

**4<sup>th</sup> Water and Sanitation Workshop, Captain Cook Hotel, Jan. 30<sup>th</sup> 2014**

**MORNING PRESENTATIONS: Q&A and discussion**

**Alaska Village Washeterias (Bill Griffith, Alaska DEC)**

*(Please see power point presentation titled: "Griffith\_Alaska Village Washeterias")*

**Q&A:**

Are there inspection requirements for washeterias?

Not that Griffith was aware of. Randlett mentioned that if OSHA is asked to come, they will come and after inspection agency will expect the community to bring everything up to code. But their focus is on the safety of workers as opposed to the health of washeteria users.

Re: Datasheet for Kipnuk, what does it mean 0 homes served?

0% of homes not served by a piped system. Griffith wanted to get a handle of how many communities were currently being served by a washeteria. For profit washeterias are not counted here, only public operated. Griffith also wanted to know what percentages of homes had running water and sewer or served this the 0 homes served in Kipnuk.

Hennessy: What would be an estimate of how much it would cost to run pipes?

If starting from scratch anywhere from \$300,000.00 – \$500,000.00 per home.

Randlett: How many are non-village homes, how many are dry cabins? How many homes are privately operated washeterias?

Griffith didn't count those homes for the purposes of this list. If a community is not on this list, then the community has made decision not to continue to operate their washeteria (Mary Pete mentioned an example).

**Evolution of Central Facilities (Don Antrobus, ANTHC)**

*(Please see power point presentation titled: "Antrobus\_ Evolution of Central Facilities")*

**Q&A:**

Water quality standards apply the same for water used in a washing machine as per the Safe Drinking Water Act as it does if used for drinking. Wastewater standards have to be met as well, so that may increase the cost of operation of washeterias.

Hennessy: Dryer temperature of 180 degrees is better than 140 degrees for killing MRSA but there needs to be a balance between temperature and time for killing bacteria.

When questioned about the water extraction devices, Antrobus was not sure about water extractors currently being used. They have been used in the past with top load machines, however.

**Complex, but critical: Mapping the economics and determining financial viability of washeterias in rural Alaska (Glen Hamburg, Division of Community and Rural Affairs, SOA)**

*(Please see power point presentation titled: "Hamburg\_Washeteria Economics Pres")*

**Q&A:**

If communities have stores and that store already has an adequately trained bookkeeper, could he/she be used for keeping books of washeteria?

Yes, why not, as long as there is a memorandum of agreement.

What is the cost of washeterias versus individuals having their own washers?

Hamburg only looked at the cost of community-run washeterias.

Since you mentioned that communities have trouble filling out all the information required on financial statement forms, has RUBA tried different formats of financial statement?

Short answer is yes. A lot of time goes into training a person but, eventually the person leaves, and we have to start again. Therefore, RUBA's primary function is to continuously provide training. It's an ongoing process, a real expense.

**The Ideal Washeteria: How consumers, operators and utility managers work together to maximize healthy communities (Troy Ritter/ Chris Dankmeyer, ANTHC)**

*(Please see power point presentation titled: "Ritter Dankmeyer\_Analysis of Behaviors")*

**Q&A:**

Is MRSA present in washeterias? Dankmeyer: We don't know if MRSA is present in washeterias, closest answer would be "it depends." The study in Kivalina where the washeteria was the sole source of water and closed after a storm showed washeteria closure effect clinical results. Community has danby washers (that uses recycled water). A long time after closure, respiratory health improved. Therefore, maybe washeteria was hotspot for spreading MRSA in the community. The Tribal Water Center is collecting info from user behavior; they use their several hats, for example to access CDC library as a resource. "Washeteria O&M manuals" include general language about housekeeping for cleaning and avoiding MRSA but not detailed instructions. There are gaps in knowledge.

Ritter: We need to use market-based principles to attract consumers, not just focus on building an efficient, durable facility. We want people to come to use those services, so how do we get them to do so, is the question. For example, think about the "washeteria" name: it has no cultural relevance for the environment where we are putting the facility.

Comment, Mary Pete: Stebbins in the 1970s had a sauna but it caught on fire. Users wanted to make it hotter to resemble a home saunas and that is why it burned down.

Discussion notes: Draft 3/21/14

Maybe health effects in Kivalina study improved because people with sick kids moved to a nearby hub like Kotzebue. Because that's what people do when they have critical clinical needs, people move to bigger hubs when having MRSA, because they need to go somewhere with more regular access to water.

Hamburg: Is there a lack of will or ability to go to the washeteria?  
There's a sliding scale. If able to increase demand for service, how does that relate to median household income.

Randlett: is there evidence about washeterias or athletic clubs being linked to disease transmission?

Tom Hennessy: When MRSA when first arrived in AK and was studied, it was determined that one source was the use of crowded in rural saunas. People were getting skin infections from that.

Hennessy: If you are sampling and looking for pathogens, that is really technically difficult. A quarter of us here would have MRSA on our skin, maybe we are at risk, maybe not, same applies to our kitchens. We may be able to borrow practices from those environments and apply them. I would caution against sampling. If they do identify it, villages will go: "I'm not going there, there's bacteria there." Focus rather on recommendations, on prescribing cleaning protocols.

### **Washeteria Sanitation (Cheryl Rosa, USARC)**

*(Please see power point presentation titled: "Rosa\_Washeteria Sanitation")*

#### **Q&A:**

"Ervigivik" means "laundry" in Yupik (picture taken in Bethel, included in Cheryl's slides).

140 degrees in a dryer is not going to do it, we need higher temperature to kill bacteria and for a period of time, both are premises that are not being achieved in villages right now. Hydronic dryers are used because electrical dryers would not be financially practical given electrical costs in rural Alaska. Hydronic dryers do not get to that high of a temperature point. It would be interesting to see how Nome is doing with the ozone laundry systems to disinfect their laundry. Bethel's long-term care facility also has ozone.

Don, have you looked into freeze-drying clothes?

Ritter: FDA standards for Sushi, sanitized by freezing it. There might be pathogen destructive patterns, UV from sun too, maybe.

Hennessy: some bacteria are extremely resistant to freezing. Troy's point is valid, but there are no studies. We can't rely on an assumption. CDC freezes and thaws bacteria regularly with no effects on the bacteria.

Bohan: People are not thinking about doing laundry as a means to disinfect, the education piece is needed. If a village has had a MRSA outbreak they might be

aware, but otherwise, they may not be aware. We need to try and make the link for people to clearly think of washing clothes as achieving better health.

Bruce: If we could make the link between laundry and disease, it would be powerful.

### **Local Perspective Presentation 1 (Bob White, YKHC, Bethel)**

Nunapitchuk's washeteria is rated as fair, outsiders would rate it as poor quality, but Bob rates it that way because it functions and that, alone, is a lot to ask. Cost per load is a big issue, but we don't have enough discussion on consistency of service.

Napakiaak submitted good financial statement, but didn't know what portions of their washeteria were doing good or not. They make just as much money with candy vending machines as they do in laundry fees.

Napaskiak (7 miles from Napaskiak, close to Bethel), the washeteria never saw much use. Washeteria froze and it took years to fix it. People go to Napakiak to do laundry, not to Bethel. A lot of people have danby washers or full size washer, so they go do washing at home, or go to a relative and wash and to dry laundry.

Tuluksak, Tuntutuliak still open.

Perhaps we've started operating on bad assumptions or started on wrong premise, maybe we needed to look at for-profit washeterias in villages to look at how they are working and maybe get recommendations from them.

In view of the cost of industrial washer (\$12,000) versus the cost of a commercial unit (\$5,000), people don't always choose right. So, there are interesting retrofits out there.

Usage varies greatly and is not necessarily tied to income directly. Consistency is important. What if they go on a long break/temporary closure? Then, people will change habits (and may not return to former use patterns).

### **Local Perspective Presentation 2: Nunapitchuk Washeteria (Julianna Wassillie, Nunapitchuk):**

*(Please see power point presentation titled: "Wassillie\_NUP Washeteria Presentation")*

Washeteria has 5 washers, 2 dryers, 2 shower stalls, and one sauna. Watering point is across river. People have 50-100 gallon tanks at home and wastewater tanks outside (called dog houses). Sauna pipe overflows with backwash water sometimes. Last year, pipes clogged delivering brown murky water. Wood is rotting behind washers. Before entering to sauna room pipes are exposed. The linoleum floor is coming off and the walls are cracking. There are cracks all around the inner building because the community is located on marshland and it unlevels from time to time. Chemicals are not organized into shelves; they're just sitting there. Back door can only open up to a certain angle; stairs are unlevelled. Live wire is exposed as well. It would be nice to have washers that would fit sleeping bags or blankets.

Griffith: Do locals prefer steam baths over saunas?

Most people have steam baths; those who don't own one takes a sauna at washeteria.

Hennessy: Do people not use danby washers as much in winter?

They use rainwater sometimes for danby washers. It's cheaper for community residents to wash their own clothes with danby washers at home because the cost for a load of laundry is \$4.50 (for a token). Drying clothes at home is cheaper than using the dryer.

### **Local Perspective Presentation 3 (Mary Pete, USARC)**

Mary Pete is from Stebbins, and lives between there and Bethel. People who have danby washers use it in the summer because they have more access to water since rivers are not frozen. They like the smell of outdoors on their clothes. Raising the sauna temperature caused Stebbins first fire. The first washeteria had a sauna with a room on top, but not enough visitors rented it. Later, the community rented the room to the school and then, the fire happened (from improper use of the sauna/trying to get it to reach an unsafe temperature), the tenant almost perished in the fire.

Hard decision was to build a washeteria without a sauna. Whenever Mary goes back to Stebbins, she gets informal report on which (personal, home) saunas are "good", from a health perspective which are not.

The old washeteria was coin-operated, and then the city decided tokens were the way to go to control access to washers and because it was much easier to teach operators to use tokens. Washeteria opened longer than store. It was where people would go to get soda pop to drink after hours. In Stebbins, people would wash at washeteria and then take clothes home to dry. Danby washers get used during fishing season, people put their fishy slimy clothes to soak half the day first, and same applies for hunting season when clothes are bloody.

Black: How do you think people would react if a private individual ran a washeteria?

There may be political issues if adding the washeteria bookkeeping costs to city-run services (i.e. "borrowing" the bookkeeper working at local store). Bookkeepers whether trained or not are pretty busy, they may not be doing good job and but they are pretty busy (e.g. pull tabs, bingo, payroll, etc).

What if city would own a facility, but then ran it as a concession or hired a contractor to run washeteria?

Stebbins did consider but the insurance cost was horrendous. The food piece was super expensive.

Do you see a benefit to using technologies like ozone?

It's really busy as it is. It would probably be an added benefit but it's busy as it is, when washeteria is closed people need it, it is evident.

Hennessy: In terms of using danby washers to recycle water, I am curious about perceptions of that being a safe practice; do you have a sense of what people feel? If they think it's ok or do they think that practice shouldn't be done?

People use it and they add chlorine or pine-sol. Because they need to conserve water they use water until it is black. Some operators use too many chemicals; others are not being very clean.

Randlett: I have heard of people using hydrogen peroxide to wash clothes. People use them for whites, especially if they have bad water. Stebbins has nice water, so they use it to make whites white but not for health reasons.

### **ANTHC Rural Energy Briefing (Dan Reitz, ANTHC)**

*(Please see power point presentation titled: "Reitz\_Energy Briefing")*

In Tuntutuliak, if heat could be recovered from the power plant dryers could operate with that heat source. Lots of small savings can result from minor projects, but there is a hole in the funding stream for minor projects.

See the chart he presented is on energy savings projections.

After some energy saving fixes, Deering saw \$5,000.00 a year in energy savings.

Recovery heat is AVEC's preferred term over waste heat.

One of the lessons learned so far is that operation and management are not talking about optimizing costs. This is applicable to water systems and washeterias.

### **BREAK OUT GROUPS: COMMENTS**

#### **Group 1, Dennis Wagner**

**(Please see "Break out Group 1 washeteria presentation")**

Innovative approach: design "connex" saunas separated from washeteria building to avoid fires; use of swipe cards to access services. Assumptions: Community population is 150, located in the Y-K delta region, washeteria with 4 washers/4 dryers. Have a handicap accessible bathtub because that is also useful for bathing little children/elders. Sell bags from clean laundry on site. Black: We have seen that the use of swipe cards is cheaper as it reduces the cost of paying clerk wages.

Wagner: Another idea is to sell 6-month memberships for using facilities.

Rosa: About having a TV/DVD in the washeteria, wouldn't that invite vandalism?

Our break out group conceived this washeteria as being run for-profit/like a business, so people will have more ownership because the city won't replace a stolen or broken TV, it's going to come out of their profit, so they will make sure to reduce vandalism.

#### **Group 2, Cheryl Rosa**

**(Please see "Break out Group 2 washeteria presentation")**

The group drew/showed the schematic structure of a washeteria design in an octagonal shape following a recent prototype of the Cold Climate Housing Research Center designed to save energy.

Discussion notes: Draft 3/21/14

Sensaphone technology was suggested to help prevent/respond more quickly to fires or freeze ups. Sensaphone, designed in the 1980s, is a little box with a sensor for e.g. water, temperature, smoke, humidity. If the levels surpass the presets Sensaphone will automatically call a sequence of 3 phone numbers. Detectors trigger phone calls. Estimated cost of Sensaphone: \$300.

The “Community Charrette” model used by Cold Climate Housing Research Center was also suggested. Making chlorine bleach on site was suggested as a way to reduce costs of laundry products for washeteria users.

### **Group 3, Bill Griffith**

#### **Please see “The Ideal Washeteria Breakout Group 3” presentation)**

We could think of the management of washeterias following the sort of mom and pop type of business model, or like the National Park Service model in certain parks where users are charged for services.

Using ordinances to enhance viability of washeterias was another suggestion e.g. only washeterias can sell laundry products.

Rosa: Would the use of surveillance cameras be acceptable to local users?

Several workshop participants mentioned different villages where security cameras are currently in use. However, there was also mention of one village that emphatically rejected the idea.

### **Group 4, Brian Lefferts**

#### **(Please see “We\_re piped, so now what Breakout Group 4” presentation)**

Washeterias could host various services e.g. day care, telemarketing, yoga classes, stores, towel service, or a valet parking inspired laundry service by which customers’ laundry gets done while he/she takes a sauna.