

Open Status
NuSAC (2006)P8

Acquisition of Amersham plc (now GE Healthcare Ltd)

by

General Electric

Report to the Nuclear Safety Advisory Committee

February 2006

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Introduction

The Amersham business was acquired by the General Electric Company (GE) of Fairfield, USA in April 2004. The Amersham business included Amersham plc, the holder of four Nuclear Site Licences at three locations in the UK: Amersham, Cardiff and Harwell. The parent, GE, employs about 350,000 people across 6 large and diverse business segments. One of those business segments is GE Healthcare, comprising around 45,000 staff. Approximately 10,000 of those are from the former Amersham business. Those engaged with operations at the UK Nuclear Licensed Sites number around 1500. The Licensed entity thus sits as a relatively small part of the larger GE Healthcare business. The Licensed entity was renamed GE Healthcare Ltd in February 2005, retaining the same legal identity and Company Registration number. Figure 1 shows that positioning of the Licensee within the parent company.

This report summarises the impact of the acquisition on the Licensee and identifies lessons learned from the experience, particularly those which may be generic and of relevance to other Licensees and to regulators.

Impact of Acquisition on Safety Management Arrangements

As Amersham plc, a report on Safety Management was provided to the Committee in 1999. From that time and until the acquisition by GE, the arrangements and structures continued to develop gradually around the principles outlined in that report. The main safety management features are broadly aligned with those typically in place at other Licensees' sites in the UK and are:

- A Licensee Board with safety related accountabilities.
- Day to day control achieved at the sites level via devolved authority from the Board through the appointment of Site Directors and the provision to them of both the authority and the technical resources necessary for that control. Those resources include direct line management control of EHS teams.
- A safety assurance team with a remit to provide a view on safety which is both informed and independent of operational responsibilities. That function is led by a Director of Safety Assurance reporting to Board level (i.e. with access to the top tier of management in the Licensee) through a line separated from that of the Site Directors.
- The retention of in-house capability for core competencies relating to nuclear operations, with outsourcing/contractor support limited as far as reasonably practicable taking due account of programme demands.
- An established platform of safety related committees and other forums at which safety performance is considered.
- An established platform of safety documentation from policy level to on-the-ground implementation.
- Processes for the monitoring, review and audit of safety.

Now, just less than two years on from acquisition, the overall impact has been a strengthening of the Licensee in those and other areas. Specifically;

- Board structure and accountabilities were reviewed and updated for clarity.
- Routine Board agendas were made more explicit in terms of governance of nuclear operations.
- Independent safety assurance arrangements were reviewed and focused.
- Site Director accountabilities and resources were reviewed and updated.
- Increased visibility of safety related performance indicators at senior management level coupled with clearer accountability at that level for that performance have been delivered through the parent company processes and tools for that purpose. (Those tools and their impact are discussed further in Appendix 1)
- The Licensee's Safety Management Prospectus has been radically reviewed and improved, including greater clarity and understanding in terms of structure and arrangements.
- The Licensee's Organisational Change Control process was revised to address weaknesses in control at the "corporate" level (as distinct from at the site level).
- The Organisational Baseline Statement (under LC36) is being fundamentally redeveloped and will be completed in June 2006. This in turn is driving greater understanding of "top to bottom" competencies and accountabilities for roles which may affect safety.

- At the 'shop floor' level, the parent company tools for driving EHS performance, action closure training completion etc have been adopted and are proving to be effective.
- The Licensee is moving from a culture of strong dependence on key individuals and their expertise to one that also has process rigour.

It is too soon to claim evidence of a *trend* of improvement in safety performance metrics but certainly data from calendar year 2005, the first full year as an acquired Licensee, are favourable compared to 2004. (Table 1)

In one sense it is not surprising that the acquisition has resulted in a more robust Licensee. GE has well established processes and tools for driving EHS performance and demonstrable success in that area. Perhaps more importantly in this context it is also uncompromisingly committed to full and transparent compliance in all regulatory areas. Nevertheless the successful transition was not achieved easily or by default as is now described.

Transition: History, Challenges and Lessons Learned

The analysis in this section is inevitably somewhat subjective but the learning points are nonetheless valid.

The intended acquisition was publicly announced in October 2003. Between then and formal conclusion of the deal in April 2004, discussions between Amersham and the regulator determined that re-licensing would not be appropriate or necessary. There were several caveats around that decision including the need to review and confirm that the Licensee's basic structure and arrangements were robust, up-to-date and would be substantially unaltered. Those caveats were not well communicated internally including, importantly, to the parent company. Further, a degree of complacency in respect of the existing structure and arrangements of the Licensee may have existed, resulting in lack of urgency in reassessing the strength of those features. As a result, planning for change was weak. In the subsequent 6 months from April 2004 to October 2004, well-established parent company processes for integration of an acquired company into its business proceeded at pace. Integration includes absorbing the acquired company into the operational structures which function successfully across the large and complex organisation that is GE. Neither GE nor Amersham recognised, at first, that that approach was potentially incompatible with the specific and unique position of Amersham plc as a UK Licensee. Further even when the potential was identified, the parent company believed that it could convince the regulator that the planned structures were appropriate for a Licensee. This is an understandable presumption given the success of the usual GE operating structures elsewhere which are driven by financial structures rather than by subsidiary corporate ownership structures. As a consequence, the process led to several indicators of concern to the regulator. Specifically

- Although the Board structure was changed for sound business reasons, the regulator needed assurance that the controlling mind would remain intact.
- Outsourcing of certain functions such as IT began. This was a routine, standard approach for GE and they were not advised of any constraint. Indeed the proposed change was initiated by the Licensee before GE took ownership. As a result the Licensee's process for organisational change control was revealed as weak in respect of changes driven at 'corporate' level as distinct from site level. It should be noted that the authority of the Site Directors remained unchallenged by the integration process and that position ensured that, in practice, the changes did not threaten safety at the sites and was controlled at that level.
- Initial proposals for safety management reporting lines were inconsistent with the concept of a Licensee who is unambiguously in day-to-day control of operations. This was a specific and important example of the standard operational structures and models within GE which would require some modification as described above.
- The introduction of parent company systems and tools was expected by GE to proceed at a pace which was typical for acquisitions. That was initially resisted by Amersham resources which were not accustomed to that pace and on occasion felt stretched.

During this phase, the Licensee received a range of communications from the NII seeking reassurance that the Licensee was able to retain effective control of its operations. Those communications led to a meeting in September 2004 between the Chief Inspector and senior executives from Amersham plc and GE, to clarify the respective positions and expectations. That meeting, coupled with parallel advice from the Licensee's own NSC, marked a turning point. Collectively GE and Amersham plc took stock and a re-evaluation phase began during which, among other things, GE recognised the need to modify its orthodox and proven global operating model to account for the specific requirements in the context of a UK Licensee.

In hindsight, the problems in the 6 month period to that point emerged from:

- Ineffective communications internally and externally, for a variety of reasons.
- Lack of planning resulting in a reactive rather than proactive approach.
- Inexperience (not surprisingly) within the Licensee in respect of managing the change as an acquired (as opposed to acquiring) organisation.
- Inexperience (not surprisingly) within GE in respect of understanding the UK regulatory framework and style and the specific expectations placed on a Licensee within that context.
- Mismatched operating structure models particularly in respect of EHS
- Increased regulatory scrutiny which highlighted pre-existing weak points in the Licensee's arrangements and structure.

From October 2004 to December 2004, an interim revised Safety Management Prospectus was produced together with an interim, revised process for organisational change and a review of Board structure and accountabilities began. These provided a successful stabilising point and enough confidence to the regulator that matters were being addressed adequately. Planning for a reconstructed Organisational Baseline Statement also began at that point but initially did not adequately recognise the task in hand and the resource and competency needs for the project. During the next phase (January 2005 through to June 2005) significant Board reconstruction took place, several supporting and enabling organisational changes were made or initiated and the Safety Management Prospectus and the Organisational Change Control Process documents were finalised. The Safety Management Prospectus was well received by the regulator in large part because it recognised the importance of and described the interaction with the parent company. In addition, the need for a properly resourced and planned project to deliver the Organisational Baseline Statement, including the need for additional external resources with specific competencies in that area, were recognised and tangible progress was made on that task.

In summary, the organisation, collectively, learned quickly from the issues created or revealed by the integration process to October 2004 and moved decisively from then through to June 2005 to address them. It has continued to consolidate, monitor and improve where necessary from that time and this has included managing further recent changes, not least those at Board level necessitated by the upcoming retirement of the former CEO. Figure 2 summarises how the Licensee is now structured for Safety Management as a result of developments since April 2004. Going forward, the completion of the Organisational Baseline Statement in June 2006 should mark a significant closure point for this period of change in the Licensee's history and the beginning of a more "steady state" phase, at least in terms of basic corporate structure. The key challenges in that respect for GE Healthcare Ltd (and regulator) will then be to monitor the effectiveness of the arrangements and structures now in place, particularly in relation to interaction with the parent company, and to take timely action whenever necessary to maintain that effectiveness.

Conclusions

The acquisition of Amersham plc (now GE Healthcare Ltd) by GE has resulted in a more robust and competent Licensee. However the transition to that position was not achieved easily or by default. The principle reasons for the challenges encountered can be summarised as:

- Lack of experience of similar situations and thus an inability to anticipate the challenges which would emerge.
- An initial degree of complacency/lack of urgency in respect of what had to be done resulting in an absence of effective planning to manage the change.

- Ineffective communication, in particular the failure to check periodically for common understanding among all stakeholders.

The key recommendation for regulators and Licensees in future equivalent positions would be to establish direct and frequent dialogue with the leadership of the acquiring company as soon as practicable.

Figure 1

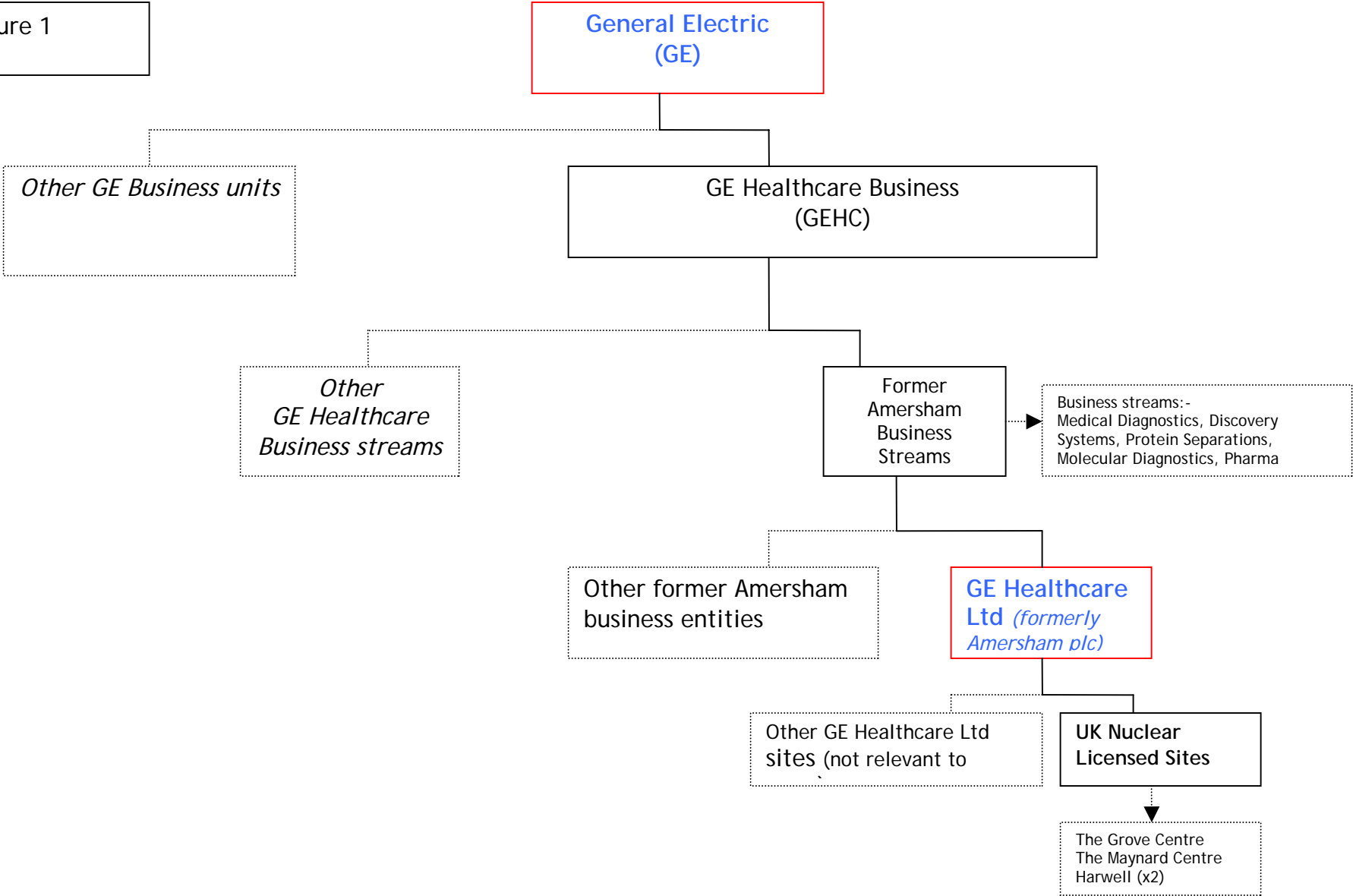
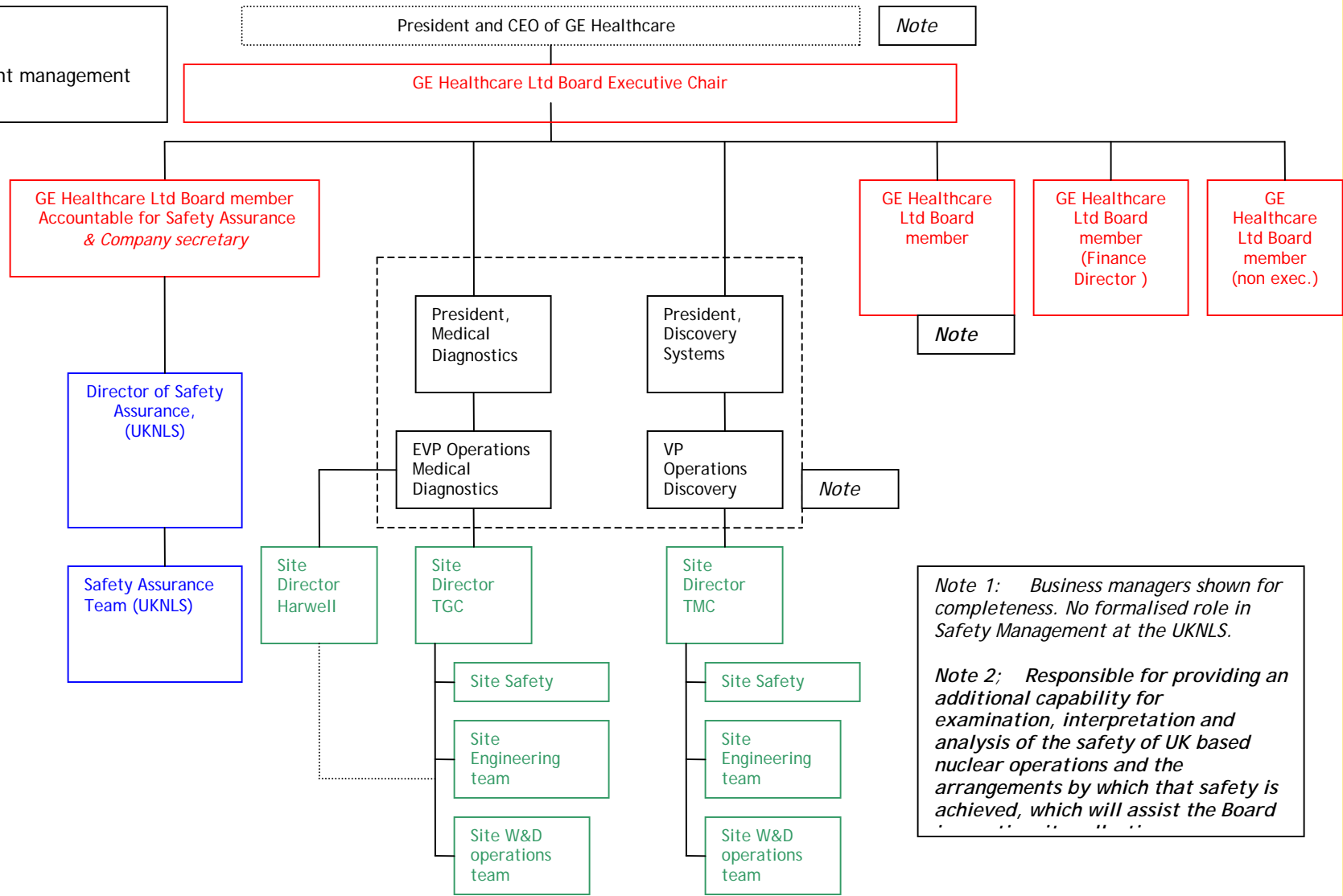


Figure 2
 GE Healthcare Ltd.
 Summary of relevant management structure



Note 1: Business managers shown for completeness. No formalised role in Safety Management at the UKNLS.

Note 2: Responsible for providing an additional capability for examination, interpretation and analysis of the safety of UK based nuclear operations and the arrangements by which that safety is achieved, which will assist the Board

Table 1a Nuclear Licensees Comparative Data

Notes

- (1) GEHC Ltd data is for calendar year 2004 and provisional for calendar year 2005
- (2) Other Licensee data is either for calendar year 2004 or year to April 05 extracted from industry reports to NuSAC (i.e. is latest available)

Civil Operators	BNG Sellafield	BNG Magnox	Urenco	Springfields	BE	UKAEA		GEHC Ltd UKNLS 2004	GEHC Ltd UKNLS 2005
RIDDOR Injuries/10 ⁵ hrs	0.1	0.14	0.65	0.03	0.11	0.21		0.58	0.26
OSHA DACR/10 ⁵ hrs	0.13	0.20	0.81	0.10	0.11	0.35		0.82	0.41
OSHA TRIR/10 ⁵ hrs	0.15	0.21	0.97	0.20	-	-		0.82	0.41
RIDDOR Major (No. of persons)	5 (10046)	4 (3573)	0 (385)	1 (1450)	1 (5470)	0 (2348)		1 (1546)	0 (1418)
Collective Dose (Sv)	5.98	0.63	0.09	1.0	0.27	0.19		0.56	0.54
Average Dose (mSv)	0.75	0.2	0.31	0.67	0.06	0.10		0.6	0.5
No. in bands									
0 - 5mSv	7431	3160	301	1492	4605	1788		911	na
5 - 10mSv	75	0	0	1	0	0		18	na
10 - 15mSv	0	0	0	0	0	0		0	0
> 15mSv	0	0	0	0	0	0		0	0
Enforcement actions	6	5	1	1	2	2		1	1
Prosecutions	1	0	0	0	0	0		0	0

Table 1b Nuclear Licensees Comparative Data (continued)

Defence operators	AWE	RR	BAE	Vulcan	DML Devenport	Rosyth		GEHC Ltd UKNLS 2004	GEHC Ltd UKNLS 2005
RIDDOR Injuries/10 ⁵ hrs	0.2	0.15	0.55	0	0.69	1.06		0.58	0.26
OSHA DACR/10 ⁵ hrs	0.35	--	0.41	--	0.97	--		0.82	0.41
OSHA TRIR/10 ⁵ hrs	--	--	--	--	0.97	--		0.82	0.41
RIDDOR Major (No. of persons)	3 (3596)	0 (405)	4 (3450)	0 (?)	8 (5395)	8 (1805)		1 (1546)	0 (1418)
Collective Dose (Sv)	0.19	0.06	0.004	0.04	0.63	0.03		0.56	0.54
Average Dose (mSv)	0.09	0.33	0.114	0.16	0.45	0.17		0.6	0.5
No. in bands									
0 - 5mSv	2236	185	52	247	1690	155		911	na
5 - 10mSv	0	0	0	0	0	0		18	na
10 - 15mSv	0	0	0	0	0	0		0	0
> 15mSv	0	0	0	0	0	0		0	0
Enforcement actions	0	0	0	0	0	3		1	1
Prosecutions	0	0	0	0	0	0		0	0

Appendix 1: Further discussion on GE processes and tools

Performance expectation setting, monitoring and reviewing is, in practice, the principal point of safety related interaction between GE Healthcare Ltd. and the parent company. The requirement from GE is that all subsidiaries will use its set of monitoring and auditing tools and through them will routinely provide consistent and standardised metrics and use them (in "real time" in some cases) to assess ongoing safety and compliance. These tools and systems are largely available in a suite of web-based processes called "Powersuite". Powersuite includes the following principal features

- Health and Safety and Environmental frameworks with scorecards showing the current status of safety management programs against expectations and targets for each element in those frameworks
- A "digital cockpit" displaying current key safety performance indicators at any site or grouping of site. It is available to and used at all levels in the organisation.
- An action tracking system ("Audit Tracker") to drive closure of safety related actions within pre-set timescales. The system also generates automatic reminders/prompts to those recorded as responsible for closure. The tool also enables the requirement for independent validation of closure of actions to be included
- A "compliance calendar" for use as an automatic timely prompt for tasks associated with continued compliance and recurrent obligations (e.g. renewal of permits).
- Initial reporting of events and near misses
- Measurements reporting tool for the routine capture of all safety related metrics (LTAs etc etc)
- Tools for sites to carry out periodic compliance audits
- The ability to mine the data captured by these tools for trends, report preparation etc

Underpinning these tools is the concept of "operationalisation" where EHS is woven into the fabric of everyday management and the principles that :

- senior operations management visibility of and accountability for safety performance are critical to success of the EHS programmes.
- ownership of safety at the "shop floor" is achieved through formalised involvement in the Health and Safety and Environmental frameworks at bullet point one above as champion or team member.

GE Healthcare Ltd. has recognised the value of these powerful systems and approaches and has been implementing their use at the UKNLS. A key role for the Director of Safety Assurance, supported by the expertise of the wider GE Healthcare team in Europe and by the Site Directors and their EHS managers, is to monitor and assess that implementation. The key focus of that monitoring and assessing is on a) the potential resource impact and b) the need to ensure that there is no adverse impact on the adequacy of the arrangements to meet the specific requirements of the UK regulatory framework within which the UKNLS operate. The risk of the latter occurring is considered low---the parent company systems are focussed on full and auditable compliance with regulatory expectations wherever it operates.

In addition to the Powersuite tools, GE expects each of its businesses to carry out independent audits of safety. This is entirely consistent with UK Licensee practices. In fact the GE rolling programme is based on a two year cycle rather than what was the "Amersham" three to five year frequency. GE Healthcare Ltd. has adopted the two year frequency. The Director of Safety Assurance is accountable for the programme of audits of the UKNLS but will include auditors from the wider GE Healthcare business, particularly the European team, where he considers this will add value.

Finally, GE operates a formal "top-tier" annual safety review process known as "Session E". At this session, the leaders of *operations* (not the *EHS* leaders) personally present their safety-related performance and key issues to the business senior management and to the GE corporate and business level EHS staff. Areas of best practice as well as areas for focus are identified. Actions can then be placed on operational leaders to drive safety performance. GE Healthcare Ltd. sites have already taken part in one Session E and the process is fully accepted as adding significant value to safety management.

Overall despite some initial resistance (perhaps from “not invented here” syndrome) and some initial legitimate concerns on resource demands during their introduction, the value of the GE tools is well recognised and welcomed within the operating teams.