Photographic Uniform Regulations for the Environment

PHOTO PREPRESS X-RAY PURE

CODE OF PRACTICE

For Management & Disposal of Liquid Wastes from Photographic Film/Paper Processing

(Photographic, Graphic Arts, X-Ray)

May, 2003

"WORKING TOGETHER *to* PROTECT THE ENVIRONMENT"

AGFA Konica Kodak FUJIFILM

BASIC REQUIREMENTS of this CODE

- **KEEP your own site LOG BOOK** (especially for the SRU TESTS and WASTE LIQUID TRANSPORT). If in doubt, talk with your supplier's PURE compliance officer about the code and local regulations.
- **GET A TRADE WASTE AGREEMENT/APPROVAL/PERMIT (or exemption)** (you may have special conditions set by the sewerage authority, or your site may be exempt).
- **PURE DATA SHEET** (to accompany your wastewater permit application to your sewerage service).
- **OPERATE FILM OR PAPER PROCESSORS ACCORDING TO SPECIFICATIONS** (and any special conditions of your Trade Waste Agreement).
- **OPERATE SILVER RECOVERY UNIT ACCORDING TO SPECIFICATIONS.**
- **TEST Silver Recovery Units AT LEAST QUARTERLY** (tests must be done by a NATA-certified Testing Laboratory).

For all enquiries regarding PURE please email

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Films are developed, and may also be printed on photographic paper, by:

☐**photo-processing** laboratories, eg “one hour” minilabs, produce colour or black-and-white images.

☐**X-ray film processors** (hospitals, radiologists, vets, dentists, industrial).

☐**graphic arts film processors,** (newspapers, commercial printers etc use films as part of the pre-printing stage).

Images on photographic films and papers deliver significant benefits to many parts of every community.

Chemicals to develop photographic film and paper are sold (usually in concentrated form) by expert suppliers including PURE sponsor companies Agfa, Hanimex, Kodak, Konica and CPI Fuji Graphics, and their agents.

Suppliers aim to reduce environmental impacts, including opportunities for reduction, regeneration and recycling. Today, per square metre, developing and printing requires only a fraction of the chemicals used 20 years ago. The chemicals have largely been changed to common inorganic compounds such as ammonia and sulfates.

Electronic imaging has potential to replace and manipulate images on film, but silver halide-based technology will be in common use for a number of years, because of its excellent image definition.

PURE and the Code of Practice aim at minimising environmental impacts of photographic effluents. The Code was created through co-operation between the photographic industry and major sewerage system operators and environmental authorities around Australia and shows how industry and government authorities can jointly foster effective environmental management and efficient operations.

PURE sponsor companies and affiliated industry associations endorse the Photographic Industry Code of Practice. A list of information known about sewerage authorities' policies, and whether they support the Code is available in PURE Appendix ABC, available via the PICA website at www.photoimaging.com.au .

BACKGROUND

In 1989, major photographic chemistry suppliers met to discuss this industry's environmental responsibilities. This led to meetings with major Water Boards and a working party of representatives from the photographic industry, sewerage authorities and the then NSW State Pollution Control Commission (now EPA).

The working party considered two approaches. One was to pretreat waste liquids at each site, adopting best available treatment technology and then discharging residual liquid to sewer. The other was to collect and store the waste for cartage to approved liquid waste disposal or treatment sites.

Trials at selected locations assessed the options. Information was also collected from overseas similar studies. The working party unanimously recommended on-site pretreatment and discharge to sewer. The recommendation was strengthened by the lack of reported evidence of any environmental problems in sewerage systems, sewage plant outfalls or receiving waters attributable to commercial photographic effluents. Note that photo waste liquids are not highly toxic, especially in their normal context of discharge into the much larger volumes of the local sewerage system.

Temporary storage (often 25-litre containers) of waste liquids on-site for cartage to off-site treatment remains a necessary option, but obliges staff to exercise care in storage/handling/movement of the liquid wastes. Local waste transport regulations may require documentation to track these small volumes of waste liquids.

The Photographic Industry Code of Practice expects chemistry suppliers and photo processors to adopt the best economically available technology to minimise their waste liquids. Sponsors of PURE require their customers, distributors and resellers to implement the Code of Practice and conduct surveys to assess Code Compliance.

By establishing practical guidelines for managing liquid waste, the Code encourages users of photo processing chemistry to avoid unauthorised methods of disposal of their residual wastes.

1. THE PHOTOGRAPHIC PROCESS AND THE LIQUID WASTES

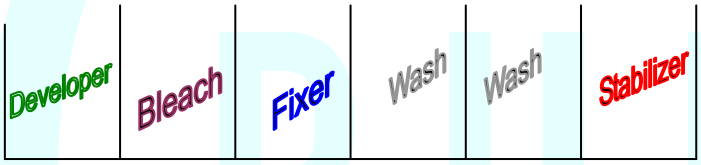
1.1 A Short Description of the Photographic Process

Silver chloride or bromide crystals are suspended in gelatin on unexposed film or paper. Processing has three basic steps: image development, then removal of silver, then stabilisation of the image (either by rinsing out residual chemicals with water, or by complexing these residual chemicals using a stabiliser solution, as in the "waterless" processors). Typically, the processing baths are automatically replenished, with the overflows either collected as wastes or stored for reprocessing.

In **black-and-white processing** (e.g. x-ray films, graphic arts films and papers, microfilms, b&w movies, professional films and papers), exposure produces small specks of metallic silver on the silver halide crystals. The developer solution then amplifies the specks. The images formed are metallic silver. In **colour processing**, developers also amplify the initial image. In some types of colour processing, the developer also forms the dyes for the final coloured image. Fixer solution is used to remove the silver chloride/bromide crystals from the non-image areas as complexed soluble silver thiosulfate ion.

Silver is in highest concentrations in the fixer or bleach-fix. "High-silver" overflow solutions can be treated in a SILVER RECOVERY UNIT, which removes most of the silver and is required by the PURE Code to reliably reduce silver concentration to less than 50 ppm (50 mg/L).

A very basic outline of the photographic processing sequence follows. The film (or paper) goes through the baths from left to right. Number of wash stages can vary.



In commercial operations, the transport from bath to bath may be controlled automatically, and bath contents also refilled and drained automatically, according to suppliers' instructions.

1.2 Typical Waste Liquids

"high-silver" wastes = fixers, bleach-fix, washless stabilisers, low-flow washes.
"low-silver" wastes = bleaches, pre-bleaches, stop baths, stabilisers following washes, and wash waters.
The composition of the different waste streams can be broadly characterised as in the table below:

WASTE LIQUID TYPE	SILVER LEVEL	CURRENT REPLENISHMENT RATE	CHEMICALS (in the residual waste liquids) of POSSIBLE CONCERN in SEWERAGE SERVICES
COLOUR FILM			
Developer	None		Sulfite, high pH
Bleach	Low		Ammonia, thiosulfate, sulfite, iron
Fixer	High		Ammonia, thiosulfate, sulfite, low pH
Washless stabiliser	High		As above, but very low concentration (from carryover)
Wash water	Low		As above, but very low concentration (from carryover)
Stabiliser after wash	Low		As above, but very low concentration (from carryover)
COLOUR PAPER			
Developer	None		Sulfite, high pH
Bleach	none		Low pH
Fixer	High		Ammonia, thiosulfate, sulfite
Bleach-fix	High		Ammonia, thiosulfate, sulfite, iron
Washless stabiliser	High		As above, but very low concentration (from carryover)
Wash water	Low		As above, but very low concentration (from carryover)
Stabiliser after wash	Low		As above, but very low concentration (from carryover)
BLACK/WHITE FILM or PAPER			
Developer	Low		Sulfite, high pH
Fixer	High		Ammonia, thiosulfate, sulfite
Wash water	Low		As above, but very low concentration (from carryover)

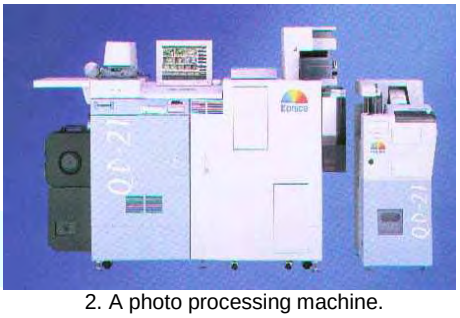
2. PURE DATA SHEETS

Keep an up-to-date PURE Data Sheet in a site Log Book. A Data Sheet shows information usually required by your local Water/Sewerage Authority for approval for trade waste discharge to sewer.

PURE Data Sheets should be sent to the sewerage authority with the Application for Trade Wastewater approval.

Even if your sewerage authority has no formal policy on photo wastewater, notify the authority and enclose a copy of the PURE Data Sheets.

Blank Data Sheets are available from PURE webpage, via www.photoimaging.com.au.



2. A photo processing machine.

3. TRADE WASTE DISCHARGE APPROVAL

3. Spill containment and cleanup materials are commercially available.

Commercial photographic processing sites, if connected to sewer, must notify the local sewerage authority that discharges to sewer will occur.

In most locations, the sewerage authority must issue a formal agreement/permit (or exemption) before discharge to sewer can proceed (or continue). Using the PURE Data Sheets should assist you to get a permit. Keep that approval in your site Log Book.

NOTE: Combined Permits, e.g. Shopping Complexes. The PURE Data Sheets should be delivered to the manager or owner of the property, for transmission to the sewerage authority. Just make sure you or the site manager has notified the sewerage authority, and received written approval for the waste discharge, even for sink washings.

If planning major changes to processing equipment or chemicals, submit a new Data Sheet to the sewerage Authority, to revise your Trade Waste Agreement/Approval/Permit.

4. MINIMUM REQUIREMENTS FOR EACH TYPE OF DISCHARGER

8 types are listed: 5 commercial (usually automated) film/paper processors, plus schools, tray processing, & "hobbyists and others".

WL: Small-to-medium "Waterless minilabs". (i.e. no incoming water plumbed to the automatic processor). This covers most commercial minilabs, mainly colour film and paper.

WW: Small-to-medium "Water-wash minilabs". (i.e. rinse water plumbed directly to the processor). Now becoming uncommon in smaller operations.

PR: Larger photographic laboratories, including professional labs and wholesale photofinishing labs. Handle a wide range of film/paper types, usually higher-volume operations, with a number of processors, either waterless or water-wash, or both.

X: X-ray Laboratories (medical, dental, veterinary, chiropractic etc.) These are usually black-and-white film processing only. Most are quite small throughput.

GA: Graphic Arts. Usually black & white film only, may involve colour proof printing and plate-making.

S: Secondary schools, training institutions, etc.

T: Tray Developers. Some waste is also generated when films are developed in trays of chemicals, but the volume involved is generally small.

H: Hobbyists and "Others". The Photographic Industry Code of Practice does not necessarily apply to home hobbyists, but they too should be encouraged to comply with the requirements of this Code.

Please note that these are a guide to the recommended minimum actions…your local sewerage authorities may require more.

	Processing Type (refer to list above)	WL	WW	PR	X	GA	S	T	H
Agreement, Approval, Permit for Waste Liquid to Sewer.	Most sewerage authorities require commercial operations to hold a Trade Wastewater Agreement/Approval/Permit, (includes sink washings of racks, etc). For new/revised operations, submit Data Sheet to sewerage authority. Even if no formal policy for photo waste liquids, notify sewerage authority about your site, using PURE DATA SHEET.	X	X	X	X	X		?	

	Processing Type (refer to list above)	**WL**	**WW**	**PR**	**X**	**GA**	**S**	**T**	**H**
Water Wash Limiter	If water is plumbed directly into the processor, limit the incoming water to the times when processing is happening.	X	X	X	X	X	X	X	
High-silver Wastes	High-silver waste overflows (e.g. bleach-fix & superstabiliser from paper processors, and fixer and super-stabiliser from film processors), are either: · treated in a PURE-registered and/or NATA-tested silver recovery system, on-site **or** · collected for transport to approved treatment off-site.	X	X	X	X	X	X		
Balancing Tank/Mixing Tank to be installed between processor and discharge to sewer	In some localities, all photographic wastes including discharge from silver recovery must be combined in a balancing tank/pit (construction & capacity according to local policy), prior to the sewer. Tank/pit must be accessible to sewerage authority personnel during business hours. The local sewerage services provider will usually allow the use of any dilution tank, holding tank, or other pit already on the property, if it is downstream of the discharge point from the SILVER RECOVERY UNIT. [PURE does not recommend balancing tanks, but local regulations may require one. Check local regulations]. ***NOTE: Information about which localities usually require balancing tanks is available from PURE, your chemistry supplier or your silver recovery service provider. PURE Appendix ABC is a national list of these localities as known to PURE***								
Recycling or Low Flow.	Film bleach tank overflow may be stored for on-site recycling, or for regeneration by addition of appropriate regeneration chemicals. Alternatively, appropriate low flow film bleach should be used. Make sure this is mentioned in the Data Sheet.	X	X	X					
Silver Test Strips (rough indication only)	Silver Test Strips provide a very rough indication of silver concentration, but are not accurate, particularly at low silver concentrations. Chemical and processor suppliers can provide guidelines for test strip readings, which may help detect incorrect replenishment rates.	X	X	X	X	X	X	X	X
Bromide-Based CN Paper.	Must be phased out.	X	X	X	X	X	X	X	X
Silver Recovery Systems (optional)	· should be registered with PURE Registration by PURE means the supplier or service company has provided a written warranty to PURE that the type of unit is capable of reducing silver to less than 50 ppm. If unit not registered, independent testing is required. · your service contract should include the requirement that the machine will be installed and serviced correctly, to ensure silver discharge from the recovery unit is less than 50 ppm. · all silver recovery systems must be tested by an independent NATA-certified lab at least quarterly, to verify that they are achieving 50 ppm or less. The NATA lab test results must be recorded in the PURE log book and test certificates retained.	X	X	X	X	X			
Waste Liquid Treatment Off-Site	Details of waste liquid collections must be recorded in the PURE Log Sheet, including information about the transport and treatment contractors, and signatures. The PURE Data Sheets should identify your usual waste liquid collector.	X	X	X	X	X			
Log Book	Mainly for inspectors from the sewerage authority or corporation. Log Book should contain at least: · Log Sheets showing quarterly test results for silver recovery systems and/or waste liquid cartage records · a current Data Sheet for the site · MSDSs from your chemistry supplier	X	X	X	X	X			
OTHER WASTE Minimisation HINTS	· Ensure replenishment rates are correct. Over-replenishment means excessive overflow, i.e. wastage of chemistry. · Ensure rollers and squeegees are effective. If they are not, there will be excessive carryover from bath to bath, i.e. wastage of chemistry. · Do not waste concentrated chemistry by throwing it away. Use your added water to rinse containers when making up the bath solutions.	X	X	X	X	X	X	X	X
MSDS	Material Safety Data Sheets are available from your supplier for every chemical product you purchase. PURE recommends keeping a full set in or with the Log Book. Each MSDS will contain valuable information on safety, health hazards and spill control for the product.								
Chromium-Based Cleaners	Must never be used	X	X	X	X	X	X	X	X

5. SPECIAL CARE ITEMS FOR WASTE LIQUIDS

- **DRAINING TO SEWER:** you must have written approval (or exemption), from your sewerage authority.
- **SENDING WASTE LIQUID OFF-SITE:** you must use a suitably licensed transporter for delivery to a suitably licensed treatment/disposal facility. Licensing/approval conditions vary in different locations.

NOTE: it is always prohibited to discharge liquid wastes directly to the environment. This means NEVER run commercial waste to drains, creeks, rivers or land.

5. Wastes going to the environment can harm waters or wildlife. Screens can trap some of the solids, but not the liquids.

5. Stormwater drains for stormwater only.

5.1. Balancing Tank/Pit

Not all sewerage authorities require these, to provide some dilution by ensuring mixing all the liquid wastes, including sink washings, before they go to the sewer. Sewerage authorities will usually allow the use of any vessel with sufficient capacity, downstream from the film or paper processing machines and the silver recovery unit, but before the sewer connection point. The balancing tank/pit must allow suitable access for sampling by inspection or laboratory personnel.

[*PURE does not consider balancing tanks are necessary, but where local regulations require them, we believe the size should be as small as possible to minimise the dwell time before the liquids run off to the sewer].* Check with your sewerage authority for the local policy details.

5.1 Larger operations might have their balancing tank outside.

5.2. Tank or Bath Cleaning

When contents of film or paper processing tanks are drained for cleaning or any other purposes, “high-silver” chemicals should be collected and passed through the silver recovery system before discharge to the sewer. But do not let it go to sewer unless you have a Permit to do so.

NOTE: Make sure the liquid to be processed for silver does not contain any contaminants, such as cleaners, which can damage the efficiency of the silver recovery unit.

Acid cleaners must be neutralised by addition of a suitable neutraliser supplied with the cleaner, before they are discharged to the sewer. These conditions apply to existing installations as well as new ones.

5.3. Silver and pH Limits

Some sewerage authorities issue a formal Trade Waste Agreement or permit which specifies upper limits for concentrations or masses of certain types of chemicals, e.g. silver, ammonia, sulfur.

Sewerage authorities may also set limits for other aspects of the waste liquids, e.g. pH (usually in the range of 6 to 10 at the property boundary) or Temperature.

NOTE: For information about the trade wastewater regulations in your area, contact your local sewerage authority, PURE or your silver recovery contractor.

5.4. Chromium-Based Systems Cleaners

NEVER USE THESE. Check the MSDS. Contact your chemical supplier for alternative cleaning products.

5.5. Copper Pipes

Photo waste liquids can cause rapid and severe corrosion damage to copper piping. Cost of cleanup and repairs to plumbing after a spill can be considerable. Check with the property manager or your plumbing contractor to ensure there is no copper piping between your processor and the sewer. PVC piping is recommended in most cases.

If copper piping cannot be replaced with more suitable materials, this may mean discharge of photo waste liquids to sewer is not permitted. In such cases, photo wastes must be collected for officially-approved off-site treatment and disposal.

5.5 Spills of chemistry should be avoided, and cleaned up promptly.

6. SILVER RECOVERY SYSTEMS/SAMPLING/TESTING

Test Silver Recovery Units at least quarterly at a NATA-certified testing laboratory, preferably using the same test method as the sewerage authority uses. Any system which tests at more than 50 mg/L of silver should be upgraded, repaired or replaced within 7 days of detecting the fault. PURE Appendix G lists a number of NATA-approved laboratories.

An operator of photo-processing equipment can arrange his/her own sampling or may be able to arrange it through the silver recovery unit contractor. Silver test results must always be under 50 ppm and must be recorded in the site Log Book.

Random samples may also be required by sewerage authorities at any time for their own analysis at their cost, or may be specified by some authorities as part of the Trade Waste Agreement or permit conditions. Make sure access for samples is available.

Usually, the silver recovery unit works on the high-silver waste liquids and must reduce the silver concentration to less than 50 mg/L (50 ppm). If a steel-wool ion exchange system is incorporated into the system **(NOTE: this is not encouraged by PURE**), an iron removal system must also be used, so that the iron concentration does not increase by more than 25 mg/L of iron. Manufacturers and/or distributors of all silver recovery systems registered by PURE must provide a warranty that discharges from their systems meets the limit of 50 mg/L of silver, and must also specify the operating conditions under which the warranty will apply, and all exclusions from the warranty. A register of warranted SILVER RECOVERY UNITs is maintained by PURE and is available on request. It is called Appendix D.

For silver recovery systems not registered by PURE, arrange to send a sample from the SILVER RECOVERY UNIT discharge to a NATA registered laboratory for analysis. A copy of the analysis certificate should be attached to the data sheet and submitted to the sewerage authority with the appropriate application for a Trade Wastewater discharge approval.

6.1 One type of Silver Recovery Unit.

6.2 Servicing a SRU and harvesting the silver

7. PURE can supply Log Sheets for transport and testing

7. LOG BOOKS/LOG SHEETS

Photographic processors, to meet the PURE Code, should keep a current Log Book. It should contain Data Sheets, Trade Waste approval, MSDSs for chemicals, and Log Sheets to record Silver Recovery Unit test data &/or waste transport information.

A suggested Log Sheet layout is available from PURE sponsors (or the PURE website address) who are suppliers of chemistry or from PURE. Some silver recovery contractors also provide Log Sheets.

Keeping the Log Book will make logging of tests and cartage simple, and provide records if trade waste inspectors ask to check.

8. IMPLEMENTATION OF PURE CODE OF PRACTICE

The Photographic Industry Code of Practice, Data Sheets and Log Sheets are applicable to all users of photographic processing chemistry.

PURE recommends that all photoprocessing operations either comply with the Code or use an alternative waste management system which has been approved by their local sewerage authority.

9. CARTAGE, ON-SITE STORAGE & OFF-SITE TREATMENT

If you cannot meet your local sewerage authority requirements, waste photographic chemicals must be collected for transport later. Use a suitably-licensed transporter to collect and carry photo waste liquids to a licensed/ approved liquid waste disposal depot or treatment facility. Get documentation (from transporter) as required by your local environmental or dangerous goods transport agency. Then enter the collection details in the LOG SHEET. Documentation should show the destination, and confirm that the wastes will be disposed of at a licensed depot. In some locations, the local sewerage authority and/or EPA may require copies of documentation.

9. Clear labels and safe storage are required. Ensure spills cannot run outside the area.

Waste chemicals on-site, waiting for collection, must be stored in accordance with the requirements of local and State authorities, e.g. OH&S or Dangerous Goods Authorities.

NOTE: There may also be specialised local or State requirements for storage, transport, handling or disposal of containers, even empty ones.

10. RESPONSIBILITIES OF CHEMICAL SUPPLIERS & CHEMISTRY USERS

10.1 Compliance with the PURE Code of Practice

Photographic supply companies who are Sponsors of PURE have the principal obligation for ensuring the photographic industry disposes of its photographic liquid wastes in an environmentally sound manner. Where they supply to an intermediary (e.g. a stockist or distributor), the Sponsor should obtain written acknowledgment of the Code from the stockist or distributor.

PURE sponsor companies and associations will encourage adoption of the PURE Code of Practice, as a practicable voluntary approach to improved environmental management of waste liquids from photo processors. Companies which supply photo chemistry will provide the users of their chemistry with the information necessary to satisfy the requirements of the local provider of sewerage services.

The PURE Code of Practice requires suppliers and users of photo processing chemicals to self-regulate. State and local sewerage & environmental authorities who endorse the Code expect photographic processors to follow it, and may check sites and Log Books.

Chemistry suppliers who are sponsors of PURE will monitor Code compliance Code via surveys of at least 5% of customers. As sponsors of PURE, chemistry suppliers are obliged to:

- ensure that all users, distributors and retailers of their chemistry are familiar with the Code
- assist users and resellers of chemistry to improve Code compliance.

10.2 PURE Compliance Officers (at the Sponsor Companies)

Each PURE sponsor company, if supplying photographic chemistry, has one or more PURE Compliance Officers. Their names and contact details are available from your chemistry supplier or from PURE.

The role of the Compliance Officer is to assist customers with enquiries about the Code or regulatory compliance obligations.

10.3 Information about Photo Processing Chemicals (MSDSs)

10.3 a MSDS is available from your supplier.

For any photographic chemicals already in use and for any new chemistry introduced into the marketplace, chemical suppliers will provide Material Safety Data Sheets (MSDSs) to all customers, or to sewerage authority, on request.

Each MSDS will include information about likely hazards from contact with the chemical, and appropriate methods for spill cleanup.

Your set of MSDSs should be kept up to date. The site Log Book is a suitable place to store them.

10.4 Compliance with Local Sewerage Requirements

PURE Appendices A,B,C (see Section 13 of this Code) provide further information about local requirements. Operators of film/paper processing equipment are responsible for meeting the local regulations.

10.5 Compliance of Equipment & Installations

Electrical Compliance

All processing equipment must meet the requirements of Australian Standard AS3000. It is the responsibility of the equipment supplier and the installation contractor to ensure compliance with these standards.

Electromagnetic Radiation Compliance

Equipment suppliers and electrical contractors are responsible to ensure that they meet any national, State or local obligations or standards for electromagnetic interference.

Plumbing Compliance

Photographic processing **EQUIPMENT** must meet requirements of the Manual of Authorisation Procedures for Plumbing and Drainage Products, MP52 published 1996. Specification 101 of MP52 refers to appliances, and has a separate section for photographic processors. The plumbing installation contractor has the responsibility to ensure products meet national, State and local requirements.

Processor **INSTALLATION** must be done to the requirements of Plumbing Code AS3500, under supervision of a licensed plumber. Some water authorities, (e.g. in the Melbourne metro area) may also impose additional regulatory requirements. The plumbing installation contractor has the responsibility to ensure an installation meets national, State and local requirements.

11. GENERAL PRINCIPLES OF WASTE MINIMISATION

Try to minimise environmental impact. Often this can also save cost. Aim to get near the top of this list of 5 options:

444 AVOID waste:-
e.g. do not over-replenish chemistry or over-use cleaners or water. This is best use of materials, water and energy.

44 RE-USE or REDUCE waste:
use unavoidable waste in a productive way.

44 RECYCLE or RECOVER waste:
check for ways to recycle e.g. regeneration of chemistry may be an option.

44 TREAT the waste:
e.g. silver recovery, neutralisation of cleaners.

4 DISPOSE of waste:
This is the most wasteful and is usually the highest impact on the environment - also can be costly.

11. Waste collection. Try to avoid, reduce or recycle your waste.

12. CODE OF PRACTICE REVIEW

The PURE Code of Practice will be periodically reviewed and updated. Please record notes below for suggestions for important revisions to the next edition.

PAGE	TOPIC	SUGGESTED REVISION IN NEXT EDITION

Your list of suggestions can be forwarded to PURE at any time.

13. APPENDICES to the PURE CODE

As supplementary information for users of photographic chemistry, PURE is building a national set of information on key issues. Appendices are subject to change, and are available on-line or by request from PURE

A: Organisations that acknowledge, endorse or support the PURE Code of Practice
B: Trade Waste Agreements /Permits Are Issued by these Sewerage Bodies for Photo Processors
C: Where Balancing/Dilution Tanks are required (or Not Required)
NOTE: A,B, C are now combined into one table
D: Silver Recovery Systems Registered with PURE (Warranty Provided by Supplier/Service Company).
E: Approved Waste Treatment/Cartage Contractors (this list has been abandoned)
F: Approved Silver Test Strips and Suppliers
G: NATA-Approved Analytical Laboratories for Silver Recovery System Testing (under review)

Information from the Appendices is available from chemistry suppliers, PURE or via the PICA website at www.photoimaging.com.au.