EAI allows almost any character in the local-part of an email address. That means that you could have something completely bizarre, like all non-spacing marks.

We already have Section 3.2 IDN Security Profiles for Identifiers. We have gotten internal requests to have something similar for email addresses. Such identifier profiles are typically used in a few ways, such as:

1. When an email address is registered, flag anything that doesn’t meet the profile:
   - Either forbid the registration, or
   - Allow for an appeals process.
2. When an email address is detected in linkification of plain text:
   - Don’t linkify if the identifier doesn’t meet the profile.
3. When an email address is displayed in incoming email
   - Flag it as suspicious with a wavy underline, if it doesn’t meet the profile.

Here is a rough draft of what the identifier profile could look like—for further discussion in the UTC meeting.

A. Add a new Section 3.3 Email Security Profiles for Identifiers. The core of this would be:

To meet the requirements of the Identifier Profile for EMail Addresses, an identifier must satisfy the following conditions for the specified `<restriction level>`:

The domain part must satisfy Section 3.2 IDN Security Profiles for Identifiers, and satisfy the conformance clauses of UTR#46.

The local-part must satisfy all the following conditions:

1. be in NFKC format.
2. have level = `<restriction level>` or less, from Restriction_Level_Detection
3. not have mixed number systems according to Mixed_Number_Detection
4. satisfy dot-atom-text from RFC 5322 §3.2.3, where atext is extended to be:
   a. where C \leq U+007F, C \in [!#-*+/\-_/0=9=A-Z\^-~]
   b. where C > U+007F, both of the following conditions are true:
      i. C has Status = allowed from General_Security_Profile
      ii. if C is the first character, it must be XID_Start from Default_Identifier_Syntax (UAX 31)

The BIDI controls are specifically disallowed in email addresses.

Note:
• We could allow some extra symbols in 4.b.ii that are relatively unproblematic, much as Swift Variables do.

B. Also, enhance the Section 3.2 IDN Security Profiles for Identifiers to allow for specification of a restriction level.