There is a Conflict at the Heart of EU Water Pollution Policy

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The current application of the hazardous substances provisions of Article 16 of the EU Water Framework Directive are in fundamental conflict with a number of other Directives and Regulations controlling the use of those hazardous substances that are currently essential to the wellbeing of the Community and its citizens. There is a simple solution to this conflict although reaching political agreement in such a polarised area may prove to be impossible.

I. Introduction

Society continues to have a love/hate relationship with hazardous substances. On the one hand we appreciate that we need hazardous materials to disinfect our drinking water so that we do not succumb to cholera, antibiotics to prevent us dying from uncontrollable infections, rodenticides to keep vermin levels under control, insecticides to prevent our houses succumbing to woodworm, and fungicides to prevent harvested grain from being destroyed in winter storage. Yet on the other hand we naturally worry about the inadvertent harm that such substances might be doing to ourselves and our natural environment.

Substitution by less hazardous substances is often proposed as a solution to these problems, however in these instances it is likely to only ever be a partial solution since toxicity is the primary function of these substances. A less toxic disinfectant that only kills 50% of germs rather than 99% is unlikely to be very useful.

Consequently before we begin to use such a substance we need to satisfy ourselves that the undoubted benefits that it brings will outweigh any associated negative impacts. These risk/benefit or socioeconomic assessments will inevitably be controversial. There will never be enough data to provide certainty and frequently the risks and benefits will affect different groups of people. Furthermore these assessments are always rooted in value judgments which will vary from society to society and individual to individual.

II. Water Pollution Control in the European Union

Progress on environmental regulation within the European Union began slowly. This was because the founding treaty, the Treaty of Rome¹, made no provision for dealing with environmental affairs. Consequently, for the first 30 years of its existence the European Commission could only introduce environmental legislation under Article 100 of the Treaty of Rome which concerns "the approximation of laws affecting the Common Market" and requires unanimity for approval. As a consequence environmental regulation was introduced in a piecemeal fashion with numerous gaps and overlaps in provision.

In 1987 the "Single European Act"² incorporated environmental affairs into the treaties as Article 130 and subsequently the Treaty of Maastrict in 1992 extended "Qualified Majority Voting" to environmental matters thus removing the veto on such legislation by individual Member States³. Finally in 1997 the Treaty of Amsterdam⁴ gave the European Parliament co-decision powers with the European Council on environmental matters. Thus from 1997 it finally became possible to introduce a more coherent set of policies regulating environmental pollution. Since then a degree of rationalisation has taken place replacing many of the earlier instruments with wider ranging and holistic approaches.

The European Union has spent many years grappling with this problem and has now established a coherent set of principles for engaging with this problem. Unfortunately this approach is now about to be undermined by one of its other legal instruments.

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¹ Treaty of Rome, 1957, Available on the internet at:http://europa .eu/legislation_summaries/institutional_affairs/treaties/treaties_eec _en.htm (Last accessed on 20th February 2015).

² Single European Act, OJ 1987 L169/1.

³ Treaty on European Union, signed at Maastricht on 7 February 1992, OJ 1992 C191/1.

⁴ Treaty of Amsterdam amending the Treaty on European Union, the Treaties establishing the European Communities and certain related acts, OJ 1997 C340/10.

The European Union regulates aquatic environmental pollution in three ways: 1) it regulates the way in which substances can be used, for example the REACH⁵, Plant Protection Products⁶ & Biocides⁷ Regulations and Directives on Human⁸ & Veterinary Pharmaceuticals,⁹ 2) it regulates the way in which wastes are treated, for example the Urban Waste Water ¹⁰ and the Industrial Emissions¹¹ Directives in respect of the aquatic environment 3) and finally it sets environmental quality targets to deliver long term sustainability, for example in the Water Framework Directive¹².

1. Management of Substances

The European Union now has a very sophisticated approach to the management of chemicals. No chemical may be manufactured or imported into any of the 28 member states unless it meets the requirements of the REACH Regulation or one of the product specific instruments. In the broad ranging REACH Regulation, which applies mainly to industrial chemicals, the default position is that in gener-

- 10 Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment, OJ L135/40.
- 11 Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Text with EEA relevance, OJ L334/17.
- 12 Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy, OJ L327/1.

al "substances of very high concern" may not be manufactured or imported at all. However, if a suitable substitute substance cannot be identified a time limited authorisation to use the substance may be granted under one of two very stringent criteria. Firstly if the substance will be always "subject to strictly controlled conditions" i.e. the risk of exposure of humans or the environment is remote. Secondly if the socioeconomic benefits derived from the use can be demonstrated to exceed any negative impact on humans and the environment. In the case of biocides, plant protection products, human and veterinary pharmaceuticals a similar procedure is followed although the hurdle for acceptance tends to be lower because the human benefits are normally much higher for these substances and possible substitutes unlikely to be available. In all these situations it is an independent regulator that comprehensively evaluates all the information and comes to a balanced decision as to whether (or not) to grant approval.

This is not a static situation and as knowledge increases both risk assessment and risk benefit calculations will change with consequent changes to the management of chemicals. New materials will be discovered and replace existing ones, newly discovered, and unexpected, biological impacts will lead to further constraint on uses.

However, hidden in the phrase socioeconomic assessment or risk benefit analysis is an inconvenient truth. In some of these cases the approved use of the substance will lead to some collateral damage to either human beings or their environment. In these situations the predicted damage has been deemed by an independent regulator to be acceptable in the light of the human benefit that is being obtained from the use of the substance.

This is of course an anathema to environmental NGOs, but is a principle that has been accepted by society in other contexts since time immemorial. The first Iron Age hut, and every subsequent dwelling, destroyed the biota of the land on which it sat whilst farming, fishing and forestry reaped destruction on the pre-existing natural environment in order to provide us with food and resources.

In conclusion, society accepts that some uses of hazardous substances will cause damage to humans and the environment but this is deemed to be an acceptable trade-off for the benefit received. The EU legislation concerning the use of substances reflects that opinion.

⁵ Regulation (EC) No 1907/2006 of the European Parliament and the of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, OJ L396/1.

⁶ Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC, OJ L309/1.

⁷ Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products Text with EEA relevance, L167/1.

⁸ Directive 2004/27/EC of the European Parliament and of the Council of 31 March 2004 amending Directive 2001/83/EC on the Community code relating to medicinal products for human use, OJ L136/34.

⁹ Commission Directive 2009/9/EC of 10 February 2009 amending Directive 2001/82/EC of the European Parliament and of the Council on the Community code relating to medicinal products for veterinary use, OJ L44/10.

2. Waste Treatment Directives

The two major Directives dealing with wastes entering the aquatic environment, the 1991 Urban Waste Water Directive¹³ and the 2012 Industrial Emissions Directive¹⁴, which replaced the earlier 1996 Directive on Integrated Pollution Prevention and Control¹⁵, are both based on the concept of BAT (Best Available Techniques) which is the current version of a much earlier concept ALARA (As Low As Reasonably Achievable) associated with the early days of the nuclear industry. The BAT concept does not conflict with the substance legislation since it simply requires the discharger to make their best technical efforts to reduce emissions. However, the Industrial Emissions Directive also requires the discharger to comply with any environmental quality standards set under the Water Framework Directive and this is where the conflict surfaces.

3. The Water Framework Directive

The legal changes completed in 1997, and referred to earlier, enabled the European Commission to begin to introduce a more coherent set of policies regulating environmental pollution. The 2000 Water Framework Directive was the first such measure which aimed to rationalise a series of earlier Directives on water quality into a coherent policy.

The directive, drafted between 1996 and 1998 by a UK Civil Servant on secondment to DG Environment, is unlike any of its predecessors. It applies to the complete water cycle, is concerned with both qualitative and quantitative aspects, has realistic objectives and timescales, encompasses subsidiarity at an appropriate level deals with cross border issues and is pragmatic enough to recognise that there might need to be exceptions from its provisions. It laid out a basically simple objective i.e. all surface waters within the EU Member States should be of "good ecological quality" by 2015. It also resolved the long running argument between the United Kingdom and its partners as to whether environmental controls should be based on available technical capabilities (BAT) or desired environmental quality (EQS) by the simple expedient of requiring compliance with both.

However, although the Directive was an excellent policy document it had a number of serious shortcomings as a legal instrument. It contained numerous phrases that were either poorly defined or in many cases not defined at all. Even the fundamental objective of the Directive i.e. "good ecological quality" was not clearly defined¹⁶ with open ended qualifiers in the description such as "low" and "slightly". Not surprisingly when the Member States began the implementation process there was considerable disagreement about the meaning of this key objective with some Members States insisting that it meant conditions very close to a pristine environment whilst others considered it meant just sufficient for the maintenance of a sensitive fishery. The eventual agreement amongst the Member States was nearer to the former than the latter. This had political consequences for the United Kingdom which had been very supportive of the Directive being convinced that >90% of its freshwaters would already be in compliance. It actually turned out that <30% were in compliance with the newly agreed "good ecological status" criteria¹⁷ which had very significant and unexpected economic consequences.

However the major problem with the Water Framework Directive is Article 16, that part of the text which deals with hazardous substances. This was significantly modified from the Council Common Position during discussions with the European Parliament and then dramatically changed at the last minute during conciliation meetings between the Council and the Parliament mediated by the Commission.

Although the European Parliament gained co-decision rights on environmental issues in 1997 this did not apply to the Water Framework Directive which was already under discussion at that time. Instead, the previous consent procedure still applied. Under this system the Council could adopt legislation based on a proposal by the European Commission only af-

¹³ Note 11 p3

¹⁴ Note 12 p3

¹⁵ Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and controlOJ L 257/26.

¹⁶ Water Framework Directive Annex V: "Good Ecological Status The values of the biological quality elements for the surface water body type show low levels of distortion resulting from human activity, but deviate only slightly from those normally associated with the surface water body type under undisturbed conditions".

¹⁷ DEFRA 2010, River water quality indicator for sustainable development 2009 Annual Results. Available on the internet at: https:// www.gov.uk/government/uploads/system/uploads/attachment _data/file/141697/rwq-ind-sus-2009-resultsv2.pdf (Last accessed on 20th February 2015).

ter obtaining the consent of Parliament. Thus Parliament had the legal power to accept or reject any proposal but no legal mechanism existed for proposing amendments. If it did not approve of a part of the legislation brought before it by the Council, and the Council refused to change it, the Parliaments only option was to reject the complete legislation and the Commission would have to go back to the beginning of the process and begin again. As a consequence Parliament had provided for a conciliation committee and a procedure for giving interim reports where it could address its concerns to the Council and threaten to withhold its consent unless its concerns were met. In the Water Framework Directive this happened with the final amendments to Article 16 where the Parliament's viewpoint prevailed over the views of both the Council and Commission because without their capitulation the Parliament was threatening to veto the whole Directive thus negating all the work of the previous five years.

The sticking point was the insistence of the Parliament in moving the wording of the OSPAR Sintra Declaration¹⁸ from the preamble into Article 16 (and Article 1c), thus changing a political aspiration into a legal requirement. Article 16 already required community wide action to reduce pollution by "substances presenting an unacceptable¹⁹ risk to, or via the aquatic environment". The original proposal in the Council Common Position required the Commission to propose a list of "priority substances" for which Community wide emission and environmental quality standards would be imposed, the final version of Article 16 now required that some of the substances on the list of "priority substances" would be identified as "priority hazardous substances" for which the objective would be total elimination of all discharges within 20 years.

This last minute amendment was included without any external consultation and without any consideration of the consequences. In addition, although some thought had been given to a rational definition of the "priority substances" together with an embryonic mechanism called COMMPS²⁰ for their selection, no discussion had taken place on how to differentiate a "priority hazardous substance" from a "priority substance". Considering the draconian consequences this was an astonishing error of judgment. The only way to achieve a "zero discharge" of any synthetic substance is to totally eliminate its use and it is impossible to achieve for any naturally occurring substance such as cadmium, mercury or chloromethane.

This "zero discharge" requirement is however unambiguous²¹. When the Council Legal Service were consulted in 2001²² they concluded that the phrase "cessation or phasing out" could only be interpreted as a requirement for zero emissions. However they also pointed out that Article 16.6 only requires the Commission to bring forward proposals and that there is no obligation for the Community or individual Member States to adopt them. Nevertheless it appears that the Community is proceeding to implement this strategy which thus leads to a direct conflict with other community legislation.

III. The Conflict

Article 16 of the Water Framework Directive requires that all discharges, emissions and losses to the environment of "priority substances" shall be progressively reduced and of "priority hazardous substances" shall be reduced to zero within 20 years.

The current mechanism for the identification of both "priority" and "priority hazardous" substances completely disregards the authorisation of any such substance under those Directives and Regulations relating to specific substances. Some may argue that this is unnecessary since all the "priority" and "prior-

^{18 &}quot;WE AGREE to prevent pollution of the maritime area by continuously reducing discharges, emissions and losses of hazardous substances (that is, substances which are toxic, persistent and liable to bio accumulate or which give rise to an equivalent level of concern), with the ultimate aim of achieving concentrations in the environment near background values for naturally occurring substances and close to zero for man-made synthetic substances. WE SHALL MAKE every endeavour to move towards the target of cessation of discharges, emissions and losses of hazardous substances by the year 2020". OSPAR Commission, Ministerial Meeting of the OSPAR Commission, Sintra 22-23 July 1998.

¹⁹ Note another critical but undefined term changed in the final Directive to a less stringent "significant risk".

^{20 &}quot;Study on the prioritisation of substances dangerous to the aquatic environment", Office for OfficialPublications of the European Communities (ISBN 92-828-7981-X), Luxembourg, 1999.

Article16.6. For the priority substances, the Commission shall submit proposals of controls for:- the progressive reduction of discharges, emissions and losses of the substances concerned, and, in particular
the cessation or phasing-out of discharges, emissions and losses

the cestation or phasing-out of discharges, emissions and losses of the substances as identified in accordance with paragraph 3, including an appropriate timetable for doing so. The timetable shall not exceed 20 years after the adoption of these proposals by the European Parliament and the Council in accordance with the provisions of this Article.

²² Council Legal Service Opinion Ref: 6880/01 Jur79/Env116, 7th March 2001.

EJRR 3|2015

ity hazardous" substances are subjected to an environmental risk assessment as part of the Article 16 procedure. This is indeed the case, but is irrelevant to this argument which is about socioeconomics i.e. the assessment of the benefits associated with the identified risks. Such an analysis is not part of the, often far from rigorous, simple environmental risk assessment undertaken in the Water Framework Directive. Thus Article 16 is being implemented regardless of the detailed socioeconomic assessments that have already been undertaken. In other words, at present, the quality of any part of the aquatic environment in the European Union is considered to be more important than all other human or environmental benefits.

IV. The Solution

There is a very simple legal solution to this problem, although gaining political acceptability is likely to be challenging.

Article 16.1 states that priority substances are those which "present a significant risk to or via the aquatic environment". I would argue that any substance that has already undergone a comprehensive socioeconomic assessment and then been granted an authorisation cannot subsequently be presumed to present a significant risk, unless relevant new information has appeared since the assessment was undertaken. Any such substance therefore does not meet the Article 16.1 requirement for a priority or priority hazardous substance.

Furthermore, Article 16.6 requires the Commission to "identify the appropriate cost-effective and proportionate level and combination of product and process controls" and "Where product controls include a review of the relevant authorisations issued under Directive 91/414/EEC and Directive 98/8/EC, such reviews shall be carried out in accordance with the provisions of those Directives". In other words it would appear that the original drafters of the Directive foresaw this possibility at least for plant protection products (91/414/EC) and biocides (98/8/EC) and required those who originally authorised the product to review the current information in order to confirm or otherwise that the risk was insignificant. The clear implication of the wording i.e. "such reviews shall be carried out in accordance with the provisions of those Directives" indicates that in such cases the Water Framework Directive was intended to be of secondary importance.

In 2013 a Directive amending the Water Framework Directive in regards to priority substances was approved²³. This amended Article 7a in relation to those substances that also fell within the scope of the Regulations on plant protection products²⁴, biocidal products²⁵, or the Directive on industrial emissions²⁶. However instead of clarifying the meaning this merely mandates the ambiguous requirement that "Member States and the Commission shall take into account any risk evaluations and socio-economic or cost-benefit analyses required under those Regulations, including as regards the availability of alternatives" In other words it does not clarify that these assessments have priority. Furthermore it fails to include authorisations under the REACH Regulation²⁷ or the Directives on human²⁸ or veterinary²⁹ pharmaceuticals.

In my opinion any substance that has currently received an authorisation under the REACH, Plant Protection Products and Biocides Regulations or the Directives on Human & Veterinary Pharmaceuticals, should be excluded from the Article 16 priority & priority substances list provided that a review of their socioeconomic assessment shows this still to be justified. Without such a change the Water Framework Directive will produce increasing conflict and uncertainty for those developing and using hazardous substances for the benefit of EU citizens.

- 27 Note 6 p2
- 28 Note 9 p3
- 29 Note 10 p3

²³ DIRECTIVE 2013/39/EU of the European Parliament and the Council of 12 August 2013 amending Directives 2000/60/EC and 2008/105/EC as regards priority substances in the field of water policy OJ L226/1.

²⁴ Note 7 p3

²⁵ Note 8 p3

²⁶ Note 12 p3