FACILITATING ENVIRONMENTAL STEWARDSHIP

THROUGH INTEGRATED MANAGEMENT SYSTEMS, STANDARDS & ASSESSMENT PROGRAMS:

A FOCUS ON SUSTAINABLE BUILDINGS

Denis Leonard

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INTRODUCTION

The issue of social responsibility (SR) affects all of us, not just in one city, state, indeed country, and not just in regard to one issue. That is what gives the topic such impact. Social responsibility is an issue of your local community, national patriotism, global fellowship and business relationships. The issues encompass human rights, health and safety, social development and of course environmental stewardship. So whether it is in regard to international, world changing issues such as global warming or the decisions and impacts of businesses in your local community, social responsibility is relevant to you. The key to helping convert this motivation into practice for consumers, manufacturers and stakeholders in both public and private sectors all over the world, is the leverage and integration of standards and conformity assessment. This integration occurs not just at the conceptual level but in practical implementation at the project, operational and even strategic levels of organizations.

OPPORTUNITIES FOR SR VIA INTEGRATED MANAGEMENT SYSTEMS & STANDARDS

The initial standards and models that addressed elements of SR included OHSAS18001 for Health and Safety and most importantly ISO14001 the environmental management standard. The systematic ISO 14001:2004 approach requires that organizations take a hard look at all areas where its activities have an environmental impact. The application of this Environmental Management System can lead to benefits like:

- Reduced cost of waste management

- Savings in consumption of energy and materials

- Lower distribution costs

- Improved corporate image among regulators, customers and the public

- A framework for continual improvement of environmental performance

By the end of 2007 there were 951,486 ISO9001:2000 certificates issued in 175 countries. At the same time there were 154,572 ISO14001 certificates issued in 148 countries. [1] With this increased application of ISO9001, ISO14001 and OHSAS18001 the traditional approach of operating quality, environmental, health and safety management systems independently began to give way to an integrated approach. The key advantage of the integration of these management systems is the synergy created, resulting in increased efficiency and effectiveness in the management of organizations. The integration of ISO management systems can become just the first step in highlighting the complementary nature of various initiatives and the opportunity to enhance their leverage to improve strategic performance. This synergy can be enhanced through their alignment with the Malcolm Baldrige National Quality Award and its Criteria for Performance Excellence (Baldrige) increasing their strategic impact.

This approach of integrating each of these management standards obviously creates efficiencies in managing the systems and eliminates duplication of work especially during audits. But this cannot be the only aim of integration since the efficiency gains on this alone would provide a relatively small return. The ultimate aim needs to be improving the performance of quality, safety and environmental management and creating a coherent system designed to improve the bottom line of the organization. Other benefits should include reduced risk, eliminating conflicting responsibilities, increasing consistency and improved communication. Integration should also focus on reducing department silo orientations and increasing the use of organizational wide assessment. The breaking down of barriers between departments and improving coordinated efforts for the measuring and monitoring of strategic and operational improvements is a huge benefit of good integration. One key indicator of the acceptance and growth of this integrated approach is ISO19011, a guideline for quality and environmental management systems auditing. Another is that the updated ISO9001 which was released in 2008 included minor changes for clarification and compatibility with ISO14001. [2]

With the increased application of ISO14001 and the more integrative use of OHSAS18001 with ISO9001, management systems were now being commonly used that could provide structured approaches to support and promote SR. Indeed the updates to these standards have focused on further integration and a natural alignment with the Baldrige criteria. The Baldrige criteria provide an ideal example of how SR could be considered, implemented and evaluated as part of the overall functioning of an organization.

In addition to ISO14001 another specific standard that existed for some time is SA8000. This voluntary standard encourages organizations to maintain socially acceptable workplace practices. To advance beyond SA8000 the International Organization for Standardization's (ISO) consumer policy committee conducted an assessment of standards designed for SR due to the fact that, "an increasing number of consumers are expressing their concern regarding the social integrity of corporations in their operations". [4] The ISO Strategic Advisory Group (SAG) described SR as "a balanced approach for organizations to address economic, social and environmental issues in a way that aims to benefit people, communities and society." [5]

This led ultimately and significantly in 2004 to the development of the voluntary international standard ISO26000 on Social Responsibility set for release in 2010. ASQ has had a key role in the development of ISO26000 as it administers the U.S. Technical Advisory Group (TAG) on Social Responsibility and also was selected by the American National Standards Institute (ANSI) to represent the US in its development. The ASQ considered that, "society is placing increasing demands on organizations to operate in a socially responsible manner. But there exists a widespread lack of clarity about what 'socially responsible' means and how to accomplish it…...ASQ believes that being socially responsible means that people and organizations behave ethically and with sensitivity toward social, cultural, economic and environmental issues. Striving for social responsibility helps individuals, organizations and governments have a positive impact on development, business and society" [6]

The intention of the standard is to:

- "Assist organizations in addressing their social responsibilities while respecting cultural, societal, environmental and legal differences and economic development conditions

- Provide practical guidance to operationalize social responsibility, identify and engage with stakeholders and enhance the credibility of reports and claims about social responsibility

- Emphasize performance results and improvement

- Increase confidence and satisfaction in organizations among their customer sand other stakeholders

- Be consistent and not in conflict with existing documents, international treaties and conventions and existing ISO standards

- Promote common terminology in the social responsibility field

- Broaden awareness of social responsibility

- Not reduce government's authority to address organizations' social responsibility" [7]

ISO26000 provides a broad non-prescriptive framework in which to work, a set of guidelines that can be incorporated for example into the Baldrige criteria and supported and integrated with ISO9001, ISO14001 and OHSAS18001. It has the potential to have the same or more value and impact than these existing standards combined. Also as a voluntary standard it can help facilitate organizations in achieving requirements in a very different manner than the usual format which is for example in the case of quality requirements, to be of a contractual nature and with environmental and safety standards based on regulatory requirements.

BALDRIGE, A PLATFORM FOR THE STRATEGIC ALIGNMENT & INTEGRATION OF STANDARDS

The findings of a Lloyd's Register Quality Assurance (LRQA) report challenged "management system professionals to play a more strategic role within their organizations, to work to enable organizational change, rather than simply to achieve compliance". [3]   The Baldrige criteria developed by the National Institute for Science and Technology (NIST) is a non-prescriptive model for driving business excellence throughout an organization in just this way, whether it is manufacturing, service, non-profit, education, healthcare or a small business. The criteria strive to

promote a systems approach to organizations. It becomes an umbrella under which various initiatives; standards and programs can be strategically coordinated for the monitoring, measurement and implementation of continuous improvement.

The Baldrige systems based approach highlights:

- The importance of leadership

- Need to consider all elements of an organization

- Strategic importance of scanning and analyzing the business environment

- Value of creating focus on customers and employees

- Need to use measures, indicators and organizational knowledge to identify and monitor key performance indicators

- Methods for approach and deployment of improvement action plans

The Baldrige criterion enables organizations to adopt a more strategic perspective. The benefits from this strategic approach are:

- Driving cross functional involvement

- Coordination of strategic and operational improvement efforts

- Measuring and monitoring progress

- Conducting organizational wide assessments with feedback and a support system to create prioritized areas for improvement

This is what gives Baldrige its coordinating and aligning nature; it is also what gives Baldrige its wide appeal and adaptability. Its focus is on the basics or essentials for excellence, which is why it has been implemented internationally and in many cases used as the basis for other national quality awards. The common theme with each national quality award criteria is their inclusive nature, for example the criteria do not specify what tools or techniques should be used or in which circumstance allowing flexibility. Rather the criteria are the strategic

coordinating methods used to drive improvement and integrate the various tools and techniques required to achieve the corporate strategic goals. The criteria also provide an effective way of conducting company wide, cross functional self-assessments. The tools and techniques used to achieve the Opportunities for Improvement (O.F.I.'s) uncovered by self assessment or feedback from an award application depend on how far along the quality journey the organization is, their current needs, experience, skill set and culture. In this way Baldrige can make sense of a whole range of tools, techniques and initiatives, which, without alignment become an uncoordinated and ineffective group of activities. Baldrige states that "integration builds on alignment, so that the individual components of your performance management system operate in a fully interconnected manner". [8]

The management standards and Baldrige all have the same common underpinning, that of Plan, Do, Check and Act. The alignment and integration of all of these is a natural progression. The corrective and preventive actions and audit findings of the ISO systems become O.F.I.'s and allow a better alignment of strategic, tactical and operational initiatives. It also creates stronger strategic linkages for coordinated and prioritized improvements and a focus on key corporate measures or indicators of performance. By aligning the systems with Baldrige the focus moves from compliance of individual components to improving key performance indicators corporate wide.

The 2005 ASQ Futures Study concluded that the most important forces that were shaping the future of quality included globalization and value creation, which included the adaptation of management systems. For example with more organizations outsourcing to developing countries, this is driving the increased use of ISO9001, ISO14001 and OHSAS18001 since they are being used as a way of providing third party certification and assurance of management systems by these companies. [9] This was reinforced by the 2008 ASQ Futures Study which found that skills in systems thinking will be crucial and that standards will help create global platforms and solutions. Other key forces will include social responsibility and environmental concerns. [10] With regard to Baldrige and the continued development of new ISO systems such as ISO26000, Baldrige will continue to provide a platform for their integration. For example, SR fits under 1.2 governance and social responsibilities: 'how do you govern and address your social responsibilities' and 7.6 (a) 'leadership and social responsibility results'. Of course the synergy between

Baldrige and these management systems is a two way street, while Baldrige can promote integration, the management systems provide best practice structures to help address and impact sub categories of Baldrige. Therefore, with the international application of Baldrige and ISO standards and the opportunity for their ongoing integration, they will continue to provide significant vehicles to change and adapt to the forces outlined in the ASQ Futures Studies.

A FOCUS ON SR & ENVIRONMENTAL STEWARTSHIP IN SUSTAINABLE BUILDINGS

Sustainable and environmentally friendly buildings are the leading edge in building design today. They must obviously meet the local, state and other requirements and standards, but go beyond that. The only way this can be achieved in an efficient and effective manner is, by using an integration of the best management system standards available.   While standards are mandatory in regard to the technical aspects of designing and constructing buildings and of the building components themselves, they are significantly overlooked in regard to the actual management of the design and construction processes. As new technologies and challenges stretch our abilities in the buildings we construct, especially in terms of how efficient they are in regard to environmental and energy issues, we also need to focus on improving how we manage the planning, design and construction process itself. This will translate into sustainability in regard to how effectively and efficiently the planning and building process is conducted and therefore, results in saving time and money and therefore, the ability to build more sustainable and environmentally friendly buildings.

THE ROLE OF MANAGEMENT SYSTEMS IN ACHIEVING SUSTAINABLE BUILDINGS

The management standards that can be used relate to quality, safety, environmental and sustainable building management systems. Together they can coordinate and integrate the various stakeholders involved in a project such as the engineers, architects, builders, contractors, clients/owners, those using the building and those in its vicinity. This approach can be leveraged to impact both large and small building projects in commercial, government and residential sectors across the country and indeed the world. The key is using standards in an integrated format. The standards are ISO9001:2008, Quality, ISO14001:2004, Environmental, OHSAS18001:2007, Safety,

ISO15392:2008, Sustainability in Building Construction - General Principles, ISO/TS21931-1:2006 Sustainability in Building Construction - Framework for Methods of Assessment for Environmental Performance of Construction Works and ISO/DIS 26000:2009 Guidance on Social Responsibility. The impact put forth in ISO/TS21931 for its assessment methods for the environmental performance of buildings could also be considered as the reason for using these integrated management standards. To "provide a common and verifiable set of criteria….provide a reference as a common basis…gather and organize detailed information ….(and) assist the design process."

Other related building standards can also be integrated. For example, ISO/TS21929-1:2006, Sustainability in Building Construction – Sustainability Indicators, Part 1: Framework for Development of Indicators for Buildings, ISO21930:2007, Sustainability in Building Construction – Environmental Declaration of Building Products, ISO16813:2006, Building Environmental Design – Indoor Environment – General Principles, ISO15686-3:2002, Buildings and Constructed Assets – Service Life Planning – Part 3: Performance Audits and Reviews.
Each of these standards supports the other with a common focus if used in concert.

To facilitate the integration of these standards further they have been aligned with the Malcolm Baldrige National Quality Award, Criteria for Performance Excellence. This is an excellent way to coordinate and focus the various integrated standards already discussed. Table 1 provides a practical way to aid this integration by aligning each of the common clauses in the standards to the Baldrige criteria. Diagram 1 also shows the relationship in a graphical format, reflecting the core flow that needs to be considered in building planning, design, construction, use, improvement, maintenance and eventual demolition. This lifecycle needs to be considered in conjunction with society, the environment, and the users/occupants, owners and builders. There is a standard for each step in the process, they are complimentary and when aligned create efficiencies. The issues of gaining input from the community, evaluating the environmental impact, communicating with stakeholders, driving continuous improvement, tracking corrective and preventive actions at all levels of the project can be supported by the infrastructure of these standards. While these can be used on an individual project basis, they can of course be implemented within organizations to create a consistent and seamless supply chain.
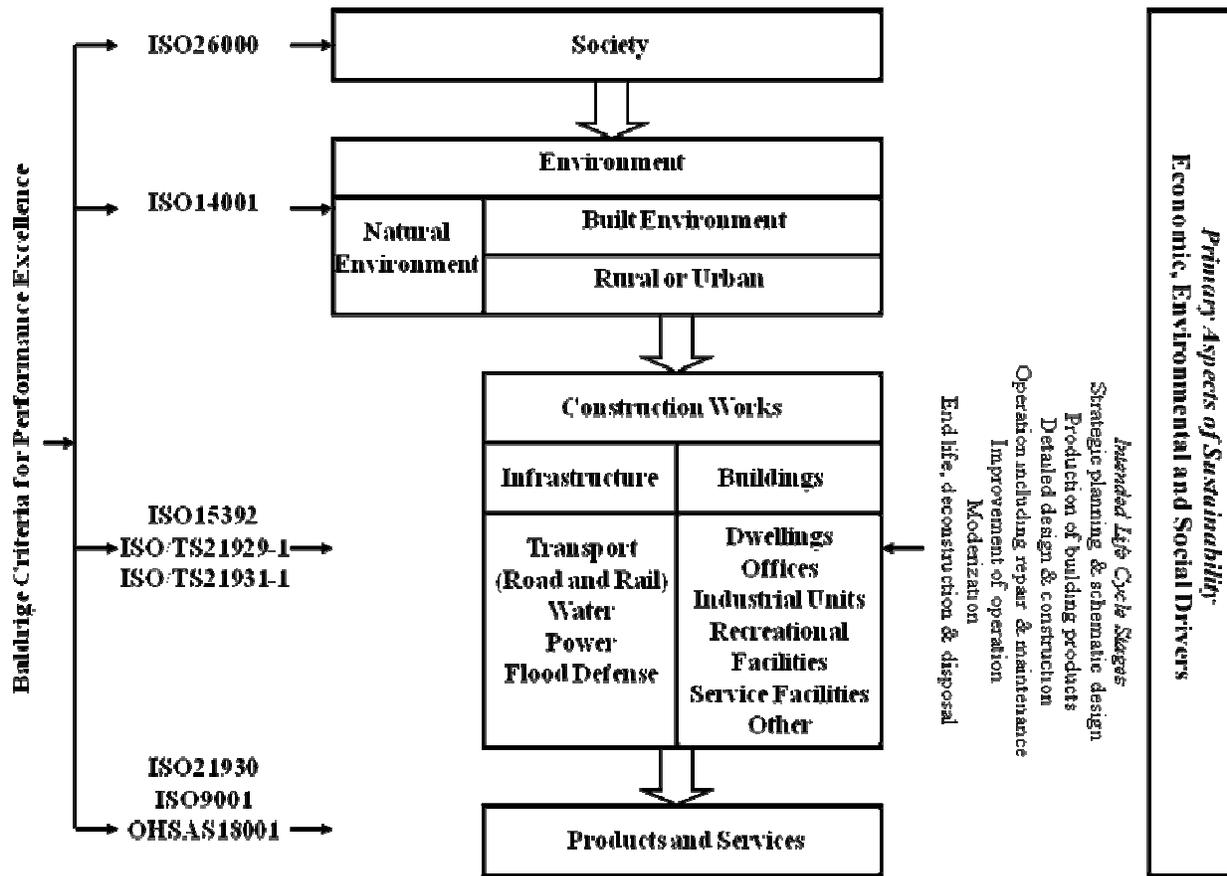
(Elements of Diagram Adapted from ISO15392 & ISO/TS21931-1)

DIAGRAM 1 INTEGRATED ASPECTS OF BUILDING & SUSTAINABILITY

LINKAGES BETWEEN THE BALDRIGE CRITERIA FOR PERFORMANCE EXCELLENCE AND ISO STANDARDS IN REGARD TO SR & ENVIRONMENTAL STEWARDSHIP.

Clause 5.3.4 Global Thinking and Local Action in ISO15392 connects to ISO26000 and when it states, "the building and construction sector is highly important for sustainable development because – it has a significant interface with poverty reduction through the basic economic and social services provided in the built environment and the potential opportunities for the poor to be engaged in construction, operation and design." Clause 5.3.2 Continual Improvement in ISO15392 again makes the connection to Baldrige as well as ISO9001 when it states, "This

principle encompasses the improvement of all aspects of sustainability related to the built environment including the buildings and other construction works over time. It includes the performance of construction works as well as processes, and addresses means of assessment, verification, monitoring and communication."

One of the Baldrige core values and concepts is social responsibility. The Baldrige criteria "provides a systems perspective for managing your organization and its key processes to achieve results – and to strive for performance excellence. The seven criteria categories, the core values and the scoring guidelines form the building blocks and the integrating mechanism for the system." In ISO/DIS26000 clause 2.1.18, it states that social responsibility is the "responsibility of an organization for the impacts of its decisions and activities on society and the environment through transparent and ethical behavior that contributes to sustainable development including health and the welfare of society; takes in to account the expectations of stakeholders; is in compliance with applicable law and consistent with international norms of behavior; and is integrated throughout the organization." Part of the Baldrige view on SR is that "leaders should be role models for your organization in focusing on ethics and the protection of public health, safety and the environment…..organizations should emphasize resource conservation and waste reduction." Baldrige addresses social responsibility again for example in 1.2 b1 when it considers legal and ethical behavior. "How do you address any adverse impacts on society of your products and operations? How do you anticipate public concerns with current and future products, services and operations? How do you prepare for these concerns in a proactive manner, including using resource sustaining processes as appropriate?" Baldrige considers the actual detailed measureable impacts of social responsibility in category 7.0 Results, under 'Leadership Outcomes'.

In ISO/DIS26000 clause 2.1.23 sustainable development is considered to be meeting "the needs of the present without compromising the ability of future generations to meet their own needs." Baldrige sees very similarly sustainability as "your organizations ability to address current business needs and to have the agility and strategic management to prepare successfully for your future business market and operating environment."

As ISO systems continue to be integrated it is essential that the construction industry follow and make use of these systems. This can expand for sustainable and intelligent buildings when one considers the standards for food safety, information security and customer relations management. At this level we are recognizing the fully integrated lifecycle of a building and the extended community in which it exists and functions. As green building, Energy Star and Leadership in Energy and Environmental Design (LEED) gain momentum and with the launch of the new ANSI-NAHB National Green Building Standard for the residential home building industry in January 2009, this is the perfect time for the promotion of integrated standards in the construction industry.

CONCLUSION

As new technologies and methodologies help us to continue to improve our sustainable and environmentally friendly buildings, we should not forget that how we manage the process of developing, designing, constructing, maintaining, updating and ultimately decommissioning these buildings is equally important. Managing this process with strong environmental stewardship through the support of integrated management systems will in turn ensure that we actually have the capacity to produce more of these sustainable buildings due to the efficiency and effectiveness of how we manage the entire lifecycle process and as a result have a larger impact on society. Without using these highly effective management standards, we continually reinvent the wheel and miss out on the unique assistance they provide. It is also critical to realize that the concepts of integrating management systems described here can be leveraged to apply to all service and manufacturing sectors in every industry throughout the world, dramatically facilitating environmental stewardship.

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ISO16813:2006, Building Environmental Design – Indoor Environment – General Principles

ISO15686-3:2002, Buildings and Constructed Assets – Service Life Planning – Part 3: Performance Audits and Reviews

TABLE 1   Alignment of The Baldrige Criteria to ISO9001, ISO14001, OHSAS18001, ISO15392, ISO/TS21931-1 & ISO26000 for Integrated Sustainable Building Management Systems

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Category	Baldrige Criteria for Performance Excellence (NIST) 2009/10	Clause	ISO 9001: 2008 Quality	Clause	ISO 14001: 2004 Environmental	Clause	OHSAS 18001:2007 Health & Safety	Clause	ISO 15392:2008 Sustainability in Construction Principles	Clause	ISO/TS 21931-1:2006 Sustainability in Construction Framework	Clause	ISO/DIS 26000:2009 Social Responsibility
	Overview	1	Scope	1	Scope	1	Scope			1	Scope	1	Scope
		2	Normative references	2	Normative references	2	Reference publications			2	Normative references		Bibliography
	Glossary of key terms	3	Terms and definitions	3	Terms and definitions	3	Terms and definitions	5.2 5.3	Objectives Principles	3	Terms & definitions	2	Terms & definitions
1.0	Leadership	5.3	Quality policy	4.2	Environmental policy	4.2	OH&S policy	5.3.4 5.3.9 5.3.10	Global thinking & local action Responsibility Transparency			4.0 6.0	Principles of social responsibility (SR) Guidance on core issues
1.0 1.2	Leadership Governance & societal responsibility	5 5.5 6.1	Management Responsibility and authority Provision of resources	4.4.1	Structure and responsibility	4.4.1	Resources, roles, responsibility & authority			3.7 5.6.3	Transparency Transparency	4.2 4.3 6.2	Accountability Transparency Org governance
1.0 2.0 7.0	Leadership Strategic planning Results	5.1 5.6 8.5.1	Management commitment Management review Continued improvement	4.6	Management review	4.6	Management review					6.0 7.7.3	Guidance on SR core subjects Reviewing organizations progress and performance on SR
1.0 2.0	Leadership Strategic planning	4	Quality management systems	4	Environmental management system requirements	4	OH&S management system elements	3.20 3.21	Sustainability Sustainable development			7.0	Guidance on integrating SR throughout an organization
2.0	Strategic planning	5.4 7.2.1	Planning Review of requirements	4.3.2	Legal and other requirements	4.3.2	Legal and other requirements					6.0	Guidance on SR core subjects

Category	Baldrige Criteria for Performance Excellence (NIST) 2009/10	Clause	ISO 9001: 2008 Quality	Clause	ISO 14001: 2004 Environmental	Clause	OHSAS 18001:2007 Health & Safety	Clause	ISO 15392:2008 Sustainability in Construction Principles	Clause	ISO/TS 21931-1:2006 Sustainability in Construction Framework	Clause	ISO/DIS 26000:2009 Social Responsibility
2.0 6.0	Strategic planning Process management	4.2 5.4	Quality system Planning	4.3	Planning	4.3	Planning	5.3.5 5.3.7	Holistic approach Long term consideration	5.4 5.4.2 5.4.3	Statement of assumptions Newly built or refurbished buildings Existing buildings	7.0	Guidance on integrating SR throughout an organization
2.0 6.0	Strategic planning Process management	4.2 4.2.2 4.2.2 5.4.2 7.1 7.2.1	Quality system General Quality manual QMS planning Planning and product realization Review of requirements related to product	4.3.1	Environment aspects	4.3.1	Hazard identification, risk assessment and determining controls	3.10 3.11 3.12 3.13 3.13.3 6.3 6.4	Environmental aspect Environmental declaration Environmental performance Environmental impact Social impact Environmental aspects Social aspects	3.2 3.6 5.5.3 5.5.4 5.5.5	Environmental impact Environmental aspect Environmental issues of concern related to environmental aspects Issues of concern related to building management Issues of concern related to indoor environment	6.0	Guidance on SR core subjects

Category	Baldrige Criteria for Performance Excellence (NIST) 2009/10	Clause	ISO 9001: 2008 Quality	Clause	ISO 14001: 2004 Environmental	Clause	OHSAS 18001:2007 Health & Safety	Clause	ISO 15392:2008 Sustainability in Construction Principles	Clause	ISO/TS 21931-1:2006 Sustainability in Construction Framework	Clause	ISO/DIS 26000:2009 Social Responsibility
4.0	Measure analysis and knowledge management	4.2.1 4.2 4.2.2 4.2.3	General Document requirements Quality manual Control of documents	4.4.4	Documentation	4.4.4	Documentation					4.2 4.3	Accountability Transparency
4.0	Measure analysis and knowledge management	8.3 8.4 8.5.2 8.5.3	Control of non conforming product Analysis of data Corrective action Preventive action	4.5.3	Nonconformity, corrective action and preventive action	4.5.3.2	Nonconformity corrective & preventive action	3.14	Indicator	5.0 5.6 5.6.2 5.7 5.8	Framework for environmental performance Methods for qualification of environmental performance Data quality Sources of information Evaluation and interpretation	7.2 7.7 7.7.4	Relationship of an organization characteristics to SR Reviewing & improving an organizations actions and practices Enhancing the reliability of data and information collection & management

Category	Baldrige Criteria for Performance Excellence (NIST) 2009/10	Clause	ISO 9001: 2008 Quality	Clause	ISO 14001: 2004 Environmental	Clause	OHSAS 18001:2007 Health & Safety	Clause	ISO 15392:2008 Sustainability in Construction Principles	Clause	ISO/TS 21931-1:2006 Sustainability in Construction Framework	Clause	ISO/DIS 26000:2009 Social Responsibility
3.0 4.2	Customer focus Management of information knowledge & IT	5.5.3 7.2.3	Internal communicate Customer communicate	4.4.3	Communication	4.4.3	Communication, participation & consultation	6.4	Social aspects	4.3 5.5.6	Interested parties understanding of environmental performance Issues involved in the assessment method	7.5 7.6 7.5.4 7.7.4	Communication of SR Enhancing credibility regarding SR Stakeholder dialogue about SR Enhancing the reliability of data and information collection & management
5.0	Workforce focus	6.2.2	Competence, awareness and training	4.4.2	Competence, training & awareness	4.4.2	Competence, training & awareness	6.4	Social aspects			6.3 6.4 6.5.3 6.6 6.7 6.8	Human rights Labor practices The environment Fair operating practices Consumer issues Community involvement & development

Category	Baldrige Criteria for Performance Excellence (NIST) 2009/10	Clause	ISO 9001:2008 Quality	Clause	ISO 14001: 2004 Environmental	Clause	OHSAS 18001:2007 Health & Safety	Clause	ISO 15392:2008 Sustainability in Construction Principles	Clause	ISO/TS 21931-1:2006 Sustainability in Construction Framework	Clause	ISO/DIS 26000:2009 Social Responsibility
6.0	Process management	4.2 4.2.1 4.2.2 5.4.2 7.1	Quality system General Quality manual QMS planning Planning and project realization			4..4.6	Operational control	3.16 3.17.1 3.18 3.19	Performance Product Service life Social aspect				
6.0	Process management	4.2 4.2.1 4.2.2 5.4.2 7.1 6.3 6.4	Quality system General Quality manual QMS planning Planning and project realization Infrastructure Work environment	4.4	Implementation and operation	4.4	Implementation and operation			4.3.2 4.3.3	Building as end use products & integrated assemblies of product Buildings as supports for active processes	7.4	Practices for implementing SR throughout an organization

Category	Baldrige Criteria for Performance Excellence (NIST) 2009/10	Clause	ISO 9001: 2008 Quality	Clause	ISO 14001: 2004 Environmental	Clause	OHSAS 18001:2007 Health & Safety	Clause	ISO 15392:2008 Sustainability in Construction Principles	Clause	ISO/TS 21931-1:2006 Sustainability in Construction Framework	Clause	ISO/DIS 26000:2009 Social Responsibility
6.0	Process management	8.2.3	Monitoring and measurement of process	4.5.2	Evaluation of compliance	4.5.2	Evaluation of compliance	5.3.2	Continual improvement			7.7.5	Improving performance
		8.2.4	Monitoring and measurement of product					5.3.8	Precaution & risk management				
		8.3	Control of non-conforming product										
		8.5.2	Corrective action										
		8.5.3	Preventive action										
6.0	Process management	8.3	Control of non-conforming product	4.4.7	Emergency preparedness and response	4.4.7	Emergency preparedness and response						
6.0	Process management	4.2.4	Control of records	4.5.4	Control of records	4.5.4	Control of records						
		8.2.2	Internal audit	4.5.5	Internal audit	4.5.5	Internal audit						
		8.2.3	Monitoring and measurement of processes										

Category	Baldrige Criteria for Performance Excellence (NIST) 2009/10	Clause	ISO 9001: 2008 Quality	Clause	ISO 14001: 2004 Environmental	Clause	OHSAS 18001:2007 Health & Safety	Clause	ISO 15392:2008 Sustainability in Construction Principles	Clause	ISO/TS 21931-1:2006 Sustainability in Construction Framework	Clause	ISO/DIS 26000:2009 Social Responsibility
6.0 3.0	Process Management customer focus	7.0 8.2.3 8.2.4 8.4	Product realization Monitor & measurement Analysis of data	4.4.6	Operational control	4.4.6	Operational control			5.5 5.7 5.9	Structured list of issues for environmental assessment Sources of information Reporting of assessment results & report format		
7.0 6.0 4.0	Results Process management Measure analysis and knowledge management	7.1 7.4.3 7.5.3 7.6 8.2.4 8.4	Planning of product recertification Verification of purchased product Identification and traceability Monitoring and measuring devices Monitoring and measurement of product Analysis of data	4.5.1	Monitoring and measurement	4.5.1	Performance measurement and monitoring	3.9 6.2	Economic aspect Economic aspect	5.6.4 5.6.8 5.6.9 5.9	Traceability Weighting Aggregating results of measurement of environmental performance by multiple criteria Reporting of assessment results and report format	7.7.3 7.7.4	Reviewing an organizations progress and performance Enhancing reliability of data & information