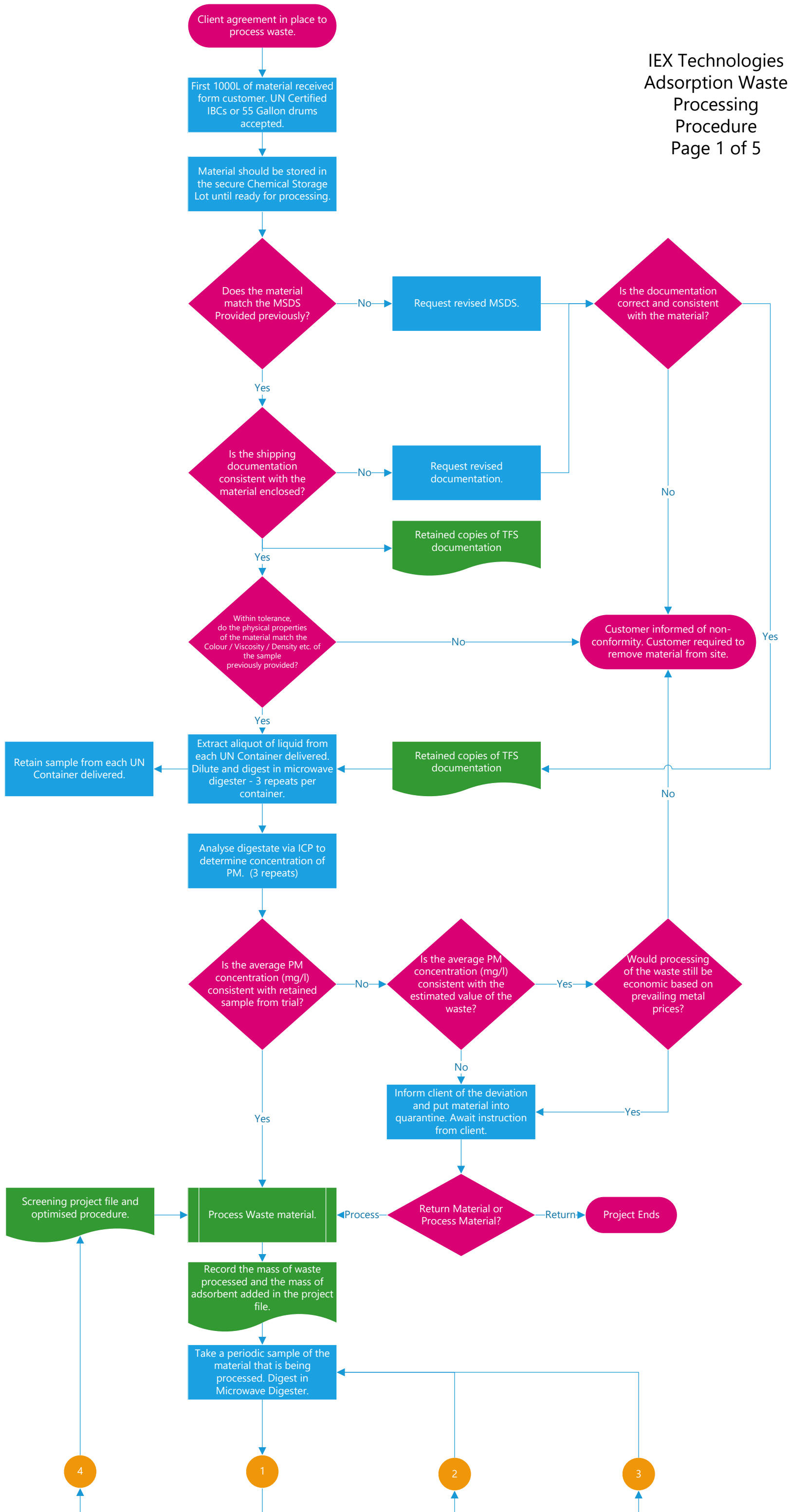
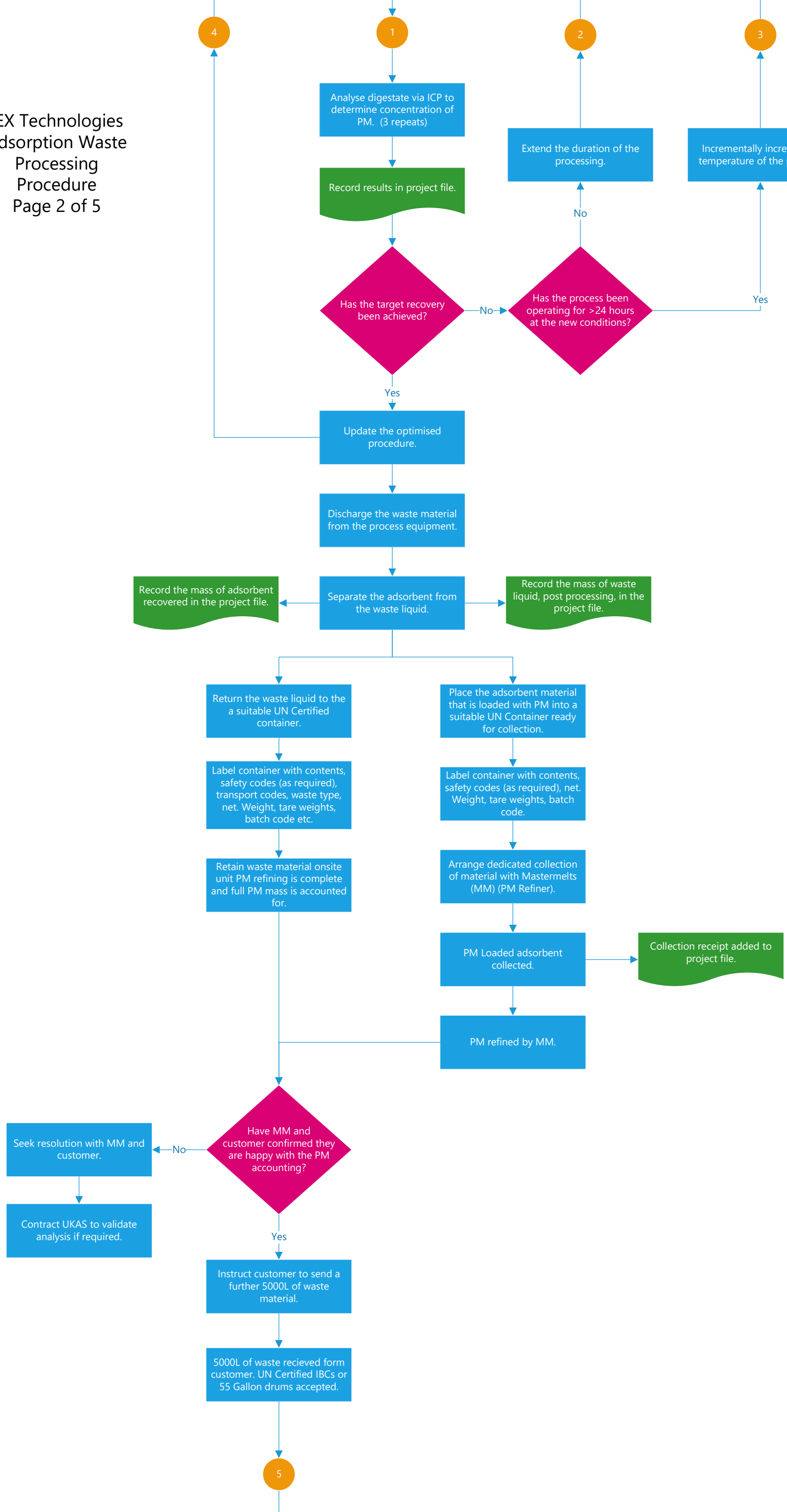
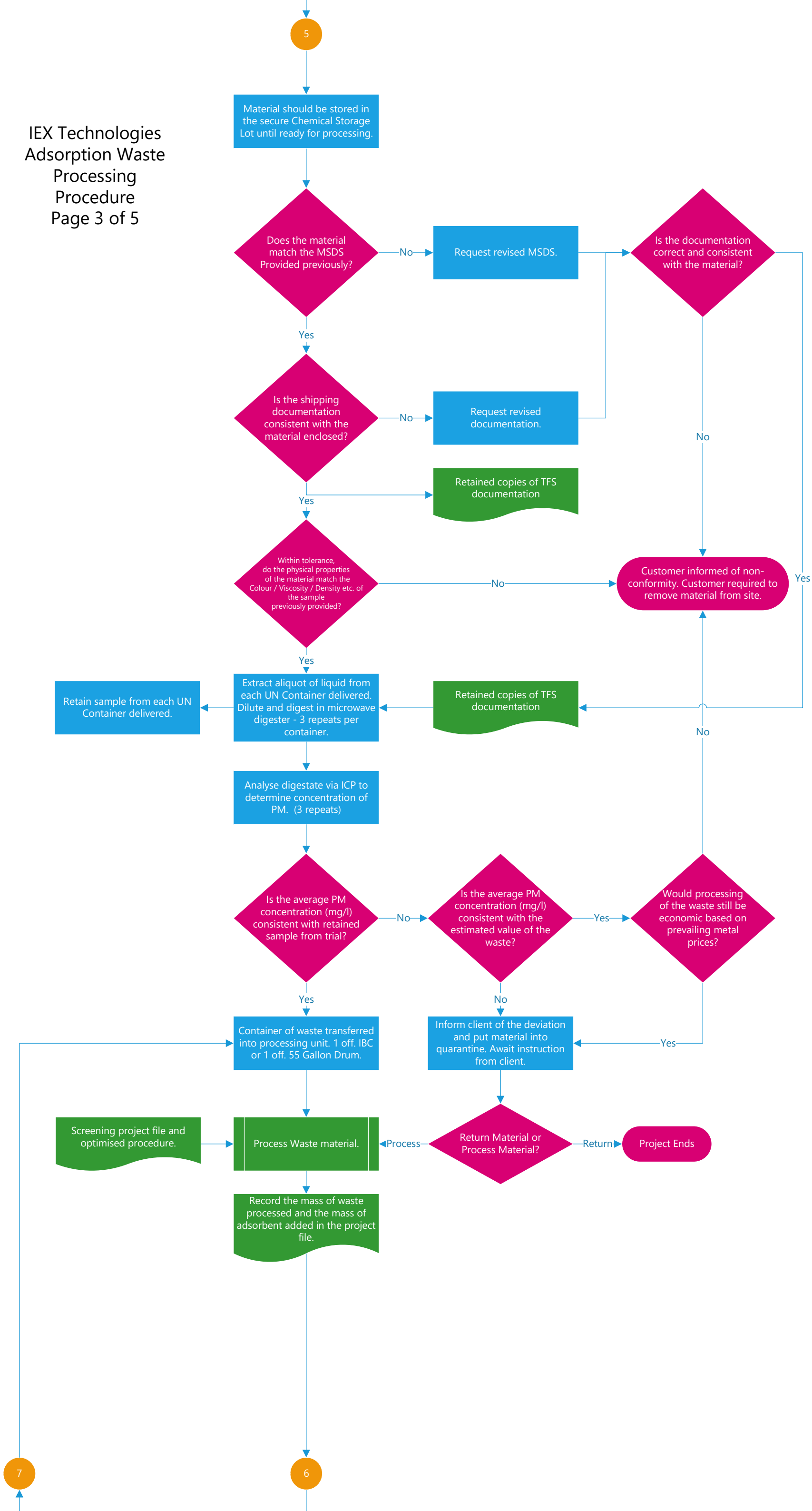
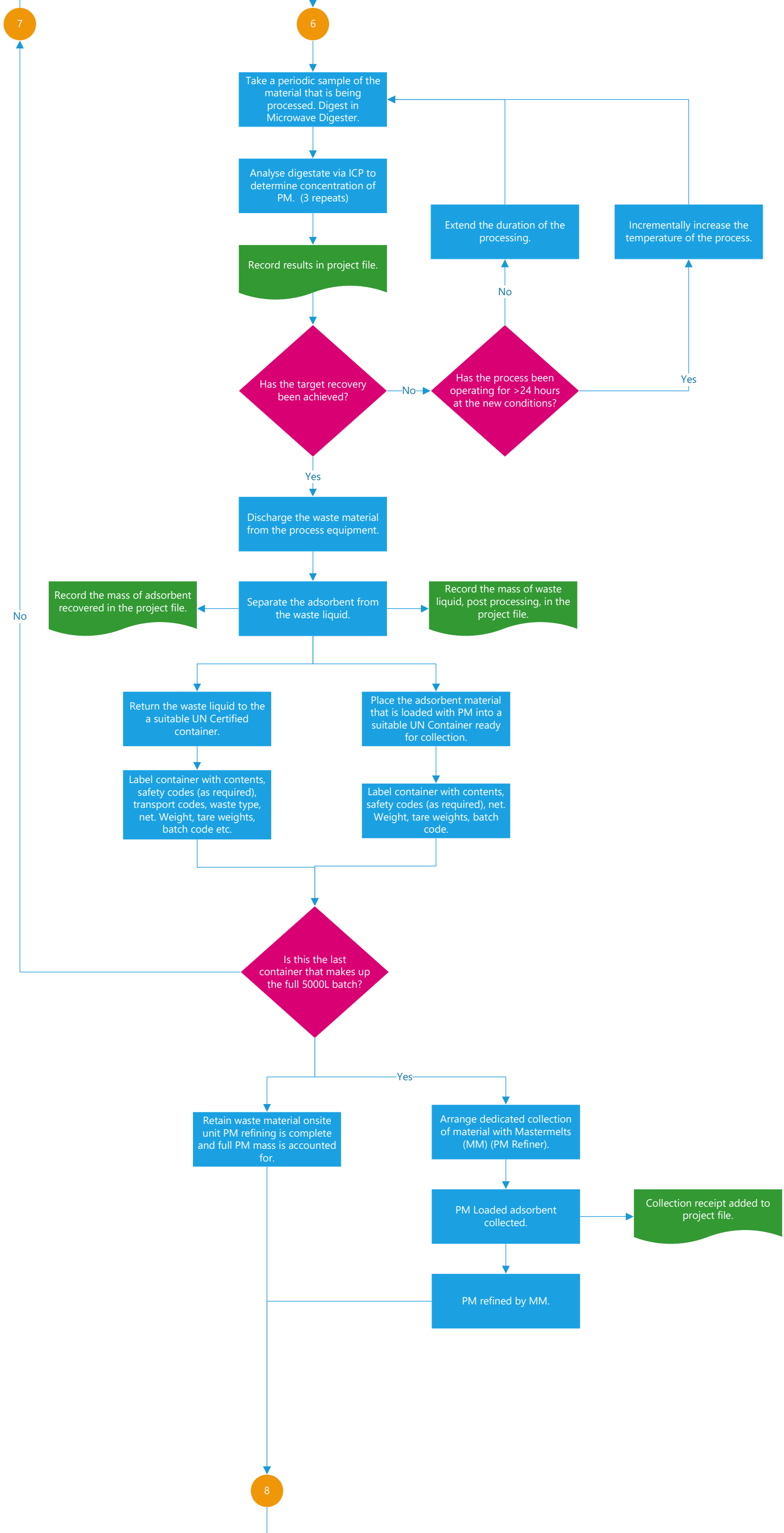
IEX Technologies Adsorption Waste Processing Procedure

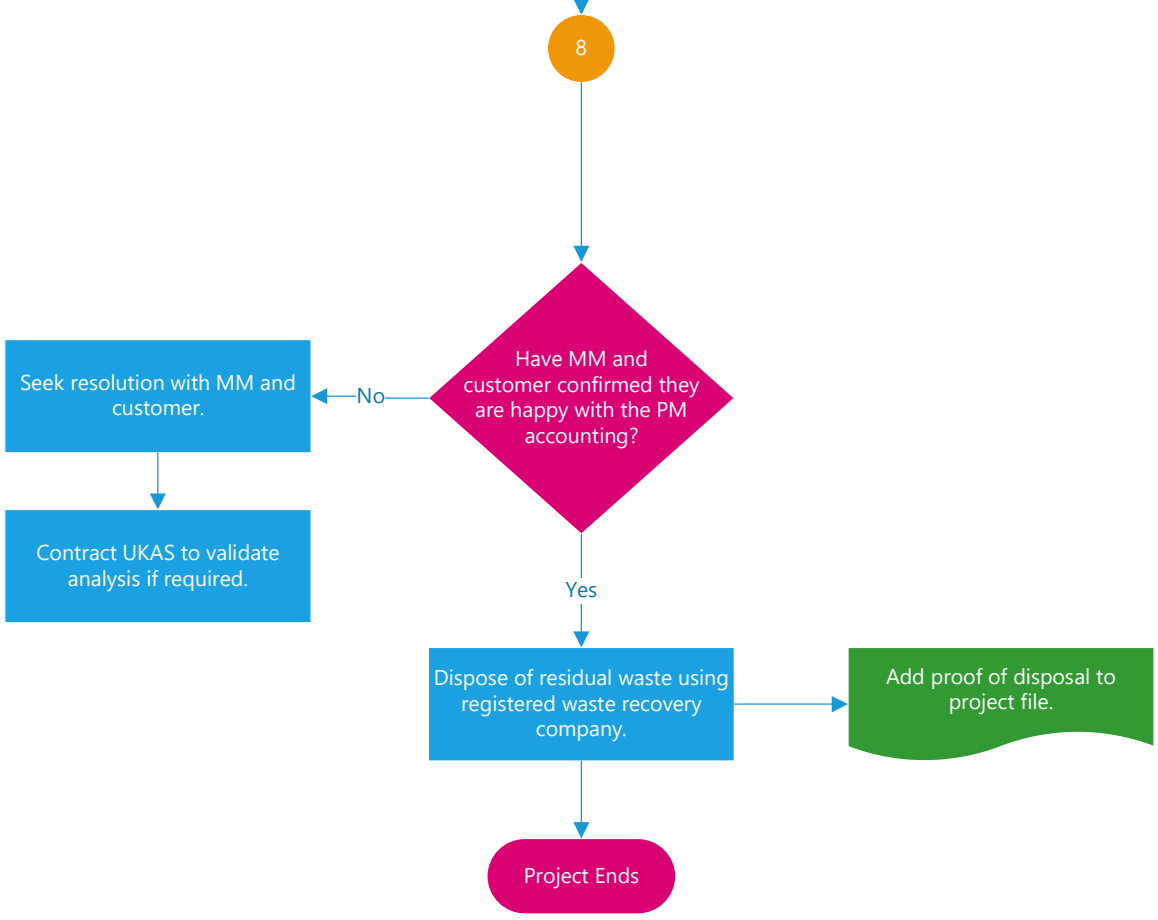


IEX Technologies
Adsorption Waste
Processing
Procedure
Page 2 of 5




5
Material should be stored in the secure Chemical Storage Lot until ready for processing.
Does the material match the MSDS Provided previously?
No
Request revised MSDS.
Is the documentation correct and consistent with the material?
Yes
Is the shipping documentation consistent with the material enclosed?
No
Request revised documentation.
No
Retained copies of TFS documentation
Yes
Within tolerance, do the physical properties of the material match the Colour / Viscosity / Density etc. of the sample previously provided?
No
Customer informed of non-conformity. Customer required to remove material from site.
Yes
Yes
Retain sample from each UN Container delivered.
Extract aliquot of liquid from each UN Container delivered. Dilute and digest in microwave digester - 3 repeats per container.
Retained copies of TFS documentation
No
Analyse digestate via ICP to determine concentration of PM. (3 repeats)
Is the average PM concentration (mg/l) consistent with retained sample from trial?
No
Is the average PM concentration (mg/l) consistent with the estimated value of the waste?
Yes
Would processing of the waste still be economic based on prevailing metal prices?
Yes
No
Container of waste transferred into processing unit. 1 off. IBC or 1 off. 55 Gallon Drum.
Inform client of the deviation and put material into quarantine. Await instruction from client.
Yes
Screening project file and optimised procedure.
Process Waste material.
Process
Return Material or Process Material?
Return
Project Ends
Record the mass of waste processed and the mass of adsorbent added in the project file.
7
6


7
6
Take a periodic sample of the material that is being processed. Digest in Microwave Digester.
Analyse digestate via ICP to determine concentration of PM. (3 repeats)
Record results in project file.
Extend the duration of the processing.
Incrementally increase the temperature of the process.
No
Has the target recovery been achieved?
No
Has the process been operating for >24 hours at the new conditions?
Yes
Yes
Discharge the waste material from the process equipment.
Record the mass of adsorbent recovered in the project file.
Separate the adsorbent from the waste liquid.
Record the mass of waste liquid, post processing, in the project file.
No
Return the waste liquid to the a suitable UN Certified container.
Place the adsorbent material that is loaded with PM into a suitable UN Container ready for collection.
Label container with contents, safety codes (as required), transport codes, waste type, net. Weight, tare weights, batch code etc.
Label container with contents, safety codes (as required), net. Weight, tare weights, batch code.
Is this the last container that makes up the full 5000L batch?
Yes
Retain waste material onsite unit PM refining is complete and full PM mass is accounted for.
Arrange dedicated collection of material with Mastermelts (MM) (PM Refiner).
PM Loaded adsorbent collected.
Collection receipt added to project file.
PM refined by MM.
8


8
Have MM and customer confirmed they are happy with the PM accounting?
No
Seek resolution with MM and customer.
Contract UKAS to validate analysis if required.
Yes
Dispose of residual waste using registered waste recovery company.
Add proof of disposal to project file.
Project Ends