

Fact sheet: Managing plastic resin pellets (nurdles)



Environment
Protection
Authority Victoria

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Fact sheet

What is the issue?

Plastic resin pellets (also known as nurdles) are small plastic pellets used in the manufacture of plastic products. These pellets have the potential to:

- easily enter freshwater and marine environments
- attract chemical pollutants to their surfaces
- be eaten by aquatic and marine animals who can become sick or die
- enter the food chain and impact human health.

Spills and mishandling by industry is the key source of pellets entering the stormwater system, waterways, and eventually, the ocean.

What are industry's obligations?

If you are a business that produces, transports or uses plastic resin pellets you need to:

- keep them contained and under control
- keep them away from water and wind
- keep them away from stormwater drains.

If you don't control your pellets, you may be committing an offence of illegal dumping of industrial waste or creating an environmental hazard.

What can be done about managing plastic resin pellets?

The release of pellets into the environment can be prevented by applying good industry management practices and risk controls in areas such as:

- transport, packaging, transfer and handling
- recycling and disposal.

And applying measures such as:

- training and process/site audits
- equipment maintenance
- spill capture, response and management.

Discarded, rejected, unwanted, surplus or abandoned matter (such as plastic pellets) is defined as waste under the *Environment Protection Act 1970* and must be managed appropriately.

Pellets that are not properly managed and are discharged into the environment (for example waterways), can form the basis of such an offence. Any person that fails to contain their pellets faces a fine of more than \$7,500, or up to \$777,300 if prosecuted. Businesses involved in the production, transport, storage, handling, use or disposal of pellets may be liable to enforcement action if they fail to manage the risk of pellets escaping.

Further information

Contact EPA on
1300 372 842
(1300 EPA VIC)
or epa.vic.gov.au

Assessing and controlling risk:
epa.vic.gov.au/our-work/publications/publication/2018/may/1695

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200 Victoria Street, Carlton VIC 3053
W epa.vic.gov.au | T 1300 372 842 (1300 EPA VIC)

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Wide mouth hopper funnel to prevent pellet loss

To avoid inappropriate discharge of pellets to the environment, businesses can follow the steps below:

Step 1: Understand risk

If you are unsure of what risk, is or how to deal with it, see the business guide [Assessing and controlling risk: A guide for business](#) (EPA publication 1695).

Step 2: Assess risk

Assess the operational processes within your business where environmental risk arises, including:

- ensure pellets are not released (or have the potential to be released) to the environment
- consider the pellet supply chain for points where control may be lost
- review site boundaries and exit routes where pellets may be escaping, such as slopes, concourses and unprotected drains
- check the awareness your staff have on the issues of pellet management
- speak to suppliers about the arrangements for receiving pellet deliveries
- consider other environmental hazards (for example, products or chemicals) within the operation.



Drain mesh guard

Step 3: Control risk

Investigate and implement controls that are appropriate to the risks identified in Step 2:

- implement good house-keeping procedures
- provide training to your staff, and inductions to contractors on appropriate handling of pellets onsite
- install risk control measures to limit the loss of plastic pellets, like:
 - catch trays, bunded areas and wide mouth receivers for preventing and containing spills
 - portable vacuums and cleaning equipment
 - drain mesh guards, baffles, booms and skimmers for rainfall events
- consider relevant industry information on available risk controls:
 - Operation Clean Sweep® Australia provides a valuable and detailed guide on managing issues with plastic pellets. It is recommended that businesses operating with pellets include its recommendations in site environmental management plans.
www.opcleansweep.org.au
- consider that by controlling the risk for pellets, you do not increase other environmental risks in your operation:
 - this may include how you manage other solids or liquids onsite
 - consider a balanced approach to multiple risks
 - if a risk control for pellets might result in a significant increase in another risk, look for the best overall outcome
 - if you are unsure about how to go about this, you should seek advice from a suitably qualified professional.

Management benefits

By ensuring that plastic resin pellets are managed appropriately, industry will:

- save costs
- reduce your impacts on human health and the environment
- meet the expectations of the community
- avoid fines and prosecution.