Use of the descriptive word "collapse" to describe a process whereby the twin towers were turned to dust without the ability to have top heavy mass interact with mass underneath the pulverized mass sufficient to satisfy the criteria of two of the laws of physics is visibly obvious. The two laws of physics that are violated to such a degree that they are ignored altogether by NIST, in complete and total derivation of the requirements of the DQA are:

Law of Conservation of Momentum; and

The amount of momentum (p) that an object has depends on two physical quantities: the mass and the velocity of the moving object.

$p_1 = m_1 * \mathbf{v}_1$

where p is the momentum, m is the mass, and v the velocity.

If momentum is conserved it can be used to calculate unknown velocities following a collision.

$(m_1 * \mathbf{v}_1)_I + (m_2 * \mathbf{v}_2)_I = (m_1 * \mathbf{v}_1)_f + (m_2 * \mathbf{v}_2)_f$

where the subscript I signifies initial, before the collision, and f signifies final, after the collision.

If $(m_1)_I = 0$, and $(\mathbf{v}_2)_I = 0$, then $(\mathbf{v}_2)_f$ must $=0$.
So, for conservation of momentum, there cannot be pulverization.

If we assume the second mass is initially at rest [(v2)I = 0], the equation reduces to

$(m_1 * \mathbf{v}_1)_I = (m_1 * \mathbf{v}_1)_f + (m_2 * \mathbf{v}_2)_f$

As you can see, if mass m1 = m2 and they "stick" together after impact, the equation reduces to ,

$(m_1 * \mathbf{v}_1)_I = (2m_1 * \mathbf{v}_{new})_f$

or $\mathbf{v}_{new} = (1/2) * \mathbf{v}_1$

If two identical masses colliding and sticking together, they will travel at half the speed as the original single mass.

Law of Conservation of Energy.

In elastic collisions, the sum of kinetic energy before a collision must equal the sum of kinetic energy after the collision. Conservation of kinetic energy is given by the following formula:

$(1/2)(m_1 * \mathbf{v}^2{}_1)_I$ **+** $(1/2)(m_2 * \mathbf{v}^2{}_2)_I = (1/2)(m_1 * \mathbf{v}^2{}_1)_f$ **+** $(1/2)(m_2 * \mathbf{v}^2{}_2)_f$ + (**Pulverize**) + (**Fail Floor Supports**)

where (Pulverize) is the energy required to pulverize a floor and (Fail Floor Supports) is the energy required to fail the next floor.

If $(1/2)(m_1 * \mathbf{v}^2 1)I$ **+** $(1/2)(m_2 * \mathbf{v}^2{}_2)I$ = (**Pulverize**) + (**Fail Floor Supports**), there well be no momentum transfer.

In reality, $(1/2)(m_1 * \mathbf{v}^2{}_1)_I$ **+** $(1/2)(m_2 * \mathbf{v}^2{}_2)_I$ < (Pulverize) + (Fail Floor Supports),

So, for conservation of energy, we must assume there is some additional energy such that,

$(1/2)(m_1 * \mathbf{v}^2{}_1)_I$ **+** $(1/2)(m2 * \mathbf{v}^2{}_2)_I$ + (Additional Energy) = (Pulverize) + (Fail Floor Supports),

where (Additional Energy) is the additional amount of energy needed to have the outcome we observed on 9/11/01.