

FERMI RESEARCH ALLIANCE, LLC
GENERAL TERMS AND CONDITIONS
FOR COMMERCIAL PRODUCTS OR COMMERCIAL SERVICES
Table of Contents

CLAUSE 1 - GENERAL PROVISIONS	2
1.1 DEFINITIONS	2
1.2 SCOPE OF SUBCONTRACT (COMMERCIAL PRODUCTS OR COMMERCIAL SERVICES)	3
1.3 INDEPENDENT CONTRACTOR.....	3
1.4 ASSIGNMENT	3
1.5 ACCEPTANCE OF SUBCONTRACT	3
1.6 STANDARD OF PERFORMANCE (COMMERCIAL SERVICES).....	3
CLAUSE 2 - PAYMENT (COMMERCIAL PRODUCTS OR COMMERCIAL SERVICES)	4
CLAUSE 3 - INSPECTION (COMMERCIAL PRODUCTS OR COMMERCIAL SERVICES).....	4
CLAUSE 4 - LICENSES AND PERMITS	4
CLAUSE 5 - CHANGES AND MODIFICATIONS.....	4
5.1 CHANGES (COMMERCIAL PRODUCTS OR COMMERCIAL SERVICES).....	4
5.2 MODIFICATION PROPOSALS-PRICE BREAKDOWN.....	5
CLAUSE 6 - INDEMNIFICATION AND LIABILITIES	5
6.1 INDEMNIFICATION	5
6.2 ASSUMPTION OF RISK UNTIL FINAL ACCEPTANCE (SUPPLIES)	5
6.3 THEFT.....	6
6.4 WARRANTY (COMMERCIAL PRODUCTS OR COMMERCIAL SERVICES)	6
6.5 SUSPECT/COUNTERFEIT PARTS	7
6.6 LIMITATION OF LIABILITY	8
6.7 EXCUSABLE DELAYS	8
CLAUSE 7 - TERMINATION AND NON-WAIVER OF DEFAULTS	8
7.1 TERMINATION	8
7.2 NON-WAIVER OF DEFAULTS	8
CLAUSE 8 - LAWS AND REGULATIONS; DISPUTES; APPLICABLE LAW.....	9
8.1 LAWS AND REGULATIONS	9
8.2 DISPUTES	9
8.3 APPLICABLE LAW	10
CLAUSE 9 - RELEASE OF INFORMATION.....	10
CLAUSE 10 -NOTIFICATIONS	10
CLAUSE 11 -ENTIRE AGREEMENT AND ORDER OF PRECEDENCE	10
CLAUSE 12 -SITE AND FACILITIES ACCESS.....	11
CLAUSE 13 -ENVIRONMENT, SAFETY & HEALTH (ES&H).....	11
CLAUSE 14 -STOP-WORK ORDER (FAR 52.242-15 (AUG 1989))	12
CLAUSE 15 -INSURANCE.....	12
CLAUSE 16 -INFORMATION TECHNOLOGY ACQUISITIONS	12
CLAUSE 17 -SPECIAL GOVERNMENT FLOW DOWN PROVISIONS (COMMERCIAL PRODUCTS AND COMMERCIAL SERVICES)	13

CLAUSE 1 - GENERAL PROVISIONS

1.1 DEFINITIONS

“CFR” means the Code of Federal Regulations.

“Commercial product,” “commercial service,” and “commercially available off-the-shelf (COTS) item” have the meanings contained in Federal Acquisition Regulation, FAR, 2.101, Definitions.

“DEAR” means the Department of Energy Acquisition Regulation.

“DOE” means the United States Department of Energy or any duly authorized representative thereof.

“FRA” means Fermi Research Alliance, LLC, acting as operator and manager of the Fermi National Accelerator Laboratory under United States Department of Energy Prime Contract No. DE-AC02-07CH11359, and includes any successor to that Prime Contract or any duly authorized representatives thereof. FRA is the contracting entity for this Subcontract.

“FAR” means the Federal Acquisition Regulation.

“Fermilab” means the physical site and property that is the Fermi National Accelerator Laboratory.

“FRA Procurement Representative” shall mean the person in charge of administering this Subcontract for FRA or his or her written designee.

“Government” means the Government of the United States acting through the United States Department of Energy or its successor.

“Subcontract” means this Subcontract between FRA and the Subcontractor. “Sub-subcontracts” means the Subcontractor’s subcontracts. Except as otherwise provided in this Subcontract, “sub-subcontracts” includes purchase orders under this Subcontract.

“Subcontractor” means the party that has entered into this Subcontract with FRA. The lower case “subcontractor” means sub-subcontractors.

When an article, provision, or clause in this Subcontract uses a word or term that is defined in the Federal Acquisition Regulation (FAR), the word or term has the same meaning as the definition in FAR 2.101 in effect at the time the solicitation was issued, unless:

The solicitation, or amended solicitation, provides a different definition;

The contracting parties agree to a different definition in the Subcontract;

The part, subpart, or section of the FAR where the provision or clause is prescribed provides a different meaning; or

The word or term is defined in FAR Part 31, for use in the cost principles and procedures.

When a solicitation provision or contract clause uses a word or term that is defined in the Department of Energy Acquisition Regulation (DEAR) (48 CFR chapter 9), the word or term has the same meaning as the definition in 48 CFR 902.101 or the definition in the part, subpart, or section of 48 CFR chapter 9 where the provision or clause is prescribed in effect at the time the solicitation was issued, unless an exception or different definition set forth in 1.1 applies.

1.2 SCOPE OF SUBCONTRACT (COMMERCIAL PRODUCTS OR COMMERCIAL SERVICES)

The scope of this Subcontract is commercial products or commercial services as set forth in the Subcontract, including the Purchase Order, Statement of Work, and any incorporated documents.

This Subcontract is entered into under FRA's Prime Contract No. DE-AC02-07CH11359 with DOE for the operation and management of the Fermi National Accelerator Laboratory.

1.3 INDEPENDENT CONTRACTOR

The Subcontractor is, and shall act as, an independent Subcontractor and the Subcontractor shall not be or act as the agent, employee or servant of FRA or the Government. Without limiting the generality of the foregoing, it is understood and agreed that:

- (a) All persons employed by the Subcontractor in the performance of this agreement shall be employees of the Subcontractor and not employees of FRA or the Government,
- (b) This Subcontract does not create a joint employer relationship for FRA or the Government; and
- (c) The Subcontractor shall not enter into any contract with a third party which purports to obligate or bind FRA or the Government.

1.4 ASSIGNMENT

Neither this Subcontract nor any interest therein nor claim thereunder shall be assigned or transferred by the Subcontractor except as expressly authorized in writing by FRA. Subcontractor shall inform FRA of the transfer of Seller's assets, rights, obligations and/or liabilities under this Agreement to a separate legal entity and submit written proof of such transfer. Subcontractor also shall inform FRA of a corporate name change and submit documents as proof of such a change. The parties must enter into and execute a Novation Agreement or Name Change Agreement for assignment by Subcontractor to be effective. FRA may assign, without Subcontractor's consent, the whole or any part of this Subcontract to the Government or its designee or to a successor contractor for operation and management of the Fermi National Accelerator Laboratory, and in such event this Subcontract shall continue in full force and effect.

1.5 ACCEPTANCE OF SUBCONTRACT

The Subcontractor's written acceptance of this Subcontract or the performance of any portion of this Subcontract shall constitute the Subcontractor's unqualified acceptance of this Subcontract and all the Subcontract's terms and conditions. Any alterations made to the documents comprising this Subcontract or any conditions imposed by the Subcontractor upon its written acceptance of this Subcontract are not accepted, shall only constitute a proposal for modification of the Subcontract, and shall have no effect on the validity or the Subcontractor's acceptance of this Subcontract and its terms and conditions, anything to the contrary notwithstanding.

1.6 STANDARD OF PERFORMANCE (COMMERCIAL SERVICES)

Subcontractor shall perform the work and/or services in a professional, skillful and competent manner in accordance with the standards of care and quality practiced by reputable and recognized subcontractors with national experience in performing similar services for projects of similar size, scope and complexity in a similar location.

CLAUSE 2 - PAYMENT (COMMERCIAL PRODUCTS OR COMMERCIAL SERVICES)

Payment will be made after acceptance of the products/services by FRA and receipt of a proper invoice. Discount time will be computed from the date of delivery at place of acceptance or from receipt of proper invoice at the office specified by FRA, whichever is later. Payment is made, for discount purposes, when the FRA check is mailed.

In connection with any discount offered, time will be computed from the date of completion of the performance of the services or from the date the correct invoice or voucher is received at the office specified by FRA, whichever is later. Payment is made, for discount purposes, when the check is mailed.

CLAUSE 3 - INSPECTION (COMMERCIAL PRODUCTS OR COMMERCIAL SERVICES)

FRA has the right to inspect and test all commercial products or commercial services in accordance with the FAR inspection clauses incorporated by reference in the Clause titled Special Government Flow Down Provisions. FRA may require repair or replacement of nonconforming supplies or reperformance of nonconforming services at no increase in price.

CLAUSE 4 - LICENSES AND PERMITS

The Subcontractor shall maintain all applicable licenses and permits in good standing with the appropriate jurisdiction or governing body throughout the term of this Subcontract. Subcontractor shall immediately notify FRA of any change in the good standing status of its licenses or permits. Failure by the Subcontractor to maintain applicable licenses in good standing or permits is cause for immediate termination of this Subcontract by FRA.

CLAUSE 5 - CHANGES AND MODIFICATIONS

5.1 CHANGES (COMMERCIAL PRODUCTS OR COMMERCIAL SERVICES)

FRA may, at any time, by written order designated or indicated to be a change order, make any change in the work, the commercial services, supplies and/or commercial products required by this Subcontract that are within the general scope of the Subcontract, including changes:

- (a) In the description of services and/or work to be performed;
- (b) In the time of performance of the Subcontract; or
- (c) In the place of performance; or
- (d) In the amount or type of supplies and/or items.

Except as provided in this clause, no order, statement, or conduct of FRA shall be treated as a change under this clause or entitle the Subcontractor to an equitable adjustment.

The Subcontractor must assert its right to an equitable adjustment under this clause, within 30 days after receipt of a written change order and submit a proposal for equitable adjustment supported by all documentation required by FRA to analyze the request. The Subcontractor shall provide the services, work, supplies and/or products in accordance with the changes ordered by FRA upon receipt of the written change order.

No claim by the Subcontractor for an equitable adjustment based on changes made by FRA shall be allowed if asserted after final payment under this Subcontract. Adjustments to Subcontract price and time for performance shall be memorialized in a Supplemental Agreement or Subcontract Modification. Each Supplemental Agreement or Subcontract Modification shall constitute a final settlement of all matters relating to the change in the work which is the subject of the change order, including but not limited to, all adjustments to the Subcontract price and time for performance, if any, included with that change order. No

course of conduct or dealing between the parties, no express or implied acceptance of alterations or additions to the work and no claim that FRA has been unjustly enriched by an alteration or addition to the work, whether there is any unjust enrichment, shall be the basis of any claim for adjustment in compensation due the Subcontractor or in connection with the work or for adjustment in any time period provided for under the Subcontract. Moreover, the Subcontractor hereby waives and forfeits all claims that any work, services or other activities were performed pursuant to any contract or other agreement separate from the Subcontract. Subcontractor shall not receive any additional compensation or any adjustment in the Subcontract price or time of performance in connection with any work, services or other activities of the Subcontractor pertaining to the work unless such work, services or other activities is authorized in a change order or a written directive, as more specifically described in this section.

5.2 MODIFICATION PROPOSALS-PRICE BREAKDOWN

The Subcontractor, in connection with any proposal made for a Subcontract modification, shall furnish a price breakdown, itemized as required by FRA. Unless otherwise directed, the breakdown shall be in sufficient detail to permit an analysis of all material, labor, equipment, sub-subcontract, and overhead costs, as well as profit, and shall cover all work involved in the modification, whether such work was deleted, added or changed. Any amount claimed for sub-subcontracts shall be supported by a similar price breakdown. In addition, if the proposal includes a time extension, a justification therefore shall also be furnished. The justification shall be furnished by the date specified by FRA.

When costs are a factor in any determination of a Subcontract price adjustment under any clause of this Subcontract, such costs shall be in accordance with the contract cost principles and procedures in Subpart 31.2 of the FAR and Subpart 931.2 of the DEAR in effect on the date of this subcontract.

CLAUSE 6 - INDEMNIFICATION AND LIABILITIES

6.1 INDEMNIFICATION

To the extent permitted by law, the Subcontractor shall indemnify and hold harmless FRA, The University of Chicago, Universities Research Association, Inc., and the United States Government, their officers, agents, servants, and employees from any and all liability for losses, expenses, damages, demands, and claims, and shall defend any claim, suit, or action brought against any or all of them based on any alleged personal injury or property damage, and shall pay any damages, costs, and expenses, including attorneys' fees, in connection with or resulting from such claim, suit, or action that arise in whole or in part from:

- (a) Subcontractor's breach of any term or provision of the subcontract documents, or
- (b) any negligent or willful act or omission of the Subcontractor, its employees, agents, of subcontractors, material suppliers, or anyone for whose acts they may be liable, regardless of whether such liability, claim, damage, loss, penalty, forfeiture, fine, or suit is caused in part by a party indemnified hereunder.

The obligations of the Subcontractor under this Clause regarding liability and indemnification will survive the final completion or termination of this Subcontract.

6.2 ASSUMPTION OF RISK UNTIL FINAL ACCEPTANCE (SUPPLIES)

Title to supplies furnished under this subcontract shall pass to the Government upon formal acceptance, regardless of when or where FRA takes physical possession, unless the subcontract specifically provides for earlier passage of title.

Unless the subcontract specifically provides otherwise, risk of loss of or damage to supplies shall remain with the Subcontractor until, and shall pass to FRA upon – (a) Delivery of the supplies to a carrier, if

transportation is f.o.b. origin; or (b) Acceptance by FRA or delivery of the supplies to FRA at the destination specified in the subcontract, whichever is later, if transportation is f.o.b. destination.

The paragraph immediately above shall not apply to supplies that so fail to conform to subcontract requirements as to give a right of rejection. The risk of loss of or damage to such nonconforming supplies remains with the Subcontractor until cure or acceptance. After cure or acceptance, the paragraph immediately above shall apply.

The Subcontractor shall not be liable for loss of or damage to supplies caused by the negligence of officers, agents, or employees of FRA acting within the scope of their employment.

6.3 THEFT

Necessary precautions for safeguarding material and equipment relating to this Subcontract or on the Fermilab site will be the responsibility of the Subcontractor. In addition, the Subcontractor shall immediately notify the FRA Procurement Representative of any theft, providing the following information:

Name and phone number of person making report.

Description of missing property; i.e., make and color (if available), model number, serial number and value. Indicate ownership, if Government, furnish Government Identification No.

Date and time theft took place or was discovered.

Date and time property was last known to be in proper place.

Any other information which might be pertinent.

6.4 WARRANTY (COMMERCIAL PRODUCTS OR COMMERCIAL SERVICES)

The Subcontractor warrants that all supplies or services furnished under the Subcontract will conform to the specifications and all other Subcontract requirements, will be free from defects in material or workmanship, and will otherwise be merchantable and fit for use for the particular purpose described in this Subcontract. Such warranties, together with the Subcontractor's service and other warranties and guarantees, if any, shall survive inspection, tests, acceptance, and payment, and shall run to FRA, its successors and assigns.

In the case of supplies, the Subcontractor, within a reasonable time after receipt of written notice from FRA and without cost to FRA, shall repair or replace any defects in materials or workmanship, or any other nonconformance with specifications, which defect or other nonconformance appears during the period ending on a date twelve months after initial use by FRA, or eighteen months after delivery to and acceptance by FRA, whichever is earlier, unless a different warranty period is provided in the Subcontract. If, within a reasonable time, the Subcontractor is unable or refuses to correct or replace such defective or nonconforming supplies, then FRA has the right, at its option, either (i) to return such supplies for credit, or, (ii) in accordance with relevant Subcontract provisions or by any other means reasonably determined by FRA, to repair or replace such supplies and assess the Subcontractor the cost thereof and all expenses occasioned thereby.

In the case of services, the Subcontractor, within a reasonable time after receipt of written notice from FRA and without cost to FRA, shall correct any defects or nonconformities in the services furnished under the Subcontract, which defects or other nonconformities appear within one year after the date of acceptance by FRA, unless a different warranty period is provided in the Subcontract. If, within a reasonable time, the Subcontractor is unable or refuses to correct or re-perform such services, then FRA has the right, at its option, either (i) in accordance with relevant Subcontract provisions or by any other means reasonably determined by FRA, to correct or replace with similar services and charge to the Subcontractor the cost

occasioned thereby, or (ii) to make an equitable adjustment in the Subcontract price in the event FRA does not require correction or re-performance of the services.

Energy Consuming Products. When the Subcontract requires the specification or delivery of energy consuming products for use in a Federal facility, the Subcontractor agrees and warrants that it shall specify or deliver EnergyStar® qualified products, or products conforming to the Federal Energy Management Program's (FEMP) Energy Efficiency Requirements, whichever may be applicable or more stringent, provided products with such a designation are available, are life cycle cost effective, and meet applicable performance standards. Information about these products is available:

- (i) for EnergyStar® at: <http://www.energystar.gov/products> and
- (ii) for FEMP at: http://www.eere.energy.gov/femp/procurement/eep_requirements.cfm.

Environmentally Preferable Purchasing for Desktop or Laptop Computers or Monitors. When the Subcontract requires the specification or delivery of desktop or laptop computers or monitors in a DOE facility, the Subcontractor agrees and warrants that it shall specify or deliver Electronic Product Environmental Acquisition Tool (EPEAT) registered products conforming to the IEEE 1680-2006 Standard (or, if the 2006 standard has been updated, the most recent standard promulgated by the IEEE Computer Society as sponsored by the Standard Activities Board), provided such products are available, are life cycle cost efficient, and meet applicable performance requirements. Information on EPEAT-registered computer products is available at www.epeat.net.

Compliance with Internet Protocol Version 6 (IPv6) in Acquiring Information Technology.

- (i) If this Subcontract involves the acquisition of Information Technology (IT) that uses Internet Protocol (IP) technology, the Subcontractor agrees and warrants that:
 - (A) All deliverables involving IT that uses IP (products, services, software, etc.) will comply with IPv6 standards and interoperate with both IPv6 and IPv4; and
 - (B) All deliverables involving IT will possess IPv6 technical support for development and implementation and fielded product management available.
- (ii) If the Subcontractor plans to offer a deliverable involving IT that is not initially compliant, the Subcontractor agrees and warrants that it shall:
 - (A) Obtain the Laboratory Procurement Official approval before starting work on the deliverable; and
 - (B) Maintain the availability of IPv6 technical support for development, implementation, and fielded product management.
- (iii) Should the Subcontractor find that the statement of work or specifications of this Subcontract do not conform to the IPv6 standard, Subcontractor must notify FRA of such nonconformance and act in accordance with instructions provided by FRA.

The rights and remedies of FRA provided in this warranty clause are in addition to and do not limit any rights afforded to FRA by law or by any other clause of this Subcontract.

6.5 SUSPECT/COUNTERFEIT PARTS

Notwithstanding any other provisions of this agreement, the Subcontractor warrants that all products provided to FRA shall be genuine, new, and unused unless otherwise specified in writing by FRA. Subcontractor further warrants that all products used by the Subcontractor during performance of work at Fermi National Accelerator Laboratory include all genuine, original, and new components, or are otherwise

suitable and fit for the intended purpose. Subcontractor's warranty extends to labels and/or trademarks or logos affixed, or designed to be affixed, to products supplied or delivered to Fermilab.

Subcontractor shall indemnify Fermi Research Alliance, LLC, and the U.S. Department of Energy, their respective agents, and third parties for any financial loss, injury, or property damage resulting directly or indirectly from material, components, or parts that are not genuine, original, or unused, or not otherwise suitable and fit for the intended purpose. This includes but is not limited to materials that are defective, suspect, or counterfeit; materials that have been provided under false pretenses; and materials or products that are materially altered, damaged, deteriorated, degraded, or result in product failure.

Types of material, parts, and components known to have been misrepresented include but are not limited to fasteners; hoisting, rigging and lifting equipment; cranes; hoists; valves; pipe and fittings; electrical equipment and devices; plate, bar shapes, channel members, and other heat treated materials and structural items; welding rod and electrodes; and computer memory modules.

Because falsification of information or documentation may constitute criminal conduct, the Subcontractor acknowledges and agrees that FRA may reject and retain such information or products at no cost, and identify, segregate, and report such information or activities to relevant Department of Energy Officials.

6.6 LIMITATION OF LIABILITY

Except as otherwise provided by an express or implied warranty, the Subcontractor will not be liable to FRA for consequential damages resulting from any defect or deficiencies in accepted commercial services or products.

6.7 EXCUSABLE DELAYS

The Subcontractor shall be liable for default unless nonperformance is caused by an occurrence beyond the reasonable control of the Subcontractor and without its fault or negligence, such as acts of God or the public enemy, acts of FRA, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, unusually and unexpected severe weather, and delays of common carriers. The Subcontractor shall notify FRA in writing as soon as reasonably possible after the commencement of any excusable delay, setting forth the full particulars in connection therewith, shall remedy such occurrence with all reasonable dispatch, and shall promptly give written notice to FRA of the cessation of such occurrence.

CLAUSE 7 - TERMINATION AND NON-WAIVER OF DEFAULTS

7.1 TERMINATION

FRA may terminate this Subcontract in accordance with the FAR clauses relating to Termination for Convenience of the Government or Default that are incorporated by reference into these General Terms and Conditions, at the Clause titled Special Government Flow Down Provisions.

In addition, FRA may terminate this Subcontract for any material default by the Subcontractor relating to any Subcontract article, clause, or requirement, including but not limited to the environmental, safety, and health requirements.

7.2 NON-WAIVER OF DEFAULTS

Any failure by FRA at any time, or from time to time, to enforce or require the strict keeping and performance of any of the terms or conditions of this Subcontract shall not constitute a waiver of such terms or conditions and shall not affect or impair such terms or conditions in any way, or the right of FRA at any time to avail itself of such remedies as it may have for any breach or breaches of such terms or conditions.

The rights and remedies of FRA in this clause are in addition to any other rights and remedies provided by law under this Subcontract.

CLAUSE 8 - LAWS AND REGULATIONS; DISPUTES; APPLICABLE LAW

8.1 LAWS AND REGULATIONS

All delivered products and all services performed under this Subcontract shall be in compliance with all applicable federal, state, and local laws, ordinances, statutes, codes, rules and regulations (including DOE regulations), including but not limited to those relating to wages, hours, employment, discrimination, immigration, and safety. The Subcontractor also shall comply with the Contractor Requirements Document (CRD) of any DOE Directive referenced within the Subcontract or these General Terms and Conditions.

8.2 DISPUTES

The parties agree to cooperate in resolving any claims, controversies or disputes that may arise out of or relate to this Subcontract, the breach thereof, or the Subcontract Work, (collectively, "Dispute" or "Disputes"). The parties are committed to resolving any Disputes in an amicable, professional and expeditious manner so as to avoid any unnecessary costs or delays to the Work.

Continuance of Work: The parties expressly agree and acknowledge that Work will not be stopped or slowed in any way during the pendency of any Dispute. Subcontractor shall continue to prosecute the Work pending final resolution or determination thereof, unless requested by FRA to suspend Subcontract Work, provided that FRA continues to pay Subcontractor as provided herein for all Subcontract Work not subject to a Dispute.

Step Negotiations: FRA and Subcontractor will first attempt to resolve Disputes at the field level through discussions between FRA's Project Manager and the Subcontractor's Project Manager. If a Dispute cannot be resolved at the field level, upon the request of either party, the Dispute shall be directed to FRA's Procurement Manager and Subcontractor's Executive Corporate Representative (collectively "Senior Representatives") who shall meet as soon as conveniently possible, but in no case later than thirty (30) days after such a request is made, to attempt to resolve such Dispute. Prior to any meetings between the parties, the parties will exchange relevant information that will assist the parties in resolving their Dispute.

Mediation: If the Dispute is not resolved through negotiations between the Senior Representatives, the parties will submit the matter to mediation.

Binding Dispute Resolution: At the sole option and decision of FRA, all Disputes not resolved by Step Negotiations or Mediation shall be decided by confidential, binding arbitration, administered jointly by the parties to the arbitration and otherwise in accordance with the Commercial Arbitration Rules and Mediation Procedures of the AAA then in effect, before the Arbitrator. Execution of this Subcontract represents Subcontractor's express consent and agreement to arbitrate Disputes if so chosen by FRA. Notice of demand for arbitration must be filed in writing with the other parties to the arbitration. If FRA does not elect arbitration, the parties shall proceed to litigation. In no event may the demand for arbitration be made after institution of legal or equitable proceedings based on the Dispute would be barred by the applicable statute of limitations.

Each party shall produce all documents relevant to the Dispute. Each party shall be entitled to depose no more than six (6) fact witnesses for no longer than six (6) hours each. Each party shall be entitled to depose any and all retained expert opinion witnesses for no longer than six (6) hours each. All discovery disputes shall be decided by the Arbitrator. The Arbitrator may modify these discovery limitations for good cause shown.

The Arbitrator shall have authority to order specific performance, including, without limitation, interim injunctive relief prior to the Dispute being resolved and any final injunctive relief warranted. The Arbitrator

shall have the authority to decide all issues concerning the fulfillment of any condition precedent to the arbitrability of a claim or defense; the amount of damages to be awarded, if any; and the arbitrability of the issues presented as well as to resolve all Disputes, including, without limitation, all federal, state, and local statutory claims. The Arbitrator is not empowered to award damages in excess of compensatory damages such as punitive damages.

The award of the Arbitrator shall be enforceable in any court of competent jurisdiction, and each party consents and submits to the jurisdiction of such court for purposes of such action.

Joinder of Parties: At either party's option, third parties may be joined in any of the dispute resolution processes listed above, by consolidation, joinder, or otherwise, who are subject to a valid alternative dispute resolution agreement with the party seeking joinder of such third party.

8.3 APPLICABLE LAW

To the extent that Federal law does not exist and state law could become applicable to this Subcontract, the law of Illinois shall apply.

CLAUSE 9 - RELEASE OF INFORMATION

The Subcontractor agrees that information regarding this Subcontract, any data developed or obtained in the course of performing this Subcontract, and the name of FRA, Fermi National Accelerator Laboratory, Fermilab, the United States Government, or the United States Department of Energy shall not be disclosed in any publications, news releases, advertising, speeches, technical papers, photographs, and other releases of information without prior written approval from the FRA Procurement Representative.

CLAUSE 10 - NOTIFICATIONS

The Subcontractor shall immediately notify the FRA Procurement Representative in writing of: (1) any action, including any proceeding before an administrative agency, filed against the Subcontractor arising out of the performance of this Subcontract; and (2) any claim made against the Subcontract, the cost of which is or is claimed to be reimbursable under this Subcontract.

If, at any time during the performance of this Subcontract, the Subcontractor becomes aware of any circumstances which may jeopardize its performance of all or any portion of the Subcontract, it shall immediately notify the FRA Procurement Representative in writing of such circumstances, and the Subcontractor shall take whatever action is reasonably necessary to resolve such circumstances within the shortest possible time.

CLAUSE 11 - ENTIRE AGREEMENT AND ORDER OF PRECEDENCE

This Subcontract shall consist of the Subcontract document (including any signature page), Purchase Order (if applicable), these General Terms and Conditions, and any other referenced or incorporated clauses, provisions, and documents. Together, they are the entire agreement between the parties concerning the subject matter and they supersede all prior proposals, representations, negotiations, or agreements, whether written or oral.

Any inconsistencies in the terms and conditions comprising the Subcontract shall be resolved by giving precedence in the following order: (a) the Subcontract document; (b) these General Terms and Conditions, including the FAR and DEAR clauses incorporated by reference; (c) any specifications or drawings; (d) other documents listed in the Subcontract as Incorporated Documents, if any, in the order in which they are listed; and (e) any other referenced or incorporated clauses, provisions, or documents.

CLAUSE 12 - SITE AND FACILITIES ACCESS

All Subcontractor and lower-tier subcontractor employees requiring access to any Fermilab facility or sites, including on-site or remote access to Fermilab/FRA computer systems, are subject to applicable DOE and FRA site access requirements and restrictions, including but not limited to all environmental, health, safety, security, and personnel requirements. Any questions should be directed to either the subcontract designated Technical Representative or the FRA Procurement Representative.

- (a) The Subcontractor shall not assign foreign national (non-U.S. citizen) employees or other personnel to work at any Fermilab facility or site, including through on-site or remote access to Fermilab/FRA computer systems, who were born in, are citizens of, are employed or sponsored by or represent a government, company, institution, or other organization based in a country on the Department of State's List of State Sponsors of Terrorism (<https://www.state.gov/state-sponsors-of-terrorism/>) without prior written approval from DOE Headquarters. Terrorist-sponsoring countries may be updated from time to time by the State Department. Requests for access must be submitted to the FRA Procurement Representative at least 180 days in advance to allow time for approval from the DOE.
- (b) FRA also is required by DOE to document all foreign national employees who were born in, are citizens of, are employed or sponsored by or represent a government, company, institution or organization based in, a sensitive country and who require access to a Fermilab facility or site, including either on-site or remote access to Fermilab/FRA computer systems. To obtain site access, the Subcontractor must provide the place of birth and citizenship for all foreign national employees/personnel working on this subcontract who may access a Fermilab facility or site, including on-site or remote access to Fermilab/FRA computer systems. Employees/personnel from specific sensitive countries may need additional processing and/or be subject to specific restrictions as required by DOE Order 142.3B.

CLAUSE 13 - ENVIRONMENT, SAFETY & HEALTH (ES&H)

The Subcontractor shall take all reasonable precautions in the performance of this Subcontract to protect the health and safety of employees, sub-subcontractor employees, FRA employees, and members of the public, to minimize danger from all hazards to life and property, and to prevent injury to any employees or other persons. The safety of all persons employed by the Subcontractor and its subcontractors on the Fermilab site, or other Government premises, or any other person who enters on the sites or premises for reasons relating to this Subcontract, shall be the sole responsibility of the Subcontractor.

The Subcontractor shall comply with all applicable environmental, safety, health, and fire protection laws, regulations, orders, and requirements (including reporting requirements), including those of DOE. The Subcontractor shall comply with FRA's environmental, safety, and health requirements for any work performed at the Fermilab site, including the requirements set forth in 10 CFR 851 Worker Safety and Health Program.

The Subcontractor shall immediately take action to correct any noncompliance with the environmental, safety, and health requirements of this Subcontract. If the Subcontractor fails to comply with the environment, safety, and health requirements, FRA may, without waiver of any other legal or contractual rights or remedies, issue a stop-work order that stops all or any part of the work under this Subcontract. Thereafter, a start order for resumption of any or all work may be issued at the discretion of FRA. The Subcontractor may not make any claim for an extension of time or for compensation or damages in connection with any work stoppage under this provision.

CLAUSE 14 - STOP-WORK ORDER (FAR 52.242-15 (AUG 1989))

FRA may, at any time, by written order to the Subcontractor, require the Subcontractor to stop all, or any part, of the work called for by this Subcontract contract for a period of 90 days after the order is delivered to the Subcontractor, and for any further period to which the parties may agree. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Subcontractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of 90 days after a stop-work is delivered to the Subcontractor, or within any extension of that period to which the parties shall have agreed, FRA shall either:

- (1) Cancel the stop-work order; or
- (2) Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of FRA, clause of this contract.

If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Subcontractor shall resume work. FRA shall make an equitable adjustment in the delivery schedule or Subcontract price, or both, and the Subcontract shall be modified, in writing, accordingly, if:

- (1) The stop-work order results in an increase in the time required for, or in the Subcontractor's cost properly allocable to, the performance of any part of this Subcontract; and
- (2) The Subcontractor asserts its right to the adjustment within 30 days after the end of the period of work stoppage; provided, that, if FRA decides the facts justify the action, FRA may receive and act upon the claim submitted at any time before final payment under this Subcontract.

If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of FRA, FRA shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

If a stop-work order is not canceled and the work covered by the order is terminated for default, FRA shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

CLAUSE 15 - INSURANCE

Insurance requirements, if any, for this Subcontract are established by FRA as the contracting entity. Before undertaking any work under this Subcontract, the Subcontractor shall, except as otherwise approved by FRA, comply with the Insurance Requirements Exhibit if included in this Subcontract, which are based upon levels of risk, and provide the applicable certificates of insurance as set out in the Insurance Requirements Exhibit.

The Subcontractor shall indemnify FRA for any expense incurred or loss suffered by FRA for the failure of the Subcontractor to comply with the provisions of this clause or the Insurance Requirements for this Subcontract.

CLAUSE 16 - INFORMATION TECHNOLOGY ACQUISITIONS

Prior to use under this Subcontract, all information technology shall be compliant with the appropriate information technology security policies and requirements, including use of common security configurations available from the National Institute of Standards and Technology's website at <http://checklists.nist.gov> commensurate with the mission of the contract and conducive to the research and development efforts of the Contractor. This requirement shall be included in all

subcontracts, as appropriate, which are for information technology acquisitions.

CLAUSE 17 - SPECIAL GOVERNMENT FLOW DOWN PROVISIONS (COMMERCIAL PRODUCTS AND COMMERCIAL SERVICES)

The Federal Acquisition Regulation (FAR) and Department of Energy Acquisition Regulation (DEAR) clauses listed below are incorporated by reference into this Subcontract, with the same force and effect as if they were written out in full verbatim text. The full texts of the clauses are located in Chapters 1 and 9 of Title 48 of the Code of Federal Regulations and are available at <https://www.gpo.gov/fdsys/> or <https://www.acquisition.gov>.

The threshold categories below are additive, meaning that the clauses listed for each threshold level apply to any Subcontract within that or any higher threshold level of applicability.

As used in these incorporated clauses, the following terms will have the meanings listed below:

“Contract” shall mean this Subcontract

“Contractor” shall mean the Subcontractor

“Subcontractor” in lower case shall mean the Subcontractor’s subcontractors (i.e., lower tier subcontractors)

“Government” and “Contracting Officer” shall mean FRA, except as specifically noted below

The Subcontractor shall include the listed provisions in its subcontracts, at any tier, to the extent applicable to the type of work and Subcontractor status. The version of the provision in force at the time of execution of this Subcontract or any sub-subcontracts shall control.

THE FOLLOWING CLAUSES APPLY REGARDLESS OF SUBCONTRACT VALUE

FAR 52.203-19	PROHIBITION ON REQUIRING CERTAIN INTERNAL CONFIDENTIALITY AGREEMENTS OR STATEMENTS (JAN 2017)
FAR 52.204-9	PERSONAL IDENTITY VERIFICATION OF SUBCONTRACTOR PERSONNEL (JAN 2011)
FAR 52.204-21	BASIC SAFEGUARDING OF COVERED CONTRACTOR INFORMATION SYSTEMS (NOV 2021) Applies if subcontract is for other than commercially available off-the-shelf items and if subcontractor has federal contract information residing in or transiting through its information system
FAR 52.204-23	PROHIBITION ON CONTRACTING FOR HARDWARE, SOFTWARE AND SERVICES DEVELOPED OR PROVIDED BY KASPERSKY LAB AND OTHER COVERED ENTITIES (NOV 2021)
FAR 52.204-25	PROHIBITION ON CONTRACTING FOR CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT (NOV 2021) Excluding paragraph (b)(2)
FAR 52.208-8	REQUIRED SOURCES FOR HELIUM AND HELIUM USAGE DATA (AUG 2018)
FAR 52.222-1	NOTICE OF LABOR DISPUTES (FEB 1997)
FAR 52.222-21	PROHIBITION OF SEGREGATED FACILITIES (APR 2015)
FAR 52.222-26	EQUAL OPPORTUNITY (SEPT 2016)

NOTE: DOWNLOAD THE EEO POSTER AT:

<https://www.dol.gov/ofccp/regs/compliance/posters/pdf/eeopost.pdf>

- FAR 52.222-50 COMBATING TRAFFICKING IN PERSONS (NOV 2021)
- FAR 52.223-9 ESTIMATE OF PERCENTAGE OF RECOVERED MATERIAL CONTENT FOR EPA DESIGNATED ITEMS (MAY 2008)
- FAR 52.223-15 ENERGY EFFICIENCY IN ENERGY CONSUMING PRODUCTS (MAY 2020)
- FAR 52.223-17 AFFIRMATIVE PROCUREMENT OF EPA-DESIGNATED ITEMS IN SERVICE AND CONSTRUCTION CONTRACTS (AUG 2018)
- FAR 52.223-18 ENCOURAGING POLICIES TO BAN TEXT MESSAGING WHILE DRIVING (JUN 2020)
Applies to driving on Fermilab site or DOE owned or leased property
- FAR 52.224-1 PRIVACY ACT NOTIFICATION (APR 1984)
- FAR 52.224-2 PRIVACY ACT (APR 1984)
- FAR 52.224-3 PRIVACY TRAINING (JAN 2017)
Applies if subcontractor employees have access to a Privacy Act system of records; or design, develop, maintain, or operate a Privacy Act system of records; or create, collect, use, process, store, maintain, disseminate, disclose, dispose, or otherwise handle personally identifiable information
- FAR 52.225-1 BUY AMERICAN ACT – SUPPLIES (OCT 2022)
- FAR 52.225-8 DUTY-FREE ENTRY (OCT 2010)
- FAR 52.225-13 RESTRICTION ON CERTAIN FOREIGN PURCHASES (FEB 2021)
- FAR 52.227-3 PATENT INDEMNITY (APR 1984)
- FAR 52.227-14 RIGHTS IN DATA – GENERAL (MAY 2014), with ALTERNATE V (DEC 2007) and DEAR 927.409(d)(3), and substituting paragraph (a) with DEAR 927.409(a)

Applies if any “data” will be produced, furnished, or acquired under the Subcontract

If delivery of Limited Rights Data (as defined in FAR 52.227-14(a)) is required, then ALTERNATE II applies, with the following disclosure purposes added to the end of paragraph (a) of the Limited Rights Notice:
1. Use (except for manufacture) by support services contractors or subcontractors;
 2. Evaluation by non-government evaluators;
 3. Use (except for manufacture) by other contractors or subcontractors participating in the Government’s program of which the specific subcontract is a part;
 4. Emergency repair or overhaul work; and
 5. Release to a foreign government, or its instrumentalities, if required to serve the interests of the U.S. Government, for information or evaluation or for emergency repair or overhaul work
- If delivery of Restricted Computer Software (as defined in FAR 52.227-14(a)) is required, then ALTERNATE III applies
- FAR 52.227-16 ADDITIONAL DATA REQUIREMENTS (JUN 1987)

- FAR 52.227-23 RIGHTS TO PROPOSAL DATA (JUN 1987)
Applies if the Subcontract is based on a technical proposal
- FAR 52.232-1 PAYMENTS (APR 1984)
- FAR 52.232-39 UNENFORCEABILITY OF UNAUTHORIZED OBLIGATIONS (JUNE 2013)
- FAR 52.232-40 PROVIDING ACCELERATED PAYMENT TO SMALL BUSINESS
SUBCONTRACTORS (MAR 2023)
- FAR 52.244-6 SUBCONTRACTS FOR COMMERCIAL PRODUCTS AND COMMERCIAL SERVICES
(MAR 2023)
- FAR 52.245-1 GOVERNMENT PROPERTY (JAN 2017)
Applies if government property is furnished for performance of work under this Subcontract
ALT I applies if subcontract does not require submission of certified cost or pricing data
- FAR 52.245-9 USE AND CHARGES (APR 2012)
Applies if government property is furnished for performance of work under this Subcontract
- FAR 52.246-2 INSPECTION OF SUPPLIES – FIXED PRICE (AUG 1996)
- FAR 52.246-4 INSPECTION OF SERVICES – FIXED PRICE (AUG 1996)
- FAR 52.247-63 PREFERENCE FOR U.S. FLAG AIR CARRIERS (JUN 2003)
- FAR 52.247-64 PREFERENCE FOR PRIVATELY OWNED U.S. FLAG COMMERCIAL VESSELS
(NOV 2021)
- FAR 52.246-16 RESPONSIBILITY FOR SUPPLIES (APR 1984)
Title passes to and vests in the Government, but otherwise replace Government with FRA
- FAR 52.249-2 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED PRICE) (APR
2012)
- FAR 52.249-8 DEFAULT (FIXED-PRICED SUPPLY AND SERVICE) (APR 1984)
- DEAR 952.203-70 WHISTLEBLOWER PROTECTION FOR SUBCONTRACTOR EMPLOYEES (DEC
2000)
Applies if the Subcontract involves any work at the Fermilab site or DOE-owned or leased property
- DEAR 952.204-77 COMPUTER SECURITY (AUG 2006)
Applies if Subcontractor has access to any computers owned, leased, or operated by or on behalf
of FRA or DOE
- DEAR 970.5208-1 PRINTING (DEC 2000)
Applies if the Subcontract requires printing
- DEAR 970.5222-1 COLLECTIVE BARGAINING AGREEMENTS – MANAGEMENT AND OPERATING
CONTRACTS (DEC 2000)
Applies if the Subcontract is for protective services or other services that affect continuity of
operation of the Fermilab facility

DEAR 970.5223-4 WORKPLACE SUBSTANCE ABUSE PROGRAMS AT DOE SITES (DEC 2010)
Applies if the Subcontract involves work at Fermilab site or on DOE-owned or leased property

DEAR 970.5225-1 COMPLIANCE WITH EXPORT CONTROL LAWS AND REGULATIONS (NOV 2015)

DEAR 970.5227-8 REFUND OF ROYALTIES (AUG 2002)
Applies if subcontract price includes amounts for royalties payable to Subcontractor

THE FOLLOWING CLAUSES APPLY IF THE SUBCONTRACT EXCEEDS THE SIMPLIFIED ACQUISITION THRESHOLD, DEFINED IN FAR PART 2

FAR 52.203-6 RESTRICTIONS ON SUB-SUBCONTRACTOR SALES TO THE GOVERNMENT (JUN 2020)

FAR 52.203-17 CONTRACTOR EMPLOYEE WHISTLEBLOWER RIGHTS AND REQUIREMENT TO INFORM EMPLOYEES OF WHISTLE BLOWER RIGHTS (JUN 2020)

FAR 52.219-8 UTILIZATION OF SMALL BUSINESS CONCERNS (OCT 2022)
Applies if the Subcontract involves any further subcontracting opportunities

FAR 52.227-1 AUTHORIZATION AND CONSENT (JUN 2020)

DEAR 970.5227-5 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (DEC 2000) (DEVIATION)
In this clause, "Government" shall mean the United States Government and "Contracting Officer" shall mean the DOE Contracting Officer for Prime Contract No. DE-AC02-07CH11359

FAR 52.229-3 FEDERAL, STATE, AND LOCAL TAXES (FEB 2013)

DEAR 970.5223-7 SUSTAINABLE ACQUISITION PROGRAM (OCT 2010)
Applies to first tier Subcontracts that offer significant subcontracting opportunities for energy efficient or environmentally sustainable products or services

THE FOLLOWING CLAUSES APPLY IF SUBCONTRACT IS PRIMARILY FOR SERVICES PROVIDED BY "SERVICE EMPLOYEES," EXCEEDS \$2,500, AND IS NOT EXEMPT OR EXCLUDED FROM THE SERVICE CONTRACT LABOR STANDARDS STATUTE OR BY THE SECRETARY OF LABOR

FAR 52.222-41 SERVICE CONTRACT LABOR STANDARDS (AUG 2018)

FAR 52.222-43 FAIR LABOR STANDARDS ACT AND SERVICE CONTRACT LABOR STANDARDS – PRICE ADJUSTMENT (MULTIPLE YEAR AND OPTION CONTRACTS) (AUG 2018)

FAR 52.222-44 FAIR LABOR STANDARDS ACT AND SERVICE CONTRACT LABOR STANDARDS – PRICE ADJUSTMENT (MAY 2014)
Applies if not a multiple year or option contract

FAR 52.222-62 PAID SICK LEAVE UNDER EXECUTIVE ORDER 13706 (JAN 2022)

THE FOLLOWING CLAUSES APPLY IF THE SUBCONTRACT EXCEEDS \$3,500

FAR 52.222-54 EMPLOYMENT ELIGIBILITY VERIFICATION (MAY 2022)
Applies to services (unless they are commercial services that are part of the purchase of a COTS item or item that would be a COTS item, but for minor modifications, performed by the COTS provider, and are normally provided for that COTS item) and construction services; only

applies to work performed in the United States

THE FOLLOWING CLAUSES APPLY IF THE SUBCONTRACT EXCEEDS \$10,000

FAR 52.222-40 NOTIFICATION OF EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT (DEC 2010)

THE FOLLOWING CLAUSES APPLY IF THE SUBCONTRACT EXCEEDS \$15,000

FAR 52.222-36 EQUAL OPPORTUNITY FOR WORKERS WITH DISABILITIES (JUN 2020)

FRA and the Subcontractor shall abide by the requirements of 41 CFR 60-741.5(a). This regulation prohibits discrimination against qualified individuals on the basis of disability, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified individuals with disabilities.

THE FOLLOWING CLAUSES APPLY IF THE SUBCONTRACT IS FOR \$30,000 OR MORE

FAR 52.204-10 REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS (JUN 2020)

THE FOLLOWING CLAUSES APPLY IF THE SUBCONTRACT EXCEEDS \$35,000

FAR 52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (NOV 2021)

Applies unless Subcontract is for COTS items

THE FOLLOWING CLAUSES APPLY IF THE SUBCONTRACT EXCEEDS \$150,000

FAR 52.203-12 LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (JUN 2020)

FAR 52.222-4 CONTRACT WORK HOURS AND SAFETY STANDARDS – OVERTIME COMPENSATION (MAY 2018)

Applies unless exempt under FAR 22.305

FAR 52.222-35 EQUAL OPPORTUNITY FOR VETERANS (JUN 2020)

FRA and the Subcontractor shall abide by the requirements of 41 CFR 60-300.5(a). This regulation prohibits discrimination against qualified protected veterans, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified protected veterans.

FAR 52.222-37 EMPLOYMENT REPORTS ON VETERANS (JUN 2020)

THE FOLLOWING CLAUSES APPLY IF SUBCONTRACT IS PRIMARILY FOR SERVICES PROVIDED BY "SERVICE EMPLOYEES," EXCEEDS \$500,000, AND IS NOT EXEMPT OR EXCLUDED FROM THE SERVICE CONTRACT LABOR STANDARDS STATUTE OR BY THE SECRETARY OF LABOR

FAR 52.204-14 SERVICE CONTRACT REPORTING REQUIREMENTS (OCT 2016)

Applies to service subcontracts, except for Indefinite Quantity/Indefinite Delivery (IDIQ) subcontracts

FAR 52.204-15 SERVICE CONTRACT REPORTING REQUIREMENTS FOR INDEFINITE DELIVERY CONTRACTS (OCT 2016)
Applies to services under Indefinite Quantity/Indefinite Delivery (IDIQ) subcontracts

THE FOLLOWING CLAUSES APPLY IF THE SUBCONTRACT EXCEEDS \$750,000

FAR 52.219-9 SMALL BUSINESS SUBCONTRACTING PLAN (OCT 2022)
Applies unless the Subcontractor is a small business or there are no subcontracting possibilities

THE FOLLOWING CLAUSES APPLY IF THE SUBCONTRACT EXCEEDS \$6,000,000

FAR 52.203-13 CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT (NOV 2021)
Applies if the Subcontract has a performance period of more than 120 days. All disclosures of violation of the False Claims Act or of Federal criminal law shall be directed to the DOE Inspector General, with a copy to the DOE Contracting Officer for the Fermilab site

(END GENERAL TERMS AND CONDITIONS-COMMERCIAL PRODUCTS COMMERCIAL SERVICES)