Recent Changes to the Australasian regulatory environment for timber preservation – Implications
Jeanette Drysdale and Mick Hedley

Approval of preservatives

- HSNO Act 1996 applies to substances with hazardous properties and this includes timber preservatives and antisapstains
- Preservatives/antisapstains approved under Pesticides Act have been transferred to HSNO
- New products, after July 2001, have required approval under HSNO
- Some products ‘notified’ before July, 2001 under the Toxic Substances Act for example, will be transferred under ‘Group Standards’
Approved substances

- Approved substances have an ERMA Register No. HSR xxxxxxx
- The substance approval may cover more than one trade name product
- Substances have default controls that impact manufacture, storage, transport, handling, end-use
- Implications for suppliers, handlers and users to ensure compliance
  - Site location certificates
  - Inspection of tanks, vessels
  - Approved Handlers
  - Tracking of some substances
  - Workplace and Environmental Exposure Limits

Best Practice Guideline

- “provides practical guidance on the safe, responsible and effective management of the use of timber treatment chemicals”
  ERMA New Zealand
- Download copy from www.nztpc.co.nz
Timber preservation standards

- NZS 3640:2003 and amendments
  - *Chemical Preservation of Round and Sawn Timber*
    - Applies only to sawn timber and round wood
    - Specifications for active compounds and formulations
    - Approvals based on durability to biological hazards and do not address other ‘fitness for purpose’ issues
    - Hazard classes based on biological hazards in end-use
    - Requirements for preservative penetration and concentration

NZS 3640

- Specifies what must be achieved not how it should be achieved
- Referenced in NZS 3602 "*Wood and wood-based products for use in buildings*" where preservative treatment is required
- NZS 3602 is an *Acceptable Solution* in NZ Building Code regulations
### NZS 3640

- Treated product compliance at treatment plant, not in the market place
- Current amendments under review
  - Approval of boron in Hazard Class H3.1 [sealer/primer required at treatment plant before dispatch]
  - Approval of copper naphthenate in Hazard Class H3.1 at a lower retention (0.05% m/m Cu) than current H3.2 (0.10% m/m Cu)

### Alternative Solutions

- DBH can accredit preservative treatments outside NZS 3640
- Rigorous review before accreditation
- Can apply also to naturally durable species as alternatives to treated pine and to other building products or systems
**NZS 3602**

“Timber and wood-based products for use in buildings”

- Calls up NZS 3640
- Two framing options
  - H1.2 and H3.1
  - H3.1 supposedly a higher hazard
  - But a different concept to exterior H3.1 (15 year durability)
  - Good case for scrapping framing H3.1

**AS 1604.1**

- Australian equivalent of NZS 3640
- Applies only to Australia and treated timber imported into Australia
- Main differences
  - H2 termite protection
  - H3 and H3A
  - H3 heartwood penetration requirement
  - Retention zone is sapwood cross-section
### AS 1604.1

Amendments currently being considered

- Boron treatment for H2
- Propiconazole + tebuconazole for H3 and H3A
  - e.g. *Vacsol Azure* and *Protim Optimum*

### AS/NZS 1604. Parts 2 to 5

- Refer to reconstituted wood products
  - 1604.2 Composite products
  - 1604.3 Plywood
  - 1604.4 LVL
  - 1604.5 Glue laminated products
- Are joint Australian and New Zealand Standards
- If treated product to be used in New Zealand then active compounds/formulations need to be also in NZS 3640
One significant proposed amendment

Current penetration requirement:
- Complete sapwood penetration in outer laminates
- 5-8 mm penetration in sapwood and heartwood in inner laminates

Proposal to change penetration requirement to:
- 80% of cross-section including both sapwood and heartwood

Typical penetration in LOSP treated radiata using standard schedules
Decay of untreated section

Penetration in slash pine using pressure schedule
But still inconsistent penetration

Proposed changes to glue lam treatments

- Downsides
  - Will require lengthy pressure schedules
  - Higher uptakes – 70 L/m³
  - Substantial cost increase
  - Very long drying times
  - Health issues over increased solvent usage
  - Difficult to paint
The future of CCA

- From end of March 2006, Australia will implement restrictions on the use of CCA treated timber for some applications, e.g. domestic decking, picnic tables, play sets, hand rails
- Each pieces of timber to be labeled: ‘treated with copper, chromium, arsenate’
- Does not apply to imported timber BUT commercial pressure to comply
- Not indication that same restrictions would be introduced into NZ in immediate future

Future

- Fitness for purpose issues (apart from durability)
- The safe use of hazardous products
  - Enforcement (H & S, environmental)
- Disposal (waste, timber at end of service life)
- Less hazardous products and processes
- Review of current chemicals
  - Tributyl tin -list of ‘chemicals for concern’
  - CCA
- Influence of export market requirements