Regarding: The Evolving Nature of Financial Reporting and the Audit Implications Due 6-1-2011

Comments: Dr. Joseph S. Maresca CPA, CISA

Background:

This discussion paper highlights recent trends in the range, volume, and complexity of financial statement disclosures, and explores issues and practical challenges in preparing, auditing, and using them. Views from all stakeholders are sought, and the discussion paper asks specific questions of preparers; investors, lenders, and other creditors; regulators; and auditors. (IAASA website discussion introduction)

Critique:

There is a considerable discussion of relevance over reliability with a view toward faithful representation as regards expectations of preparers and auditors. Reliability still applies in certain specialized contexts. For instance, reliability is necessary for expectations of the public and indeed public safety itself. The concept of engineering mean time between failures or MTBF is critical for the ongoing concern assumption. This case was amplified by the BP oil spill and recent Japanese earthquake and damage to the Daiichi Power Plant.

In the case of the oil spill, the engineering stresses on the BP equipment were taken beyond normal operating conditions resulting in damage to the drilling equipment and the horrendous spill which occurred thereafter. In essence, the equipment operated at over 100% capacity to show higher productivity.

In the case of the Daiichi Nuclear Power Plant, engineering stresses from the Honshu, Japan earthquake exceeded the design tolerance of the nuclear power plant equipment resulting in radiation contamination for miles around. What can the auditor do about these things?

First, the auditor can insist on contingency and disaster recovery planning and implementation to mitigate these types of random events. In addition, the auditor can obtain expert reports which opine on the technical/engineering dimensions of ongoing continuing operations and the assumptions thereof. Operating logs are another source of quality information because these logs describe out of range conditions at operational facilities.

The Nuclear Regulatory Commission or NRC prescribes training for key personnel in the nuclear power plant. The training program must be derived from a systems approach to training as defined in 10 CFR 55.4, and must provide for the training and qualification of the following categories of nuclear power plant personnel:

(i) Non-licensed operator.

(ii) Shift supervisor.
(iii) Shift technical advisor.

(iv) Instrument and control technician.

(v) Electrical maintenance personnel.

(vi) Mechanical maintenance personnel.

(vii) Radiological protection technician.

(viii) Chemistry technician.

(ix) Engineering support personnel.

In the case of a public accounting firm, the auditors may rely on the work of internal auditors either financial or IT. There are other avenues for getting high quality information; such as, the legal counsel, operating logs, prior audit workpapers, the insurance division, the director of engineering and industry data disclosed in the 10K filings of the Securities Exchange Commission.

Are the financial statements free from material mis-statement? pp. 55
Reliability is a critical factor for the reasons explained above. As proposed, true and fairly presented financial statements are the over-arching concepts desired by investors; however, reliability is still critical in some complex engineering environments.

Is the disclosure of sensitivity analysis part of the financial statements? pp. 33
Again, sensitivity analysis provides investors a profile of best and worst case scenarios especially for products like derivatives and cash management algorithms. Sensitivity analysis on the VIX index could be vital when an investor makes a decision as to risk assuming a multiplicity of market scenarios and conditions. p. 40 (R3)

Audit issues on disclosures are discussed on pp. 36, pp. 40
Evidence to support disclosure is more difficult for certain financial products like letters of credit, money transfer and even derivative transactions. This is true due to shear complexity and timing differences in receipt of supporting documentation. Timing differences are most evident in letters of credit (ship, receipt and payment to beneficiaries), overnight suspense accounts in foreign exchange/money transfer, telecommunications answerbacks and partial data segmentation of transactions and other transactions not consummated in a single event or transaction.

Material mis-statements of disclosure was discussed on A9/ pp. 44
Mis-calculation of the Mean Time Between Failures and engineering tolerance of equipment precipitated the major catastrophic BP oil spill. Mis-apprehension of engineering stresses encountered in the Honsu, Japan earthquake precipitated the massive radiation spill. In some cases, sensitivity analysis may not articulate an outlier point which may precipitate a catastrophic event.
Internal events like resignation of key personnel can precipitate crises if their knowledge is not documented fully. Work on proposed stress test disclosure is evolving. pp. 44  A10

The fair presentation of financial statements may be more difficult in developing BRIC economies, developing nation economies, expropriations and operations in earthquake/Tsunami zones where the ongoing operational assumptions can change overnight. Data redundancy, disaster recovery and contingency planning can mitigate these unplanned events and the random damage caused.

For instance, China has ongoing problems with huge flooding, earthquakes, migrating coastal knowhow inward to rural communities, accounting standards and language dialect issues.

Mis-statements of disclosures may be mitigated by a review of prior year workingpapers and the judicious use of artificial intelligence Advice Giving software. The Advice Giving software polls a community of experts, massages the data and develops inferences which represent the concensus gained from polling a community of experts by the knowledge engineer. The review of 10K company and industry data may provide additional perspectives to the auditor.

There are continuing questions on auditability on pp. 45
All of the following issues impact auditability materially.

(1) Random VIX variation makes the auditing valuation of stock portfolios more difficult.

(2) The Mean Time Between Failures or MTBF is an engineering concept which governs the normal operation of advanced engineering equipment under the original conditions the equipment was designed to anticipate or handle. Tolerances above 100% capacity utilization represent new territory unanticipated in the original engineering design.

(3) Engineering stress testing in nuclear facilities is difficult to project under scenarios which can only approximate real life conditions like earthquakes. Contingency and disaster recovery planning are more practical steps to take along with locating nuclear power plants away from earthquake zones or fault lines.

(4) Drug approval by the FDA can be fraught with unanticipated changes in the way the agency views control group testing, contraindications and what constitutes danger to the public. Sometimes, an adverse FDA action or denial can send a stock price into a tailspin.

(5) The BP oil spill has issues regarding auditability. These issues can be mitigated by having operable and tested Contingency and Disaster Recovery Plans. i.e.

The Contingency Plan is developed so that operations can be
recovered in a consistent and orderly fashion. The plan should provide the methodology to ensure that the requisite personnel, facilities, data files, backup computers, supplies and suppliers can be accessed on an "as needed" basis. Sample steps are as follows.

(a) Does the installation or offshore operations platform have a contingency plan which is current, updated and has been tested?

(b) Have copies of the contingency plan been distributed to the offshore installation manager, engineering, dynamic positioning operators, mates, crane operators, cargo operators, fire coordinators, coxwains who maintain the lifeboats, production techs who run the plant, scaffolders, heliport operators who run missions between the dock and the offshore oil rig, maintenance techs who manage instrumentation, mechanical and electrical systems, outside vendor support, outside supplier support, offsite records, insurers and all applicable governmental agencies.

(c) The plan should provide for operational priorities, backup production, suppliers and backup suppliers. For instance, unusual levels of gas detected by the offshore oil rig sensors and software should represent a high level priority. Adverse weather warnings; such as oncoming hurricanes or earthquake activity along the New Madrid fault line are additional top level emergencies for oil platforms like the Gulf offshore.

(d) The plan should include a list of facility personnel responsible for coordinating the plan. i.e. Offshore Installations Manager, Offshore Operations Engineer or authorized designates. The details of the plan should include the names and contact information for installation personnel, the responsibilities of key facility personnel and contact numbers for operations technicians, programmers and security.

(e) A team should be in charge of coordinating staff at a specific coordination site. i.e. nearby platform, the local port, artificial man-made island. Team leaders and alternates should be designated. Hardware and software configurations for the offshore oil installation platform and operations should be set forth. A disaster inspection team should be designated and dispatched to the emergency site.

(f) The installation should have a checklist of materials and supplies with backup suppliers needed in an emergency. Daily rig operations consist of well control, casing/cementing, pipe tallies, hole cleaning, mixing drilling fluids, determining pump liner requirements, directional drilling and various sundry activities.

(g) There should be an alternate processing or communications site with redundant file or tridundant capability for vital applications processing. i.e. gas sensing software. An alternate site could be an artificial man-made island, adjacent oil platform or facility onshore with heliport capability. Workers will travel to an oil platform by helicopter. They may be required to wear immersion suits and life jackets. The crew will also receive a safety briefing before each flight, similar to consumer air flights.

(h) The data processing and engineering operating manuals, project books and systems programming documentation should be readily accessible with offsite copies available. Some or all of this documentation may be accessible at the company website or by mobile phone.
(i) Copies of backup site agreements and vendors should be readily accessible and the documentation should be updated periodically to reflect changes. Testing of the backup site should be done periodically.

(j) Facilities for the boarding and transportation of installation personnel should be designated previously.

(k) There should be mutual assistance agreements or compacts with other firms in the industry.

(l) The plan should include a list of service bureaus who could assist with recovery in an emergency.

(m) Has the Contingency Plan incorporated applicable safety regulations. i.e. Typical UK safety regulations are provided by way of example.

(n) Has the relevant legal counsel reviewed the Contingency Plan, Disaster Recovery Plan and the rights, duties, liabilities and recourse of the company to its strategic constituencies including foreign governments, where appropriate. Generally, the international law governing sea rights is set forth below:

Waters under the sovereign jurisdiction of a nation or state, include the marginal sea and inland waters. The concept originated in the 17th-century. Though the doctrine that the sea must be free to all was upheld, a nation's jurisdiction over its coastal waters was also recognized over the last 300 years. Nations subscribing to the Law of the Sea observe a territorial limit of 12 nautical mi from the shore. Territorial rights include the airspace above those waters and the seabed beneath.

In the BP case, the original incident occurred 38 miles off the shores of the USA. Since the incident happened beyond the 12 mile limit, a question arises as to what law applies and which court or courts have jurisdiction.