Subject: RE: CatCost conversion script updates

Date: Friday, May 10, 2019 at 4:48:29 PM Mountain Daylight Time

From: Jankousky, Matthew

To: Van Allsburg, Kurt

Attachments: Library_upload_master.py

Hi Kurt,

Attached is the updated script with the changes as you suggested. After reviewing the other schema for the spent catalyst, I believe that the libraries generated by the script match the schema.

Regarding density, is it okay to assume that the lb/ft3 density will always be available since the implementation you suggested uses that and ignores the value of the kg/m3 density? If this isn't an okay assumption, I can have the script check whether or not the lb/ft3 density is available and if it is not, to pull from the kg/m3 column.

I'll be in the office all week next week, so if you want to meet next week, I'll be available.

Thanks,
Matt

From: Van Allsburg, Kurt <Kurt.VanAllsburg@nrel.gov>
Sent: Friday, May 10, 2019 4:25 PM
To: Jankousky, Matthew <Matthew.Jankousky@nrel.gov>
Subject: Re: CatCost conversion script updates

Thanks Matt! Don't sweat the exact time, but I'm glad to hear you have some time to work on it.

Congrats on finishing finals! Let's catch up soon.

Best,
Kurt

From: "Jankousky, Matthew" <Matthew.Jankousky@nrel.gov>
Date: Friday, May 10, 2019 at 12:54 PM
To: Kurt Van Allsburg <Kurt.VanAllsburg@nrel.gov>
Subject: RE: CatCost conversion script updates

Hi Kurt,

Apologies on the delay in getting back to you, I wasn't checking my work email during finals week. I'll try to make these changes this afternoon, but I'll let you know if I don't finish by about 5:45.

Thanks,
Matt

From: Van Allsburg, Kurt <Kurt.VanAllsburg@nrel.gov>
Sent: Friday, May 3, 2019 10:20 AM
To: Jankousky, Matthew <Matthew.Jankousky@nrel.gov>
Subject: CatCost conversion script updates

Hi Matt, happy Friday!

CatCost update: I have fixed the issue that caused the spent catalyst library on the web tool to accept only a subset of mass units. If you had a workaround for that implemented, would you undo it and test? The changes are live on ccm-test.hpc.nrel.gov

Also, I noticed that your script does not write the units of density within the Bulk Density part of Spent Cat Library .json files. Instead, it generates both "density" (implied units of lb/ft3) and "density_si" (implied units of kg/m3). But if you examine the schema for that table in the web tool Spent Catalyst Library (pasted below), it only has the "density" field and it can accept either lb/ft3 or kg/m3 using the "density_units" field. This may be the result of a schema change by Nick since you wrote that part of the script. What I propose as a fix in your script is to ignore the SI units column in Excel (deprecate your current "density_si" field as it is not supported by the current schema) and take the lb/ft3 column, write it to "density", and write "density_unit" of "lb/ft3".

It might be worth reviewing the current schema for the rest of the spent catalyst libraries to make sure you're matching it (in the GitHub repo at src/schema/).

Could you make those fixes? Let me know if you have questions.

Kurt


```
{
  "title": "Spent Catalyst Bulk Density",
  "description": "Schema for Spent Catalyst Bulk Density records.",
  "type": "object",
  "properties": {
    "id": {"type": "string"},
    "version": {"type": "string", "default": "1.0.0"},
    "updatedOn": {"type": "number", "default": 0},
    "name": {
      "title": "Name",
      "type": "string",
      "default": ""
    },
```

```json
    "density": {
      "title": "Density",
      "type": ["number", "null"],
      "default": 0,
      "minimum": 0
    },
    "density_unit": {
      "title": "Density Unit",
      "type": "string",
      "default": "lb/ft3",
      "enum": [
        "lb/ft3",
        "kg/m3"
      ]
    },
    "note": {
      "title": "Note",
      "type": "string",
      "default": ""
    }
  },
  "additionalProperties": {
  }
}
```