

2023-08-16 Ice Install Notes

Saturday, August 19, 2023 10:35 AM

Below are notes and a summary of questions and answers from the August 16th Ice Education Session on Ice Install. These notes are intended to supplement the recorded material and are not a complete transcript of the discussions that took place. For more details, please review the recorded presentation. Thank you to everyone who joined us for the live session. It was a great turnout with about 15 attendees! Hopefully, everyone came away with something valuable and we're looking forward to promoting more discussions.

If you have questions or comments, please don't hesitate to reach out to Lauren Rich (lauren.rich@usacurling.org) or Shawn Olesen (shawn.olesen@usacurling.org).

Presentation and Discussion Notes

- Take notes during install! Document everything
 - How long each flood takes
 - How many floods you do
 - How much water for each flood
 - How long you need between floods
 - And more!!
- Anything you write down now can help you remember next year
- If you run into a problem, don't rush it. Use your network and call a handful of people, get multiple opinions and use what works best for your situation.
- If you have a sand floor, you only need to wet the sand down to just below the pipes, don't need to soak all the way down to the base. Soaking too deeply can cause problems with heaves
- If painting, you'd like cold ice for paint and seals
 - Paint should freeze before it dries
 - Start with a lot of very light seals that freeze quickly
 - Seal until you think you've sealed too much, then seal a few more times
- Doing a scum scrape before you begin painting can help paint freeze more quickly and evenly
- Last couple floods can be warmer so they freeze more slowly and flatter before you start pebble-scrapes
- Another scum scrape after you've finished all your floods, before you start pebble-scraping (maybe even do this scum scrape before your last flood)
- Do pebble-scrapes with hot water if you can. If you don't have enough hot water capacity, try to at least do the first pebbles hot with a large-hole pebble head.
- As it gets flatter, your low spots get smaller, you can move to smaller and smaller pebble heads
- Hopefully your build is within 10 pebble-scrapes of playable
 - Doesn't have to be peak, championship quality ice for the very first day of leagues
 - Make sure it's **good** but you don't have to burn through a blade and all your volunteers to get it **perfect**
 - As you use the ice, play on it, and maintain it, it'll improve during that first week
- Suggested to have compressor tech come shut down at the end of the season. Good to get them out to see it and they may have a different long-term shutdown procedure
- Hopefully if you have paint, you have some ice between your logos and your paint and your paint and your base (sand/concrete/vinyl)
 - Pull the logos before they settle into the paint
 - Vacuum or squeegee out the paint before it gets into your base
- Best to clean up as much water/paint/crud as you can before closing up for the summer. Easier to

do it at shut down than at install

- Oil and properly store any blades you do keep over the shut down so they're not rusted or damaged at the start of the season
- If you have RO, come in for an hour every 3-4 weeks over the summer to run it. Makes sure it stays in good clean working order. Easier to do this than buy fresh media/replace parts that got mold

Q&A

Q: Are you familiar with Hack to Hack Solutions? Do you have preferences?

A few options for these. Some are just white vinyl sheets, some have full houses/markings/logos. As they age, the wrinkles get stretched and harder to cover with floods. White vinyl may not look as bright white as paint and may get duller with time. Printed sheets are difficult to align. That said, maybe easier to install and *much* easier to remove than paint. Shawn prefers to paint if possible. Do a lot of research, ask a lot of people, consider the priorities specific to your club

Q: What's your preferred temperature on the slab when you paint and when you seal?

If you can without cracking/wrecking anything, 16-17°F. Jet Ice recommends 18-19°F for their paints. Keeping the ice too cold for too long during install can build up tension and cause cracking. Cracking is usually cosmetic at this stage and can heal with floods but you'd like to get by without it. As you get thicker, you can gradually let it get a little warmer. Once everything is well-sealed and flooded over, you can go up to 22-23°F. For the last flood, once the ice has started to freeze and the compressor cycles on and off (as opposed to just running constantly), pull it back down to whatever temperature you'd like to use for pebble-scrapes. This helps relieve some of the tension that builds up in the ice to prevent cracking

Q: How often should you do maintenance floods?

Once a month is a good target. Before bonspiels at a bare minimum.

Q: With the No-Tick Rule, are there requirements for how thick the centerline should be?

According to [WCF Rules of Curling](#) R1(b)(vi) "the centre line, **13 mm. (1/2 in.) maximum width**, joins the midpoints of the tee lines and extends 3.658 m. (12 ft.) beyond the centre of each tee line."

Q: With a sand base, sometimes fine sand migrates upward during flooding. Is that because the ice is too warm when we're flooding?

Yes. Just like with paint, if your ice isn't cold enough fast enough to seal it in, as it freezes, it'll push the impurities to the top. If there's silica in the water, you can find special filters that can help with that as well.

Q: Will there be any Level 1 or Level 2 certifications offered this year?"

October 13-15th there will be an [Ice Tech Summit](#) in Brainerd, MN. It's not a certification but will still be an informative session. Minnesota Curling Association clubs can offer a reduced rate to 2 ice techs who wish to attend the course, otherwise it's \$300.

Late August, a group of ice techs will get trained in delivering WCF certification courses. More information will be available after the training, but the current understanding is that people will take the online training and contact one of the Educators for their in-person assessments and certification.

Q: With a sand base, is there a problem during initial flooding if the ice cracks?

It's not a problem, but it means you're rushing. Cracks that happen before painting/under the liner will not show through, but it's best to avoid them at all if you can.

Q: Please go over temperatures and humidity along with their significance. Ice surface temp vs air temp. Arena temps vs dedicated club ice temps. Is it normal to see different reading at different facilities?

Temperature and humidity are useful to determine the dew point. Dew point is the number you're trying to control. Ideally, the dewpoint will be right around the surface temperature of the ice (below that and you'll get sublimation, above that you'll end up with frost). It's very normal to see different readings between facilities.

Q: What should be done to a concrete floor to prep, prior to cooling, besides sweeping?

Get it as clean as you can. Sweeping is the bare minimum, mopping is good, some places get the little drive around floor scrubbers, those do a good job. The cleaner the better, dirt and scum from the floor will make it harder to freeze the ice.

Q. What's the best option to clean the paint at the end of the season?

Squeegee the paint off before it gets into the pipes/sand. There's no easy solution. This is the advantage of the hack-to-hacks and vinyl solutions. A refurbished floor scrubber can be used to clean up and drain the paint away after the ice is melted but before anything dries.

Q. What problems are caused by having paint in your sand?

Water doesn't flow through it as well as sand, it's too fine. The chalky paint doesn't want to freeze during the next install.

Q. What will be covered at the Ice Summit in Brainerd?

Lots of talking points, discussions, and asking questions. Hands on with flooding, pebble-scraping, etc. Primarily focused on open discussions and questions about how to make your home club better. Don't always have time at the club, and certainly not during events to stop and talk about why we do things a certain way, so this is a good opportunity to get into in depth discussions. Good for networking and expanding your resources too.