Slay Some Earthly Demons IX

Document: n3347 Author: Martin Uecker Date: 2024-09-08

This remaining issues from n3244 were split up into the following series:

```
n3340 - Slay Some Earthly Demons II
n3341 - Slay Some Earthly Demons III
n3342 - Slay Some Earthly Demons IV
n3343 - Slay Some Earthly Demons V
n3344 - Slay Some Earthly Demons VI
n3345 - Slay Some Earthly Demons VII
n3346 - Slay Some Earthly Demons VIII
n3347 - Slay Some Earthly Demons IX
```

Meeting meeting notes about previous discussion can be found in n3281. The following numbers correspond to N3220 and the ones with (\rightarrow) to N3301.

```
J.2.19 needs more work, cf. SC22WG14.25600 (note to editor: parts applied by mistake)
       J.2.21 done (incl. additional change), (note to editor: there is a "not" missing in 6.3.2.1)
n3340 J.2.40 (→ J.2.38) withdrawn in June, now revised (cf. SC22WG14.25600)
       J.2.56 done
       J.2.57 done (option 1)
n3341 J.2.58 (\rightarrow J.2.54) not discussed in June
       J.2.60 (\rightarrow J.2.56) direction to editor (note to editor: not yet done)
n3342 J.2.63 (→ J.2.59) no consensus in June, now revised to make implementation-defined
n3343
               wording change not related to an entry in Annex J
       J.2.67 done
       J.2.69 done (alternative wording for semantic section)
n3344 J.2.75 (→ J.2.70) now revised (cf. SC22WG14.25600)
       J.2.77 (\rightarrow J.3.13. 2) not discussed in June, but fixed editorially
       J.2.78 (\rightarrow J.3.13. 3) not discussed in June, but fixed editorially
n3345 J.2.79 (\rightarrow J.2.72) not discussed in June
n3346 J.2.80-J.2.82 (→ J.2.73-J.2.75) not discussed in June (cf. SC22WG14.25600)
n3347 J.2.87 (\rightarrow J.2.80) not discussed in June
```

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```
Annex J (J.2.80 in N3301, J.2.87 in N3220)
```

(80) An identifier for an object with internal linkage and an incomplete type is declared with a tentative definition (6.9.3).

Analysis (updated)

When the type is not completed this is rejected by GCC and Clang. When the type is completed later, it is accepted (by GCC with a warning).

Example (updated)

```
https://godbolt.org/z/1Ejfajfff

struct foo;
static struct foo x;

https://godbolt.org/z/GKq7KoTh1

struct foo;
static struct foo x;
struct foo { int y; };

int main(void)
{
     (void)x;
     return 0;
}
```

Proposed Change

Note to editor: Move the following to a new Constraints Section

13 If the declaration of an identifier for an object is a tentative definition and has internal linkage, the declared type shall not be **an** incomplete **type** at the end of the translation unit.