

Summary of the comments received on draft criteria for personal computers (version 4.0)

Draft 6, 2.5.2005

	Supports the proposal	Supports with objections	Refrains from giving comments	Comments without support or rejection	Rejects the proposal
DANMARK:					
Amitech Danmark A/S			X		
Amtsrådsforeningen (Danish Regions)			X		
Arbejdsmiljørådgiverne – BST Foreningen (The Association of Preventive and Health Serviceunits in Denmark) ¹		X			
COOP Denmark			X		
Dansk Indkøbs- og Logistik Forum, DILF	X				
Genvindingsindustrien (Association of Danish Recycling Industries)			X		
ITEK (Branchorganisation for IT-, Tele-, Electronic and Communication Industries)			X		
Miljøstyrelsen (Danish Environmental Protection Agency)		X			
FINLAND:					
Finnish environment institute, SYKE		X			
Helsinki University of Technology, Department of Machine design		X			
Motiva Oy ²	X				
Portaali -magazine	X				
Turvatekniikan keskus, TUKES (Safety Technology Authority)		X			
Vantaa City Environment Centre			X		
NORGE:					
Acer Computer Norway AS	X				
Inneklimakontoret, Norges Astma- og Allergiforbund (Office for Indoor Air, Norwegian Asthma and Allergy Association)			X		
Konkurransetilsynet			X		
Statens forurensningstilsyn, SFT (Norwegian Pollution Control Authority)		X			

¹ The Association is the co-operation body of the occupational prevention and health-service units in Denmark.

² Motiva Oy provides expertise and project services to promote more efficient energy use and to accelerate the uptake of renewable energy sources.

	Supports the proposal	Supports with objections	Refrains from giving comments	Comments without support or rejection	Rejects the proposal
SVERIGE:					
Arbetsmiljöverket (Swedish Work Environment Authority)	X				
Fujitsu Siemens Computers AB		X			
Hewlett-Packard		X			
Institutet för Miljömedicin IMM (The Institute of Environmental Medicine)		X			
J. Åberg som privatperson (private person)				X	
Kemikalieinspektionen (Swedish Chemicals Inspectorate)		X			
Konsumentverket (The Swedish Consumer Agency)		X			
Konsumentvägledarnas förening (The Swedish Consumer Advisers' Association)			X		
Miljöförbundet jordens vänner (Friends of the Earth Sweden)		X			
Naturvårdsverket (Swedish Environmental Protection Agency)		X			
TCO Development				X	
OTHERS:					
European Brominated Flame retardant Industry Panel EBFRIIP		X			
Federal Environmental Agency – Germany		X			
The Information Technology Industry Council (ITI) Technical Committee 6 on Product Acoustics (TC6)		X			
TOTALT	5	15	9	2	0

1. Received comments

Nordic Ecolabelling has in all received 31 statements on the proposal for revised criteria on personal computers, of which 8 are from Denmark, 6 from Finland, 4 from Norway, 10 from Sweden and 3 from other Countries.

Of those who have answered the request for comments, 5 support the proposal, 15 support with objections, 9 refrain from giving comments and 2 give comments without support or rejection. No one rejects the proposal.

2. General comments

2.1 Positive general comments

Hewlett-Packard (Sweden):

Positive:

- better structure of the document (numbering, verification requirement etc)
- increased harmonization, mainly with EU Flower criteria
- comparison with EU Flower and Blue Angle appendix 2 and 3 your future wish to further harmonize with other eco-labels as expressed on page 17 regarding new criteria.

The Association of Preventive and Health Serviceunits in Denmark:

Harmoniseringen med CE mærkningen er udmærket, så man undgår for meget "dobbeltkonfekt".

SYKE (Finnish environment institute):

The proposal mainly focuses at right impact factors.

Danish Environmental Protection Agency:

Overordnet set er det Miljøstyrelsens holdning at kriterier for pc'er bør være de samme for Blomsten som for Svanen. Derfor er det også godt at Svanen har harmoniseret med Blomsten i så stor strækning.

Norwegian Pollution Control Authority:

SFT er positiv til at det settes strengere krav for å oppnå miljømerket for PCer.

Nordic Ecolabelling:

We thank for the positive comments. We are going to work further with the harmonization in the future and try to focus on the most important factors.

2.2 Negative general comments

2.3 Other general comments

The Swedish Consumer Agency:

Det är viktigt att kriterier från andra marksystem beaktas vid revideringen av nuvarande kriterier. När kriterierna harmoniseras så ökar sannolikheten att markningen används eftersom det blir lättare för tillverkarna att följa vilka gränser som finns runt om i världen. Detta innebär inte att Svanens märkningskriterier alltid ska anpassas till övriga kriterienivåer, utan istället att när de skiljer sig från andra marksystem så bör det finnas tungt vägande skäl till det.

Nordic Ecolabelling:

Nordic ecolabelling agree. We harmonize our requirements with other ecolabels only when it is reasonable. We perform harmonizing not only by adopting requirements from other labelling systems but also by trying to influence them to adopt our requirements or by developing new requirements together in close co-operation.

J. Åberg:

Av SiS nyhetsbrev, om remiss om persondatorer, framgår inte vilka som remissen har skickats till. Jag hoppas, att de mesta användarna, journalister fram för allt, men också CAD/CAM-konstruktörer, har fått remissen. Inom dessa yrkesgrupper finns också många nuvarande medarbetare som har hudproblem i ansiktet och på halsen fr.a. av bildskärmarna. (Och ett antal har tvingats att helt sluta med datorer, journalisten Gunnar Lindstedt som fick "Guldspaden" för ett par år sedan till exempel. Han skriver i dag på en gammal Halda, precis som Jan Guillou f.ö.) Jag hoppas också, att representanterna för de som har drabbats av persondatorer, nämligen Elöverkänsligas förbund, har fått remissen. Skulle vara intressant att höra, om ni har gjort en sådan remissomgång.

Nordic Ecolabelling:

All the ecolabelling secretaries in different nordic countries shall keep this in mind when the criteria is revised next time.

Friends of the Earth Sweden:

Svanmärkta mönsterkort borde ju vara med i kriterierna, men det kanske inte finns några licenser än?

Nordic Ecolabelling:

Documentation part of the requirement R21 states that the applicant doesn't have to supply documentation concerning flame retardants if the printed boards already are Swan labelled.

Hewlett-Packard (Sweden):

As a general comment, we would like to draw your attention to the EU handbook 'buying green' that was published late in 2004. In chapter III of the handbook, the requirements of the contract are defined.

Technical/environmental specifications: have two functions:

- describe the contract to the market so that companies can decide to bid
- provide measurable requirements against which tenders will be evaluated.

Technical / environmental specifications must be:

- clearly defined
- measurable
- possible to evaluate, i.e. to compare and rate and
- possible to control (check compliance)

Specifications must, if available, refer to European Directives and/or standards:

- CEN/CENELEC, ETSI
- Regional / National standards.

EU Public Procurement Directives 2004/17/EC article 35 and 2004/18/EC article 23 explicitly allows the use of the underlying specifications of eco labels:

- to set technical specification
- to check compliance by accepting the label as a means of proof
- as a benchmark against for the compliance rating for award criteria
- by using different types of labels (single and multiple) for different purposes.

Using the underlying specifications of eco-labels is allowed, PROVIDED

- the specifications are appropriate and covered by the contract
- these are based on scientific information
- the eco-labels are adopted with participation of all stakeholders
- they are accessible to all interested parties.

It is however NOT allowed to

- request eco-label certified products
- be fully compliant with a certain eco-label as some criteria are not related to the purchased product
- relate to general management principles and ethical and similar issues.

Nordic Ecolabelling:

Nordic ecolabelling is well aware of the legislation concerning Public Procurement.

Swedish Environmental Protection Agency:

Persondatorer är en produktgrupp som är reglerad i lagstiftning. Ytterligare lagstiftning på området är på gång. Det är därför rimligt att ha som ett grundläggande krav att lagstiftning som berör produktområdet ska uppfyllas.

Nordic Ecolabelling:

We will add a sentence to requirement R39, so that it will be as follows: "The licensee must guarantee adherence to safety regulations, working environment legislation, environmental legislation and conditions/concessions specific to the operations at all sites where the Swan-labelled product is manufactured. Additionally licensee guarantee has to guarantee adherence to product specific regulations in all the Nordic countries where the product is sold."

TCO Development (Sweden):

Om det finns förtydliganden om hur kraven tolkas och bedöms bör de finnas tillgängliga för kunden för att underlätta för kunden att bedöma uppfyllelse av kraven, undvika utnyttjandet av eventuella kryphål samt öka trovärdigheten.

Nordic Ecolabelling:

We have tried to write the requirements so that they should be easily understandable. Our clients can of course always ask us about the interpretation of requirements.

SYKE (Finnish environment institute):

Requirement as to the chemicals used in production has been removed and this has been well argued in the background document. However it would have been good if a requirement on chemical residues, which will be released in environment during use of the product, had been introduced. The requirement could concentrate on some certain chemicals or chemical groups, which according to available life cycle assessments are released to environment from new computers or displays during short period after appliance has been purchased. The purpose of this requirement would be to encourage the manufacturers when choosing materials to take into account indoor air quality of their customers.

Nordic Ecolabelling:

Flame retardants are substances which may be released to environment from new computers or displays. We have formulated a strict requirement on flame retardants focusing on health effects. It shall be assessed whether other chemical groups should be considered when the criteria is revised next time. This will be mentioned in "New Criteria" section in the criteria document.

Federal Environmental Agency – Germany:

1. The version of the related EU-Ecolabel and the related Blue Angel requirements should be mentioned. (The new EU-criteria are not translated and not published up to now in our knowledge.)
 2. Please note: The Blue Angel for computers (RAL-UZ 78 and 93) will be revised this year. This means the RAL will publish the revised requirements in spring of 2006. The coexistent present criteria are valid until December 2006.
- Maybe the Blue Angel will approximate to the Nordic Swan and the EU-Flower in some more criteria.

Nordic Ecolabelling: The version of the related EU-Ecolabel and the related Blue Angel requirements will be mentioned both in the criteria document and in the background document.

Fujitsu Siemens Computers AB (Sweden):

ISO 14001 certification should be required as in TCO 03.

Nordic Ecolabelling:

We don't want to require for a certification but prefer to set our own requirements as to quality and environmental management for two reasons:

- 1) Nordic ecolabelling wants to encourage also small enterprises to apply for Swan label.
- 2) ISO 14001 certification doesn't tell much about the level of environmental management in a company.

The Institute of Environmental Medicine (Sweden):

Eftersom IMM är ett nationellt expertorgan med inriktning mot hälsorisker till följd av exponering för kemiska och fysikaliska omgivningsfaktorer har vi granskat dokumentet ur hälsosynpunkt. Utsläpp av giftiga metaller (Cd, Pb, Hg) i miljön kan medföra ökad exponering och därmed ökad risk för hälsoeffekter i den allmänna befolkningen. Utsläppen bör därför begränsas, och metallerna bör ingå i ett slutet kretslopp.

Nordic Ecolabelling:

Requirements R20, R22 and R23 restrict the use of cadmium, lead and mercury in plastic parts, batteries and/or flat displays. We follow the technical development closely and in next criteria revision we will consider new/tightened requirements on toxic metals.

Norwegian Pollution Control Authority:

Vi stiller spørsmål ved behovet for Nordiske Svane kriterier når det er utviklet kriterier for EU blomsten.

Nordic Ecolabelling:

Manufacturers have already shown interest in Swan, but EU Flower doesn't yet have any licensees. This can depend on the fact that Swan is more known at least in Nordic countries or on some differences in requirements.

Swedish Chemicals Inspectorate:

Svanen skulle förtydliga att ansökande företag skulle följa WEEE och RoHS direktiven.

Nordic Ecolabelling:

We emphasize the compliance with the WEEE and RoHS directives in several requirements.

3. Comments on the background document

Friends of the Earth Sweden:

Engelskan i bakgrundsdocumentet måste korrigeras en del innan det går ut till licenstagare.

Nordic Ecolabelling:

This will be done.

SYKE (Finnish environment institute):

- R18: Large plastic parts cannot be painted or plated with metal. The requirement doesn't apply to portable computers. The supporting arguments for this exception, presented in the background document, are not sufficient enough.

Nordic Ecolabelling:

We regard the following supporting arguments as sufficient:

"Metallization and painting plastic parts is prohibited in the case of desktop computers but permitted in the case of portable computers (requirement 6). This is because metallization and painting with metallic colours is used in portable computers to screen off electromagnetic radiation. Metal inlays (plates) offer better screening, but this is a question of price and possibly also of design (size). In displays, metal plates are required for protection since the frequencies are lower."

Danish Environmental Protection Agency:

Det bør angives hvilken version af Blomst og Blå Engel kriterier der sammenlignes med (side 11).

Miljøstyrelsen forudindtager at for Blomstens vedkommende er der tale om de nye kriterier, vedtaget ved afstemning i september 2004.

Nordic Ecolabelling:

The version of the related EU-Ecolabel and the related Blue Angel requirements will be mentioned both in the criteria document and in background document.

4. Comments on the criteria document

4.1 What can carry the Swan label?

Fujitsu Siemens Computers AB (Sweden):

- According to the background document a system unit contains a hard disk. Therefore this criteria document is not valid for a thin client that has no hard disk. Why?
- Vi framför önskemål om att utvidga produktgruppen med "Servrar" som används i stora datasystem.

Nordic Ecolabelling:

- We'll do the necessary amendments in the background document so that it becomes possible to apply ecolabel for "thin clients" also.
- We hope we can develop criteria for servers in the near future. Proposal for this will be presented in the next meeting of the Nordic Ecolabelling Board. Now we don't have enough data to be able to include servers in the product group.

4.2 Power consumption of system units (R2-R5)

Hewlett-Packard (Sweden):

R2: need to quantify 'easily accessible'.

Nordic Ecolabelling:

We will replace the whole sentence with "The system unit must have a visible On/Off switch."

Federal Environmental Agency – Germany:

- R 4: proposal:but the user may change it.
- R 5: off mode by command or by switch off ?

Nordic Ecolabelling:

- Proposal concerning R4 is OK. The word "disable" will be replaced with "change".
- Proposal concerning R5 is OK. The sentence will be corrected according to the proposal.

Fujitsu Siemens Computers AB (Sweden):

R2: Is the On/Off switch a "hard-" or "soft-switch", i.e. is the power switched galvanic from the mains supply or not? Practicable: a soft-switch.

R4: The voltage level in the requirement should be defined, this comment is valid for the other power consumption requirements as well (230 or 115, even if it always is 230 in Nordic countries)

R5: The tolerances should be stated. For example 2 +/- 0,49 W

Nordic Ecolabelling:

- R2: We mean at least soft-switch.
- R4: We will define the voltage level in the requirements.
- R5: We use the normal rounding rules. If the limit value has been given with one significant number, also the measured value can be given with one significant value.

4.3 Power consumption of displays (R6-R9)

Hewlett-Packard (Sweden):

R6: need to quantify 'easily accessible'.

Nordic Ecolabelling:

We will replace the whole sentence with "The display must have a visible On/Off switch."

Federal Environmental Agency – Germany:

R 7: proposal:but the user may change it.

Nordic Ecolabelling:

- The word "disable" will be replaced with "change".

Fujitsu Siemens Computers AB (Sweden):

R6: Is the On/Off switch a "hard-" or "soft-switch", i.e. is the power switched galvanic from the mains supply or not? Practicable: a soft-switch.

R7: Probably not possible to meet for CRT.

R9: Probably not possible to meet for CRT.

Nordic Ecolabelling:

- R6: We mean at least soft-switch.

- R7: We are well aware of this.

- R8: We are well aware of this.

4.4 Power consumption of portable computers (R10-R13)

Hewlett-Packard (Sweden):

R10: need to quantify 'easily accessible'.

Nordic Ecolabelling:

We will replace the whole sentence with "The portable computer must have a visible On/Off switch."

Danish Environmental Protection Agency:

R13. Miljøstyrelsen bemærker at energiforbruget under "no load" skal være mindre end 0,75W, og at GEEA's retningslinier er 0,3W. Det bemærkes endvidere at de 0,75W er i overensstemmelse med Blomsten. Til gengæld bør der under R26 anføres mere specifikt for power supply til bærbare pc'er at nettilslutningen bør slukkes på kontakten/tages ud af stikket, når den ikke er i brug/er færdig med at lade. Mange forbrugere er ikke klar over at en oplader bruger energi, selvom den ikke lader/forsyner en bærbar pc.

Nordic Ecolabelling:

The power supply will also be mentioned in requirement R26:2.

Federal Environmental Agency – Germany:R 12: off mode by command or by switch off ?**Nordic Ecolabelling:**

Proposal concerning R12 is OK. The sentence will be corrected according to the proposal.

Fujitsu Siemens Computers AB (Sweden):

R10: Is the On/Off switch a “hard-” or “soft-switch”, i.e. is the power switched galvanic from the mains supply or not? Practicable: a soft-switch.

R13: Suggestion: Please refer to the to EU document “Code of Conduct of Energy Efficiency of External Power Supplies Version 2” from November 2004 24. This document covers also power supplies in general.

Nordic Ecolabelling:

- R10: We mean at least soft-switch.

-R13: EU ecolabel (2004) specifies that the power supply of a portable computer shall have a maximum power consumption $\leq 0.75W$ when it is connected to the electricity supply but it is not connected to the computer. The requirement is base to the code of conduct published by DG Energy and Transport. It states that the external power supplies of up to 75W are required to have an off load consumption of $\leq 0.75W$. We can refer to the document, but same time we will keep the numerical value 0.75 W in the requirement.**4.5 Disassembly (R14)****Hewlett-Packard (Sweden):**

- R14, pt 3: need to specify what is meant by ‘hazardous substances must be separable.’ If this is identical with the WEEE Directive, should be excluded as it is a legal requirement from August 2005 in most Member States.

- R14, pt 7: not possible to verify, should be removed as the applicant can not influence what is possible to do in a specific country regarding material recovery.

Helsinki University of Technology, Department of Machine design:

The terms “disassembly” and “dismantle” are open to various interpretations of the scope and extent of disassembling. (The required level or accuracy is not defined.) This is OK, if the Nordic Swan accepts the level defined/described by the applicant. Neither has it been defined if the parts has to remain intact (obviously no).

TCO Development (Sweden):*Punkt 2. Hur görs bedömningen av vad som är “connections are easy to locate and access and easily separable with generally available tools” och “connections are as standardized as possible”.**Punkt 5. Vilka polymerer som bedöms som “compatible polymers”?**Punkt 7. Vad räknas som “technically suitable for material recovery”. Hur görs bedömningen?**Bakgrunden till frågorna är bl a hur en tillverkare ska kunna veta om den uppfyller kraven innan den ansöker och en undran hur ni säkerställer att bedömningen blir lika mellan de olika ansökningar.***The Association of Preventive and Health Serviceunits in Denmark:***- Et af vores medlemmer i Arbejdsmiljørådgiverne (Henrik Harboe fra JobLiv Danmark as) har erfaring med genbrug af elektronikaffald og påpeger i denne forbindelse, at det har stor betydning for brugbarhed af PC-affald, at det kan skilles rigtigt ad. Det har desuden også stor betydning for de arbejdsmiljø-forhold, som er på spil i genbrugsindustrien.**- Det er fint, at der er forskrifter for adskillelse af delene. Det bør måske udbygges i forhold til, hvordan*

man vil kontrollere det. Til inspiration kunne man bruge Autobild's procedure for gennemgang af brugte biler: De skiller dem ad til atomer og kigger det hele efter. Dette burde måske være et krav her også.

Nordic Ecolabelling:

- Maybe in future we can take away the sub-requirement concerning hazardous substances. No we think it is necessary. Note that our criteria will be confirmed in June 2005.
- Italic text of sub-requirement 3 shall be written with normal block letters and the preceding sentence will be removed.
- Requirements R14 is so called education requirement or with which we will motivate producers to environmentally sound construction of the product. There are not necessarily right or wrong solutions, but many acceptable ways to fulfil the requirement.

4.6 Upgradeability (R15-R16)

Hewlett-Packard (Sweden):

R16: could be removed as it is industry standard.

Nordic Ecolabelling:

- We think R16 is very important requirement, which shall not be removed. It may not be enough tough at the moment, but we 'll try to find a better requirement level in the next revision of the criteria.
- Requirement will be changed so that two interfaces are needed.

The Association of Preventive and Health Serviceunits in Denmark:

Afsnittene om opgradérbarhed og reparation ser fine ud. Det ser dog ikke ud til, at bundkort er omfattet af disse...? I og med at det i yderste konsekvens er processoren, som bestemmer levetiden, bør denne også kunne udskiftes.

Nordic Ecolabelling:

Should the mother board also be exchangeable? **Ove** asks for licensholders' opinions.

Federal Environmental Agency – Germany:

R 15 proposal: installation, exchange and expansion of mass storage.

R 16 proposal: external keyboard and mouse at least one (better two!) additional interface

Nordic Ecolabelling:

We accept the proposed changes.

4.7 Plastics (R17-R19)

Hewlett-Packard (Sweden):

- R17: for all substance / preparation requirement, a lower concentration limit must be stated (ref EU Green Public Procurement). Alternative wording could be: '...must not contain plastics containing more than 1000 ppm of chlorine'.
- R19: change 'labeling of plastics' to 'marking of plastics'.

Nordic Ecolabelling:

- R17: We don't allow any chlorine-based plastics.
- R19: We will change "labeling of plastics" to "marking of plastics".

Danish Environmental Protection Agency:

R17: "Recycled material" bør også være omfattet af reglerne for R17. Der er tale om down-cycling såfremt genanvendeligt materiale med miljø- og sundhedsskadelige stoffer genbruges. Det er ikke ønskeligt.

SYKE (Finnish environment institute):

- R17 : The ban of chlorine based plastics doesn't apply to recycled parts. This exception is questionable, because when the plastic waste is finally discarded, it doesn't matter how the chlorine has been ended up in the waste. The presence of chlorine is as harmful in every case.
- Documentation part of requirements R18 and R19 refers to R16, though it obviously should refer to R17..

Nordic Ecolabelling:

- R17: We will remove the exception.
- R18 & R19: We will correct the references.

Federal Environmental Agency – Germany:

- R 18: Requirements "avoidance of coatings" in Blue Angel 3.1.1 means the nearly the same and has to be explained in the ckeck list appendix 1, B3.
- R 19: Requirement should be extended to ISO 1043, parts 1 to 4.

Nordic Ecolabelling:

- R18: Yes, it means nearly the same, but not exactly the same.
- R19: ISO 11469 refers to ISO 1043 –standards, but to be precise, also standards ISO 1043, parts 1 to 4 will be mentioned in the requirement concerning marking of plastics.

Fujitsu Siemens Computers AB (Sweden):

R19: Which part of ISO 11469? Revision 2000?

Nordic Ecolabelling:

We don't want to refer to some certain edition but to the latest edition, because it is more practicable from our point of view.

4.8 Additives in (plastic) parts (R20-R21)

Hewlett-Packard (Sweden):

- R20: add the limits according to the RoHS Directive, 100ppm for cadmium and 1000ppm for lead
- R21:
 - a) The note regarding printed boards is confusing and should be removed, especially as the last sentence on the page confirms that R21 does not apply to printed board material
 - b) add a note that R21 does not apply to cable insulation material.
 - c) must have a lower concentration limit for any halogenated flame retardant, we recommend 1000ppm (ref RoHS Directive)
 - d) 'process-induced, technology unavoidable impurities' not acceptable and should be removed as it is not understood, can not be checked and verified
 - e) add a clarification that for the used flame retardants, an MSDS is required (should not come as a surprise when reading appendices 8 and 9)
 - f) for the required MSDS, add that it has to be a 16 section data sheet in compliance with 91/155/EC and 2001/58/EC (add in appendix 8 and 9)

- g) for plastic parts less than 25 g, PBBs, PBDEs and chlorinated paraffins are not allowed, add concentration limit 0.1% per substance
- h) verification: '...reasonable grounds...' must be quantified
- l) last sentence on page 9 replace 'released' with 'excluded'

Nordic Ecolabelling:

R20: We support the idea of adding limits according to RoHS-directive. We will find out what the situation is - have the limit values already been confirmed in EU.

R21:

- a) The sentence: "Swan labelled printed boards fulfil the requirement on flame retardants." will be removed and the sentence: "Swan labelled printed boards are excluded from the documentation requirement." will be better formulated.
- b) R21 applies also to cable insulation material. We think this is reasonable and we want to guide the development to right direction.
- c) We support the idea of adding limits according to RoHS-directive. We will find out what the situation is - have the limit values already been confirmed in EU.
- d) Sentence "process-induced, technology unavoidable impurities" will be removed and we will instead add limit values according to RoHS-directive.
- e) Material Safety Data Sheets (MSDS) will be added to documentation requirement.
- f) The required MSDS doesn't necessarily have to be a 16 section data sheet, if the flame retardant is such, that it is not imported to EU as a chemical. If the MSDS doesn't contain all the data we need, we can ask for more information.
- g) Limit values according to RoHS-directive will be added.
- h) "Reasonable grounds" means that applicant has to have something to base his arguments to. The statement "No data available" is not accepted.
- i) The sentence will be reformulated.

Swedish Environmental Protection Agency:

Under R20 anges att varken kadmium eller bly får tillsättas avsiktligt. Producenten bör dock ha ett ansvar att sådana ämnen inte ingår. Formuleringen skulle kunna ändras till att dessa ämnen inte får ingå annat med undantag av föroreningar.

Nordic Ecolabelling:

Limit values according to RoHS-directive will be added.

TCO Development (Sweden):

- R20: Hur bedöms "intentionally added", vilket gränsvärde gäller? I EU-direktivet RoHS gäller från 1 juli 2006 ett generellt förbud för tillsättandet av dessa ämnen i alla delar av produkten. I remissförslaget gäller det endast i plasten.

- R21: Gäller kravet även för mönsterkortet? Det är inte helt tydligt vad som menas med plastic parts. Hur görs bedömningen av "flame retardants that can be assigned one or more of the following risk phrases at the time of application"? Begärs det in någon information om testning och i sådant fall vilken?

Nordic Ecolabelling:

R20: EU has the same wording "intentionally added". Limit values according to RoHS-directive will be added. The scope of the requirement will be broadened to cover all parts, not only plastic parts.

R21: The term "plastic" parts includes also printed boards. We will define it more precisely what kind of documentation we need about the health effects of the flame retardants.

SYKE (Finnish environment institute):

- Documentation part of requirement R20 refers to R16, though it obviously should refer to R17.

Nordic Ecolabelling:

Error will be corrected.

Danish Environmental Protection Agency:

- R20: Til listen med Pb og Cd bør også tilføjes phthalater med minimum R45, R46, R60 og R61. Eller R21 bør omfatte alle tilsatte stoffer til råplasten og ikke kun flammehæmmere. Endelig bør listen også omfatte/udelukke chlorerede paraffiner (korte- og mellemlange) og organotin forbindelser. Forbrugeren er jo ligeglad med om man udsættes for flammehæmmere eller andre plast-tilsætningsstoffer mærket med f.eks. R60.

- R21: Hvad er bagatel-grænsen for "Process-induced, technologically unavoidable impurities". Det bør stå her, og hvordan dokumenteres undtagelsen.

- "Fluoroorganic additives ... exceed 0.5 weight per cent". Er det ikke mere retteligt at skrive 0.5% (w/w)?

- "Plastic parts ... 25 g. ... This exemption rule however does not apply to keyboards". RoHS og WEEE direktiverne gælder vel også for tastaturer. Og det må vel forventes at de fleste tastaturer vejer over 25 gram.

- RoHS og WEEE direktiverne bør være gældende fra kriteriedokumentets opstartsdato for at vise at miljømærkningen er på forkant.

Nordic Ecolabelling:

R20: We don't have enough knowledge about other possible additives and that's why we have set requirement only for flame retardants. Broadening of the scope of the requirement will be considered when the criteria is revised next time.

R21:

- Sentence "process-induced, technology unavoidable impurities" will be removed and we will instead add limit values according to RoHS-directive.

- This exception will be removed.

- Our requirement concerns also keyboards like RoHS-directive.

- We already set requirements according to WEEE and RoHS directives.

Federal Environmental Agency – Germany:

R 21: Blue Angel will discuss this point related to implementation of WEEE and RoHS (German ElektroG).

Nordic Ecolabelling:

OK.

Fujitsu Siemens Computers AB (Sweden):

R21:

a) Suggestion: Change wording from "in plastics" to "in plastic parts" in accordance with Blue Angel

b) This requirement is not yet practicable for printed circuit boards, neither is it practicable for cables. Products that meet these requirements are not available on the market yet in any scale. This includes HD, CD/DVD-readers, floppy disks, NIC, graphic adapters, memory units.

The requirement regarding cables also applies for internal cables in HD, CD/DVD, floppy disks etc which will be out direct possible influence of a PC manufacturer.

Included in this requirement is also the requirement to declare the replacement substance. This has been proven to take long time, and sometimes even not been possible to get. Consequences of that would be that it would slow down or make it impossible to get the Nordic Swan license for products.

Conclusion: Not a realistic requirement.

Nordic Ecolabelling:

a) Wording from "in plastics" will be replaced with "in plastic parts".
b) Printed wiring boards will be exempted from requirement. They must not, however, contain PBB (polybrominated biphenyls), PBDE (polybrominated diphenyl ethers) or chlorinated paraffins. Requirement is practicable to internal and external cables, because the requirement doesn't apply for plastic parts lighter than 25 grams and because we don't ban PVC in cables. It is essential for us that the applicant declares the replacement substance.

The Institute of Environmental Medicine (Sweden):

R21: Vi ifrågasätter undantagen från förbud av halogenerade organiska komponenter. Det borde definieras vad som menas med de tillåtna processinducerade föroreningarna. Samma gäller de fluoroorganiska tillsatserna.

Nordic Ecolabelling:

These two exceptions will be removed.

European Brominated Flame retardant Industry Panel EBFRIIP:

EBFRIIP believes ecolabels are extremely valuable for the promotion of household products meeting high environmental standards for the benefit of European consumers. EBFRIIP however believes that decisions to restrict substances from an ecolabel should be:

- Non discriminatory;
- Based on existing legislation;
- Based on science.

The new proposed version of the Nordic Swan ecolabel on computers restricts of the use of 'halogenated flame retardants'. EBFRIIP views that this restriction:

Discriminates BFRs³ against FRs or even any other chemical used in computers: In the new proposed version of the Nordic Swan, HFRs are the only chemicals restricted. No other chemicals used in computers, let alone other FRs has been considered for their environment and health compatibilities under these criteria.

Is not justified by any existing legislation:

There is no legislation in any part of the world which restricts all halogenated (HFRs) or brominated flame retardants (BFRs). For BFRs, only Penta-BDE, Octa-BDE and PBBs should be restricted as they are included in the EU RoHS^{4,5} -Directive. So there is no justification for all HFRs to be specifically restricted from the Nordic Swan ecolabel on computers.

³ Brominated flame retardants (BFRs) belong to a wider family called halogenated flame retardants (HFRs)

⁴ Deca-BDE benefits from an exemption from the RoHS Directive depending on the conclusions of an EU scientific assessment. This risk assessment was completed in May 2004 and indicates no risk to the environment or to human health. To address any remaining concerns, the industry has developed a voluntary monitoring and emissions control program all over Europe in partnership with EU regulators. Deca-BDE's exemption from the RoHS Directive is expected to be voted by EU Member States in March 2005. Based on both scientific and regulatory criteria, Deca-BDE restriction from an ecolabel should soon be removed

⁵ Restriction of Hazardous Substances (RoHS), Directive 2002/95/EC of January 2003, OJ L37 of 13.2.2003, page 19

Is not based on science.

BFRs are among the chemicals most tested in the world. The conclusions of EU Risk Assessments⁶ for Penta-BDE and Octa-BDE recommended restrictions at EU level.

The conclusions of an EU Risk Assessment of Deca-BDE in May 2004 identified no risk in the use of Deca-BDE for the environment or human health and concluded that no risk reduction measures were necessary.

An EU risk assessment of TBBPA -the most used flame retardant for printed circuit boards (around 90%)- is currently being performed and preliminary conclusions indicate no risk to human health. The environment risk assessment report is due to be finalized by the end of 2005.

In advance of the EU REACH legislation on chemicals, shouldn't an ecolabel be a positive tool to encourage the use of tested chemicals instead of encouraging the use of potential alternatives with less data regarding their environmental, health and consumer fire safety impact?

EBFRIP consequently requests SIS Ecolabelling to remove from the new proposed version of the Nordic Swan ecolabel on computers the restriction of the use of 'halogenated flame retardants' and to replace it by a restriction of 'Penta-BDE, Octa-BDE and PBBs'.

Nordic Ecolabelling:

We can require more than the legislation. It is the role of ecolabelling to require more.

Norwegian Pollution Control Authority:

R21: Det er ikke satt krav til flammehemmere i kretskort og eventuelle andre deler, bare i plast. Vi mener det er like relevant å sette krav til innhold av bromerte flammehemmere i bl.a kretskort. Under dette punktet er det også satt krav til fluororganiske additiver uten at det fremgår hvilke dette er.

Nordic Ecolabelling:

The term "plastic parts" includes also printed boards, which are usually made of plast. Ceramic printed boards do not contain flame retardants. We will remove the exception concerning fluoroorganic additives, because it is meaningless when we are speaking only about flame retardants and not about all possible additives.

4.9 Batteries/accumulators (R22)

Federal Environmental Agency – Germany:

Concentrations are much lower than requirements of EU regulations. Is it realistic? EU regulation is in revision (91/157/EC and 98/101/EC).

Fujitsu Siemens Computers AB (Sweden):

Not practicable limits. Please consider measurement tolerances. Today there are no battery suppliers that can measure with this accuracy.

Nordic Ecolabelling:

We will change the requirement so that we refer to the mentioned EU-directives. This means harmonization with Blue Angel.

The Institute of Environmental Medicine (Sweden):

⁶ Under Regulation 793/93

Det är oklart vad de tillåtna halterna av metaller i batterier (4.1.3.3/R22) innebär i totala mängder/år, samt hur mycket som återvinns respektive går till förbränning. Sådana uppgifter behövs för att kunna bedöma om de föreslagna restriktionerna angående metaller är tillräckligt långtgående ut miljömedicinsk synpunkt. Finns det alternativa batterier som ger lika lång/motsvarande livstid, men som innehåller lägre halter av dessa metaller?

Räkneexempel: Om ett batteri väger 0,5 kg medför 1 miljon bärbara datorer 50 kg Pb/år.

1 miljon bärbara datorer x 0,5 kg batteri x 100 mg Pb/kg = 50 kg Pb/år

10 ppm Cd => 5 kg Cd/år

1 ppm Hg => 0,5 kg Hg/år

Nordic Ecolabelling:

We believe the requirement is tough enough. It can be difficult to measure very small concentrations in batteries even if the total amount released in environment would be high.

4.10 Mercury content of displays (R23)

Hewlett-Packard (Sweden):

Need to clarify 'average value' if it is for the

- a) lamps used in the specific product or
 - b) series of lamps produced by a certain lamp manufacturer
- where b) is preferred.

TCO Development (Sweden):

Hur ska medelvärdet för kvicksilverinnehållet för lampor beräknas?

Nordic Ecolabelling:

We will remove the words "average value".

The Institute of Environmental Medicine (Sweden):

Hur många Hg-lampor finns det i en bärbar dator respektive en platt skärm? Räkneexempel: 3 mg Hg/lampa x 1 miljon bärbara datorer och 136.000 platta skärmar => 3,5 kg Hg/år. Finns det alternativa lampor?

Nordic Ecolabelling:

The amount of lamps depends on the size of display. Research is ongoing and alternative backlights and screens are being developed but unlikely to become commercially available for the next 3 years.

Norwegian Pollution Control Authority:

Vi registrer at kravene til kvikksølv i punkt "R23 - Display" er strengere enn kravene til lyskilder (sparepærer). Vi mener likevel at det er prinsipielt uheldig å miljømerke produkter som inneholder kvikksølv. Vi forutsetter at kravene er under kontinuerlig utvikling.

Swedish Chemicals Inspectorate:

Svanen borde se om det skulle vara möjligt att förbjuda sådan bakgrundsbelysning till skärmar som innehåller kvicksilver. (Hänvisar till ny teknik från Kyocera.)

Nordic Ecolabelling:

We shall forbid mercury as soon as it is possible – when there are enough mercury-free displays available on the market.

4.11 Guarantee and spare parts (R24)

Federal Environmental Agency – Germany:

Blue Angel will try to harmonize the guarantee period.

Nordic Ecolabelling:

We are happy about that.

4.12 Recycling (R25)

Hewlett-Packard (Sweden):

This is a legal requirement since years in Norway and Sweden, will be legally required in all EU Member States from August 2005 and could be deleted.

Nordic Ecolabelling:

Maybe we can remove the requirement in future. No we think the requirement is necessary. Note that our criteria will be confirmed in June 2005.

Helsinki University of Technology, Department of Machine design:

Misspelling in the last sentence: "escription" should be "description".

Nordic Ecolabelling:

Mistake will be corrected.

Swedish Environmental Protection Agency:

Under R25 anges att producenten ska erbjuda sig att ta emot förbrukade produkter utan avgift. Detta bör förtydligas eftersom en avgift ofta är inkluderad i det ursprungliga priset. Förslagsvis kan texten ändras till att ingen extra avgift får tas ut utöver den som ev. redan finns inkluderad i det ursprungliga priset.

Nordic Ecolabelling:

We will reformulate the requirement according to following: "The manufacturer shall offer, without any extra fee, the take-back for..."

TCO Development (Sweden):

Kan en tillverkare verkligen erbjuda gratis återtagande för vilken komponent som helst som byts ut i deras produkt?

Nordic Ecolabelling:

This will be a legal requirement in all EU Member States from August 2005.

The Institute of Environmental Medicine (Sweden):

Krav ställs på tillverkaren att ta tillbaka den uttjänata datorn från köparen. Vilka krav ställs på tillverkaren att återvinna metaller (och andra ämnen) i återtagna datorer? Vi efterlyser en tidigare beskrivning i detta steg.

Nordic Ecolabelling:

We will change the formulation so that we keep the following part of our old requirement:

"The licence applicant must have a system in place for recycling used products or be a member of an official product return scheme. The following must be documented:

- how the collection system works
- the recycling companies used

4.13 Noise (R27)

Federal Environmental Agency (Germany):

- The use of the unit bel isn't to understand easily for the consumer. It seems to be no great difference between values with 0,3 bel. But, that's the doubling of the sound power. In this case the use of decibels is more advisable. The decibel unit is known to the consumer of other machines. There is also an inconsistency: bel for the sound power and decibel for the uncertainty?
- The factor K is the value for the uncertainty. It contains not only the deviation of reproducibility (same device tested using the same method at different times under different conditions) but also the deviation of production.
- Chapter 4.4.2 of ISO 9296 refers to an individual machine. That is not the case if only one device is used for a batch of machines. That's why the K factor can be only above 2,5 dB(A). With a value for the reference standard deviation for computer and business equipment of 2,0 dB(A), a reasonable value for the uncertainty K is 3,0 dB(A) [ISO 4871].

Nordic Ecolabelling:

- Manufacturer can use the desibels in consumer information material, even though bels are used in the wording of the requirement.
- We will correct the definition of K and change its value to 3,0 dB.

ITI TC6⁷:

ITI TC6 Recommendation for the requirement on noise:

System units and portable computers must fulfill the requirements as to the highest values of the declared A-weighted sound power level, LWAd, in bels, during operating and idle modes in accordance with the following table:

Product type	Declared A-Weighted Sound Power Level, LWAd (bels)	
	Operating Mode	Idle Mode
System units	4,5	4,0
Portable computers	4,0	3,5

Notes:

1. For products that do not emit prominent discrete tones according to the procedures of ECMA 74 Annex D, the LWAd criteria are 0.3 B higher in operating mode and 0.5 B in idle mode (i.e., 4,8/4,5 B for system units and 4,3/4,0 B for portable computers).
2. For desk-side system units, the LWAd criteria are 0.3 B higher, i.e., 4,8/4,3 B (and Note 1 is also applicable to the desk-side criteria, i.e., 5,1/4,8 B for desk-side system units without prominent discrete tones).
3. Operating mode is defined in ISO 7779 and applies to accessing of the hard disk drive, not an optical disk drive.
4. Idle mode is defined in ISO 7779 and includes fan noise and may include a hard disk drive that is spinning but not accessing.

The sound power level of the display, system unit and portable computer must be measured in accordance with ISO 7779 and declared in accordance with ISO 9296, clauses 3.2.5, 4.4.1 and 6. Details of the acoustical measurements and results should be recorded and reported in accordance with clause 9 of ISO 7779.

This recommendation of ITI TC6 is based on arguments which have been attached to this document (Appendix 1).

Hewlett-Packard (Sweden):

We fully support the comments given by ITI TC6.

Nordic Ecolabelling:

We want to thank ITI TC6 for their wellargumented proposal. Anyhow we decided to adopt the requirement level of Staskontoret's Technical Standard 26:6 (2004).

The Swedish Consumer Agency:

Rubrikema ovanfor gransvardena for ljudeffekter ar fel placerade. Operation, LwAd och Idle, LwAd bor flyttas sa att de hamnar ovanfor ratt kolumn.

Nordic Ecolabelling:

Titles will be moved to right places.

⁷ The Information Technology Industry Council Technical Committee 6 on Product Acoustics

Fujitsu Siemens Computers AB (Sweden):

The proposed noise limits are extremely hard. They will be very difficult to reach. Reason to this is that the current processor generation is power consuming and has high power dissipation, which requires more powerful fans. If, and when, the fans reach maximum speed the limit values can't be kept. We would like to suggest to harmonized with the levels in STAKO Technical Standard 26:6 (2004-07-01).

Nordic Ecolabelling:

We decided to adopt the requirement level of Staskontoret's Technical Standard 26:6 (2004).

4.14 Ergonomy (R28)

Federal Environmental Agency (Germany):

Relevant part for ergonomic properties is ISO 13406-2. Generally: All the mentioned standards should be completed by the year of the edition.

Fujitsu Siemens Computers AB (Sweden):

Relevant part for ergonomic properties is ISO 13406-2.

Nordic Ecolabelling:

The relevant part of standard ISO 13406 will be specified. We don't want to refer to some certain edition but to the latest edition, because it is more practicable from our point of view.

4.15 Legislation and regulations (R39)

TUKES (Finnish Safety Technology Authority):

The underlined text should be added: "The licensee must guarantee adherence to safety and EMC regulations, working environment legislation..."

Nordic Ecolabelling:

The proposed addition will be made.

4.16 New criteria

Hewlett-Packard (Sweden):

- we do understand the wish to introduce plastics recycled content, however, currently we see no way to verify and control such a requirement.
- need a clarification of rare metals, do you mean precious metals?
- if the acoustic noise requirements are introduced as proposed by ITI TC6, we see no need to tighten these requirements in the future.

Nordic Ecolabelling:

- The possible future criteria on plastics recycle content will be introduced only if it is possible to verify and control.
- The whole sentence means that we are going to consider if there is a need to restrict the use of some metals, the content of which in earth's crust is small.
- Maybe no need to tighten the requirement, but some modifications can be needed.

Helsinki University of Technology, Department of Machine design:

- Misspelling in the first sentence: "above-mentioned" should be "below-mentioned".
- It is mentioned that the possibility of imposing the requirement that recycled plastic should be used in the production of the computer shall be considered in next criteria revision. It has to be well considered if this possible future requirement concerns only post-consumer plastic waste or also production scrap (pre-consumer plastic waste).

Nordic Ecolabelling:

- "Above" will be replaced with "below".
- The possible future criteria on plastics recycle content will be based on thorough considerations.

SYKE (Finnish environment institute):

Requirements as to recycling could be formulated in the next criteria version to support the development towards systems, where the manufacturer doesn't sell machines but services. Machines would remain in the ownership of manufacturers and manufacturers would be responsible for renewal of the machines according to technical progress. Some manufacturers of copying machines already have such systems for copying machines and copying services. Within the systems it is possible to effectively contribute to product development and reuse of durable components.

Nordic Ecolabelling:

The idea is very interesting and we have to think how we best could contribute it with the help of ecolabelling.

4.17 Appendix 2: Nordic Swan versus German Environmental Label Blue Angel.

Fujitsu Siemens Computers AB (Sweden):

- Comment regarding power consumption of system units: The Blue Angel and Nordic Swan is also different in off-mode! Blue Angel accept a tolerance of 1 Watt; the power consumption in off-mode is $\leq 3W!$
- Comment regarding plastics: Blue Angel must requirement for case parts (recyclable design): "The coating of plastic components must be limited to a minimum."

Nordic Ecolabelling:

- We don't use tolerances but the normal rounding rules. If the limit value has been given with one significant number, also the measured value can be given with one significant value.

4.18 Andra kommentarer

The Institute of Environmental Medicine (Sweden):

Finns alternativ till bly i lödmaterial? Vilka mängder det handlar om totalt/år?

Nordic Ecolabelling:

Yes there are alternatives. We are sorry not to be able to give you any information about the amounts. There is lot of information about lead free soldering in the Internet.