Release notes for ENDF/B Development dec-015_P_028 evaluation

October 14, 2016

- `fizcon` Errors:

  1. Illegal value of RTYPE encountered
     MAT= 231, MF= 8, MT=457 (1): Bad RTYPE

     ```
     ERROR(S) FOUND IN MAT= 231, MF= 8, MT=457
         7 IN RTYPE =  2.70000E+00 IS INVALID       NEAR SEQUENCE NUMBER     3
     ```

  2. A discrete gamma energy is not energetically possible for the given Q value
     MAT= 231, MF= 8, MT=457 (2): Eg too big

     ```
     ERROR(S) FOUND IN MAT= 231, MF= 8, MT=457
        E(DISCRETE) > Q  E= 4.69000E+05  Q= 0.00000E+00
     ```

  3. A discrete gamma energy is not energetically possible for the given Q value
     MAT= 231, MF= 8, MT=457 (3): Eg too big

     ```
     ERROR(S) FOUND IN MAT= 231, MF= 8, MT=457
        E(DISCRETE) > Q  E= 6.79000E+05  Q= 0.00000E+00
     ```

  4. A discrete gamma energy is not energetically possible for the given Q value
     MAT= 231, MF= 8, MT=457 (4): Eg too big

     ```
     ERROR(S) FOUND IN MAT= 231, MF= 8, MT=457
        E(DISCRETE) > Q  E= 8.28000E+05  Q= 0.00000E+00
     ```

  5. A discrete gamma energy is not energetically possible for the given Q value
     MAT= 231, MF= 8, MT=457 (5): Eg too big

     ```
     ERROR(S) FOUND IN MAT= 231, MF= 8, MT=457
        E(DISCRETE) > Q  E= 9.53000E+05  Q= 0.00000E+00
     ```

  6. A discrete gamma energy is not energetically possible for the given Q value
     MAT= 231, MF= 8, MT=457 (6): Eg too big

     ```
     ERROR(S) FOUND IN MAT= 231, MF= 8, MT=457
        E(DISCRETE) > Q  E= 1.08900E+06  Q= 0.00000E+00
     ```

  7. A discrete gamma energy is not energetically possible for the given Q value
     MAT= 231, MF= 8, MT=457 (7): Eg too big

     ```
     ERROR(S) FOUND IN MAT= 231, MF= 8, MT=457
        E(DISCRETE) > Q  E= 1.26700E+06  Q= 0.00000E+00
     ```

  8. A discrete gamma energy is not energetically possible for the given Q value
     MAT= 231, MF= 8, MT=457 (8): Eg too big

     ```
     ERROR(S) FOUND IN MAT= 231, MF= 8, MT=457
        E(DISCRETE) > Q  E= 1.45200E+06  Q= 0.00000E+00
     ```

  9. Energies released in decay not adding up!
     MAT= 231, MF= 8, MT=457 (9): Bad energy sum

```
ERROR(S) FOUND IN MAT= 231, MF= 8, MT=457
   PARTICLE ENERGY (AE) SUMUP FAILURE
       WHOLE= 1.75280E+01  SUM= 1.07735E+01         SEQUENCE NUMBER     2
```

10. Energies released in decay not adding up!
    MAT= 231, MF= 8, MT=457 (10): Bad energy sum

```
ERROR(S) FOUND IN MAT= 231, MF= 8, MT=457
   PROTON MULTIPLICITY SUMUP FAILURE
       WHOLE= 0.00000E+00  SUM= 1.30000E-05
```