Priority Table
February 13, 2002

At the January 9th meeting committee members decided to undertake an exercise involving a comparison of the "must" and "might" issues with provisions in the proposed rules. The committee decided to conduct this exercise to assist in deciding what the next steps should be in addressing these priority issues. Below is a table to assist committee members in recording the results of their evaluation. Committee members who attended the January 9th meeting were given one to three issues to evaluate. This comparison is to the version of the proposed rules that were approved for public hearing at the June 2001 Natural Resources Board meeting. This version is available at http://www.dnr.state.wi.us/org/aw/air/reg/mercury/rule.htm. The results of this exercise will eventually be incorporated into the priority matrix document.

Members doing the evaluation where asked to identify at a minimum the section(s) of the proposed rules that relate to each issue e.g. 1. Agreed schedule of reductions – NR 446.06 **Mercury reduction requirements for major utilities**. It was recognized that several sections of the proposed rules could relate to an issue and that certain issues may not have a specific relationship to the proposed rules. Evaluators were asked to freely use the comment column to expand upon their evaluation.

It was suggested that future comparisons of this nature to the Environmental Assessment and rule alternatives offered during public hearings might be appropriate.

At the January 18th meeting committee members discussed the evaluations that had been completed in advance of that meeting and decided to revise the table by adding three columns - Possible Revisions to Proposed Rules or Other Actions - Technical Advisory Group Comments - Proposed Remedy.

	Issue	Index To Rule Provisions	Comments	Possible Revisions to Proposed Rules or Other Actions	Technical Advisory Group Comments	Proposed Remedy
1.	Agreed schedule of reductions. Criteria for setting mercury reduction levels. Why do we need phased reductions?	NR 446.06 (1) – (3)	June 5, 2001 Bazzell memo to NRB (Keith Reopelle)			
2.	Impact on electric reliability, fuel mix, and energy costs.	NR 446.12 (1) – (7)	(Keith Reopelle)			
3.	Identification of mercury control technologies available today.		(Keith Reopelle)			
4.	What are the mercury contributions from local and regional sources? What are the sources of mercury deposition in Wisconsin lakes?	No reference in rule language	The Environmental Assessment attempts to address these issues, although the adequacy of the EAs' evaluation is questioned by stakeholders. (Jeff Schoepke)			
5.	How should we address new	NR 446.05 Mercury Emission	NR 446.05 bans the construction of			

	sources?	Offsets	new plants unless the proposed new or modified source is offset by an equal or greater reduction in actual emissions of mercury at a ratio of 1.5 to 1.0. (Jeff Schoepke)			
6.	What are the impacts on human health if no actions are taken?	No reference in rule language	(Jeff Schoepke)			
7.	Multi-pollutant control option.	NR 405.02(22)(c) volatile organic compounds, NR 445.01(1)(a) hazardous pollutants, NR 446.04(b)(4)(c) liquid fuel analysis for mercury, NR 446.11(3)(b)(4) alternative emission monitoring, NR 484.10 ASTM fuel sampling methods.	Most of the rule deals only with mercury as indicated below: The Department proposes to require atmospheric mercury emission reductions from major electric utilities, cap mercury emissions from other major stationary sources, and require offsets of potential mercury emissions from new or modified major stationary sources. This requirement would be within Chapter NR 450 Wis. Adm. Code and adopted under s. 285.11(9), Wis. Stats. The objective of the proposed rule is to set limits on the emissions of mercury into the ambient air from mercury sources as a means of reducing atmospheric mercury deposition to Wisconsin's environment and specifically, the State's water bodies. This would reduce the mercury concentrations in fish and wildlife that consume fish. Reducing the mercury concentration in fish will reduce the human health risk associated with that portion of the population that consumes fish. It will also reduce the potential negative economic impacts associated with fish consumption advisories. *From the draft Environmental Assessment*. (Wayne Stroessner)			

8.	Best estimate of the environmental improvement from the implementation of the proposed rules. Impact of the proposed rules on fish advisories.		The proposed rule would reduce atmospheric mercury emissions and subsequently reduce mercury deposition to Wisconsin's environment. This would reduce the amount of mercury entering the State's water bodies and over time, reduce the amount of mercury in fish and wildlife. The department believes that with a reduction of mercury deposition, there would be an eventual reduction in the number of water bodies with fish consumption advisories. Since fish consumption advisories can be viewed as having a potential negative impact on the State's tourism industry, reducing the number of fish consumption advisories would have a positive economic impact on the State's tourism industry. *From the draft Environmental Assessment.* (Wayne Stroessner)			
9.	What is the economic cost to the state of having mercury contaminated lakes? What is the cost to the state if mercury rules are not implemented?		Reducing the mercury concentration in fish will reduce the human health risk associated with that portion of the population that consumes fish. It will also reduce the potential negative economic impacts associated with fish consumption advisories. Under DRAFT PART II B. it states: In addition to the health risks caused by elevated levels of mercury in the environment, the Department is also concerned with the important economic consequences associated with a potential reduction of			

			recreation and tourism activities. Each year the Department sells approximately 1.5 million fishing licenses (1 million are residents) generating approximately $1.1 billion in expenditures to the state. Adding to license sales is the significant revenue provided by sales of food, lodging, gasoline, and sporting equipment related to fishing as an activity with a total economic impact of $2.1 billion statewide. The sport fishing industry accounts for 30,500 jobs in the state each year. The Department is concerned that the continual listing of fish consumption advisories because of elevated levels of mercury could cause a corresponding decrease in recreation and tourism and have a direct economic impact on the state. The rule provides more detail on the cost of controlling mercury levels by coal-burning utilities. i.e. The estimated cost of the proposed rule is based on the NETL information applied to the Wisconsin utilities at each of the discussed reduction levels. The control cost assume that carbon impacts are minimized thereby avoiding any land filling cost for flyash. The first phase costs are estimated at 0.02 cents per kilowatt-hour using activated carbon sorbent. For an average household consuming 1000 kilowatt-hour per month this			

			results in an additional cost of $2 per year and annual utility cost of $8 million. The second phase results in a 50% mercury emission reduction with a cost of $4 per year and annual utility cost of $17 million. The final phase, a 90% mercury emission reduction, is estimated to cost $10 per year per household and annual utility cost of $35 million (see Table 5). *From the draft Environmental Assessment.* (Wayne Stroessner)			
10.	Better understanding of the source of mercury deposition.	No reference in rule language	Environmental Assessment p. 4, Table 1; p. 8; p. 9, Table 2, Figure 1 (John Coleman)			
11.	Unresolved issues.	---------	(John Coleman)			
12.	What is the safe dose / exposure for wildlife?	No reference in rule language	Environmental Assessment p. 9; see http://www.epa.gov/mercury for EPA's "Mercury Research Strategy" Chapter 2; also see the NAS July 200 report http://books.hap.edu/books/0309071402/html#pagetop (John Coleman)			
13.	Evaluate the infrastructure changes needed to support fuel switching.		(Bill Skewes)			
14.	Establish how credit for early reductions can be secured for meeting federal regulations.		(Bill Skewes)			
15.	Assessment of the environmental impacts of the rule.		(Dave Hoopman)			
16.	Evaluate other states and federal programs and proposals.		(Dave Hoopman)			
17.	What are the implications for	No reference in rule language	These are touched on in the original			

	no or limited action on a state or federal level.		environmental assessment but not covered adequately. (Ed Newman)			
18.	Are there other environmental impacts associated with the implementation of this proposal?	No reference in rule language	These are touched on in the original environmental assessment but not covered adequately. (Ed Newman)			
19.	Establish methods and procedures for mercury product collection program. How does product collection program relate to hotspots analysis? Insure that product collection program fits with new water quality regulations.	NR 446.07 Mercury-containing products reduction projects (pg. 12-13)	No votes as a potential "monkey wrench" (Russ Ruland)			
20.	Review methodology for baseline determination.	NR 446.03 Section 16 Subchapter II (pg. 7-11)	Baseline set after 36 mos., 1st reduction due at 5 years giving 2 years to comply Several issues about baseline determination (see TAG brief 12-11-01) (Russ Ruland)			
21.	The impact of emission caps on industrial growth.	NR 446.03(1)(f), NR 446.03(2)(b)6., NR 446.03(2)(b)7., NR 446.05(1), NR 446.05(2)	June 5, 2001 D. Bazzell memo page 7 Environmental Analysis (Annabeth Reitter)			
22.	Impact on electricity bills.	NR 446.10(1)(f)6., NR 446.12	June 5, 2001 D. Bazzell memo pages 9-10 Environmental Analysis (Annabeth Reitter)			
23.	Comparison of proposed rules and federal MACT.	Proposed NR 446 does not contain any specific provisions that directly address comparison of proposed rules and federal MACT. Specifically, the rule at NR 446.13 for "Rule Evaluation Reports" requires a review (every 18 months) of scientific and technological developments, which occur that affect the ability to control or reduce mercury emissions. Thus, this focuses solely on control technology developments and there are no provisions to account for overlap with the federal MACT or any other	NR 446 appears to indicate emissions reductions Since federal MACT is mandated; it must be promulgated by 2004 with initial compliance by 2007. Federal MACT is a performance standard compared to NR 446 that also includes cap and trade provisions. These are two fundamentally different regulatory approaches that may conflict in defining which emissions sources are subject to each rule and also what technologies are used to reduce mercury emissions. In addition, triggering			

		future regulations such as multi-pollutant legislation. In addition, under NR 446.08(6) for Pollution Reduction projects, there are provisions stating that emissions reductions cannot be certified from any federal requirements in effect on the date of certification.	thresholds and compliance methods (testing, monitoring, record-keeping and reporting) may not be the same for NR 446 and federal MACT. Finally, it is not clear whether sources will get credit for early mercury reductions made under NR 446 towards compliance with MACT. Similarly, under federal rules cannot be certified as credits for pollution reduction projects. (Joe Shefchek)			
24.	What impact might the proposed rules have on the emissions of other pollutants?	Proposed NR 446 does not contain any specific provisions that directly address rule impact on other air pollutants. The rule does indirectly specify a provision to revise NR 406.04 (Construction Permits) such that NR 446 changes cannot be exempt from obtaining a construction permit.	The exact impact of mercury controls on other air pollutant emissions (such as NOx, SO2 and PM) is not well understood and currently the subject of several studies because there are no commercially proven technologies in operation. Carbon injection could potentially result in increased emissions of particulate. Fuel-switching could reduce mercury but increase/change emission of other air pollutants. Construction permits for emissions changes resulting from NR 446 are not exempt and the timeframe necessary to complete permitting approval could be triggered). Alternatively, future controls for NOx and So2 could impact mercury speciation ultimately affecting selection of the type of mercury control technology, possible stranding costs if what is initially installed for NR 446 becomes less significant (especially if PSD/NSR or dispersion modeling is effective. Consideration of a multi-emission approach is critical for long-term planning regarding			

			capital investments and shutdowns for construction to ensure energy reliability. (Joe Shefchek)			
25.	Relationship between early retirement and meeting rule provisions.		(Scott Meske)			
26.	How did USEPA develop their recommendation on the acceptable dose / exposure for fish consumption advisories?		(Scott Meske)			
27.	Monitoring reassessing and verification methods.	**NR 446.11 Annual mercury emissions determination.** SECTION 7. NR 439.075(2)(b)1. is amended NR 484.05(10) to (13) are created NR 484.10(47m), (52m) and (55m) are created	 Includes sampling requirements and mercury mass calculation methods. NR439 is "Reporting, Recordkeeping, Testing, Inspection and Determination of Compliance Requirements". NR484 is "Incorporation by Reference", in this case incorporating federal analytic test methods and procedures for mercury testing. (Kathleen Standen)			
28.	Future mercury research agenda and budget.	Not addressed in proposed rules.	The concept of refining many areas of rule uncertainty through targeted and required research activities has been suggested as a rule alternative . The idea is to move forward with a state rule package by required funding of controls development, improved mercury emission measurement and analytical devices, and improved understanding of preferred actions to achieve optimum environmental benefits. (Kathleen Standen)			
29.	Establish mercury emission summary for Wisconsin.	NR 446.11 Annual mercury emissions determination	No clear rule provision for establishing comprehensive			