PRE-CRUISE

EPM works with **CO-CHIEFS** to determine if HF usage will be needed onboard. This often depends on input and interest expressed by scientists, who may not yet be staffed. Co-Chiefs should review the online information for HF usage to ensure they understand the ramifications.

SCIENTIST(S) expresses interest in using HF

EMP should emphasize non-HF methods

EPM provides links to online information. Two key documents for planning are:

- 1. JRSO Policy on Safe Use of HF (Attachment 10 of the Shipboard Laboratory Safety Policy, September 2021)
- 2. Guidelines for use of HF on the JOIDES Resolution (Lab Working Group Recommendations, October 2018)

If **SCIENTIST(S)** want to proceed, they need to follow the steps of the above Guidelines

- 1. Submit a written request providing evidence that HF palynological processing is necessary for drilling decisions,
- 2. Explain why non-HF methods would be ineffective
- 3. Provide a plan of using HF that limits quantities as much as possible and cannot exceed 10 liters, and
- 4. Confirm that they have the knowledge and experience to process samples safely.

Management Review/Approval HF usage request

If request is approved,

SCIENTIST(S) will provide (no less than 4 months prior to beginning of expedition)

- 1. Detailed procedure. Procedures used on past expeditions are available as part of the online information.
- 2. List of supplies, labwares, and equipment needed (includes quantity)
- 3. Quantity of HF (maximum of 10L of <40% conc)

EPM communicates with **TAS** (no later than 4 months prior to beginning of the expedition)

TAS starts HF usage process

- Communicate to Logistics regarding ordering and shipping HF
- 2. Check quantity of all supplies and chemicals
- 3. Place order if necessary
- 4. Check equipment and status

LO communicates to ship doctor to verify medical supplies quantity

ONBOARD PRE-USAGE

LO provides

- 1. Training to all staff and scientists
- 2. Communicates with ship doctor/captain to review HF usage protocol
- 3. Reviews the agreed protocol with EPM/scientists
- 4. Verify the HF check list and inspects equipment (including fume hood)

A dry run of procedure is conducted

ONBOARD USAGE

SCIENTIST(S) seek approval from the LO and Captain prior to each time that they use HF on the ship

SCIENTIST(S) shall follow the rules outlined in the Shipboard Laboratory Safety Policy and the safety practices provided in the online material, the procedures that have been approved and agreed upon, and instructions from the LO on the ship.