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New Registration Number Recommendation

Additional submitted attachment is included below.

There are three problem areas with the existing Registration Number; the CF1R indicator, the CF1R unique number and the CF2R unique number.

CF1R indicator, currently is A, N or D. These represent Alterations, New Construction and Additions (respectively). That worked fine when the HERS providers were only doing the basic CF1R. However for the 2013 code, we were required to manage other CF1R forms (which we refer to as supplemental CF1R forms). Examples include the CF1R-ENV-02 (through 4), CF1R-STH-01, CF1R-STH-02, etc. We suggest that the CF1R leading value be changed from 1 letter to an alphanumeric code like the 2R and 3R.

N01 (NCB), A01 (ALT), A02 (ALT), D01 (ADD), E02, E03, E04, S01, S02, R01 (SRA), etc.

CF1R Unique Number, currently a 7 digit number that automatically increments every time a new CF1R is registered starting with 1 on January 1 of each year. The original intent of this number, I believe, was to group CF1Rs for new construction so that when a specific address was assigned to that CF1R (aka Plan), the number would be the same if a second house used the same plan. This actually worked great until the introduction of the supplemental CF1Rs. Uniqueness was no longer possible because of these forms if we used the same number for the addresses that had that plan. I will explain:

Plan 1451 is registered with a Performance file uploaded on January 1. It receives a Registration Number of 215-N0000001A (I will exclude the trailing zero's for 2R and 3R info). That Plan is assigned to 123 Main Street and requires the ENV-21 and the MCH-01. The ENV-21 form gets a registration number of 215-N0000001A-E21000001A-0000 and the MCH-01 gets 215-N0000001A-M01000001A-0000. So far so good, until the user is required to fill out a CF1R-SRA-01. The registration number of the CF1R can't start with 215-N0000001A, because that has already been used. In order to resolve this issue for 2013, we incremented the CF1R unique number in order to maintain true uniqueness of the form. So that CF1R-SRA-01 would get a registration number of 215-N0000002A. As you can see, we now have lost any indication that this supplemental CF1R is in any way related to Plan 1451 (215-N0000001A). If we were to implement our first recommendation for the CF1R section and change the N to R01 (For SRA-01), at first glance, this would work and we could have 215-R010000001A. The R01 would indicate that this is a CF1R-SRA that is associated to Plan 1451. But the PROBLEM with this happens when 125 Main Street is processed as also being a Plan 1451 and it too needs its own CF1R-SRA form. Unlike NCB forms, where one NCB form can apply to many addresses, a supplemental CF1R applies to only ONE unique address.

The challenge is not in the "uniqueness" of the number. This can easily be attained the way we are doing it now, which is increment for every new CF1R. The challenge is maintaining the request that all CF1Rs for a particular Plan start exactly the same. For a specific address you can have a registration number for your "base" CF1R be 215-N010000001A, while the CF1R-ENV-02 that needs to be filled could be something like 215-E020000513A. Just by looking at those two numbers, there would be no way to know they are at the same address.

I would suggest we increment the value starting on Jan 1 as we are doing and just accept the fact that the numbers won't indicate any relationship to the address.

CF2R Unique Number, currently a 6 digit number that is supposed to increment from 1 for every NEW CF1R that is registered and for every "system" in that address. For example:

Plan 1451 is registered with a Performance file with TWO HVAC systems and is uploaded on January 1. The CF1R receives a Registration Number of 215-N0000001A (I will exclude the trailing zero's for 2R and 3R info). That Plan is assigned to 123 Main Street and requires ENV-21 and the MCH-01 which triggers a MCH-20 for each system. Currently, the Registration Number for the MCH-20's would be 215-N0000001A-M20000001A-0000 and 215-N0000001A-M20000002A-0000. When 125 Main Street is assigned to Plan 1451, that address's MCH-20's would be 215-N0000001A-M20000003A-0000 and 215-N0000001A-M20000004A-0000.

This also worked great when the Providers only had to deal with ENV forms and MCH forms. ENV forms were one per building forms and MCH forms where one per SYSTEM forms. But now we have to do PLB forms LTG forms, SPV forms, etc. And some of those forms can have multiple "things" of their own. MCH forms are Space Conditioning Systems, SPV are solar arrays, PLB are central etc.

In order to maintain the uniqueness of this value, we have had to treat those other items as their own "systems".

After extensive analysis of the current Registration Number and it's challenges and remembering the intent of what the registration number is for, the best solution I can come up with is to enhance the Registration Number to include an identifier of the building. By doing so, one will be able to look at two different Registration Numbers and know if they belong to the same building. Also, if one is to look at two different Registration Numbers, one could know if the same CF1R was used in the two different buildings.

Example New Registration Number: 215-N01000001A-000001-M250001A-M25A

Part 1 (Provider / Date info):
> **215** = unchanged (2 = CalCERTS, 15 = year that the initial CF1R was registered)

Part 2 (CF1R Info):
> **N01** = NCB01 form (A01 = ALT01, A02 = ALT02, D01 = ADD01, etc)
> **000001** = 6 digit number that increments from 1 at the start of the year for each new CF1R
> **A** = Revision

Part 3 (Unit Identifier):
> **000001** = 6 digit number that increments from 1 at the start of the year for each new house, building or dwelling unit

Part 4 (Installation Certificate):
> **M25** = MCH25 form (Refrigerant Charge)
> **0001** = 4 digit number that identifies the "system". For example, for MCH forms, it would be the Space Conditioning System. For ENV forms, it would be the Building identifier, for SPV it would

be the array number.

A = Revision

Part 5 (Completion Certificate):

M25 = MCH25 form (Refrigerant Charge)

A = Revision

EXAMPLES:

Completion Certificates for one house with two systems being tested with Refrigerant Charge:

215-N01000001A-000001-M250001A-M25A

215-N01000001A-000001-M250002A-M25A

Completion Certificates for two different houses in new construction that have the same CF1R Plan file:

215-N01000001A-000001-M250001A-M25A

215-N01000001A-000002-M250001A-M25A

Should the first house above have a CF1R-STH-01:

215-S01000001A-000001-00000000-0000

The current Registration Number is in 4 parts with a total of 33 characters (including dashes).

`214-215-N0000001A-E21000001A-0000`

My recommended Registration Number is in 5 parts with a total of 35 characters (including dashes).

`215-N01000001A-000001-M250001A-M25A`