Building a Culture of CPI: One Fishing Boat at a Time

Delmas Whittaker, Senior Manager, Fishing and Commercial Vessels
Penne Saum, Manager, Process Improvement Program
Commercial Fishing

Statewide commercial fishing and related industries produce $10 billion in business revenue
Fishermen’s Terminal

Home of the North Pacific Fishing Fleet

Summary

- First Port of Seattle Property (1914)
- 26 acres of dry land
- 690 parking spots
- 21,000 feet of lineal dock
- 300 – 400 Commercial Fishing Vessels
- Recreational Boat Moorage
- Homeport to the North Pacific Fishing Fleet & a vibrant commercial destination

7,000 Local jobs and $313 million in business revenue
Improvement Culture to PDCA
Building the Team

Assuring all involved were at the table!
SECTION TWO

ITEM 2100
RULES AND REGULATIONS

N. ELECTRIC CONTINUITY OF SERVICE
The Port of Seattle specifically does not guarantee: Availability or continuity of electric service to any vessel, the characteristics of any service that is provided, or the characteristics of the vessel service circuit breaker.

O. ELECTRIC SERVICE AND UTILIZATION EQUIPMENT ONBOARD VESSELS
All service connections between the Port of Seattle outlets and the vessel, and all utilization equipment upon the vessel shall conform to the City of Seattle Electrical Code and/or the State of Washington Electrical Code. (See Item 3140(A) for electric rates.)
Fishermen’s Terminal

Commercial Fleet Services

Electrical Services

- 480volt/200amp/3-phase
- 240volt/100amp
- 110volt/30amp twist-lock
Problem

Examples of Damaged Equipment

Unauthorized Disconnections
Charter

CPI Charter

<table>
<thead>
<tr>
<th>Event/Workshop Name:</th>
<th>Accountability for Cut Electrical Wires</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event/Workshop Number:</td>
<td>FT 001</td>
</tr>
<tr>
<td>Division/Department:</td>
<td>Fishing and Commercial Vessels</td>
</tr>
<tr>
<td>Is there standard work?</td>
<td>Yes</td>
</tr>
<tr>
<td>Last update:</td>
<td>UNKNOWN</td>
</tr>
</tbody>
</table>

Sponsor: Kenny Lyles
Process Owner: Delmas Whittaker
Team Lead: Ray Girometti
Lean Specialist: Delmas Whittaker
CPI Manager: Penne Saum

Background/Problem Statement
Over the past few months, we have seen an increase in the number of live electrical connections being cut by commercial fishermen. Fisherman’s Terminal is a working terminal that is open to the public. This type of unauthorized disconnects damage equipment and places other fishermen, visitors, and Port Staff in danger. We have a process for electrical connects and disconnects. However, several fishermen are not following this process. We need to improve our system of compliance and accountability.

Scope
In Scope
New or Revised Process and Procedure for Electrical Connections and Disconnects

Out of Scope
Monetary fees to be assessed to violators. Potential Labor Contractual violations.

Teams
Team Members (Full-time): Patrick Maywodey, Adam Moore, and Ross Parry
Management Guidance Team: Delmas Whittaker, Ray Girometti, Stephen Areson, Maintenance Manager (as assigned).

Exit Criteria
Functional process and procedure to ensure compliance with Harbor Operational requirements and ensure a safe working environment. Additionally, enforceable and tangible penalties for violating these procedures.

Improvement Commitment

<table>
<thead>
<tr>
<th>Start Date</th>
<th>End Date</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-Oct-18</td>
<td>19-Oct-18</td>
<td>5 days</td>
</tr>
</tbody>
</table>

Sustainment Process
Harbor Operations will be responsible for initiating and monitoring. Business Operations will be responsible for billing and enforcement.

Resource People (On Call)
Electricians, Harbor Operations Specialist, Moorage Coordinator, Risk Management, Legal, Tim Mitchell (Safety)
Problem?

Do we really have a problem?
# Data? Who Needs Data?

## CPI Data Collection Worksheet

**Process Area: Fishermen’s Terminal (ALL DOCKS)**

<table>
<thead>
<tr>
<th>What data elements will be collected?</th>
<th>By Who?</th>
<th>Where?</th>
<th>How will it be Recorded?</th>
<th>When?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 Unauthorized disconnections</td>
<td>Delmas/MM</td>
<td>FT</td>
<td>DOCUMENTED INFORMATION FROM MAXIMO</td>
<td>10-Dec</td>
</tr>
<tr>
<td>2017 Unauthorized disconnections</td>
<td>Delmas/MM</td>
<td>FT</td>
<td>DOCUMENTED INFORMATION FROM MAXIMO</td>
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</tr>
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**Electrical Cord Cutting**

<table>
<thead>
<tr>
<th>Year</th>
<th>Connects and Disconnects</th>
<th>Unauthorized Disconnects</th>
<th>Safety Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>164</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>2017</td>
<td>523</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>2018</td>
<td>371</td>
<td>15</td>
<td>0</td>
</tr>
</tbody>
</table>

![Electrical Cord Cutting Chart](image-url)
Introduction: LEAN Methodology

Review of Existing Process (As-Is)

Root Cause Analysis

Voice of the Customer

Process Improvement

Creation of new process (To be)

Examples of Damaged Equipment
Process? Do we Have a Process?
Examples of Damaged Equipment
### Improvement Process

**Examples of Damaged Equipment**

**Review of Existing Process (As-Is)**

#### Title: Electrical Services at Fishermen’s Terminal

<table>
<thead>
<tr>
<th>Establish Electrical Services</th>
<th>Disconnect Electrical Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUEST FOR ELECTRIC SERVICE (MASTER)</td>
<td>REQUEST FOR ELECTRIC SERVICE (MASTER)</td>
</tr>
<tr>
<td>WORK ORDER SUBMITTED TO STANDING WORK ORDER OR ELECTRICIAN SHEET (EF)</td>
<td>WORK ORDER SUBMITTED TO STANDING WORK ORDER OR TERMINAL OFFICE (MASTER)</td>
</tr>
<tr>
<td>APPROVED</td>
<td>APPROVED</td>
</tr>
<tr>
<td>ELECTRICIANS ASSIGNED AND SCHEDULED (EM)</td>
<td>YES</td>
</tr>
<tr>
<td>EXECUTE WORK ORDER (EM)</td>
<td>APPROVED</td>
</tr>
<tr>
<td>SERVICE COMPLETE NO REQUIRED TO STAND BY SERVICE (EF)</td>
<td></td>
</tr>
</tbody>
</table>

*PORT OF SEATTLE*
Improvement Process

Examples of Damaged Equipment

Review of Existing Process (As-Is)

Disconnect At Will
Scope of Problem

Review of Existing Process (As-Is)
Scope of Problem

Root Cause Analysis

Frequent Violators

- F/V Louis Anderson
- F/V Rosemary
- F/V Lady Kate
- F/V Katherine K
- F/V HOT SPUR
- F/V STELLA JO
- F/V SATURN
- Responded

Chart showing the frequency of violations for different vessels from 2016 to 2018.
Do we have the same understanding of the problem?

Unauthorized Electrical Disconnections

Procedures?

Electricians?

Fishermen?

Fees?
Voice of the Customer

Our team did not know the customer experience.

The WHY?
Voice of the Customer

Voice of the Customers

Operational Decision, 4

Internal Communications Issues, 1

Voice of the Customer
Expected Outcomes

Policy Changes and Progressive Discipline

• Update existing process
• Policy Changes: Revise existing tariff.
• Implement Progressive Discipline for violators.
• Allow Fishermen to use their own skid boxes.
## New Process

| Title: Electrical Services at Fishermen’s Terminal |

### Establish Electrical Services

1. **REQUEST FOR SERVICE FROM TERMINAL OFFICE (TO BE)**
2. **APPROVED**
3. **CONFIRMATION OF SERVICE REQUESTED (TO BE)**
4. **APPROVED WORK ORDER (TO BE)**
5. **APPROVED WORK ORDER (TO BE)**
6. **NOTIFICATION TO TERMINAL**

### Disconnect Electrical Services

1. **REQUEST FOR SERVICE FROM TERMINAL OFFICE (TO BE)**
2. **APPROVED**
3. **APPROVED WORK ORDER (TO BE)**
4. **APPROVED WORK ORDER (TO BE)**
5. **NOTIFICATION TO TERMINAL**
6. **APPROVED**

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**Creation of new process (To be)**
1. Clarify the Problem (clear, concise, and measurable: target, actual, and gap)

Over the past few months, we have seen an increase in the number of "lost" electrical connections being cut by commercial fishermen. Fishermen’s Terminal is a working terminal that is open to the public. This type of unauthorized disconnects damage equipment and places other fishermen, visitors, and Port Staff in danger. We have a process for electrical connects and disconnects. However, several fishers are not following this process.

2. Break Down the Problem: (who, what, where, when, why, how, charts, graphs, data, flow, etc.)

In accordance with the exiting tariff. ELECTRICAL CONNECTION: Vessels requiring 250 volt or 480 volt electrical connections will be required to be connected and disconnected by a Port of Seattle electrician and will be charged the appropriate straight time or overtime rate. Should a vessel disconnect the electrical cord, then reconnecting without the electrician present, the vessel will be charged the overtime rate of 4 hours double time plus $100.00. Some fishermen are independently disconnecting services from the Power Skills, damaging Power Skills or leaving cables on the peer with breakers that could be easily energized and present a hazard to visitors, fishermen, and other Port Staff. Additionally, violators haven’t been charged in several years for violating this policy.

3. Goal Statement and Scope (concise and measurable: do what, how much, by when?)

We need to improve our system of compliance and accountability. For Safety and Asset Preservation, FT Goal is "ZERO" Occurrences. For the past 3 years, we have averaged 11 Occurrences per year. Reduction of occurrence by 50% by Q4 2019.

4. Root Cause Analysis (based on the gap in the goal statement: 5 why’s, causal diagram etc.)

5. Develop Countermeasures

<table>
<thead>
<tr>
<th>Selected Root Causes</th>
<th>Selected Countermeasures</th>
<th>Cost</th>
<th>Ease</th>
<th>Buy-in</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational Decisions by Fishing Fleet</td>
<td>Better planning, Support Future Tariff Policy</td>
<td>N/A</td>
<td>SOME</td>
<td>ORG ONLY</td>
<td>MEANINGFUL</td>
</tr>
<tr>
<td>Internal Communications (Internal Staff)</td>
<td>Streamline communications</td>
<td>N/A</td>
<td>Complex</td>
<td>Yes</td>
<td>MEASURED</td>
</tr>
<tr>
<td>Equipment</td>
<td>Port Stands/Fisher’s own skill stands</td>
<td>TBD</td>
<td>TBD</td>
<td>CRAFT</td>
<td>TBD</td>
</tr>
<tr>
<td>Progressive Discipline</td>
<td>Three (3) Strikes Approach</td>
<td>Varies</td>
<td>Complex</td>
<td>ORG</td>
<td>MEASURED</td>
</tr>
</tbody>
</table>

6. Implement Countermeasures

- Revise FT Tariff
- Implement new progressive discipline policy. Three (3) Strikes. 1. $100.00. 2. $200.00 and 3. Revocation of Miconage agreement
- Ensure violators are fined and disciplined in accordance with our new policy.
- Receive consencs to allow fishermen to use their own skill boxes. Connections to the pedestal will still be made by Port of Seattle electricians.

7. Check Results

Quarterly validation.

Monitor Progressive Discipline

Year-End Report Out

8. Standardize

Revise Tariff. Connect with T1 and Skideway Bay Marina to ensure we’re following the same process. Reflect Progressive Discipline status in Marina Management System.
Sustainability – Check/Act

Electrical Cord Cutting

<table>
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<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONNECTS AND DISCONNECTS</td>
<td>144</td>
<td>323</td>
<td>371</td>
<td>187</td>
</tr>
<tr>
<td>UNAUTHORIZED DISCONNECTS</td>
<td>6</td>
<td>15</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>SAFETY GOAL</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

90% 95% 100%
Things We Learned

- Process
- Team Members
- Voice of the Customer
- Problem
- Sustainability
- Go See
- Data
Connect with the Port of Seattle

www.portseattle.org/subscribe

Thank You
Delmas Whittaker  
Sr. Manager, Fishing and Commercial Vessels

Email: whittaker.d@portseattle.org
Phone: (206) 787-7626

Pennie Saum
Process Improvement Program Manager

Email: Saum.P@portseattle.org
Phone: (206) 787-7810