

**Intellectual Property Management Plan for
DOE Project Award No. DE-EE0007969**

**HYPOWERS:
Hydrothermal Processing of Wastewater Solids**

To (i) establish procedures for rapid dissemination of information among all participant members of the DOE Award Project titled: *HYPOWERS: Hydrothermal Processing of Wastewater Solids*, (ii) provide effective and coordinated efforts to commercialize technologies developed by the project participants and (iii) supply broad access to relevant technologies to researchers to fulfill the HYPOWERS project objectives, this Agreement is entered into by and between the entities involved with the HYPOWERS project, identified in Appendix A and hereinafter referred to individually as “Member” or collectively as “Members” hereby agree:

1. Definitions

- a. “DOE Funding” means the (i) funding that was awarded by U.S. Department of Energy (DOE) to The Water Environment and Reuse Foundation (“Project Lead”) under Contract No. DE-EE0007969, (ii) the funding that was awarded by DOE to the Federal Laboratory Member under its general management contract with DOE.
- b. “Project Funding” means the (i) funding provided by the Project Lead to other Members in the form of subawards and (ii) funding provided by other Members to fulfill the DOE cost share requirement component of the DOE funding.
- c. “Project Research” means innovative approaches pursued by Members under DOE Funding to pursue cost-effective approaches to hydrothermal processing of wastewater solids.
- d. “Intellectual Property” means all intellectual property rights, discoveries, innovations, works of authorship and inventions, along with derivative works, whether patentable or not, including computer software and code, patents and patent applications, trade secrets, mask works and copyrights and copyrightable materials.
- e. “Performance Period” means the period of time between that date on which the Project Lead receives DOE Funding and commences work on Project Research to date when DOE Funding is fully consumed and Project Research ends.
- f. “Background Intellectual Property” (BIP) or “Background IP” means any Intellectual Property that is (i) developed before the Performance Period or (ii) developed outside of Project Research not using DOE Funding, that may be necessary

for use by Members for Project Research. Such IP that is developed not using DOE Funding must be identified in writing to Project Lead before being considered as BIP.

g. “Program Intellectual Property” or “Program IP” means any intellectual property conceived or first actually reduced to practice using DOE Funding or any improvement, modification or derivative of Program IP or Background IP using DOE Funding.

h. “Program Technical Data” means know-how, scientific or technical information recorded in any form or presented in any manner conceived or first actually reduced to practice using DOE Funding.

i. “Invention Disclosure Form” means either a physical paper form or an electronically formatted form in which an inventor places sufficient information about a new invention to allow Members to i) evaluate the invention for commercial viability and ii) produce a patent application or when appropriate.

j. “Affiliate” means, as to any person or entity, any other person or entity that directly or indirectly controls, is controlled by, or is under common control with such person or entity, and is identified in writing to the Members. For purposes of the preceding sentence, “control” means the right to control, or actual control of, the management of such other entity, whether by ownership of securities, by voting rights, by agreement or otherwise.

k. “Federal Laboratory Member” means Pacific Northwest National Laboratory through a DOE management contract with Battelle Memorial Institute.

l. “Inventing Member” means a Member or Members who first conceive or reduce to practice Program IP.

m. “Licensing Member” means any Member that grants a fully paid-up, royalty-free, nonexclusive, nontransferable license to its Background IP to another Member.

n. “NDA” means the mutually agreed upon Non-Disclosure Agreement (“NDA”) executed on _____ (Date) by Members and attached hereto as Appendix C.

o. “IP Management Plan” means this Agreement.

2. Intellectual Property Ownership

General Rule. Inventorship or authorship of any Program IP will be determined in accordance with U.S. patent and copyright laws. Ownership of any Program IP shall be determined in accordance with applicable state and federal law and as required by Federal Laboratory Member’s prime contract with the DOE for the management and operation of the Federal Laboratory and as prescribed in any subaward or other agreement between the Project Lead and non-Federal Laboratory Members. Any

assignment of rights between an inventor, author or other individual involved in the creation of Program IP and the Member who sponsors or employs him or her shall be governed by the law and policies applicable to the sponsoring Member. The Bayh-Dole Act, 35, U.S.C. 200 et seq., requires that universities, non-profit institutions and small businesses who are participating under a funding agreement (as defined in the Bayh-Dole Act) will have the option to retain title to their own employees' inventions. Inventions made by employees of Federal Laboratory Members, will be subject to their respective Management and Operating (M&O) contract terms and conditions with respect to ownership of inventions made by their employees. The M&O contract generally provides that the Federal Laboratory contractor has the right to elect to retain title to inventions made by their employees. Federal Laboratory Members' option and intellectual property provisions will be in accordance with their DOE Prime Contract requirements and DOE approved agreements to conduct work for non-federal sponsors such as Cooperative Research and Development Agreements (CRADAs) or Work for Others (WFO).

- a. Background IP. Ownership of Background IP that will be used to conduct activities under DOE Funding and Project Funding shall remain unaffected by this IP Management Plan. Background IP shall be (i) identified in writing by the Member that is contributing the Background IP for use by the Members, as identified in Appendix B. Members shall act reasonably and in good faith in identifying Background IP that may be necessary for use in the Project Research.
- b. Program IP. Program IP solely developed by a Member shall be owned by such Member. Program IP developed by two or more Members shall be jointly owned by the Inventing Members. Individual Members creating joint inventions may enter into a separate agreement to facilitate the filing of patent applications, licensing, and commercialization.
- c. Program Technical Data. Program Technical Data solely developed by a Member shall be owned by such Member. Program Technical Data developed by two or more Members shall be jointly owned by those Members. Individual Members creating joint inventions may enter into a separate agreement to facilitate the assertion of copyrights, licensing, and commercialization. Members shall disclose all Program Technical Data, findings, and related information arising under the Project Research to the Project Lead. The Project Lead will maintain, coordinate, and manage an electronic data bank accessible to all Members for Program and other internal, noncommercial purposes.
- d. Reserved Rights. The government will have certain statutory rights in an invention that is conceived or first actually reduced to practice under a DOE award. 42 U.S.C. 5908 provides that title to such inventions vests in the United States, except where 35

U.S.C. 202 provides otherwise for nonprofit organizations or small business firms. However, the Secretary of Energy may waive all or any part of the rights of the United States subject to certain conditions.

- e. Dispute Resolution. For cases in which multiple inventors of Program IP disagree on inventor contribution, such disputes will be managed by the Project Lead. If the Project Lead is unable to resolve the inventorship dispute, then (i) the dispute shall be reviewed by a competent third party dispute resolution process that is mutually agreed upon by the affected Members. That third party will make a legal determination of inventorship based upon United States Patent Law.

3. **Intellectual Property Licensing**

Background IP. To the extent that a Member has the legal right, title, and interest to do so, and subject to third party rights, each Member shall grant to any requesting Member a fully paid-up, royalty-free, nonexclusive, nontransferable license under its Background IP, which will remain in effect even if the Licensing Member terminates its participation in the Project Research, solely to use said Background IP for internal, noncommercial purposes as required by the requesting Member to conduct Project Research. Nothing in the IP Management Plan shall constitute a grant, option, or license to commercialize or otherwise use another Member's Background IP. Members shall retain the right in their discretion to license their Background IP to any party on mutually agreed terms.

Program IP—Internal Research Use. Each Inventing Member of Program IP shall grant a paid-up, royalty-free, nonexclusive, nontransferable license under its Program IP to other Members, which will remain in effect even if the Licensing Member terminates its participation in the project, solely for internal, noncommercial research use as required for a Member to conduct Project Research. Once a Member is no longer part of the Project Research, its paid-up, royalty-free, nonexclusive, nontransferable license shall be automatically terminated.

Program IP—Commercial Use. For a thirty (30) day period following disclosure of Program IP to all Members by the Project Lead (the "Option Period"), non-Inventing Members shall have the right to negotiate with any Inventing Member in good faith for nonexclusive licenses (without the right to sublicense except to Affiliates) for commercial use of such Program IP on mutually agreeable terms. Such nonexclusive license shall be fully negotiated and executed within sixty (60) days following the Option Period.

Inventing Members may license their Program IP to non-Member third parties for commercial purposes after the expiration of the Option Period, subject to any licenses granted to Members and their Affiliates, as applicable.

Program IP—Research Community. After the Option Period, each Inventing Member(s) is encouraged to implement and market in good faith a nonexclusive licensing program for the general research community with respect to the Program IP. The decision to license an Inventing Member's Program IP to the general research community, as well as the specific terms and conditions under which it shall do so, is within the sole discretion of the Inventing Member or Members. To the extent that an Inventing Member or Members have the legal right, title and interest to do so, and subject to third party rights, such Program IP will be made available to academic researchers for research and noncommercial purposes in the U.S. for free.

4. **IP Management – Operating Principles**

The Inventing Member(s), acting reasonably and in good faith, shall determine whether to seek patent or copyright protection on Program IP. The Inventing Members may appoint a single Member to manage and facilitate the filing, prosecution, and maintenance of patents and copyrights on Program IP. Each Inventing Member agrees to notify the other Members if it decides not to retain ownership of any Program IP. Subject to DOE approval, if an Inventing Member elects not to retain title to its Program IP, then any other Member shall have the second option to request to obtain title to such Program IP. Members agree that the Inventing Member(s) shall have the first opportunity to file U.S. and foreign patent applications. If a non-Federal Laboratory Inventing Member(s) does not file such applications within one (1) year after disclosure, then any other Member exercising an option to elect to retain title may file patent applications on such Program IP. Federal Laboratory Inventing Members shall have the time specified in their Prime Contracts to elect title to Program IP inventions and to file the necessary applications to protect the Program IP if the Federal Laboratory elects to do so. If the Federal Laboratory Inventing Member does not elect title, then any other Member shall have the option to obtain title to such Program IP. If no Member elects to retain title, the disclosure will then be available to the Department of Energy which can elect title. Members electing title to and filing patent applications for Program IP are responsible for the costs for those activities.

5. **Disclosure and Publication**

- a. Disclosure. Members are encouraged to promptly disclose all inventions and technology developed under DOE Funding or Project Funding, along with related patent filings, to the Project Lead on an Invention Disclosure Form. The Project Lead shall disclose the technology to all Members under the terms and conditions of the NDA.
- b. Publication. Members are encouraged to publish the findings and results of Project Research that arises from the use of DOE Funding, provided that they have a

reasonable opportunity to seek patent protection on any Program IP. Members must share research findings within the general research community through annual meetings, professional conferences, and publications.

6. Addition of New Members

New Members. Existing Members have separately agreed to adhere to the NDA and the IP Management Plan. Subject to respective local, state, and federal law, New Members will be expected to sign the NDA and this IP Management Plan in their current form. Requiring every existing Member to re-sign the NDA and IP Management Plan every time a new Member is added to the Project Research is cumbersome. Therefore, the Project Lead will facilitate the addition of new Members as follows: When a new party is proposed to be added as a Member, the Project Lead will transmit an abstract via fax or electronic mail regarding the new party to all current Members for a comment and consent period not to exceed thirty (30) days from the date the abstract is transmitted. The Project Lead will collate and disseminate to all Members all comments regarding the addition. All Members will make a good-faith effort to resolve any issues regarding the addition, and will not unreasonably withhold their consent to the addition. If the Members are unable to reach unanimous consent, the Project Lead will send the abstract together with all comments regarding the proposed addition to the cognizant DOE program official, who will make a final decision regarding the proposed new party's addition. Upon unanimous consent of the Members or final decision by DOE, the Project Lead will provide the NDA and IP Management Plan for the new party's signature, after which the Project Lead will send an amended NDA and IP Management Plan reflecting the addition to all Members, and the amended NDA and IP Management Plan will be binding on all the Members.

[Signature Page Follows]

Agreed to by:

PRIME AWARDEE:

**WATER ENVIRONMENT AND REUSE
FOUNDATION**

By: _____

Name: _____

Title: _____

Date: _____

SUBAWARDEES:

BROWN AND CALDWELL

By: _____

Name: _____

Title: _____

Date: _____

GENIFUEL CORPORATION

By: _____

Name: _____

Title: _____

Date: _____

MERRICK

By: _____

Name: _____

Title: _____

Date: _____

MICROBIO ENGINEERING

By: _____

Name: _____

Title: _____

Date: _____

COST SHARE PARTICIPANTS:

AMERICAN WATER

By: _____

Name: _____

Title: _____

Date: _____

**CENTRAL CONTRA COSTA
SANITARY DISTRICT**

By: _____

Name: _____

Title: _____

Date: _____

CITY OF CALGARY

By: _____

Name: _____

Title: _____

Date: _____

CITY OF ORLANDO

By: _____

Name: _____

Title: _____

Date: _____

CITY OF SANTA ROSA

By: _____

Name: _____

Title: _____

Date: _____

CLEAN WATER SERVICES

By: _____

Name: _____

Title: _____

Date: _____

EASTMAN CHEMICAL COMPANY

By: _____

Name: _____

Title: _____

Date: _____

EMERSON

By: _____

Name: _____

Title: _____

Date: _____

GREAT LAKES WATER AUTHORITY

By: _____

Name: _____

Title: _____

Date: _____

**LOUISVILLE AND JEFFERSON
COUNTY METROPOLITAN SEWER
DISTRICT**

By: _____

Name: _____

Title: _____

Date: _____

**METROPOLITAN SEWER DISTRICT OF
GREATER CINCINNATI**

By: _____

Name: _____

Title: _____

Date: _____

METRO VANCOUVER

By: _____

Name: _____

Title: _____

Date: _____

**METRO WASTEWATER RECLAMATION
DISTRICT**

By: _____

Name: _____

Title: _____

Date: _____

**METROPOLITAN WATER
RECLAMATION DISTRICT OF
GREATER CHICAGO**

By: _____

Name: _____

Title: _____

Date: _____

SILICON VALLEY CLEAN WATER

By: _____

Name: _____

Title: _____

Date: _____

**SOUTHERN CALIFORNIA GAS
COMPANY**

By: _____

Name: _____

Title: _____

Date: _____

TESORO

By: _____

Name: _____

Title: _____

Date: _____

TOHO WATER AUTHORITY

By: _____

Name: _____

Title: _____

Date: _____

UNITY WATER

By: _____

Name: _____

Title: _____

Date: _____

**VICTOR VALLEY WASTEWATER
RECLAMATION AUTHORITY**

By: _____

Name: _____

Title: _____

Date: _____

APPENDIX A

HYPOWERS PROJECT RESEARCH MEMBERS

The Water Environment and Reuse Foundation (“Project Lead) Battelle Memorial Institute, Pacific Northwest Division, under the authority of Contract No. DE-AC05-76RL01830 for the management and operation of the Pacific Northwest National Laboratory for the U.S. Department of Energy located at 902 Battelle Blvd., MSIN K1-53, Richland, WA 99354 and , Genifuel Corporation; Merrick; MicroBio Engineering; Brown and Caldwell; American Water; Central Contra Costa Sanitary District; City of Calgary; City of Orlando; City of Santa Rosa; Clean Water Services; Eastman Chemical Company; Emerson; Great Lakes Water Authority; Louisville and Jefferson County Metropolitan Sewer District; Metro Vancouver; Metropolitan Water Reclamation District of Greater Chicago; Metropolitan Sewer District of Greater Cincinnati; Metro Wastewater Reclamation District; Toho Water Authority; Silicon Valley Clean Water; Southern California Gas Company; Tesoro; Unity Water; and Victor Valley Wastewater Reclamation Authority

APPENDIX B

HYPOWERS PROJECT RESEARCH MEMBERS’

BACKGROUND INTELLECTUAL PROPERTY

APPENDIX C