Summary of Recommendations to Film/Bag Workgroup from:

Clean Water Action Council

Waukesha Environmental Action League

Incinerator Free Brown County

Representatives from the plastics recycling industry including Lindsay Smith, Lindsay Smith, CEO & Founder of TERRECON, Inc.

It is the consensus of the group that the current recommendations from the Film/Bag Work group should not be submitted to the Wisconsin Council of Recycling, Plastics Subcommittee but should be sent back to committee to address the following concerns:

The recommendations fail to adequately address each level of the state's hierarchy for recycling:

1. <u>Reduction of the amount of solid waste</u>
    a) CWAC commented:

    The 1st strategy is to reduce. Yet there was nothing in the recommendations for industry to reduce waste. For instance, it is not necessary to use film for fuel solely to maintain brand integrity. Film with proprietary information could be shredded prior to being shipped for recycling. There was nothing addressed regarding the need for printing on film plastic to be done in such a way that it can still be recycled. If paper labeling on product packaging prevents recycling, then a recommendation could be made to use recyclable friendly inks.

    b) WEAL commented:

    WEAL understands Hard-to-Recycle Plastic Film (HTRPF) presents challenges. However, WEAL believes many obstacles with HTPRF can be addressed through Extended Producer Responsibility (EPR) initiatives, an emphasis on research and a genuine motivation to reduce the use of materials that are not recyclable, reusable or compostable.

c. Redesign. CWAC believes the Council should recommend that industry find ways to redesign its products or manufacturing processes to reduce waste that is only suitable for the fifth tier energy recovery, or combustion.

2. Reuse of solid waste.
   a. There are no recommendations for repurposing any of the waste materials into new products which might be smaller versions of the same, or for a different use.

3. Recycling of solid waste.
   a. Lindsay Smith commented:

      Plastics that couldn't be recycled several years ago are now being turned into products sold to consumers, cities, big box stores and commercial developers. Plastics contaminated with dirt, ink, paper, manure, labels—so called 'hard to recycle' plastics--are cost-effectively being turned into revenue generating products, creating local jobs, reducing use of natural resources, and boosting the economy.

      TERRECON, Inc. has been making TERREWALKS® modular sidewalks with 'hard to recycle films' since 2007. TERREWALKS® are made of agricultural dairy film, grocery bags, wrapping films and other films highly 'contaminated' with paper, ink, dirt, manure. This is not 'waste plastic'—it is feedstock.
      Other products made with 'hard to recycle' plastics include decking and plastic lumber, pallets, wheels, stepping stones, railroad ties, rail grade crossings, wheel chocks—and the list is growing. For instance, Ecostrate SFS LLC currently recycles multi-polymer labels.

      Recycled plastics need to be recycled (into new products), not converted into energy or oil.
      Therefore, companies with the technology to convert "hard to recycle" films into commercially viable products want such films. In bringing their operations to Wisconsin, they would create a recycled plastic product industry – and all the economic benefits and jobs that accompany it.

b. CWAC commented in “Reduction” about recommendations to make so called hard to recycle plastic recyclable.

c. WEAL Commented:

The DNR should be given statutory authorization to request all Wisconsin generators of HTRPF to provide data on how much film is being generated as well as the composition for each type of film (the DNR can develop **a** method to assure proprietary information be kept confidential)

Establishing a database for HTRPF will provide a mechanism for industrial generators across the state to work with manufactures to find alternatives. If various types of film are impossible to recycle or reuse, grants can be established to fund research. Wisconsin has some of the most respected research institutions in the nation, and WEAL believes if HTRPF is determined to be a priority material, alternatives will be found.

4. <u>Composting of solid waste.</u>

a. No recommendations were made for industry to research ways to reduce the need for film to landfills or combustion by creating film that can be fully composted or composted in part, such as a way of removing glues. CWAC believes that the committee needs to conduct a research of the literature to find and make part of the recommendations the latest progress in composting such materials.

5. <u>Recovery of energy from solid waste.</u>

a. WEAL commented:

WEAL has serious concerns with the proposed HTRPF recommendations because they focus on developing an energy sector, simplifying permits and suggests establishing a one-sided PR campaign to “spread awareness” supporting various types of combustion.

WEAL does not agree with developing a Wisconsin energy recovery sector. Various forms of combustion the Workgroup is recommending will require large capital investments, contribute to fine, or ultra-fine particulates in the air, destroy resources, require landfilling for toxic ash or char and, for industrial boilers, perpetuate the burning of coal.
Additionally, HTRPF will not be the **only feedstock** for the types of combustion the Workgroup is recommending.

WEAL believes any restructuring regarding the permitting process should be more fully explored.
WEAL also questions how a Single-Point-of-Contact (SPOC) application process will be exclusive for HTRPF and requests information on how this will be achieved.
WEAL (and IFBC) does not agree with the inclusion of biomass in a recommendation for HTRPF and questions what is meant by --- "exemptions planned for '***likely'*** emissions."

b. IFBC commented:

No known process to convert petroleum plastic to energy and oil using pyrolysis, laser arcs or similar incineration based 'gasification' methodologies constitutes recycling. Moreover, such processes inevitably require massive emissions stacks to discharge toxins released from the petroleum plastic with their gas emissions. These toxin carcinogens include dioxins, which in minute quantities are harmful to human health and do not break down in the environment. Dioxins cause a wide range of health effects including cancer, birth defects, diabetes, learning and developmental delays, endometriosis, and immune system abnormalities.

c. Lindsay Smith commented:

The Catch-22 of the 'plastic to energy' industry is that it requires low cost material, in very high volumes, to be sustainable. It is difficult, if not impossible, for these industries to exist on only unrecyclable materials. As a result, recyclable plastics mistakenly get labeled as 'waste'.

Recycled plastics need to be recycled (into new products), not converted into energy or oil.

d. CWA comments:

The recommendations were overly focused on (e)The recovery of energy from solid waste. This focus also seemed apparent in the recommendations regarding exemptions both for (approved) feedstock and for pyrolysis. We believe recommending exemptions goes beyond the scope of the committee and was unduly influenced by representation on the committee by one or more waste-to-energy industry representatives.

Statements made in the meeting that compare burning film plastic as a fuel is cleaner than burning coal, is comparing it to a 20th century fuel. Energy production for the 21st century must be much cleaner than coal, which is being phased out. The recommendation makes no distinction as to whether use as a fuel would be for the short term or the long term. We would like to see stated goals that would diminish the need for reliance on this fifth tier strategy (e).

The hazards of combustion of film plastic are not fully known. As Ted Hansen explained, the emissions for Greenwood's fuel pellets are known to include chlorine. Dioxin is often present with chlorine. There are over 200 chemicals known to be used in the manufacturing of plastic, with the average content of additives around 20%. Some of these are used in film plastic represent an unknown risk when burned.

Recent research, especially in Europe, is leading worldwide concern over incineration of waste and the resulting nanoparticles or ultra-fine particulate matter. **Professor C. Vyvyan Howard MB. ChB. PhD. FRCPath and others are reporting on concerns about nanoparticles passing through the lungs and entering the bloodstream and the resulting health effects.**

Based on the above comments, the groups represented here believe that an emphasis on energy recovery from plastic should be minimized in the recommendation.

6. Land disposal of solid waste.

Post manufacturing film is source separated and generally not contaminated. Therefore, this film could have a designated landfill location that would allow for future mining when recycling processes have evolved that would return the film to the material stream. CWAC would like the recommendation to include this strategy.