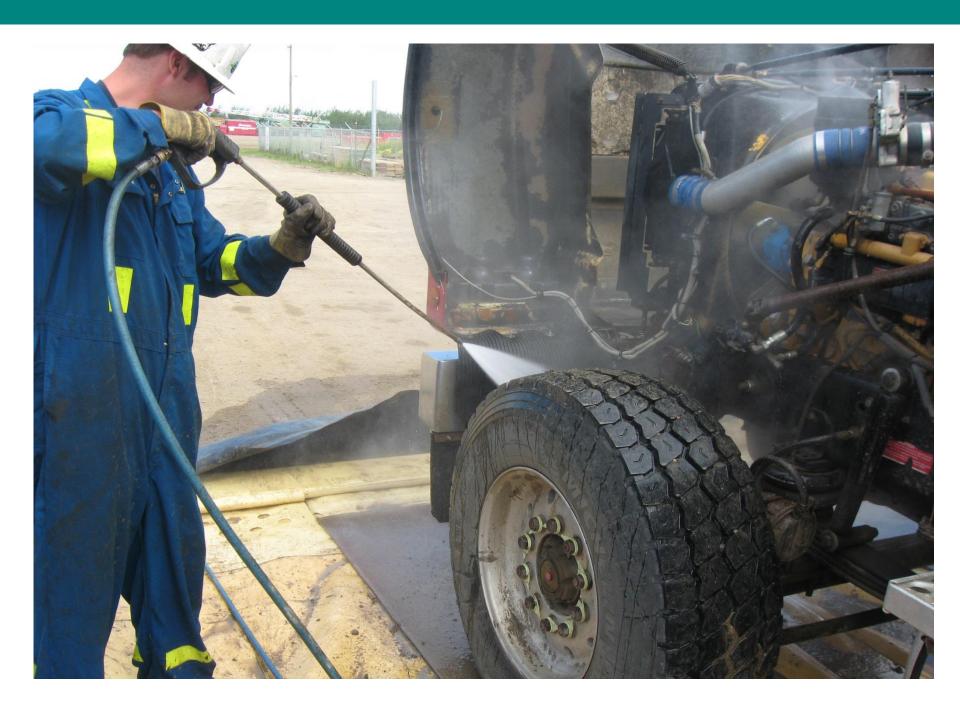
Contractors

- Prevention awareness increasing (Very Positive)
- Some contractors implement their own equipment cleaning policies as a corporate strategy regardless of their client's requirements.
- Some contractors are resistant to the cleaning programs and view as a waste of time and money.
- Most contractors are accepting of their client's cleaning requirements.
- All contractors require documented proof of cleaning.
- Some contractor strategies involve dedicating site specific equipment which stays on site. - Decreases cleaning frequencies.
- Greatest challenge: Trucks Due to constantly moving from location to location, difficult to track. Often off- highway. - Numerous cleanings.



Landowners

- Prevention awareness increasing (Very Positive)
- Implementing Bio Security program
- Increasing requirements for access to their property
- Some landowners want to inspect cleaning (Liability)



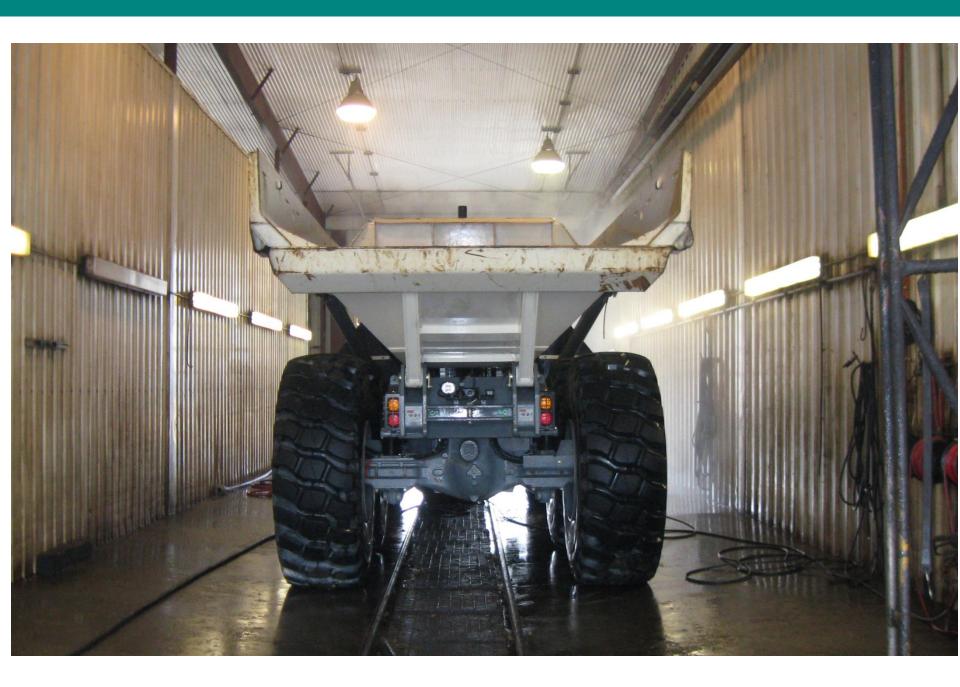
Regulators (Alberta)

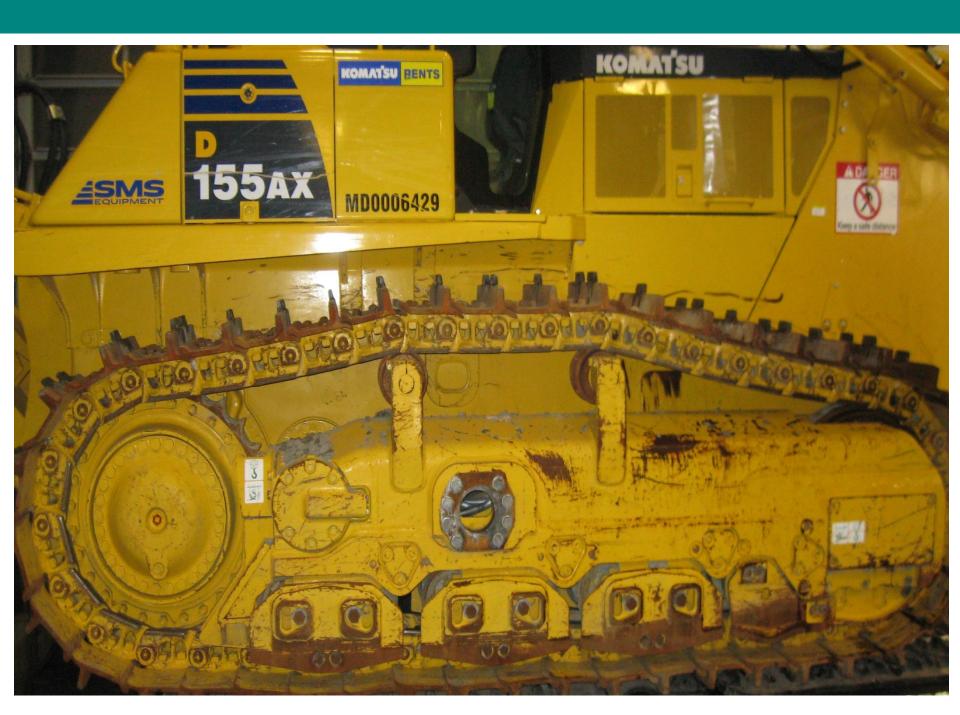
Promoting Bio-Security Programs

Currently Exploring:

- Standardization of Cleaning Protocols
- Standardization of Training & Certification







Industry feedback

FAQ's:

- How clean is clean?
- How much does this process cost?
- What happens if we don't wash?
- How long does it take to clean?
- How will our clients know that this was done properly?
- Can we inspect it ourselves?
- Does everyone have to clean the same way?
- Do we need to clean every time we leave the site?
- Can we inspect it ourselves?

Challenges

- Much confusion regarding extent of cleaning required and relative effectiveness of current cleaning protocols
- Practicality of cleaning for projects. How to be effective and keep costs down?
- Disposal of infested liquids and solids
- Education
- How to deliver training?
- How do we all get on the same page?

Establish Standards for Bio Security Sanitization

Ensures all stakeholders are operating with same practices

 Would this be effective in preventing cross border contamination?

Future

- We can look forward to increased awareness and participation
- Equipment cleaning could be monitored and tracked to ensure BioSecurity measures are adhered to.

Example:

 Auction houses, equipment dealers, contractors, etc. could be required to produce cleaning/inspection certificates for all equipment prior to moving equipment to site.-As a condition of purchase?



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