Hazmat & Environment Notes Oct-Dec 2016

A Happy Christmas and New Year to everyone.

Hazmat & Environment Notes are prepared by:

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Editor & Publisher

My approach is to provide a short, succinct note on each hazardous chemical issue, sufficient to allow you to make a decision of whether it is relevant to you. If you need more information: contact details / website / etc are provided.

I encourage all readers to make comment on Draft Regulations, Codes and Standards.

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Hazardous Chemicals

• CSB Report: Contamination of Drinking Water

The Final September 2016 CSB Investigation Report (134 page pdf) notes Shortcomings in Communicating Risks to Public, & Lack of Chemical Tank Maintenance Requirements.

A leak (on the 9 Jan 2014) originating from a storage tank at Freedom Industries contaminated the local water supply leaving hundreds of thousands of West Virginia residents without clean drinking water.

Freedom Industries Chemical Release CSB Webpage. www.csb.gov/freedom-industries-chemical-release-/ & Report www.csb.gov/assets/1/19/Freedom_Industries_Report.pdf

From: www.csb.gov/csb-releases-final-report-into-2014-freedom-industries-mass-contamination-of-charleston-west-virginia-drinking-water-final-report-notes-shortcomings-in-communicating-risks-to-public-and-lack-of-chemical-tank-maintenance-requirements-/

• Tool: Manage Naturally Occurring Asbestos Safely

24 Nov 2016: The NSW Heads of Asbestos Coordination Authorities (HACA) launched a new tool (an educational video) to help regional communities manage naturally occurring asbestos safely.

HACA Chair Peter Dunphy said the video informs people what to look for and how to manage naturally occurring asbestos safely.

Asbestos is naturally occurring and can typically be found in rock, sediment, or soil throughout regional NSW. It is generally discovered when building roads, working on construction sites and undertaking excavation activities.

The naturally occurring asbestos video can be viewed on You Tube and is an initiative of the State-wide Asbestos Plan 2013-2016. It's supported by a range of Fact Sheets, Guidance Materials and Mapping of Naturally Occurring Asbestos on the SafeWork NSW N.O.A. website (which also has the Video on it).

Depending on the probability of naturally occurring asbestos being present, NSW has been mapped into low, medium, or high potential regions. Please refer to the mapping report when reviewing the mapping,

Less than 1% of NSW is considered high asbestos potential.

From: www.safework.nsw.gov.au/news/media-release/new-tool-to-help-regional-communities-manage-naturally-occurring-asbestos-safely

• NSW Safety Alert: Servicing Refrigerant Systems

Background: A number of serious incidents have resulted in workers being severely burnt when a mixture of refrigerant and compressor oil was expelled and ignited while servicing air conditioning refrigerant systems.

The refrigerant systems contained a Non-Flammable Refrigerant, R22, but when mixed with oil, was ignited by an oxy-acetylene torch used by the workers' to unsweat the copper fittings, when replacing the refrigerant compressor.

It's believed residual pressure in the system caused the refrigerant and oil to be released from the pipe joint, which contacted an ignition source and started a flash fire.

Actions required to ensure this does not occur are in the Alert.

From: www.safework.nsw.gov.au/news/safety-alert/servicing-of-refrigerant-systems

• Qld Safety Alert: Latching Open Fuel Dispensing Nozzles

17 Nov 2016 Update: Devices for latching open fuel dispensing nozzle at a service station.

The purpose of this updated Safety Alert is to:

- inform service station operators and their customers that latching open a fuel nozzle with any device is unsafe and illegal
- advise service station operators to ensure customers do no use such devices while refuelling their vehicles
- raise awareness of the increased risks of ignition and risk to people and property from such an ignition and fire at a service station.

The use of a pin or other similar device to latch open a fuel nozzle increases the chance of spills and overfills, and the likelihood of static vapour fires as customers break contact with the nozzle while filling and then make contact again after filling.

Service station operators have deliberately removed latching devices from self-fill petrol dispensers to achieve the requirements of AS1940:The Storage and Handling of Flammable and Combustible Liquids.

There are a number of areas where the use of the dispenser locking device may lead to a breach of duties under work health and safety legislation.

From: www.worksafe.qld.gov.au/injury-prevention-safety/safety-alerts/whsq/2013/devices-for-latching-open-fuel-dispensing-nozzle-at-a-service-station

• Qld Govt: Asbestos Awareness & Information

The website has Information for:

Asbestos Workers and Removalists

Trades and Contractors

Homeowners and Home Renovators

Buildings built prior to 1990 are likely to contain asbestos.

From: www.deir.qld.gov.au/asbestos/

18 Nov 2016, 12:15pm

• Diesel Exhaust Exposure in Underground Mines

17 Nov 16: ABC News - Diesel Exhaust could be causing fatal lung cancer in underground miners at a rate up to 38 times the accepted occupational risk, according to a new study.

It shows underground production workers, including diesel loader operators and shotcreters, face the highest risk — and researchers are calling for strict controls to limit their exposure.

The study, published in *Occupational and Environmental Medicine*, marks the first phase of a landmark investigation sponsored by the National Health and Medical Research Council.

From: www.abc.net.au/news/2016-11-18/study-shows-miners-face-high-lung-cancer-risk-from-diesel/8035798

• NZ EPA: Safer Homes Webpage on Facebook

The NZ EPA Safer Homes Facebook webpage focuses on keeping people safe from hazardous substances in and around their home.

There is news, tips, information and helpful advice about staying safe, aimed at families. The webpage started being active from August 2016.

From: https://www.facebook.com/EPAsaferhomes

Chemical Management

• **GHS Hazardous Chemicals Labelling Exemptions**

5 Dec 2016 Safe Work Australia: **Labelling Requirements for Hazardous Chemicals in the Supply Chain**

Chemicals manufactured or imported **before** 1 January 2017 can continue to be supplied without needing to meet the labelling requirements of the model Work Health and Safety Regulations.

Safe Work Australia CEO Michelle Baxter said that Members agreed to this approach on 25 Nov 2016 in response to concerns raised by chemical suppliers. "This approach will ensure a smooth transition to the globally harmonised system, or GHS, and will avoid an unnecessary burden on suppliers to re-label existing chemical stock," Ms Baxter explained.

"In 2017, manufacturers and importers operating under harmonised work health and safety laws must label their hazardous chemicals in accordance with the GHS under the model WHS Regulations." *Editor:* This is for products manufactured or imported **from & after** 1 January 2017.

From: www.safeworkaustralia.gov.au/sites/swa/news/pages/05122016-labelling-requirements

Safework NSW Exemption No. 013/16: 30 Nov 2016 for the NSW Work Health & Safety Regulations. Gazette 2 Dec 2016.

Exemption: This Exemption is a class exemption made by SafeWork NSW on its own initiative.

Persons conducting a business or undertaking at a workplace where hazardous chemicals are used, handled or stored at the workplace are exempt from the requirements of clause 341 of the Regulation, subject to the conditions contained in this Exemption.

This Exemption is subject to the condition that it only applies where: **(i)** the hazardous chemicals are agricultural or veterinary chemicals and were manufactured or imported prior to 1 January 2018; or **(ii)** the hazardous chemicals are not agricultural or veterinary chemicals, and were manufactured or imported prior to 1 January 2017.

Definitions: For the purposes of this Exemption:

agricultural or veterinary chemical means an agricultural chemical product or veterinary chemical product under the *Agricultural and Veterinary Chemicals Code Act 1994* of the Commonwealth.

hazardous chemical means hazardous chemical as defined in clause 5 of the (NSW WHS) Regulation.

From: http://gazette.legislation.nsw.gov.au/so/download.w3p?id=Gazette_2016_2016-104.pdf (page 3424 or pdf p57)

Editor: As at 12 Dec 2016 there is no reference to this on www.safework.nsw.gov.au

SA Exemption of Suppliers in the Supply Chain for the GHS of Classification and Labelling of Chemicals:

SafeWork SA has issued an exemption for suppliers of hazardous chemicals from complying with Regulation 338 of the Work Health and Safety Regulations 2012 (SA) where the hazardous chemicals were manufactured or in the case of imported hazardous chemicals, imported before 1 January 2017.

SA WHS Regulation 338 requires that a supplier of a hazardous chemical must not supply a hazardous chemical to another workplace if it does not comply with GHS labelling requirements.

The exemption, subject to the condition that the hazardous chemicals are labelled in accordance with the National Code of Practice for Labelling of Workplace Substances [NOHSC:2012(1994)], enables existing stock in the supply chain as of 1 January 2017 to be supplied, handled, stored and used.

From: www.safework.sa.gov.au/show_page.jsp?id=114204#.WEfTFLnAL3-

NT: New System for Labelling of Hazardous Chemicals

5 Dec 2016: In 2017, there will be changes to the way hazardous chemicals used in workplaces are labelled. The GHS of Classification and Labelling of Chemicals, which was adopted in Australia in 2012, will come into full effect in the Northern Territory and several other Australian states from 1 January 2017.

NT Exemption of Products currently in the Supply Chain:

To ensure products currently in the supply chain can continue to be sold and used, the NT Government has put in place three Exemptions.

For the first six months of 2017, it is business as usual.

After 30 June 2017, you should only buy chemicals that are classified and labelled according to the GHS requirements.

Suppliers and retailers should not accept product that was manufactured after 31 December 2016 that does not comply with GHS labelling requirements.

From: www.worksafe.nt.gov.au/NewsRoom/Lists/Posts/Post.aspx?ID=148

Also under Suppliers and Retailers; and End Users in: www.worksafe.nt.gov.au/SafetyAndPreventions/Hazardous-chemicals/Pages/Globally-Harmonised-System-(GHS).aspx

WA Worksafe: GHS & Labelling (Already in Supply Chain)

9 Dec 2016: GHS – What You Need to Know – (from Page 2)

Chemicals in the Supply Chain: To avoid an unnecessary burden on chemical manufacturers, importers or suppliers to re-label existing stock and to assist with a smooth transition, chemicals manufactured or imported before 1 January 2017 can continue to be supplied without GHS labelling.

Manufacturers, importers and suppliers will need to implement a system to identify which of their products fall into this category.

From: www.commerce.wa.gov.au/sites/default/files/atoms/files/ghs_0.pdf (5 page pdf)

From: www.commerce.wa.gov.au/publications/ghs-globally-harmonised-system-classifying-and-labelling-chemicals

• Attorney General's RIS: Precursor Chemicals & Equipt

This Consultation Regulation Impact Statement (RIS) (108 page pdf or docx prepared by the *Attorney General's Dept*) examines proposed measures to reduce the risk of diversion of precursor chemicals and equipment used in the manufacture of illicit drugs.

There are 5 Options listed for Domestic Controls; 3 Options for Border Controls; and a Cost Benefit Analysis.

From: www.ag.gov.au/CrimeAndCorruption/Drugs/Documents/Decision-Regulation-Impact-Statement-Controls-on-precursor-chemicals-and-equipment.docx

• NZ: Changes to Management of Haz. Substances

To improve overall workplace health and safety, the rules that govern the use of Hazardous Substances in the Workplace are moving from the Hazardous Substances and New Organisms (HSNO) Act (administered by the EPA) into a new Health and Safety at Work (HSW) Act (administered by WorkSafe).

Background to the reform and why changes are being made.

The NZ Health and Safety at Work Regulations relating to hazardous substances are expected to be finalised in the first quarter of 2017, coming into effect in December 2017. The NZ EPA Notices will be finalised and come into effect at the same time as the regulations.

From: www.epa.govt.nz/hazardous-substances/hsno-reform/Pages/default.aspx

• NZ MBIE: New Health & Safety Regs (re: Chemicals)

New NZ Regulations related to Hazardous Substances:

NZ Health and Safety at Work (Major Hazard Facilities) Regulations 2016

NZ Health and Safety at Work (Asbestos) Regulations 2016

NZ Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016

NZ Health and Safety at Work (Petroleum Exploration and Extraction) Regulations 2016

NZ Regulations (related to Chemicals) Coming Up:

Hazardous Substances

– The regulations for work involving hazardous substances were consulted on in early 2016 and are expected to be finalised in the first quarter of 2017, coming into effect in December 2017.

Cabinet Papers related to Work with Haz. Substances:

- Residual Police Decisions (Sept 2016, 32 page pdf)
- Regulatory Impact Statement (Sept 2016, 25 page pdf)

Cabinet Papers related to Major Hazard Facilities:

- Decisions on Fees and Levies (pre Sept 2016, 15 page pdf)
- Amdmt Regs re: Fees & Levies (pre Sept 2016, 7 page pdf)
- Reg. Impact Statement re: Full Cost Recovery MHFs (29p)

From: www.mbie.govt.nz/info-services/employment-skills/workplace-health-and-safety-reform/development-of-regulations-to-support-the-new-health-and-safety-at-work-act

• NZ: Asbestos-Containing Products Import Permits

1 October 2016: The importation of Asbestos-containing products is prohibited unless the importation is authorized by a permit, or imported solely for the purpose of export and is subject to the control of Customs (as defined in section 20 of the Customs and Excise Act 1996) at all times while it is in New Zealand.

An import permit must be obtained from the NZ EPA before the importation of an Asbestos-containing product, which may be granted under section 5 of the Imports and Exports (Asbestos-containing Products) Prohibition Order 2016.

The basic fee for an Application is $650 (excluding GST), and must be paid when the Application is lodged.

For information, contact NZ EPA at Asbestos@epa.govt.nz or phone 0800 429 7827 or int'l +64 4 916 2426.

From: www.epa.govt.nz/hazardous-substances/Pages/import-permits-asbestos-products.aspx

• NZ EPA: GHS Household Chemical Labels

What to look for on Household Chemical Labels in NZ: The NZ EPA labelling rules are based on international rules and are an important source of safety information. Their website gives a brief good summary of the GHS Pictograms etc.

Remember that even 'natural', 'organic' or 'environmentally friendly' products can be harmful so make sure you read those product labels too.

From: www.epa.govt.nz/hazardous-substances/at-home/Pages/label.aspx

Editor: Wouldn't it be good if Australia followed the same labelling approach and ONLY used the SUSMP Scheduled Poisons for industrial/home and agricultural chemicals with specific chemicals that need special controls? This would also mean that GHS hazardous domestic chemicals that are NOT SUSMP chemicals in Australia would have chemical hazard labelling. Until we fix this anomaly, it is only Common Law that should cause Australian businesses to identify the GHS chemical hazards for these domestic chemicals.

• NZ EPA: Fact Sheets for Cosmetics & Face Paints

Facepaints and Kids Cosmetics NZ EPA webpage.

Oct 2016 Face Paint & Kids Cosmetics Factsheet (2 page pdf)

From: www.epa.govt.nz/hazardous-substances/at-home/Pages/Staying-safe-with-hazardous-substances.aspx

From: NZ EPA Hazardous Substances Update, Oct 2016

• NZ EPA: HSNO Incident Monitoring 2015-2016

June 2016: Monitoring the Effectiveness of the Hazardous Substances and New Organisms Act 1996. (46 page pdf)

From: www.epa.govt.nz/hazardous-substances/at-home/Pages/Staying-safe-with-hazardous-substances.aspx

• What is a Regulatory Scientist?

Regulatory science involves a pragmatic application of scientific methods for the purpose of making a decision within a defined legislative framework and timeframe about whether to allow something (eg chemicals) to be used.

Conventional science involves the application of scientific methods to understand some physical, chemical or biological phenomena. It tends to be curiosity driven, forward looking and speculative.

What differentiates **Regulatory science** from **Conventional science** is that decisions are based on analysis and interpretation of existing scientific knowledge and, where necessary, assumptions to address data gaps or uncertainty. Regulatory scientists do not generate new lines of enquiry to answer questions, instead relying on available information to make a decision.

While **Regulatory science** incorporates a variety of scientific disciplines, it is in itself a specialised field of science. As well as holding conventional scientific qualifications, regulatory scientists are trained in risk analysis, public administration and regulatory decision making.

Most **Regulatory science** training is done on-the-job as there are currently no formal courses in regulatory science and it tends to be specific to legislative frameworks.

From: APVMA in Armidale: Relocation Strategy Nov 2016, Box on Background page, http://apvma.gov.au/node/26286

Editor: This recognition that our hazardous chemicals / chemical regulatory management area needs tertiary

training is **an important change in Australia** since we lost the two previous courses many years ago. A Degree at Deakin Uni in Environmental Management (Hazardous Materials) closed in the Dec 2004; and a Masters Degree at the University of NSW School of Risk & Safety Science closed in December 2010.

• China has Ratified the HBCD Convention Amdt

China has Ratified the HBCD Amendment in the Stockholm Convention 2013, which enters into force on 26 Dec 2017.

HBCD – HexaChloroDodecane (also known as HBCDD).

From: http://chm.pops.int/Countries/StatusofRatifications/Amendmentstoannexes/tabid/3486/Default.aspx

• USA DOT & OSHA: Bulk Haz. Chemicals Labelling

19 Sept 2016: For Bulk Shipments bearing both USA DOT and USA OSHA HCS 2012 Labels, the USA Hazardous Materials Regulation prohibits the display on a package of any marking or label that could be confused or conflict with a label required by the USA HMR, specifically, 49 CFR § 172.401(b).

However, the prohibition in 49 CFR § 172.401(b) does not apply to packages labeled in conformance with certain international standards, including the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS) (see 49 CFR § 172.401(c)). The provisions of 49 CFR § 172.401(c) apply only to labeling in accordance with the GHS, and subsequently in accordance with OSHA 29 CFR § 1910.1200(f). The GHS labeling provisions, including as implemented by OSHA, require all hazard communication elements to be located on the label and these hazard communication elements must only appear as part of a complete GHS label.

As such, the display of a marking or label not required by DOT's HMR, but conforming to OSHA's HCS 2012 and consistent with the GHS is not a violation of the HMR."

From: https://www.osha.gov/dsg/hazcom/joint_phmsa_memo_09192016.html

• USA OSHA Quick Takes e-News: Oct-Dec 2016

I've scanned through the 18 Oct 2016 – 1 Dec 2016 e-News and listed items about Hazardous Chemicals.

18 Oct 2016: **1/** Memorandum to protect workers from hazardous chemicals: Labeling of Hazardous Chemicals for Bulk Shipments: Prepared by USA DOT PHMSA's Office of Hazardous Materials Safety and USA OSHA, 19 Sept 2016 (see separate Note); 2/ USA OSHA proposes improvements to USA OSHA Respiratory Protection Standard to add two quantitative fit-testing protocols.

1 Nov 2016: **1/** Wisconsin nursing home fined $243K after workers are sickened by Carbon Monoxide, exposed to Asbestos and other hazards; **2/** USA Chemical Hazard communication issues: potential rulemaking and interagency collaboration to maintain alignment of the USA Hazard Communication Standard with the most recent revision of the UN GHS of Classification and Labelling of Chemicals.

15 Nov 2016: **1/** South Dakota refinery, construction companies cited after worker fatally burned in ethanol spill; **2/** New USA OSHA Guide will help small businesses comply with USA OSHA's Respirable Crystalline Silica rule for construction: Small Entity Compliance Guide for Construction (103 page pdf); **3/** New Hazard Alert (1 page pdf) available on protecting oilfield workers from hot work hazards.

1 Dec 2016: **1/** USA OSHA issues Recommended Practices to promote workplace Safety and Health Programs in Construction (40 page pdf); **2/** USA OSHA renews alliance with National STEPS Network & NIOSH to protect workers in oil & gas extraction industry from injuries, illnesses & fatalities.

From: www.osha.gov/as/opa/quicktakes/

NICNAS (Industrial Chemicals)

• Cosmetic Testing on Animals - Online Survey

18 Nov 2016: The Federal Dept of Health is currently consulting on the implementation of an Australian Government commitment to ban the testing of cosmetics on animals. This commitment recognises the strong view many Australians have on this issue and brings Australia into line with similar policies implemented in other countries.

In fulfilling this commitment the Government will ensure that the impact to business, trade and industry is taken into account and is minimised in the approach going forward, whilst continuing to maintain Australia's high standards in protecting public health, worker safety and the environment.

The Federal Dept of Health has released a Background Paper (8 page pdf) and is conducting an online survey to provide an opportunity for the general public and industry to provide input. The Survey (which is informed to take 15-20 minutes) closes on the 16 Dec 2016.

From: https://www.nicnas.gov.au/news-and-events/department-of-health-survey

Also: https://www.health.gov.au/internet/main/publishing.nsf/Content/ban-cosmetic-testing-animals

Editor's Comment: An interesting survey which needs to remain open until the end of January 2017 so that more people get to do it at this busy end of year and holiday time.

• Tattoo Inks Used in Australia: Questions Asked

30 Nov 2016: What are tattoo inks? What is the difference between artistic tattoos and cosmetic tattoos? Are the inks used in cosmetic tattoos different from artistic tattoos?

What chemicals are used in tattoo inks in Australia? Can tattoo inks cause cancer? Are there any regulations for tattoo inks used by tattoo artists and beauticians?

What is NICNAS doing to investigate the safety of tattoo inks? What can I do to ensure my tattoo artist uses the safest possible tattoo inks?

Are there possible health complications when getting a tattoo? Who can I contact in my state or territory regarding chemicals prohibited in tattoo inks?

Answers are provided for each question.

From: https://www.nicnas.gov.au/news-and-events/Topics-of-interest/subjects/tattoo-inks-used-in-Australia

And: https://www.nicnas.gov.au/news-and-events/Topics-of-interest/subjects/tattoo-inks-used-in-Australia/chemicals-in-tattoo-inks-faqs

• NICNAS Reforms: Tracking "Non Haz" Chemicals

Editor: I've previously argued, & submitted comment why the Exempted Chemicals need to be just tracked by NICNAS.

Since then I have realised that it is these types of chemicals, that we originally thought were not hazardous, or we didn't know an extra type of hazard several decades ago, that have been the key problem chemicals for our world to manage.

Since 70 years ago these industrial chemicals have included: Fluorocarbons; Brominated Fire Retardants; Phthalate Plasticizers; Chemicals which we discovered were Persistent and Bioaccumulative; White Asbestos; Enzymes in Detergents; Triclosan; etc.

Based on their OLD incomplete hazard information, most of these would be "Exempted Chemicals" under the proposed NICNAS Reforms, and NICNAS will not even know which companies will import of manufacture them in any year.

The NICNAS "Reforms" are proposing that Exempted Chemicals are not required to be individually alerted by each importing or manufacturing business (even though they are currently alerted under the existing "No Unreasonable Risk" Exemption Categories).

So where some "non hazardous" chemicals are found to have hazards, NICNAS will NOT know which businesses are importing the specific chemicals, and will need Calls for Information. The NICNAS Reform proposal to have a declaration that an Exempted Chemical Category is being imported, will not be of much use to calm down a concerned community (including Unions and Concerned Groups), that NICNAS is appropriately managing Exempted Chemicals coming into Australia.

I have previously detailed that there are also several direct benefits for businesses to have the individual chemicals in the Exempted Chemical Category tracked by NICNAS.

My submission can be downloaded from my website at:. www.haztech.com.au/hazmat-environment-notes-newsletter/documents-for-download/

The Way Forward: The only way forward now would seem to be having Federal Parliament adjust the legislation in the Autumn 2017 session, so that the minimum tracking of each Exempted Chemical imported or manufactured by each Business, is advised to NICNAS.

• When will the NICNAS AICS get a Proper Search?

Editor: We now have a new NICNAS website, but the ability to search for specific content the NICNAS AICS has still not been fixed so it can work again like it did in the OLDEN DAYS.

e.g. I want to find the CAS No.(s) for Calcium Gluconate.

When I put in "Gluconate" I find there are 10 hits for the AICS.

When I add "Calcium" to the search for the 2 names Gluconate and Calcium the hits don't go down to 1 hit but go UP to 396!

IF I put in quotes "Calcium Gluconate" and there happens to be an exact match it will then find, the 1 result, in this case,

REQUEST to NICNAS: To be able to easily search the NICNAS AICS, as more chemical names are added. the NICNAS search should FIXED so it reduces the number of Chemical Substance hits .

• Areas / Times with NO Internet: NO NICNAS Info

The previous NICNAS Handbook was a useful reference that enabled NICNAS information to be available anywhere.

This access to key information is no longer possible, as now there is web access ONLY.

In the August to October 2016 HM&E Notes I suggested that the NICNAS Handbook still needs to be available as a pdf (or docx). These documents are available for the other Chemical Control Schemes in Australia (the APVMA, FSANZ and TGA).

I am concerned that there does not seem be any understanding at NICNAS that when the internet is not available, NICNAS still has a responsibility for providing the key information (as occurs for the APVMA, FSANZ and TGA).

• IMAP Tranche 19 Reports

25 Nov 2016: Please review and comment on these **I**nventory **M**ulti-tiered **A**ssessment and **P**rioritisation (IMAP) outcomes. Public Comment closes 2 Feb 2017.

61 Chemicals with Tier II Health Assessments at: https://www.nicnas.gov.au/__data/assets/excel_doc/0014/40820/Tier-II-HH-summary-all-tranches-published-26-Nov-2016.xlsx

- 50 HCIS Classifications are proposed to be amended:

- 13 Chemicals are proposed for the SUSMP:

Various CAS	Salts of Boric Acid (8 added)	S?
Various CAS	Quinine and its Salts (5 added)	S?

- Tier II Health Assessments where the chemicals are recommended for Tier III assessment.

CAS 593-60-2 Ethene, bromo-

30 Chemicals with Tier II Environment Assessments because the Tier I Assessment indicated further investigation:

Nonylphenol Ethoxylates & their Sulfate & Phosphate Esters (25)

Tonalide and Related Polycyclic Musks (5 CAS No.s)

2 Chemicals with a Tier III Health Assessment:

6373-74-6	Benzenesulfonic Acid, 5-[(2,4-Dinitrophenyl) amino]-2-(Phenylamino)-, Monosodium Salt HCIS classification is proposed to be amended
100418-33-5	Ethanol, 2-[(4-Methyl-2-Nitrophenyl) Amino]- Existing recommended Regulatory Measures (Tier II) are considered sufficient

From: https://www.nicnas.gov.au/chemical-information/imap-assessments/imap-assessments

Scheduled Medicines & Poisons

• Poisons Standard November 2016

SUSMP No. 15 (Poisons Standard November 2016)

Please note that on the Federal Register of Legislation (FRL) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) goes by its legal title, the **Poisons Standard Month Year** e.g. Poisons Standard October 2016.

Download from: https://www.legislation.gov.au/Details/F2016L01638/7d4a8927-350b-4526-8dae-7a00b648d36b
(5.6Mb pdf 366 pages + 294 pages index)

From: www.tga.gov.au/publication/poisons-standard-susmp

• Scheduling Delegate's Final Decisions, Oct 2016

27 October 2016: Summary of Delegate's Final Decisions

1. **Advisory C'tee on Chemicals Scheduling (ACCS#16 March 2016)**
   - Summary of Delegate's Final Decisions
   - 1.1 4,5-Dichloro-2-N-Octyl-3(2H)-Isothiazolone
   - 1.2 Bis-Isobutyl PEG/PPG
2. **Joint meeting of the Advisory C'tee on Chemicals and Scheduling (ACCS#17 July 2016)**
   - Summary of Delegate's Final Decisions

- 2.1 Direct Red 254
- 2.2 Aminopyralid
- 2.3 Metazachlor
- 2.4 Quinoline
- 2.5 Phenoxymethyl oxirane
- 2.6 *n*-Hexane
- 2.7 Amyl & Hexyl Cinnamaldehyde
- 2.8 Isoeugenol

3. Advisory C'tee on Chemicals and Medicines Scheduling (ACCS/ACMS#13 July 2016)

- Summary of Delegate's Final Decisions
- 3.1 Geraniol and related compounds
- 3.2 Hexachlorophene
- 3.3 Phenol

4. Advisory C'tee on Medicines Scheduling (ACMS#18 July 2016)

- *Summary of Delegate's Final Decisions*
- *4.1 Ulipristal*
- *4.2 Fexofenadine*
- *4.3 2,4-Dinitrophenol*
- *4.4 N,N-Dimethyltryptamine*
- *4.5 Piper Methysticum (Kava)*

From: www.tga.gov.au/scheduling-decision-final/scheduling-delegates-final-decisions-july-2016

• Public Submissions on Scheduling Matters

14 Nov 2016 ACMS: Further Public Submissions on Scheduling Matters referred to the ACMS#17, March 2016. Public Submissions made in response to: the Delegates' proposed Amendments to the Poisons Standard regarding Medicinal Cannabis Scheduling.

Further public submissions on scheduling matters referred to the ACMS#17, March 2016 - Part 1 (pdf, 39 pages)
(Medicinal Cannabis Scheduling)

Further public submissions on scheduling matters referred to the ACMS#17, March 2016 - Part 2 (pdf, 26 pages)
(Medicinal Cannabis Scheduling)

Further public submissions on scheduling matters referred to the ACMS#17, March 2016 - Part 3 (pdf, 32 pages)
(Medicinal Cannabis Scheduling)

Further public submissions on scheduling matters referred to the ACMS#17, March 2016 - Part 4 (pdf, 23 pages)
(Medicinal Cannabis Scheduling)

From: www.tga.gov.au/scheduling-submission/further-public-submissions-scheduling-matters-referred-acms17-march-2016

• TGA: Access to Medicinal Cannabis Products

31 Oct 2016: The Australian Government is facilitating access to Medicinal Cannabis products to appropriate patients for medical conditions where there is evidence to support its use. However, to fully achieve this, a number of legislative and regulatory changes have been made or are in the process of being implemented (see the Medicinal Cannabis Factsheet (2 page pdf) for further information). Additionally, the rules relating to Medicinal Cannabis products may vary between States and Territories and could affect access in those jurisdictions.

Legislation came into effect on 30 Oct 2016 to allow legal cultivation, production and manufacturing of Medicinal Cannabis products in Australia. This Scheme is administered by the Office of Drug Control (ODC). This legislation is designed to make available Medicinal Cannabis products and works together with the therapeutic goods legislation and state and territory legislation to make Medicinal Cannabis products available to certain patients.

From: www.tga.gov.au/access-medicinal-cannabis-products

• TGA: Updating Medicine Ingredient Names

28 Nov 2016: Over the years, some medicine ingredient names in Australia have become out of date compared with other counties. This can be confusing for Australian consumers and healthcare professionals who travel internationally, as well as people like doctors who have trained overseas or people trying to access medicine information online.

The TGA are updating some medicine ingredient names used in Australia to align with names used internationally. This has been done by some other countries over the years, including the United Kingdom in 2003 and New Zealand in 2008.

A list of medicine ingredient names that will change is available at: List of Affected Ingredients. The webpage list is split into: Active ingredients, and Excipient ingredients.

The four year transition period for these changes has started and will end in April 2020.

From: www.tga.gov.au/updating-medicine-ingredient-names

Food Chemical Issues

• Acrylamide and Food

October 2016: FSANZ believes that it is prudent to reduce our exposure to acrylamide in food.

Acrylamide has been detected in a range of foods including fried or roasted potato products, cereal-based products (including sweet biscuits and toasted bread) and coffee.

The estimated dietary exposures of Australian consumers were in the range of those considered to be of possible concern to human health by the Joint Expert Committee on Food Additives.

New farming and processing techniques are being investigated to produce lower levels of Acrylamide, for example, lowering cooking temperatures, using enzymes that reduce Acrylamide formation and obtaining raw materials with lower reducing sugar levels. However, reducing Acrylamide in some foods, such as coffee, is difficult without changing its taste.

FSANZ and NZ MPI are also encouraging and supporting industry to use enzymes that reduce Acrylamide formation and urging industry to adopt an "Acrylamide Toolbox" produced by Food and Drink Europe. A Codex Working Group is creating a Code of Practice for reducing Acrylamide in food and FSANZ and NZ MPI have contributed.

The FSANZ website below has further suggestions for how to reduce Acrylamide.

From: www.foodstandards.gov.au/consumer/chemicals/acrylamide/Pages/default.aspx

• Food Allergens: Assistance Video for Staff

If you're a food service business, do your staff know what to do to assist people with food allergies?

Allergy New Zealand, with the collaboration of Australia New Zealand Food Allergy Collaboration, has produced an excellent video for food service staff.

See the Allergy Hospitality Training Video (24 Jul 16 YouTube).

From: Food Standards News 138 August 2016 at http://www.foodstandards.gov.au/media/pages/foodstandardsnews/Default.aspx or direct to http://eepurl.com/b9-kdH (and scroll to the 2nd entry)

• A1113: Use Ext'n - Propionates in Processed Meat

26 Oct 2016: The purpose of the Application is to request the extension of use of Propionates (Propionic Acid and its Calcium, Sodium and Potassium salts) as anti-microbial preservatives in processed meat products.

Approval Report – 26 Oct 2016 (pdf) | (word) (15 pages)

"Evidence submitted in support of this Application provided adequate assurance that Propionates fulfil the stated technological function as anti-microbial preservatives in processed meat, poultry and game products."

From: www.foodstandards.gov.au/code/applications/Pages/A1113Propionates-in-Processed-Meat.aspx

• A1122: Thermolysin (Protease) - Processing Aid

11 Nov 2016: The purpose of this Application is to permit the use of Thermolysin (Protease) from Geobacillus Stearothermophilus as a processing aid in the processing of proteins, yeast and flavour production.

Administrative Assessment Report - 17 Dec 2015 (pdf) (2p)

Executive Summary (pdf) (4 pages). By Amano Enzyme Inc: "As such, no safety concerns are anticipated with the proposed use of Thermolysin (Protease) as a Processing Aid in Australia/New Zealand."

From: www.foodstandards.gov.au/code/applications/Pages/A1122ThermolysinProteasePA.aspx

• A1132 – Broaden Definition of Steviol Glycosides

7 Nov 2016 Call for Submissions: The purpose of this Application is to expand the definition of Steviol Glycosides for use as an intense sweetener to include all Steviol Glycosides present in the Stevia Rebaudiana leaf.

Call for Submissions – 7 Nov 2016 (pdf) | (word) (17 pages)

Supporting Document 1 – Risk and Technical Assessment report (pdf) | (word)

"FSANZ concludes that broadening the definition and hence specification for Steviol Glycosides preparations to include any mixture of individual Steviol Glycosides extracted from the stevia leaf is justified. The same analytical methods currently used for Steviol Glycosides can be used to identify these other minor Steviol Glycosides."

Make Submissions by 6pm 19 Dec 2016. Email to: Submissions@foodstandards.gov.au.

From: www.foodstandards.gov.au/code/applications/Pages/A1132Definition-of-Steviol-Glycosides.aspx

• A1136: Protein Glutaminase as a Processing Aid

2 Dec 2016: The purpose of the Application is to permit the use of Protein-Glutaminase from *Chryseobacterium Proteolyticum* as a Processing Aid (Enzyme) to improve Protein functionality in baking, noodle, dairy, meat, fish and yeast products.

Administrative Assessment Report – 2 Dec 2016 (pdf) (3p)

Executive Summary (pdf) (4 pages) By Amano Enzyme Inc: "As such, no safety concerns are anticipated with the proposed use of Protein-Glutaminase as a Processing Aid in Australia/New Zealand."

From: www.foodstandards.gov.au/code/applications/Pages/A1136.aspx

• P1027: Managing Low-level Ag & Vet Chems w/o MRLS

26 Oct 2016: The purpose of this Proposal is to manage low-level agricultural and veterinary chemicals without Maximum Residue Limits (MRLs) (i.e. the food is not listed in Schedule 20, but the chemical is).

Approval Report – 26 Oct 2016 (pdf) | (word) (17 pages)

"The results of the dietary exposure assessment undertaken as part of the risk assessment process for the 19 chemicals indicate that the *All other foods except animal food commodities* MRLs are safe and would not pose public health and safety concerns. The values proposed for each agvet chemical have been included in the draft amendment to Schedule 20."

Supporting Document 1 – The Risk Assessment Approach to establishing all other foods except animal food commodities MRLs (at Approval) (pdf) | (word) (45 pages)

Supporting Document 2 – Summary of Issues raised in the submissions and FSANZ response (pdf) | (word) (10 pages)

Frm: www.foodstandards.gov.au/code/proposals/Pages/P1027.aspx

Agricultural & Veterinary Chemicals

• NZ EPA: Proposed Agrichemical & Chemical Rules

Consultation has recently closed on 21 Nov 2016 on proposed Agrichemical rules and rules to protect the general public from hazardous substances.

The Consultation Document (101 page pdf) proposes changes that will underpin the safe use and management of Agricultural Chemicals, which are harmful to the environment (Part 1). It also covers the access, use and storage of hazardous substances by the general public (Part 2).

Obtain the Oct 2016 Consultation Document from: www.epa.govt.nz/consultations/hazardous-substances/Pages/Consultation-on-proposed-changes-to-hazardous-substance-rules.aspx

From: NZ EPA Hazardous Substances Update, Oct 2016

• NZ EPA re: Canada's Neonicotinoid Decision

29 Nov 2016: The NZ EPA is keeping a watching brief on international developments following Health Canada's proposed re-evaluation decision of agricultural use of the Neonicotinoid Imidacloprid, which Canada states is unsustainable.

Health Canada's announcement came after it found current levels of Imidacloprid in its waterways and aquatic environments to be harmful to aquatic insects, such as mayflies and midges, an important source of food for fish, birds and other animals.

Health Canada also announced on the 24 Nov 2016 a Special Review of two other Neonicotinoids: Clothianidin and Thiamethoxam.

NZ EPA: It is important to note that risks to bees and other pollinators, often the source of concern in relation to the use

of Neonicotinoids, were not a part of the Health Canada re-evaluation document.

From: www.epa.govt.nz/news/epa-media-releases/Pages/EPA-keeps-watching-brief-on-Canada%E2%80%99s-neonicotinoid-decision.aspx

• APVMA Relocation to Armidale, NSW

25 Nov 2016: The Deputy Prime Minister and Minister for Agriculture and Water Resources, the Hon. Barnaby Joyce MP announced on 25 Nov 2016 that the APVMA will be relocating its operation to Armidale in regional NSW.

"Not only will the move modernise the APVMA, with a fresh digital strategy essential to its success, but it will also provide unprecedented opportunity to young scientists on the (NSW) Northern Tablelands, with new University of New England courses being developed to complement the hub of excellence, such as the new regulatory science course commencing in 2017." "Relocating the APVMA is an important next step to bring more quality jobs and expertise to Armidale and the surrounding region - an area with a strong history in agriculture, now has an even stronger future in agriculture here."

While there is no established timeframe for the relocation, it is anticipated that the APVMA will be in Armidale from early to mid-2019.

The APVMA in Armidale: Relocation Strategy (Nov 2016 19 pages) outlines the broad activities needed to efficiently transfer APVMA functions from Canberra to Armidale. This relocation strategy is focussed on what needs to happen to move the APVMA, while minimising potential issues during the transition, and to maximise capacity when it operates from Armidale.

"It is a policy of the Australian Government that a corporate Commonwealth entity with Agricultural Policy or Regulatory Responsibilities is to be located: **(a)** in a regional community; and **(b)** within 10 km by road of the main campus of a regional university that is recognised for research and teaching in the field of agricultural science."

From: Govt Policy Order F2016L01795.

From: http://apvma.gov.au/node/20996

• APVMA Regulatory Science Strategy 2016

August 2016: APVMA Regulatory Science Strategy 2016 (16 page pdf). In this Strategy the APVMA identifies issues, assesses chemical risks & makes regulatory decisions. There are a number of strategic areas the APVMA will focus on, including:

- boosting regulatory science capacity and capability
- building national and international links
- enhancing stakeholder communication and engagement
- extending the ability to identify, monitor and respond to emerging regulatory issues
- improving regulatory science methodologies
- monitoring and enhancing regulatory science performance.

Through this strategy, the APVMA will make more effective use of scientific expertise and knowledge to help stimulate innovative approaches to regulation and enhance regulatory science quality.

From: http://apvma.gov.au/node/11026 (under Corporate Docs)

• Dimethoate: Proposed Changes to Instructions

26 October 2016: The APVMA is reconsidering the approvals, registrations and product labels associated with the Insecticide and Miticide, Dimethoate. The scope of this review was to assess the toxicological, occupational health and safety, residues and dietary exposure and trade risks associated with the Approvals & Registrations for Dimethoate.

The APVMA invites comment on the Dimethoate Proposed Regulatory Decision Report: Volume 1 (84 pages) and Submissions and Technical Reports: Volume 2 (19 pages) from 26 October 2016 to 27 January 2017.

The APVMA is proposing to:

– affirm the Approvals of Dimethoate active constituents

– vary the Label Approvals of the most recent label approval for 400 g/L Dimethoate products

– affirm the Registrations of those products & the varied labels

– cancel the Registrations of home garden products containing more than 100 g/L Dimethoate and

– limit pack sizes of the agricultural 400 g/L Dimethoate products to volumes >1L.

See Proposed Revised Standard in the 15 Nov 2016 APVMA Gazette on pages 12-14:
http://apvma.gov.au/sites/default/files/gazette_15112016.pdf

As a separate process the APVMA is also proposing to amend the Standard for dimethoate active constituent to include maximum impurity levels for Omethoate and Isodimethoate.

Consultation closes 27 January 2017:
Email: chemicalreview@apvma.gov.au

From: http://apvma.gov.au/node/20811
From: http://apvma.gov.au/node/20781
Also Dimethoate Review: http://apvma.gov.au/node/12496

• Glyphosate: APVMA Proposal, 30Dec16: Comment

The APVMA commissioned a review of the IARC monograph by the Department of Health, and also evaluated a number of recent international assessments of Glyphosate conducted by international bodies and regulatory agencies.

Following a comprehensive scientific assessment process, the APVMA published a Proposed Regulatory Decision Report for Glyphosate, concluding that Glyphosate does NOT pose a cancer risk to humans.

Comment is STILL OPEN until 30 December 2016 on the APVMA's proposed regulatory decision.

The APVMA (and partner agencies where required) will consider comments relating to the scientific justification for the proposed regulatory position to NOT place Glyphosate under formal reconsideration, before the Report is finalised and the Final Regulatory Position Report is published.

Email: ChemicalReview@apvma.gov.au

Glyphosate Webpage: http://apvma.gov.au/node/13891

From: http://apvma.gov.au/node/20746

• APVMA Active Constituent: Fluopicolide

New active constituent, Bicyclopyrone, for use as a fungicide in agricultural products.

Common Name: Fluopicolide; Chemical Name: 2,6-Dichloro-N-[[3-Chloro-5-(Trifluoromethyl)-2-Pyridinyl]Methyl]Benzamide; CAS No: 239110-15-; Minimum Purity: 970 g/kg; Formula: $C_{14}H_8Cl_3F_3N_2O$; MW: 383.6; Chemical Family: Benzamide;

Pyridine; Mode of action: Causes redistribution of spectrin-like Proteins from the Membrane to the Cytoplasm.

The APVMA has considered the toxicological aspects of Fluopicolide, and concluded that there are no toxicological concerns to its approval.

The Secretary of the Dept of Health final Scheduling Decision to create a new Schedule 6 listing for Bicyclopyrone in the SUSMP, & a cut-off to Schedule 5 in preparations at ≤20% Bicyclopyrone, implementation 1 Feb 2016.

Fluopicolide has been considered for scheduling and based on the data provided the Scheduling delegate concluded that Fluopicolide was of low toxicity and has included fluopicolide in Appendix B of the Poisons Standard (SUSMP)

Enquiries: Director Chemistry and Manufacture, Scientific Assessments and Chemical Review Program, APVMA. Phone: 02 6210 4701, Email: Enquiries@apvma.gov.au

From: Ag&Vet Gazette, 15 November 2016 p30-31
http://apvma.gov.au/sites/default/files/gazette_15112016.pdf

Dangerous Goods

• ADG Code 7.5: May be Used from 1 March 2017

The Australian Dangerous Goods Code is updated every two years, with a one year transition period for each edition. To comply with the legislation you must follow one of the applicable editions listed in the table. Download your copy by clicking on the relevant edition number in the table header.

Edition 7.5: www.ntc.gov.au/Media/Reports/(88EC709E-2BAE-A104-7182-E25655FB7BC5).pdf (1267p 21Mb pdf)

The pdf has an overlay on each page of "Effective from 1 March 2017". From the 1st March 2017 a replacement file will be available.

What has Changed

To understand what has changed from editions 7.4 and 7.5, please refer to the 'Introduction' within Edition 7.5 of the Australian Dangerous Goods Code (page xxvii). There are 13 pages of changes included.

You can also look at the Marked-Up Version comparison between 7.4 and 7.5 by viewing the *Australian Dangerous Goods Code - Comparison of 7.4 and 7.5 (Dec 2016)* website. This provides 5 large pdfs with the changes in **Red** covering: Parts 1 & 2 (4Mb); Part 3 (10Mb); Parts 4 & 5 (5Mb); Parts 6 & 7 (4Mb); and Part 8 to App D (3Mb).

See the additional Note below for more details on the changes.

Corrections are made to the Code

At times minor corrections are made to the Code. Please review the changes in the document below - *Australian Dangerous Goods Code - Outline of Corrections - Dec 2016*. This 1 page pdf corrects Table 5.2 Minimum Dimensions of Labels by clarifying the size of a Package, Packaging or Article by introducing the ≥ and ≤ symbols to make transitions clear.

From: www.ntc.gov.au/heavy-vehicles/safety/australian-dangerous-goods-code/

• Some of the Key Changes in ADG Code 7.5

A Marked-Up version of the Code, highlighting all changes from Edition 7.4, is available (see the Note above):

Changes that caught my attention (in the 13 page list) are:

1/ The wording of mark and marking is now consistent throughout the document where: "mark" should indicate the letters/numbers/symbols/pictogram while "marking" ("to mark") should be used to indicate the actual act of applying a mark.

2/ Polymerizing substances requirements were updated in UN18. There are currently around 30 substance that fit into the category of polymerizing substances. The UN19 changes add four new substances.

3/ A new section in Classes 2, 3, 8 & Division 6.1 emphasises that polymerizing substances must not be transported unless they fulfil the transporting requirements.

4/ 7.1.6.1 The provisions for temperature control now apply for substances with a self accelerating polymerization temperature. The temperature for substances in portable tanks must be 45°C or less, down from 50°C.

5/ 2.4.1.2 Polymerizing substances have been added to the definition of Division 4.1 flammable solids; AND 2.4.2.5 Polymerizing substances are now included in the Manual Tests & Criteria as potential Div'n 4.1 substances or mixtures.

6/ 3.2.3 New Substances in the Dangerous Goods List: UN 3151; UN 3152; UN 3153; UN 3154 covering various POLYMERIZING SUBSTANCE entries.

7/ The UN are introducing a number of improvements to how Lithium batteries (in or out of equipment) are transported.

7-1/ SP 384: New Special Provision – Lithium batteries must use the specific battery Class 9a label, however the Class 9 label can be used until 31 December 2018.

7-2/ Various clarified & new Provisions for Lithium batteries.

8/ 3.2.3 - UN1950, aerosols, large packagings no longer require inner packagings. This provides consistency with other UN1950 packing instructions.

9/ 1.2 Definitions – New: • Design life, for Composite Cylinders and Tubes; • Self-Accelerating Polymerization Temperature (SAPT); • Service Life, for Composite Cylinders and Tubes; • Portable Fire Extinguishers; • Domestic Consumables. Definitions – Removed: • Retail Distribution Load

10/ 1.1.1.2(3) The table of Quantity Limits for exempted small consignments has moved to this section. This table was previously Table 5.1.

11/ 2.3.2.2 The viscosity and flashpoint table is updated to include kinematic viscosity. The kinematic viscosity test can determine the viscosity of substances (paint, printing ink) that thin with movement, unlike the existing flow cup test.

12/ 2.3.2.5 Viscous liquid which meet the current exemptions and are environmentally hazardous are exempt from the Code if they meet the set packing requirements.

13/ 2.9.2 Two substances added to the Class 9 Substances and articles which, in the event of fire, may form Dioxins list. UN 3151 & UN 3152 Halogenated and Polyhalogenated Biphenyls and Terphenyl compounds.

14/ SP204 New requirement for smoke producing Class 8 items to be labelled TOXIC, after 31 Dec 2016 (28 Feb 2017).

15/ SP236 Polyester Resin Kits are increasingly using Division 4.1 substances. The change allows for Div'n 4.1 as well as Class 3, be used as the base material for Polyester Resin Kits.

16/ SP 382 New Special Provision – Polymeric Beads that **do not produce** flammable vapour as tested under the Manual of Tests and Criteria **do not need** to be classified as a Polymeric Beads, Expanding Evolving Flammable Vapour.

17/ S386 New Special Provision: When substances are stabilized by temperature control, the provisions of 7.1.6 apply. When chemical stabilization is employed, the person offering the packaging, IBC or tank for transport must ensure that the level of stabilization is sufficient to prevent the substance in the packaging, IBC or tank from dangerous polymerization at a bulk mean temperature of 50 °C, or, in the case of a portable tank, 45 °C. ….. (This change added by these Notes Editor)

18/ Special Provision AU03 Unodourised Butane and Propane are now included in the special provision.

19/ 3.4.10 Concessional Limited Quantities requirements provide a simplified approach to transport documentation for limited quantities that are a kind generally used for household and personal care purposes.

20/ 5.3.1.1.1 A new placard limit, of 2 tonne, for Dangerous Goods in Limited Quantities Packages has been included.

21/ 5.3.2 Changes in the size and location of placards for vehicles with 3,000L or less.

22/ 5.3.1.3.3 Details on how to make an EIP for Ethanol / Petroleum loads.

23/ 5.2.1.8, 5.2.2, 5.2.2.1.13 Inner package labelling requirements, & associated references, have been removed.

24/ 5.2.2.2.2 New Class 9a mark. (Diamond for Li Batteries)

25/ 5.2.2.2.3 Detail on when to use the Mixed Load Label as a placard. 5.2.2.2.4 Detail on when to use the Limited Quantities Label as a placard.

26/ 6.5.2.2 Competent Authorities can authorize additional Marks on Intermediate Bulk Containers.

27/ 7.3 and Related Areas: Retail Distribution Loads chapter, and associated references in other chapters has been deleted. A more flexible approach for small packages is now included in the Concessional Limited Quantities requirements in 3.4.10.

28/ 11.1.3.4 Details the transport document requirements for concessional limited quantities.

29/ Appendix B2: Generic transport document template for Concessional Limited Quantities loads.

30/ Appendix C: Hazchem Code wording is used instead of Emergency Action Code.

31/ The name of the document has changed to Model Subordinate Instrument on the Transport of Dangerous Goods by Road or Rail. (Previously Model Subordinate Law).

Changes are from page xxvii to page xxxix (13 pages) in Edition 7.5: www.ntc.gov.au/Media/Reports/(88EC709E-2BAE-A104-7182-E25655FB7BC5).pdf (1267p 21Mb pdf)

• D.Goods Lithium Battery Mark and Diamond "9a"

Lithium Battery Mark (PDF) Model Number 9a (PDF)

These are also in the ADG 7.5 under 5.2.1.9 and 5.2.2.2.2

From:www.ntc.gov.au/heavy-vehicles/safety/australian-dangerous-goods-code/

• AU Canutec Emergency Response Guidebook

A free pdf of the Australianised 2016 Canutec Emergency Response Guidebook will become available by late Feb 2017 to download from the Competent Authorities Panel webpage at the Federal Dept of Infrastructure Dangerous Goods website.

https://infrastructure.gov.au/transport/australia/dangerous/competent_authorities.aspx

The preparation of this Australianised Guidebook has been a co-operative effort between Canutec at Transport Canada and Australian industry DG specialists and the Authorities' & Emergency Services' DG specialists, to provide a free pdf to be available and used by everyone.

In the interim have a look at the current (North American) Canutec Emergency Response Guidebook. The free pdf (400 pages) is available from:
https://www.tc.gc.ca/eng/canutec/menu.htm

Background: Originally in the mid 1990s Canutec gave Australia the authority to prepare the Australian Initial Emergency Response Guide handbook (based on the Canutec Guidebook), so Australia could replace having to perpetually provide a large number of two sided "Emergency Procedure Guides – Transport" for each Dangerous Goods in every consignment.

• IATA DGR Manual 58th Edition 2017

Order on-line via IATA: Regular Bound Manual USA$309; Spiral Bound Manual USA$329 + Shipping USA$43 (est.).

www.iata.org/publications/store/Pages/dgr-print-manuals.aspx

In Australia order via Marair Dangerous Goods Specialists P/L for AU$506 (incl. GST) +$17.50 delivery:
www.marair.com.au, email: Admin@marair.com.au
Melbourne ph: 1800-677-721 or 03-8318-4500.

• IATA DGR 58th Edition 2017: Significant Changes

Significant Changes and Amendments to the 58th Edition (2017) of the IATA *Dangerous Goods Regulations* can be downloaded from:

www.iata.org/whatwedo/cargo/dgr/Documents/dgr-58-significant-changes.pdf (5 pages)

There is a 6 minute Video about the IATA 58th DGR 2017.

The changes that caught this Notes Editor's attention are:

1.6 Adequate Instruction: A new paragraph has been added that sets out what should be established by shippers of Section II Lithium Batteries to meet the conditions for "adequate instruction" of employees who are responsible for the preparation of packages of Lithium Batteries offered for air transport in accordance with Section II of the Lithium Battery packing instructions.

2 Limitations: 2.6.5 Under Dangerous Goods in Excepted Quantities: The packing provisions have been revised to allow for the absorbent material to be either in the intermediate packaging, or the outer packaging for liquid Dangerous Goods.

3 Classification: 3.0.1.5: A new paragraph has been added to set out the provisions for where a shipper identifies, by testing, that a listed substance has a subsidiary hazard not identified in the list of dangerous goods. The new provision identifies that the shipper must with the approval of the appropriate national authority either use a "n.o.s." entry or ship the substance under the listed entry with the addition of the subsidiary hazard.

3.2.6, 3.3.6, 3.6.1.9 and 3.8.4: New provisions have been added to address substances in Class 2, Class 3, Division 6.1 and Class 8, respectively, that may polymerize during normal conditions of transport.

3.4.1.4: Provisions have been added for the classification of polymerizing substances. The provisions are analogous to those for self-reactive substances.

4.2 List of Dangerous Goods

- New Special Provision IATA A209 (but UN SP386) against entries with "stabilized" in the proper shipping name;

- UN 3480, Lithium Ion Batteries has been amended to show "forbidden" across columns I/J to identify that these batteries are now restricted to Cargo Aircraft Only. This change became effective 1 April 2016 through an addendum to the 57th edition of the DGR. There is no change to the entries for UN 3481, Lithium Ion Batteries packed with equipment or Lithium Ion Batteries contained in equipment;

- All entries for Lithium Batteries, UN 3090, UN 3091, UN 3480 and UN 3481 have been revised to identify that the hazard label has changed to now be the Lithium Battery Class 9 label. A new Special Provision IATA A206 (but UN SP???) has also been assigned to reinforce this new requirement;

- UN 3269, Polyester Resin Kit has been revised to add "liquid base material" as light type and a new entry "UN 3527, Polyester Resin Kit, solid base material" in Division 4.1 has been added to provide for Polyester Resin Kits that have a Division 4.1 solid material as the base component;

- four new entries, UN 3531—UN 3534 have been added for Polymerizing Substances;

4.4 Special Provisions

IATA A104: Which was assigned to UN 1230, Methanol, and which allowed packages containing Methanol to not bear a Toxic hazard label, been deleted. All packages containing Methanol must now bear a Division 6.1 hazard label in addition to the Class 3 label.

IATA A331: Is a new Special Provision assigned against UN 3480, Lithium Ion Batteries to identify the possible requirements for a shipper to meet to obtain an approval to ship Lithium Ion Batteries at a state of charge in excess of 30% of the rated capacity of the battery.

7 Marking & Labelling

7.1.5.5: Are the new provisions that set out the requirements for the Lithium Battery Mark. The specification of the Lithium Battery Mark is shown as Figure 7.1.C. The new mark comes into effect as of 1 January 2017 with a 2-year transition period during which time either the Lithium Battery Mark or the lithium battery handling label may be applied to packages containing Lithium Batteries prepared in accordance with Section IB or Section II of the Lithium Battery packing instructions.

7.2.4.4: The provisions on additional text on hazard labels have been revised to identify that for the new Class 9–Lithium Battery hazard label the only information permitted in the bottom half of the label is the pictogram and the class number.

9 Handling

9.1.9: A new paragraph has been added recommending that operators conduct a safety risk assessment for the transport of dangerous goods.

Appendix H: A new appendix has been added for this edition to provide the draft changes to address the implementation of Competency-Based Dangerous Goods training. The purpose of this material is to invite comments from all segments of industry: shippers, forwarders, ground handling agents, operators and training providers on potential changes to Subsection 1.5 to implement Competency-Based Dangerous Goods training.

F: www.iata.org/whatwedo/cargo/dgr/Pages/download.aspx

• SA: Dangerous Substances & Explosives Review

24 Oct 2016: Review of South Australia's Dangerous Substances and Explosives Laws: Consultation Draft Discussion Paper.

Consultation Draft Discussion Paper 24 Oct 2016 (40p pdf)

Consultation extended until 23 Dec 2016.

Email to: Webmaster.Safework@sa.gov.au

From: www.safework.sa.gov.au/show_page.jsp?id=115899#.WE3lT7nAL39

• WA DMP: Top 10 Dangerous Goods Safety Issues

24 Oct 2016: The WA Dept of Mines & Petroleum (DMP) has developed a summary of the top 10 non-compliances identified during safety inspections in WA in 2015-16, to help educate Dangerous Goods sites and raise compliance levels. There are further information weblinks for each issue.

10. Wrong Information on Licence (Regulation 44)
9. Notification to Neighbours (Regulation 76A)
8. Dangerous Goods Register (Regulation 77)
7. Safety Data Sheets (Various Regulations)
6. Segregation (Regulation 52)
6. Segregation (Regulation 52)
4. Control of Fire Hazards (Regulation 67)
3. Emergency Plan (Regulation 75)
2. Risk Assessment (Regulation 48)
1. Manifest/Site Plan (Regulation 78)

From: www.dmp.wa.gov.au/News/Top-10-dangerous-goods-safety-19760.aspx

• Leak: Hydrofluoric Acid in Cartons, Melbourne

23 Nov 2016: MFB Hazmat Technicians responded to a chemical leak in the Melbourne Airport precinct. At 9am, workers in a freight area identified (an air cargo shipment of) cartons, (that had arrived into Melbourne), containing (50%) Hydrofluoric Acid were leaking.

Eight workers were affected and transported to hospital. Aviation Rescue Fire Fighting Services (ARFF) and Metropolitan Fire Brigade (MFB) firefighters worked to make the scene safe and transferred the leaking containers into Hazmat drums. An MFB Scientific Advisor was also on scene. Worksafe Victoria and the Vic EPA were also notified.

From: www.mfb.vic.gov.au/News/Media-releases/Eight-hospitalised-after-airport-chemical-leak.html

Editor: The incident was discussed in general at the final Dangerous Goods Advisory Group meeting for 2016, held on Wed 30th Nov 2016 at the MFB Burnley Complex. In particular the Group discussed the appropriate handling of the HF contaminated containers so as to ensure no person was contaminated by the 50% Hydrofluoric Acid. Significant concerns were raised about how the incident (involving a seriously hazardous chemical) appeared to be managed.

• BASF Germany Explosions: Monday 17 Oct 2016

The explosion and fire on Monday occurred at a river harbor used to unload flammable liquids and liquid gas. It took firefighters 10 hours to extinguish the resulting blaze. Eight

people were critically injured - including the 4 deceased persons - and another 22 people were slightly injured.

www.dw.com/en/ludwigshafen-residents-not-in-danger-from-basf-chemical-plant-explosion/a-36117313 (21 Oct 2016)

www.dw.com/en/fourth-person-dies-after-basf-chemical-plant-blast-in-ludwigshafen/a-36198889 (29 Oct 2016)

From: http://tech.groups.yahoo.com/group/DangerousGoods

Update: BASF Fire at North Harbor in Ludwigshafen

7 Nov 2016: On Monday, 17 Oct 2016, there was an explosion and subsequent fires at the North Harbor at BASF's site in Ludwigshafen. Two employees of the BASF Fire Department and an employee of a tanker which was anchored in the harbor died in the accident. Another employee of the BASF Fire Department who was severely injured in the explosion died on October 29. Seven people were seriously injured and another 22 suffered slight injuries. Two of the seriously injured have been released from the hospital. The course of events is still being investigated by the public prosecutor's office of Frankenthal. Parts of the incident site are still sealed off by the Authorities.

Course of Events: A few days prior to the accident, a specialized pipeline construction company began to conduct assembly works on a deflated and secured propylene pipeline route. The aim of the assembly works was to exchange several parts of the pipeline as a preventive maintenance measure.

On 17 Oct 2016, a fire started at 11:30am near the assembly works. Forces of the BASF Fire Department, Emergency Service and Environmental Protection arrived a few minutes later at the incident area and immediately started emergency operations. During the initiation of emergency operations, an explosion, most likely at the Ethylene pipeline, occurred. The explosion led to subsequent fires at various points along the pipeline trench, damaging further product and supply pipelines. Additional emergency forces immediately began rescue measures as well as extinguishing and cooling measures.

The Fire Brigade performed controlled burning of the leaking products in accordance with the fire-fighting concept for compressed gases. The pipelines that burned included those used for Ethylene, Propylene, a Butylene product mix (Raffinate), Pyrolysis Gasoline and Ethylhexanol. As of 17 Oct, 9.30pm, the Emergency Forces extinguished the fire.

Editor: **The Investigation Information (so far):** is also included on this BASF website.

From: www.basf.com/de/en/company/about-us/sites/ludwigshafen/the-site/news-and-media/news-releases/2016/11/p-16-370.html

• Montreal: Elevated Roadway Fuel Tanker Fire

9 Aug 2016: An Emergency Services Hazmat colleague commented that the very short time for the tanker to explode is unusual, so this fire and explosion is important to investigate.

http://montrealgazette.com/news/tractor-explosion-shuts-down-highway-40-in-both-directions

https://www.youtube.com/watch?v=pWaR8efxEOw

From: http://tech.groups.yahoo.com/group/DangerousGoods

Environmental Notes on Chemicals

• Nat'l Std: Env. Risk Mgmt of Industrial Chemicals-1

24 Nov 2016: Draft National Standard for Environmental Risk Management of Industrial Chemicals

Draft National Standard for Environmental Risk Management of Industrial Chemicals (50p pdf), (60p docx)

Draft Explanatory Document (106p pdf), (114p docx)

Submissions on the Draft National Standard and Draft Explanatory Report should be sent to: Chemicals.Management@Environment.Gov.Au.

Submissions close at 5pm AEDT on Friday 3 March 2017.

See details and issues in the following Notes.

- Nat'l Std: Env. Risk Mgmt of Industrial Chemicals-2
- Explanatory Document on NS for ERMIC: Issues
- Editor's Comment on NS for ERMIC & the ED

From: www.environment.gov.au/protection/chemicals-management/national-standard

From: www.environment.gov.au/protection/chemicals-management/national-standard/draft-national-standard-environmental-risk-management-industrial-chemicals

• Nat'l Std: Env. Risk Mgmt of Industrial Chemicals-2

Objectives:

The overarching objectives of the National Standard are:

- To achieve better protection of the environment through improved management of the environmental risks posed by industrial chemicals;

- To provide a nationally consistent, transparent, predictable and streamlined approach to environmental risk management of industrial chemicals for governments, industry and the community.

Scope:

Industrial chemicals can enter the environment at any stage during their lifecycle. The lifecycle of a chemical includes all stages of a chemical's useful life, from manufacture to end of life processes, such as disposal or destruction. The National Standard is applicable during all stages of a chemical's lifecycle in Australia, from introduction to end of life.

The National Standard includes three general categories for industrial chemicals – High, Intermediate and Low Concern. These general categories are broken into a total of seven specified categories known as Environment Schedules. Substances of lowest concern to the environment are categorised in Environment Schedule 1 and substances of highest concern to the environment are categorised in Environment Schedules 6 and 7.

Each of the seven Environment Schedules has a set of clear, outcomes-based risk management measures. The risk management measures under the National Standard target risks to the environment from the intended use of industrial chemicals and may cover the entire lifecycle of the chemical. The risk management measures focus on protecting the environment from the releases of industrial chemicals that may occur during the intended use and processes associated with the intended use of the chemical. Responsibility for managing environmental risks of chemicals throughout their lifecycle will be targeted at those who have the capability of understanding and preventing release of chemicals to the environment.

The outcomes-based risk management measures under the

National Standard will encourage continued innovation in environmental protection and allow industry to manage risks as efficiently as possible.

To avoid duplication and ensure an appropriate separation of regulatory responsibilities, the National Standard has been developed to integrate with existing regulatory regimes in the Australian chemicals framework and is intended to be compatible and complementary.

The National Standard will be used by:

- Australian governments, and the Risk Assessor through the National Industrial Chemicals Notification and Assessment Scheme (NICNAS), as a tool for recommending appropriate scheduling and risk management measures
- the Decision Maker in reviewing scheduling recommendations, requesting advice and making scheduling decisions
- jurisdictions to undertake compliance and enforcement activities pertaining to their responsibilities
- the chemical industry and users to understand decisions on the risk management requirements for protecting the environment.

The National Standard **may** also be used by the chemical industry as a guide to possible scheduling and risk management decisions for the chemicals in use and proposed to be used, and the community to increase the general awareness of requirements of industrial chemical use and disposal in Australia.

Schedules:

Industrial chemicals are categorised into a particular Environment Schedule based on their concern to the environment. Determining the level of concern that a chemical poses to the environment involves consideration of:

- the harm that the industrial chemical that could cause to the environment (hazard)
- the probability the chemical may pose harm to the environment based on the intended use and volume of use of the industrial chemical (risk).

A single industrial chemical with several different uses and different assessed risks may be categorised into different Environment Schedules depending on the concern the chemical poses to the environment. Each Scheduling decision outlines the scope of the risk assessment that was undertaken including the use and volume of use of the chemical substance.

This approach will ensure risk management measures are risk based and proportionate and that chemical substances will be scheduled with substances that require similar regulatory controls. Inclusion of an industrial chemical in an Environment Schedule does not indicate:

- that the industrial chemical is available for general use
- that it has been approved and/or is available for any use
- that it negates any obligation for registration of the industrial chemical for any other use.

Editor: The Draft Standard then lists the criteria for Assigning al Chemical to a Schedule, then Risk Management.

Note: Schedule 7 are Prohibited chemicals that have viable alternatives and do not have an essential use in Australia.

From: Draft National Standard for Environmental Risk Management of Industrial Chemicals (50p pdf), (60p docx)

From: www.environment.gov.au/protection/chemicals-management/national-standard/draft-national-standard-environmental-risk-management-industrial-chemicals

• Explanatory Document (ED) on NS for ERMICs

Editor: Some points in the Explanatory Document (ED on the Draft National Standard for Environmental Risk Management of Industrial Chemicals (NS for ERMICs) that got my attention.

7.8.3 Toxic Substances

The primary exposure pathway for most industrial substances is generally the sewer. This is also the assumption for release of cosmetics and substances used domestically. Surface waters are also thought to be the most likely sink for chemicals released into other compartments in the environment, whether it be through leaching from soils or becoming associated with water or particles in the atmosphere and returning to earth in rain (EPHC 2009).

Aquatic organisms are generally considered to receive a higher relative dose of a chemical than terrestrial organisms. They live in the contaminated medium and can be quite sensitive to changes, including changes in water temperature, pH, dissolved oxygen, turbidity and dissolved organic carbon, to name a few. Aquatic organisms can also absorb the chemical directly from the water as well as consuming it through food, drinking water and air (EPHC 2009).

Therefore, categorisation of toxicity generally focuses on aquatic organisms. The routine trophic levels used for analysis of toxicity to aquatic organisms are algae, aquatic invertebrates (crustaceans) and fish.

An initial effects assessment also needs to consider the partitioning, persistence and bioaccumulation potential of a substance as these parameters can help determine the amount of chemical that is present in the compartment and the period over which it is likely to be present.

9.2 Targeted Stages of a Chemical Lifecycle

Risk management measures under the National Standard will be targeted at the stage of the lifecycle that is likely to prevent harm to the environment in the most efficient and effective way.

Some industrial chemicals are subject to controls through other codes, such as the Dangerous Goods Code and codes relating to occupational health and safety. These have requirements particularly relating to protecting users of chemicals, including packaging, labelling, placarding and warnings, and requirements relating to transport. The National Standard does not intend to duplicate these requirements and assumes that the requirements of other applicable codes and standards will apply. Instead, the National Standard will focus on requirements relating to protection of the environment arising from storage, handling, manufacturing activities, and end of life processes.

Risk management measures will be targeted at preventing harm to the environment from the normal, intended use of the chemical. Measures to prevent accidental release of a chemical will not be specifically covered under the National Standard but may broadly be covered in measures for limiting or preventing release. In general, reasonable attempts should be made to prevent unnecessary or accidental release of any chemical substance into the environment in quantities that may adversely affect the environment.

From: Draft Explanatory Document (106p pdf), (114p docx)

From: www.environment.gov.au/protection/chemicals-management/national-standard/draft-national-standard-environmental-risk-management-industrial-chemicals

• Editor's Comment on NS for ERMICs & the ED

Very few of my issues I raised in my comment in April 2016 have been addressed by this draft. I've included the previous outstanding issues in the following Note.

"• Please Comment on the Draft NS for ERMICs"

The GHS criteria are mentioned in the Schedules of the National Standard, and in several parts of the Explanatory Document. The aquatic only environmental hazards to the GHS Criteria are in Schedules 2 to 5. The criteria for the other environmental hazards to be addressed are not discussed.

The GHS for Classification and Labelling of Chemicals, is not mentioned as a Risk Management Tool to be implemented for all chemicals with aquatic hazards, whilst these chemicals are being reviewed for additional hazards and risk management under the National Standard. IF it did, Australia would then have Aquatic Environmental Hazards and Precautions on all its industrial chemicals and be consistent with the rest of the GHS world!

In Part 9.2 and Part 11.1 of the Explanatory Document they comment that they won't duplicate requirements for labelling for transport BUT do not discuss that in Australia only large scale tanks and imported chemicals have labelling for aquatic environmentally hazardous chemicals, and that this is NOT a requirement for most industrial chemicals in Australia under transport regulations, nor under health and safety regulations! The GHD consultants do not seem to know this, based on their comments in the Explanatory Document!

In Part 11 NICNAS is mentioned in relation to hazard classifications for the Work Health and Safety Regulations, and there is the implication that NICNAS is reviewing environmentally hazardous data for the classifications. In general this is not the case as NICNAS makes explicit statements about this in most of their IMAP assessments, which only cover Health Hazards. (e.g. Tier II to Tranche 19 covers 2397 chemicals).

"This assessment does not consider classification of physical and environmental hazards."

Their much smaller number of IMAP assessments which do cover Environmental Hazards do include the GHS Aquatic Environmental Hazards (e.g. Tier II to Tranche 19 covers 425 chemicals).

An example of a "Very toxic to aquatic life" chemical that is only under the Health Hazard IMAP and not the Environmental Hazard IMAP is "Phenol, 4-chloro-3-methyl- CAS 59-50-7".

The GHD Consultants again do not seem to know this!

• Please Comment on the Draft NS for ERMICs

Editor's Comment: The Draft National Standard for Environmental Risk Management of Industrial Chemicals (NS for ERMICs) & Explanatory Document (ED) still propose 8 Schedules for chemicals that NICNAS will review (like the Schedule Poisons review process). Industry will then need to comment on the drafts and then work with the decisions.

I don't like the use of the term "Schedule" as it is too close to the term we use for Poisons Schedules. I suggest using the term **ERM Hazard Level 1 to 8** so there are no term overlap.

Their approach looks too complex to me and too Authority dependent to be able to quickly manage all the environmentally hazardous chemicals that need to be covered.

We need a process where industry self classifies, at least for aquatic environmental hazards, but there is minimal detail of how the GHS aquatic classifications could be used as well along with their proposed 8 Schedules (ERM Hazard Levels). Any level of aquatic environmental hazard applies for Schedules 2 to 5, and the other listed hazards decide the Schedule Hazard Level.

The set of conditions of how an Environmentally Scheduled chemical should be managed, reminds me of the NZ Group Standard approach, which manages All hazardous chemicals and covers off against aquatic & other environmental hazards in New Zealand.

Whatever our Australian Environmental Authorities come up with, needs to build on Australian Authorities and Industry implementing the GHS aquatic hazard classifications; and for Australia to be closely aligned with international approaches such as the EU approach and/or the NZ Group Standards approach for managing environmentally hazardous chemicals.

REQUEST: It is important that industry, consultants, concerned community,r chemical hazard classifying specialists and managing Authorities, ALL put in comment on this proposal (**that has been coming for 10+ years**).

Submissions on the Draft National Standard and Draft Explanatory Report should be sent to Chemicals.Management@Environment.Gov.Au.

Submissions close at 5pm AEDT on Friday 3 March 2017.

• Meeting of Environment Ministers: 25 Nov 2016

Commonwealth, State and Territory Environment Ministers met in Sydney on the 25 Nov 2016.

Chemical based Issues Discussed included:

Environment and Human Health: Ministers were concerned about the impact on communities and business of contamination from fire retardant chemicals, such as per- and poly-fluorinated alkyl substances (PFASs, including PFOS and PFOA). Ministers welcomed the release of the Commonwealth Environmental Management Guidance on PFOS and PFOA by the Australian Government Department of the Environment and Energy as an important step in the development of practical responses to the management of these toxic chemicals.

Plastic Microbeads: Ministers agreed dumping products containing microbeads on the Australian market was unacceptable and that the industry must meet targets for the ban quickly and comprehensively. Ministers discussed the importance of working directly with smaller manufacturers and importers, alongside peak industry bodies, to make sure all affected businesses understand and ensure that all products containing microbeads were captured under the ban.

End-of-Life Photovoltaic Systems Waste: Victorian analysis has estimated that the waste stream from PV panels will grow from around 580 tonnes in 2015 to around 31,000 tonnes by 2035. Ministers acknowledged the importance of ensuring that programs are in place to deal with this cost. The Victorian government is leading innovative programs working throughout the life cycle of photovoltaic systems to reduce environmental impacts.

National Pollutant Inventory: Ministers acknowledged that the list of 93 substances reported under the scheme had been almost unchanged since its inception. Ministers agreed to review the NPI focussing on identifying whether the right substances were being reported, the most valuable information was being collected & whether its collection was cost effective. Ministers agreed to terms of reference for review of the National Pollutant Inventory to be completed in 2017.

Cont.

From: www.environment.gov.au/system/files/pages/4f59b654-53aa-43df-b9d1-b21f9caa500c/files/mem-meeting5-statement.docx (4 page docx). Also a 4 page pdf.

From: www.environment.gov.au/about-us/mem (25 Nov 2016)

• NSW EPA: Toxic Marina Dredging Costs $220K

8 Dec 2016: The operator of the Soldiers Point Marina will pay $220,000 in fines and clean-up costs after the NSW Environment Protection Authority took action for illegal dredging which disturbed toxic sediment. The transport, pre-treatment and disposal of the waste at a specialised facility in Sydney is estimated to have cost Clippers $190,000 (part of the $220K). The NSW EPA have also issued an official caution in relation to the poor handling of the waste.

Clippers dumped dredged material onto their boat ramp which was observed spilling back into the Marina waters, part of the Port Stephens Marine Park. Water samples and dredged sediments had high concentrations of the compound Tri-Butyl-Tin, a toxic anti-fouling paint chemical used on boats in Australia until it was banned 10 years ago.

F: www.epa.nsw.gov.au/epamedia/EPAMedia16120802.htm

• NSW EPA: Poor Bulk Amm. Nitrate Handling

29 Nov 2016: The NSW EPA has fined Hunter company Crawford Freightlines Pty Ltd $16,500, and issued two prevention notices and four official cautions for poor environmental practices at their Sandgate premises.

During a routine inspection in April 2016, NSW EPA officers observed inadequate pollution control measures while bulk supplies of Ammonium Nitrate were being loaded onto trucks. Officers noted that spillage had the potential to be dispersed by the wind and into nearby waterways.

The inspection also revealed poor chemical and dangerous goods storage, as well as inadequate spill response and water management procedures. NSW EPA have no tolerance for companies that have sloppy practices when it comes to loading and unloading goods and not cleaning up their spillage properly, when there is potential harm to the environment.

From: www.epa.nsw.gov.au/epamedia/EPAMedia16112901.htm

• Vic EPA: Beneficial Re-use and Waste Codes

The amendments to the Vic EPA Regulations clarify the Beneficial Re-use provisions and embed the Waste Codes in the Regulations. Beneficial reuse tools are designed to promote industrial ecology – where the waste of one business becomes the raw material for another.

Direct beneficial reuse (DBR) refers to re-use without prior treatment and does not require Vic EPA approval. Secondary beneficial reuse (SBR) involves treatment or processing before reuse and does require Vic EPA approval.

To clarify when the tools are available, two principles have been included in a definition of beneficial reuse:

– similar hazardous properties

– no additional environmental risk management required.

The 7 Dec 2016 amendments to the Vic EPA Regulations aim to give industry more clarity and increase the correct use of beneficial re-use tools. For information see *Re-use of PIW – Direct and Secondary Beneficial Re-use* (Publication 1641 – Nov 2016, 6 page pdf). PIW: Prescribed Industrial Waste.

From: www.epa.vic.gov.au/our-work/setting-standards/beneficial-reuse-and-waste-codes-amendments

• Vic EPA: Proposed Sched. Premises Regul'n 2017

20 Oct 2016: A Regulatory Impact Statement (RIS) (217 page pdf) and the proposed 2017 Scheduled Premises Regulations (44 page pdf) (to help ensure industrial premises with the potential for significant environmental impacts are appropriately designed and operated), have now been published and comments are being sought by **Friday 16 Dec 2016**. The final Regulations will be published in June 2017.

The proposed amendments are outlined on the websites below and are explained in the RIS.

Submissions to: Scheduled.Premises@epa.vic.gov.au

From: www.epa.vic.gov.au/about-us/news-centre/news-and-updates/news/2016/october/20/comment-sought-on-proposed-2017-scheduled-premises-regulations

From: www.epa.vic.gov.au/our-work/setting-standards/scheduled-premises-regulations-review

• Vic EPA: Fines for Ind. Waste at an Unlicensed Site

24 Nov 2016: Fordex Pty Ltd (operating under Tradepaints) and its sole director, Andrew Duxson pleaded guilty in the Melbourne Magistrates' Court yesterday to one charge each under the Environment Protection Act to storing Prescribed Industrial Waste (PIW) without an EPA licence.

Magistrate Harding, fined Fordex Pty Ltd, without conviction, $5000 and Mr Duxson $2500, and ordered them to pay more than $17,717 in court costs for storing hundreds of drums of industrial waste at an unlicensed site.

Following a community pollution report in 2013, inspection by Vic EPA officers found 50 bulk containers and 400 drums of PIW that was not generated at the premises stored on site. The drums and containers were rusting and collapsing, bulging, leaking waste onto the concrete floor and were in an advanced state of decay, the court heard.

Vic EPA issued the company with clean-up notices requiring all industrial waste be removed from the site. The company incurred clean-up costs in excess of $200,000.

From: www.epa.vic.gov.au/about-us/news-centre/news-and-updates/news/2016/november/24/company-pleads-guilty-over-poor-practices-at-laverton-north-site

• Vic EPA: Waste Reacted with Chemical Residues

22 Nov 2016: The Vic EPA fined a company more than $7,500 for illegally discharging a hazardous gas into the air at its Holt Parade premises in Thomastown. The incident occurred on 10 Sept 2016 at electroplating company Electromold Australia, a division of George Lovitt (Manufacturing) Pty Ltd, and caused surrounding factories to be evacuated.

The company had loaded waste into containers for disposal, but residual contamination had caused a chemical reaction. The reaction caused a vapour to discharge up to five metres into the air, and resulted in surrounding factories being evacuated while four staff members were ordered to remain inside the factory until the air was safe. The MFB eventually controlled the substance, which took an entire day, using soda ash and pH testing before the site could be declared safe.

Nitric Acid and Ammonium Bifluoride containing waste had reacted with Polyols, Ethylene Glycol and Tertiary Amines residual chemicals that remained in a container not cleaned properly before it was reused.

This incident could have been worse and should serve as a reminder to others about the importance of using appropriately cleaned containers to store waste. Also the company did not have any emergency management procedures in place at the time to prevent an incident of this nature occurring.

The company has been required to empty all of its waste pits to ensure there are no cracks within concrete bases. Any cracks or potential cracks must be fixed before they can be used again to store waste generated from electroplating activities at the site.

From: www.epa.vic.gov.au/about-us/news-centre/news-and-updates/news/2016/november/22/epa-fines-company-$7500-for-illegal-chemical-discharge-in-thomastown

• Vic EPA: New PFAS Results for Vic C'Wealth Sites

8 Nov 2016: The Vic EPA has reviewed test results confirming low level surface water and groundwater contamination by PFAS* chemicals at three Commonwealth Department of Defence training sites in Victoria.

*Per- and Poly- Fluoro Alkyl Substances.

Results from the Department of Defence's preliminary sampling program for PFAS* at the HMAS Cerberus (2 page pdf) and Bandiana Military Area (2 page pdf) training sites show surface water contamination exceeding enHealth drinking water guidelines, but below enHealth recreational use guidelines.

A detailed site investigation has already commenced (in September) at Department of Defence's East Sale RAAF Base (website), following preliminary sampling program results (website), that confirmed similar low levels of groundwater and surface water contamination.

Vic EPA's Executive Director of Knowledge, Standards and Assessments, Tim Eaton, said the latest results confirmed further investigations to assess the extent of contamination and potential for exposure were also warranted at the HMAS Cerberus and Bandiana Military Area sites.

From: www.defence.gov.au/id/PFOSPFOA/DefenceSitesPending.asp

From: www.epa.vic.gov.au/about-us/news-centre/news-and-updates/news/2016/november/08/new-pfas-results-released-for-commonwealth-sites-in-victoria

• Vic EPA: Low PFOS at MFB Craigieburn Site

4 Nov 2016: Vic EPA has been advised by the Metropolitan Fire Brigade (MFB) that it has detected a very low concentration of PFOS in recycled water it uses at its Craigieburn training campus.

The identified concentration is below the Federal Government's Environmental Health Standing Committee (enHealth) guidelines for PFOS and is not considered a risk to human health or the environment.

The campus uses recycled water with its firefighting foams during training exercises and all foams are non-PFOS. As a precautionary measure, MFB tests its recycled water every six months to confirm no PFOS is present.

In response to the test results, the MFB site will operate on mains water until an investigation by MFB into the source of the PFOS is completed.

From: www.epa.vic.gov.au/about-us/news-centre/news-and-updates/news/2016/november/04/epa-notified-of-low-concentration-of-pfos-at-mfb-site

• NSW EPA: Fire-Fighting Training Site PFAS update

22 Nov 2016: NSW EPA has reviewed NSW Fire & Rescue NSW's (FRNSW) plans for further PFAS* investigations at five fire-fighting training facilities across NSW, in Armidale, Albion Park, Deniliquin, Greenacre and Alexandria.

*Per- and Poly- Fluoro Alkyl Substances.

FRNSW detailed site investigations, will include comprehensive sampling of soil, groundwater, surface water and drainage lines onsite, and offsite where required. FRNSW has also scoped a Human Health Risk Assessment and Ecological Risk Assessment for each site, if results indicate more conclusive works around exposure pathways and environmental receptors are required.

From: www.epa.nsw.gov.au/epamedia/EPAMedia16112202.htm

• Defence Dept: PFAS Investig'n & Mgmt Program

The Australian Defence Dept has commenced a national program to review its estate and investigate and implement a comprehensive approach to manage the impacts of Per- and Poly-Fluoro Alkyl Substances, or "PFAS," on, and in the vicinity of, some of its bases around Australia.

PFAS are a class of manufactured chemicals that have been used since the 1950s to make products that resist heat, stains, grease and water. Until recently, this group of chemicals was known as "PerFluorinated Chemicals", or "PFCs." However, as the term "PFCs" is more commonly used to mean Perfluorocarbons, which are greenhouse gases, Australian Defence Dept is now using the term "PFAS". The PFAS of interest include Perfluorooctane Sulfonate (PFOS); Perfluorooctanoic Acid (PFOA); and Perfluorohexane Sulfonate (PFHxS).

PFAS are generally present in older formulations of Aqueous Film Forming Foam (AFFF). As well as firefighting foams, PFAS have had many uses in common household and industrial applications. These include stain resistant applications for furniture and carpets, fast food or packaged food containers, make up, personal care products and cleaning products.

Please refer to the Investigation Sites page for more information relating to the sites Defence is investigating.

– RAAF Base Williamtown - Army Aviation Centre Oakey
– RAAF Base East Sale - HMAS Albatross
– RAAF Base Pearce - RAAF Base Edinburgh

From: www.defence.gov.au/id/PFOSPFOA/DefenceSitesPending.asp

From: www.defence.gov.au/id/PFOSPFOA/Default.asp

• PFAS Dept of Defence Presentations & FAQs

Specific PSP Fact Sheets and Presentations (as available):
(PSP = Preliminary Sampling Program)

RAAF Base Townsville	RAAF Base Richmond
RAAF Base Amberley	RAAF Base Wagga
RAAF Base Tindal	RAAF Base Darwin
RAAF Base Wagga	Garden Island HMAS Stirling
Jervis Bay Range Facility and HMAS Creswell	
Holsworthy Barracks	Robertson Barracks
Albury/Wadonga Military Area (Bandiana)	HMAS Cerberus

Townsville Fact Sheet Example: (2 page pdf)

Townsville Presentation Example: (23 page pdf)

From: www.defence.gov.au/id/PFOSPFOA/DefenceSitesPending.asp

Standards & Codes

• Standards – https://infostore.saiglobal.com/

& select "Find Standards" under "Standards" tab

AS ISO/IEC 80079.20.2:2016: Explosive Atmospheres Material characteristics - Combustible Dusts test methods. Published 25 Nov 2016, 43 pages, pdf (Copy/Paste & Print Once): $228.05; Hardcopy: $163.48.

AS/NZS ISO 817:2016: Refrigerants - Designation and Safety Classification. This third edition has been technically revised by the addition of new refrigerant designations and a safety classification system based on toxicity and flammability data). Published 19 Oct 2016, 73 pages, pdf (Copy/Paste & Print Once): $353.93; Hardcopy: $253.72.

ISO 20581:2016: Workplace Air - General Requirements for the performance of procedures for the Measurement of Chemical Agents. Published 1 Nov 2016, 16 pages, pdf (No Copy / No Paste & Print Once): 125.05; Hardcopy: $138.94.

• Drafts – https://infostore.saiglobal.com/

& select "Find Standards" under "Standards" tab

DR AS 2809.3:2016 CP: Road tank vehicles for Dangerous Goods. Road tank vehicles for Compressed Liquefied Gas. Published 29 Nov 2016, 18 pages, pdf (ALL types): Free; Hardcopy: $26.48.

DR AS 2809.4:2016 CP: Road tank vehicles for Dangerous Goods. Tankers for Toxic & Corrosive Cargoes. Published 29 Nov 2016, 25 pages, pdf (ALL types): Free; Hardcopy: $26.48.

DR AS 14025:2016: Environmental Labels and Declarations - Type III Environmental Declarations - Principles and Procedures (ISO 14025:2006, MOD). Published 28 Nov 2016, 2 pages (does Not include the ISO Standard), pdf (ALL types): Free; Hardcopy: Free.

Editor: See Ecospecifier Global for an Explanation of Type III.

DIN EN 14460 (2016-12): Explosion Resistant Equipment; German and English version prEN 14460:2016. Published 1 Dec 2016, 72 pages, pdf (No Copy / No Paste & Print Once): 154.14; Hardcopy: $138.73.

DIN EN 15969-2 (2016-11): Tanks for transport of Dangerous Goods - Digital interface for the data transfer between tank vehicle and with stationary facilities. Part 2: Commercial and Logistic Data; German and English version prEN 15969-2:2016. Published 1 Nov 2016, 89 pages, pdf (No Copy / No Paste & Print Once): 178.87; Hardcopy: $160.98.

DIN EN 17058 (2016-12): Workplace Exposure - Assessment of Inhalation Exposure to Nano-Objects and their Agglomerates and Aggregates; German and English version prEN 17058:2016. Published 1 Dec 2016, 113 pages, pdf (No Copy / No Paste & Print Once): 204.67; Hardcopy: $184.20.

https://www.hub.standards.org.au/hub/public/listOpenCommentingPublication.action

Note: Comment must be via the Hub. Any emails or forms sent to Standards Australia by fax or mail will not be considered by the Committee when it reviews the Public Comment received.

• NFPA News (Codes Newsletter)

Newly Published NFPA Code

No new NFPA Codes on chemical management.

Public Input/Comment is Currently being Accepted on:

From NFPA News Oct & Nov & Dec 2016:

NFPA 32 Standard for Drycleaning Facilities

NFPA 45 Fire Protection for Laboratories Using Chemicals

NFPA 59A Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG)

NFPA 122 Standard for Fire Prevention and Control in Metal / Non-metal Mining and Metal Mineral Processing Facilities

NFPA 329 Recommended Practice for Handling Releases of Flammable and Combustible Liquids and Gases

NFPA 350 Guide for Safe Confined Space Entry and Work

NFPA 497 Recommended Practice for the Classification of Flammable Liquids, Gases, or Vapors and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas

NFPA 499 Recommended Practice for the Classification of Combustible Dusts and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas

NFPA 654 Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids

NFPA 801 Fire Protection for Facilities Handling Radioactive Materials

NFPA 1124 Code for the Manufacture, Transportation, and Storage of Fireworks and Pyrotechnic Articles

NFPA Committees Seeking Members (via NFPA News):

From NFPA News-Dec 2016:

Classification & Properties of Haz. Chemical Data: NFPA 704

Combustible Dusts—Fundamentals: NFPA 652

Explosives: NFPA 495, NFPA 498

Gas Hazards: NFPA 306

Manufacture of Organic Coatings: NFPA 35

Oxygen Enriched Atmospheres: NFPA 53

Solvent Extraction Plants: NFPA 36

Tank Leakage and Repair Safeguards: NFPA 326, NFPA 329

Transportation of Flammable Liquids: NFPA 385

Wastewater Treatment Plants: NFPA 820

From NFPA News-Nov 2016:

Fire Protection for Laboratories Using Chemicals NFPA 45

Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids NFPA 654

Fire Protection for Facilities Handling Radioactive Materials NFPA 801

From Oct News 2016:

Classification & Properties of Haz. Chemical Data: NFPA 704

Combustible Dusts—Fundamentals: NFPA 652

Explosives: NFPA 495, NFPA 498

Gas Hazards: NFPA 306

Gas Process Safety: NFPA 56

LP-Gases at Utility Gas Plants: NFPA 59

Manufacture of Organic Coatings: NFPA 35

Oxygen Enriched Atmospheres: NFPA 53

Solvent Extraction Plants: NFPA 36

Transportation of Flammable Liquids: NFPA 385

All NFPA documents are at: www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards

Those open for input / comment are found at NFPA News: www.nfpa.org/codes-and-standards/resources/nfpa-news. As part of its commitment to enhancing public safety, NFPA makes its codes & standards available for free online.

Seminars, Conferences, Courses

• Dangerous Goods Advisory Group, 8 Feb 17, Melb

Open discussion networking group of persons who specialise around Dangerous Goods and Hazardous Chemicals management.

Held at Sandridge Centre Trugo Club Rooms, Port Melbourne, 6pm to about 8.15pm, then going onto a meal after.

Contribution to meeting costs of around $4.

Email: Jeff.Simpson@haztech.com.au

From: www.haztech.com.au/meetings/dangerous-goods-advisory-group-meeting/

• Dangerous Goods & Haz. Chemicals Training

On-Line Courses by Licence P/L ph: 1800 695 423.

Air Acceptance Recertification; Globally Harmonised System (GHS); Dangerous Goods General Awareness; Dry Ice Shippers Course; Properties & Hazards of Dangerous Goods; Complete Dangerous Goods Course for Beginners; Dangerous Goods – Sea Awareness; Dangerous Goods – Road Awareness; Dangerous Goods – Air Awareness; Dangerous Goods – Air Transport of Lithium Batteries.

From: www.yourlicence.edu.au/dangerous-goods/

• 3 Day Safety in Labs AS/NZS 2243 & AS/NZS 2982

13-15 Feb 2017: RMIT course at CSIRO, Clayton, VIC

Info: Dr Neale.Jackson@rmit.edu.au, Phone +61 3 9925 8111 Cost $1850. Course Flyer (2 page pdf) From: http://shortcourses.rmit.edu.au/course_page.php?course=S135001

• NZ EPA Workshops: Local Govt re: HSNO Enforcement

Held: Early 2017 (expected in Feb, March and April 2017)

NZ EPA workshops 2017 to assist territorial Authorities and Regional / Unitary Councils to manage their enforcement functions under the Hazardous Substances and New Organisms Act. WorkSafe NZ will also attend

The NZ EPA want to hear about frontline council staff experiences in the field, issues they face and possible solutions, taking a system-wide perspective.

From: www.epa.govt.nz/publications-resources/bulletin/decemberbulletin/Pages/EPA-workshops-to-help-local-government-with-HSNO-enforcement-obligations.aspx

• Chemical Hazard Communication Network, 8 Mar 17

The CHCN will next met in Melbourne on Wed 8th Mar 2017, at St. Kilda Rd, Melbourne, to discuss GHS classification, SDS, Labelling & Packaging issues. Going onto a meal after.

Please email your interest in attending Melbourne, or organizing a CHCN meeting in your city: Co-convenor & Chair: Richard Greenwood Richard@rgchem.com.au and Co-convenor: Jeff.Simpson@haztech.com.au

• Dangerous Goods Operations, 16-17 Mar 17, Melb

Optimal Dangerous Goods management approaches to enhancing prevention & preparedness, magnifying compliance and supercharging safety management.

Delegate Cost: AU$2943.

Consultants & Solution Providers Cost: AU$3543

From: www.marcusevans-conferences-australian.com/events.asp

• HAZOP Study for Team Leaders & Members, Mar 17

28-30 Mar 2017, Brisbane: An integrated course that uses examples drawn from a range of operations, including the petroleum, petrochemicals, fine chemicals and pharmaceutical industries, providing effective training for both team leaders and team members in the HAZOP technique.

Non member AUD$3990 (inc GST)

Phone: +61 03 9642 4494, Email: AustCourses@icheme.org

www.icheme.org/shop/events.aspx & keyword "Brisbane"

• NZ 4th Contaminated Land Conference, 4-7 April

Auckland, New Zealand, 4-7 April 2017. A focussed event to discuss all aspects of contaminated site assessment, management and remediation.

From: http://landandgroundwater.com/conference/4th-contaminated-land-conference-nz

• HazMat Stream - Fire Australia, 3-5 May 17, Syd

CALL for SPEAKERS. There are no focus issues indicated.

Submissions can be lodged by clicking on the following link. https://www.surveymonkey.com/r/FA17

Further Info: Events Team ph: 03 8892 3184 or em: Events@fpaa.com.au

From: www.fpaa.com.au/news/news/2016/11/fire-australia-call-for-speakers.aspx?docType=Articles

• RACI Centenary Congress (July 2017) Melbourne

The Royal Australian Chemical Institute (RACI) was founded in 1917 as both the qualifying body in Australia for professional chemists and a learned society promoting the science and practice of chemistry.

There are 9 Conferences held simultaneously to choose from.

Go to: www.racicongress.com/about-the-congress.php. All delegates to the Congress are able to attend any of the parallel meetings to move between many differing fields of chemistry.

Theme: Chemistry addressing Sustainable Development and other Challenges of the 2020s. Details: www.racicongress.com

The **Call for Abstracts** opened Mon 25 July 2016 & closes 23 March 2017. www.racicongress.com/call-for-abstracts.php

Receive Updates & Info on RACI 2017 Centenary Congress

Health Safety & Environment Effects of Chemicals theme is part of the **RACI National Centenary Conference 2017**:

- Effective Chemical Management - addressing the Health Safety and Environmental Factors
- "Known unknowns" & "Unknown unknowns"
- "From Red Tape to Best Practice"

Haztech Environmental: Chemical Hazard Classifications done & reviewed. SDSs prepared & reviewed. Labels prepared & reviewed. Chemical Management & Safety Regulatory Compliance: checked for NICNAS, TGA, FSANZ, TGA; prepared & reviewed for Dangerous Goods & Combustible Liquids, Workplace Hazardous Chemicals / Hazardous Substances, Environmentally Hazardous Substances, Scheduled Poisons, and other Chemical and Physical Hazards.

I can come and work in your office, which provides better access to data with improved security, plus good technical contact with relevant personnel. This allows the work to be done more quickly and comprehensively. *I also work from my home office*, in Ashburton, Victoria, where I maintain an extensive reference library, developed over 25 years whilst preparing these Notes.

Contact: Jeff Simpson, Hazardous Materials & Regulatory Affairs Consultant, Haztech Environmental, 18 Laurel St, Ashburton 3147, Australia, 61-(0)3-9885-1269, 61-(0)403-072-092, Jeff.Simpson@haztech.com.au, Website: www.haztech.com.au.

Hazmat & Environment Notes" publication times are approx: end March, early June, mid Aug, mid Oct, and early Dec.
Renewals are notified with your last issue. The date of your last issue of your subscription will be given on the top right corner of the envelope label, e.g. Sept 17 or normally in the Subject of the Email in which you receive the Hazmat Notes pdf file.

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