Risk Based Model for Compliance Assurance Inspections for the Non-Nuclear Sector

Panel 325

PATRAM 5th October 2010

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Non-Nuclear Sector?









Transport

A Risk Model is required because:

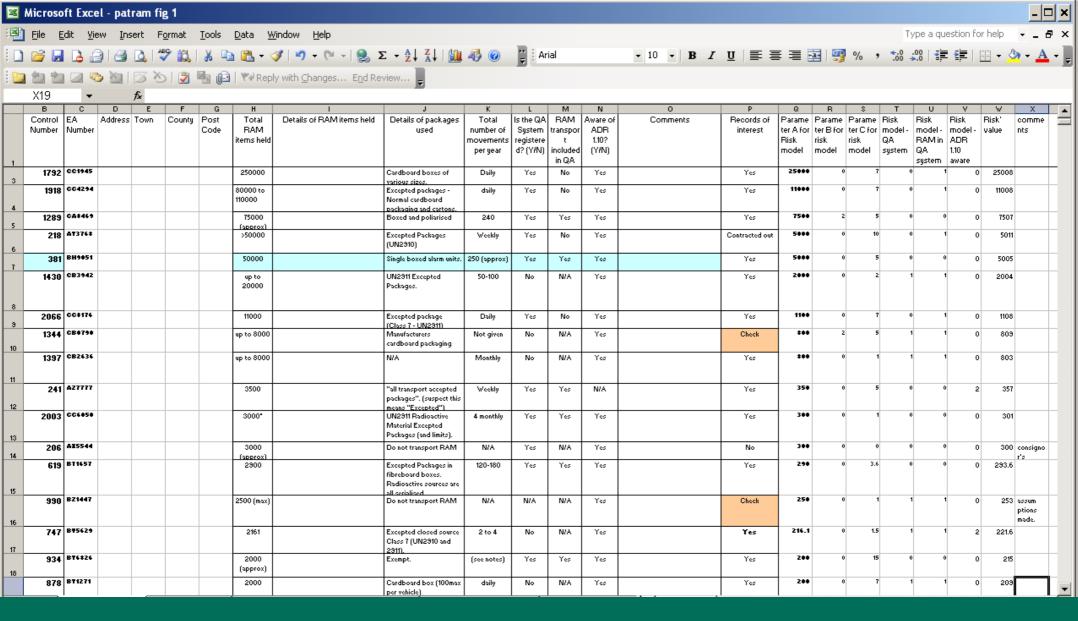
- We have ~2500 duty holders and only 3 inspectors;
- We want to target the higher risk organisations; and
- We should be able to objectively justify our inspection regime.



Risk Model Development

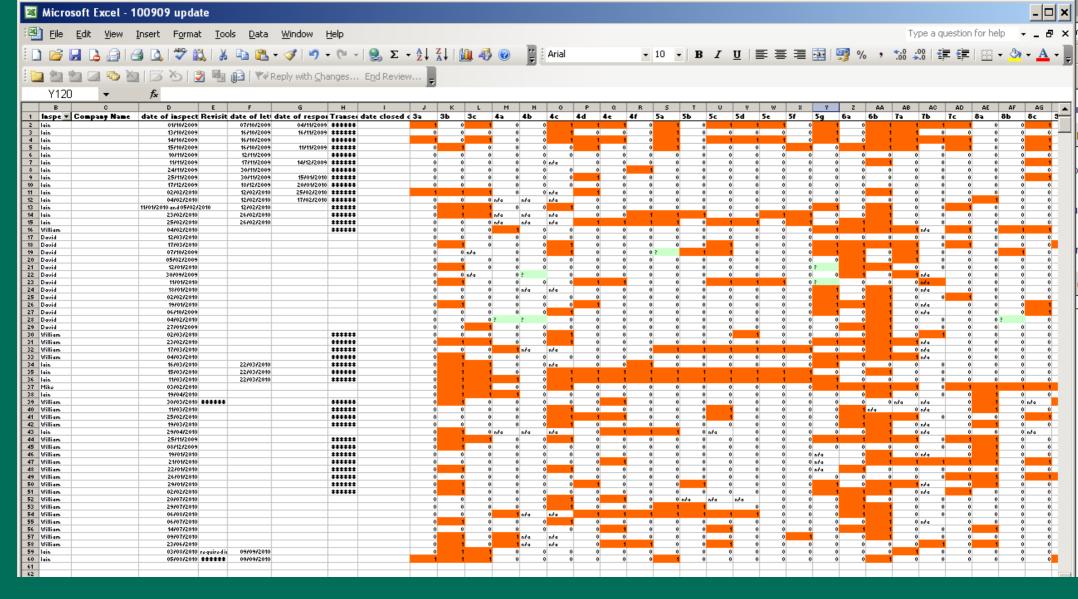
- Hypothesis was that risk was a function of:
 - Total RAM items held;
 - Package types relative to Radionuclide inventory;
 - Number of movements per year;
 - Registered QA system or not;
 - RAM transport part of QA system or not; and
 - Awareness of Security Regulations.





'Actual' Risk (following inspection)

- Non-compliances were recorded 'actual' risk was the sum of non-compliances.
- Correlation with hypothetical risk was not great you might as well have tossed a coin!
- Re-consider...



Spreadsheet Observations

- Inspectors may not be as consistent as we'd like! Different thresholds for
 - safety; and
 - non-compliance.
- RPAs and DGSAs were (probably) getting wise to our inspections;
- We maybe should have asked slightly different questions in the original questionnaire.

What did we do next?

- Continued with inspections but with a focus on carriers, who were an unknown quantity.
- Applied weightings to the non-compliances (based on expert opinion).
- Re-analysis...

Latest analysis

- 40% show good correlation;
- 30% show reasonable correlation;
- 30% show poor correlation.

Future work

- Inspector training to ensure consistency;
- Extend risk model to account for Carriers;
- Amend risk model to account for industry sectors?
- Analyse non-compliances and use for education/dissemination purposes.