1. Intumescent paints are improving and coming down in price—at least in Great Britain and France. While intumescent paints are still fairly uncommon in the U.S., they will soon be used on a majority of commercial steel projects in London and Paris. Part of difference in usage patterns comes from differences in fire codes (intumescents are currently most economical for a one-hour fire rating). Part of it is that manufacturers overseas say that they’re using better formulations than our domestic suppliers (but as the market for intumescents grows here, it is likely that the European producers will begin selling here). And part of the difference is a construction-practices issue. In London, at least, intumescents are partially marketed as a time-saving device. Since they are often shop-applied, other trades can begin working as soon as the steel is up—without having to wait for spray-applied fire-proofing to be added.

2. Structural engineers need to be aware of green building issues, but it’s still debatable whether environmental friendliness is really a structural issue. In the U.S., it appears that the LEED system will dominate design, while in Europe they tend more towards Life Cycle Assessment.

   The steel industry in Britain was originally very excited about environmental issues. Steel production has substantially reduced its energy consumption during the past two decades. And most structural steel is produced from recycled materials (in the U.S. the figure exceeds 95 percent). But life cycle assessment is largely a red herring from a structural system standpoint. For example, while a building’s frame represents most of the structure’s embodied energy when a building first opens, it is rapidly eclipsed by HVAC and lighting energy usage. If you chart out energy use during a 20-year life of a building, you need a mighty big piece of graph paper even to see the embodied energy in the structural system by Year 20.

   The LEED system, which provides up to 69 points for such items as site use, energy, materials and resources, and indoor environmental quality, seems to be prevalent in the United States, though again, the structural system plays only a minimal role. Of a possible 69 LEED points, the structural system probably contributes less than two—primarily for recycled content and for the use of local/regional materials (defined as within a 500 mile radius). And if you hear grandiose claims otherwise, be wary. Usually, the claims actually refer to non-structural components, such as pervious pavements, landscaping elements, and cladding. The truth is that no structural material enables more LEED points than steel.

3. Long-span steel structures are taking wing in Paris office buildings. In the past, bay sizes in Paris commercial space was less than 30’. But as international businesses increasingly open Paris offices, they have begun to demand more column-free space. Today, nearly 40 percent of the office construction utilizes bay spacing of up to 60’. Construction costs are comparable, yet the flexibility of the greater column-free space is allowing developers to demand a premium on leases.

P.S. #1 While, it’s fascinating to look at other parts of the world and to try and learn from what they’re doing, a more convenient alternative to learn and explore new possibilities is the North American Steel Construction Conference (April 2-5 in Baltimore). The nearly 50 sessions are designed to provide practical information that professionals can put into use in their daily business. To view a full program, visit www.aisc.org/nascc.

P.S. #2 Please join me in congratulating Keith Grubb, who has been promoted to managing editor of MSC with responsibility for the day-to-day activities of the magazine.