

**State University System of Florida
Hinkley Center for Solid and Hazardous Waste Management**

PROGRESS REPORT 1

March 1, 2023

TITLE: PFAS in e-waste: Occurrence, types, and estimated quantities of PFAS in e-waste and appropriate management strategies for PFAS containing e-waste components

COMPLETION DATE: August 31, 2023 (anticipated)

Due to the late start of the project, it will be necessary to request a 6-month no-cost extension for the planned end date.

PRINCIPAL INVESTIGATORS:

- Berrin Tansel, Ph.D., P.E., Professor, Civil and Environmental Engineering Department, Florida International University
- Yelena Katsenovich, Senior Research Scientist, Applied Research Center (ARC), Florida International University
- Natalia Soares Quinete, Assistant Professor, Environmental and Bioanalytical Chemistry, Florida International University

During the first quarter of this project, the following activities have been performed:

The contract was finalized on December 19, 2023. Therefore, the notice to proceed came later than the planned project start date of Sept 1, 2022.

During this initial period, the following activities have been performed:

1. The contract has been signed.
2. A list of potential TAG members has been compiled. Potential members from industry in the areas of PFAS and e-waste have been contacted to confirm their interest and potential contribution to the project.
3. This project activities are conducted in parallel with the PFAS in Biosolids project. The two undergraduate students who would be working on the biosolids project will also be working on this project activities.
4. Regular weekly progress meetings have been taking place with the co-PIs.
5. A project web page has been developed at the following address:

ewaste.fiu.edu

6. Literature review for PFAS is on-going.
7. Test plans for leaching experiments, PFAS analyses (expanded for 40 PFAS compounds), e-waste characterization, identification appropriate components, and sample preparation needs (e.g., crushing and pulverization) for PFAS testing is on-going.
8. Technical Advisory Group meeting will be via Zoom due to remote participants and will be scheduled for:

March 20, 4 pm-5 pm (EST)

This meeting will be a joint TAG meeting with PFAS in biosolids project.

Planned activities for the next 3 months:

1. Continue contacting potential TAG members.
2. Investigate PFAS related data and information as well as e-waste components and PFAS use in parts (for coating or otherwise) and potential runoff and partitioning data for e-waste related contaminants.
3. Acquire materials and standards for laboratory studies.
4. Continue refining test procedures.
5. Initiate preliminary tests and analyses.
6. Continue development of database for compiling and organizing the available data for in-depth analyses.

Planned activities for Quarter 2:

- Send invite for the TAG meeting scheduled for March 20, 4 pm-5 pm (EST)
- Finalize testing guidelines and criteria for preliminary analysis.
- Initiate PFAS exposure simulations during handling, sorting, and processing of e-waste (e.g., crushing, melting, acid leaching).
- Develop abstracts for submittal to solids waste conference.

Months	Planned Activities	Status
March	<ul style="list-style-type: none"> • TAG meeting • Weekly project update meetings • Preliminary test 	<ul style="list-style-type: none"> • Scheduled • Continuing • Continuing
April	<ul style="list-style-type: none"> • Finalize testing and analysis procedures • Weekly project update meetings 	<ul style="list-style-type: none"> • Continuing • Continuing
May	<ul style="list-style-type: none"> • Weekly project update meeting • Conduct leaching experiments • Conduct PFAS analyses for solid and liquid samples 	<ul style="list-style-type: none"> • Continuing • Planned • Planned