



DATE: August 9, 2022

TO: Interested Contractors

FROM: Stephanie Mitchell, Division of Reclamation Mining and Safety

RE: DQ1 PKAA 2023\*0069 Union Carbide Bond Forfeiture Project

This Request for Documented Quotations (DQ) is issued by the State of Colorado, acting by and through the Department of Natural Resources, Division of Reclamation, Mining and Safety (DRMS). Enclosed is a brief description and bid schedule for the Union Carbide Bond Forfeiture Project.

## PROJECT LOCATION

The Union Carbide Bond Forfeiture Project is located in Garfield County 1 mile west of Rifle, Colorado. Please see the attached maps.

## WORK SUMMARY

The project work will include herbicide application at a revoked and forfeited gravel pit. The project work will include selectively spraying for noxious weeds at the Union Carbide Gravel Pit. Weeds to be sprayed include Musk Thistle (*Carduus nutans* L.), Russian Thistle (*Salsola tragus*), Russian Knapweed (*Rhaponticum Repens*), Red Stem Filaree (*Erodium Cicutarium*), Halogeton (*Halogeton glomeratus*) and Scotch Thistle (*Onopordum acanthium*). Spraying will be accomplished by using a boom sprayer or a backpack sprayer. ATV and vehicle access is permitted off of existing roads.

## MANDATORY PRE-BID MEETING

The mandatory pre-bid meeting and site showing for the Union Carbide Bond Forfeiture Project will be held on-site at 2515 West Centennial Parkway, Rifle, Colorado (HWY 6) at the entrance to the Rifle Wastewater Treatment Plant on Thursday, August 18, 2022 at 10 am. The purpose of the Pre-Bid meeting is to afford potential bidders the opportunity to inspect the proposed work and access conditions. Bidders are advised to be prompt. A sign-in sheet will be available at the Pre-Bid meeting for firms to register their attendance. It is the bidder's responsibility to make certain their attendance is recorded on the sign-in sheet. **Signing the Pre-Bid Meeting attendance list to represent more than one person or company is not permitted.** Failure to sign-in and sign out, as directed by the Project Manager, will be cause for rejection of a bid.

**Each individual may represent themselves or a single company at the virtual pre-bid for the purpose of bidding.**

**Please review Meeting Requirements PRIOR to the meeting. All interested bidders MUST attend. *Bidding documents must be obtained prior to the pre-bid meeting.* Any Documents that cannot be loaded to the VSS System are the ONLY documents that will be distributed at the Pre-Bid Meeting.**

Bidders are cautioned that, notwithstanding any remarks or clarifications given at this meeting and site showing, all terms and conditions of the contract documents remain unchanged unless they are changed by written amendment issued by the OWNER. If the answers to questions, or any amendment to the contract documents create ambiguities, it is the responsibility of the bidder to seek clarification prior to submitting a bid.

## **BID SUBMITTAL**

**The Deadline for all bids to be submitted is no later than 4:00 p.m. MT on Tuesday, September 6, 2022.**

At this time, all bids must be submitted electronically via Colorado Vendor Self Service ("VSS") at the following link:

[Colorado Vendor Self Service](#)

You can find more information on how to submit solicitations here at the following link:

[VSS submission instructions](#)

Vendors should monitor the amendment history in VSS for any updates or modifications. In the event that it becomes necessary to modify the DQ, the modification will be made in VSS. It is very important that vendors check VSS on a regular basis, as this is the sole method for communicating any modifications. Modifications included in amendments published on VSS take precedence over information in the DQ.

The VSS Help Desk is available Monday through Friday 8:00 a.m. to 5:00 p.m. MT and can be reached by calling (303) 866-6464 or emailing [VSSHelp@state.co.us](mailto:VSSHelp@state.co.us).

VSS is the preferred submission method of bids but if VSS is unavailable, bids may be submitted by email to: [dnr\\_drms\\_imrp\\_bids@state.co.us](mailto:dnr_drms_imrp_bids@state.co.us). Bids submitted via fax are NOT permitted.

A responsive bid must include the following, properly completed and submitted:

- Bid Schedule
- List of Equipment

For projects exceeding \$150,000, the successful proposer(s), hereafter called Contractor, will be required to enter into a formal contract with the State. The contract will incorporate this DQ,

published addenda, and the response of the successful bidder, and will include all contract terms and the Colorado Special Provisions.

**List of Equipment Offered.** The List of Equipment Offered form must be returned with each bid. All equipment to be used on the project must be listed. The CONTRACTOR must own, have a current lease for the equipment intended to be used to perform the work, or must furnish a statement of arrangements to rent, or otherwise procure, adequate equipment to perform the work. Inclusion of a piece of equipment on the List of Equipment Offered represents a commitment to devote that piece of equipment to the project work for the entire duration of the project. If several contractors propose to join together to perform the work under this contract, equipment owned or controlled by each should be listed and the owner identified. An award will not be given to a bidder who in the opinion of the OWNER (a) does not have adequate equipment, or (b) does not have firm and satisfactory arrangements to obtain adequate equipment to perform the work described in the Bid.

If the List of Equipment Offered is not submitted with the bid, the bid may be considered non-responsive.

## **BID OPENING DATE**

**The Bid for this project will be opened on 10:00 a.m. MT on Wednesday, September 7, 2022.**

A written tabulation of the Documented Quote results will be available to those bidders who submit a legible email address with their bid.

## **BID AWARD**

Award will be made with reasonable promptness, by written notice to the low responsive and responsible bidder whose bid meets the requirements and criteria set forth in the Documented Quote. These criteria will include, but not be limited to the lowest GRAND TOTAL PRICE, corrected if necessary for errors in price extension and/or addition, on the Bidder's equipment if a List of Equipment Offered is required with the bid, and capability to meet the performance time requirements. The GRAND TOTAL PRICE will be used for comparing bids only.

The bidder must be registered to do business in the State of Colorado with the Secretary of State [www.sos.state.co.us](http://www.sos.state.co.us). A Certificate of Good Standing will be required to process the Agreement.

If Federal funds are utilized for this project, the contract cannot be awarded to a contractor which has been disbarred or suspended or is otherwise excluded from or ineligible for participation in federal assistance programs. The excluded parties list can be found at the following web site: <http://www.sam.gov>.

## GENERAL BID SPECIFICATIONS

The Colorado Inactive Mine Reclamation Program, [General Bid Specifications 2009](#) which include General Conditions of the Contract, Standard Work Specifications, and Standard Drawings and Figures are intended to complement these Special Conditions. Please refer to the Standard Work Specifications for all applicable types of work required in the Special Conditions. The General Conditions of the Contract apply to all work covered in the Special Conditions.

## PROJECT DATES

The project is scheduled for construction between September 19, 2022 and October 2, 2022. This includes ten (10) days mobilization time. These dates are tentative and may change.

## TIME OF COMPLETION

The time of completion allowed for the project is 14 calendar days after receipt of the Notice to Proceed. This includes ten (10) days mobilization time.

## NOTICE OF AWARD AND EXECUTION OF DOCUMENTS

A Notice of Award will be sent to the apparent low bidder within a reasonable time following the bid submission deadline. The Division of Reclamation, Mining and Safety must receive the following by the date specified in the award letter:

- (a) Certificates of Insurance showing proof of required coverage and Additional Insured Endorsement;
- (b) Project Schedule;
- (c) *AML Contractor Ownership and Control Form*, if required;
- (d) *Three-Way Agreement for Reclamation Activities*, if required by the Special Conditions;
- (e) Completed W-9 form, if required (for contractors new to the State).
- (f) Completed EFT Form- required as of 4/15/2018

Please consult Articles 2-7 of the *General Conditions*.

If the above documents are not submitted properly by the contract signing date, the Division of Reclamation, Mining and Safety may elect to award the contract to the next lowest bidder. Bidders are advised to keep close contact with DRMS during this period.

## INSURANCE

- A. The contractor shall obtain at his own expense, and maintain at all times during the term of this contract, insurance listed below. Proof of insurance must be submitted on certificates showing the following minimum coverage:

- 1) Worker's Compensation Insurance as required by state statute, and Employer's Liability Insurance covering all of contractor's employees acting within the course and scope of their employment.
- 2) Commercial General Liability Insurance written on ISO occurrence form CG 00 01 10/93 or equivalent, covering premises operations, fire damage, independent contractors, products and completed operations, blanket contractual liability, personal injury, and advertising liability with minimum limits as follows:
  - a. \$1,000,000 each occurrence;
  - b. \$1,000,000 general aggregate;
  - c. \$1,000.00 products and completed operations aggregate; and
  - d. \$50,000.00 any one fire.

If any aggregate limit is reduced below \$1,000,000 because of claims made or paid, the contractor shall immediately obtain additional insurance to restore the full aggregate limit and furnish to the State a certificate or other document satisfactory to the State showing compliance with this provision.

- 3) Automobile Liability Insurance covering any auto (including owned, hire and non-owned autos) with a minimum limit as follows: \$1,000,000 each accident combined single limit.

The Certificates of Insurance and insurance policies required above shall be subject to the following stipulations:

- B. The State of Colorado shall be named as additional insured on all applicable Insurance policies (leases and construction contracts will require the additional insured coverage for completed operations on endorsements CG 2010 11/85, CG 2037 or equivalent). Coverage required of the contract will be primary over any insurance or self-insurance program carried by the State of Colorado.
- C. The Insurance shall include provisions preventing cancellation or non-renewal without at least 45 days prior notice to the State by certified mail.
- D. The contractor will require all insurance policies in any way related to the contract and secured and maintained by the contractor to include clauses stating that each carrier will waive all rights of recovery, under subrogation or otherwise, against the State of Colorado, its agencies, institutions, organizations, officers, agents, employees and volunteers.
- E. All policies evidencing the insurance coverages required hereunder shall be issued by insurance companies satisfactory to the State.
- F. The contractor shall provide certificates showing insurance coverage required by this contract to the State within ten days of the notice of award. No later than 15 days prior to the expiration date of any such coverage, the contractor shall deliver the State certificates of insurance evidencing renewals thereof. At any time during the term of this contract, the State may request in writing, and the contractor shall thereupon within 10 days supply to the State, evidence satisfactory to the State of compliance with the provisions of this section.

- G. Subrogation Waiver: All insurance policies secured or maintained by Contractor or its Subcontractors in relation to this Contract shall include clauses stating that each carrier shall waive all rights of recovery under subrogation or otherwise against Contractor or the State, its agencies, institutions, organizations, officers, agents, employees, and volunteers.

Bidders are advised to consult with their insurance carrier concerning these requirements. Submit a bid only if you are prepared to complete these requirements.

## **CONDITIONS AFFECTING THE WORK**

In addition to examining the drawings and specifications, completion schedule, and other instructions, bidders shall visit the site and take such other steps as may be reasonably necessary to ascertain the nature and location of the work, including average climatic conditions and the general and local conditions which can affect the work or the cost thereof. Failure to do so will not relieve bidders from responsibility for estimating properly the difficulty or cost of successfully performing the work.

## **PROJECT FUNDING**

This project is funded 100% through monies made available to the State of Colorado through revocation of bond monies retained by the Division of Reclamation, Mining and Safety for reclamation of this previously permitted mining operation.

## **AMERICANS WITH DISABILITIES ACT**

All programs, services and activities of the Department of Natural Resources, Division of Reclamation, Mining and Safety and the Colorado Mined Land Reclamation Board are operated in compliance with the Americans with Disabilities Act. Details can be found online at <https://dnr.colorado.gov/accessibility>.

## **CORA DISCLOSURE**

To the extent not prohibited by federal law, this Contract and the performance measures and standards under CRS 24-103.5-101, if any, are subject to public release through the Colorado Open Records Act, CRS 24-72-101, et.seq.

## **HISTORIC PRESERVATION**

Areas adjacent to the mine sites often contain related artifacts and structures, such as buildings, tipples, ore houses, headframes and foundations that may be historically significant. Care shall be exercised to avoid any disturbances to these structures and artifacts, in order to preserve their integrity. Existing structures shall not be used as load-bearing devices.

## **PROJECT WORK DESCRIPTION**

The attached *General Conditions of the Contract* and *Purchase Order Terms and Conditions* apply to all work.

### **ITEM 1.0 MOBILIZATION/DEMOBILIZATION**

This item includes those measures necessary and incidental to move equipment and supplies onto the Project Area, to move equipment within the Project Area, and to complete any other requirements necessary to accomplish the goals of this Project. This item also includes all labor, equipment, and costs associated with demobilization and clean-up of the work site following completion of the Project. Please see Specification 1.0, Mobilization / Demobilization of the *General Bid Specifications, 2009*.

CONTRACTOR *must* comply with the following provisions during performance of this Project:

No clearing will be conducted without prior approval of the PROJECT MANAGER and without an approved sediment control structure in place and functional, as required by PROJECT MANAGER, until construction is completed. Generally, silt fence, installed per manufacturer's specifications and Section 22.4 of the *General Bid Specifications, 2009* is acceptable as a sediment control measure.

CONTRACTOR will dispose of waste materials, including but not limited to refuse, garbage, sanitary wastes, spent solvents; oil and other petroleum products off of the Project Area in accordance with applicable laws and regulations. CONTRACTOR will specify to PROJECT MANAGER proposed methods for all waste collection and disposal, modes of waste transport, and waste disposal facilities and locations CONTRACTOR and subcontractors will use while performing the work, including making any necessary arrangements for waste collection and disposal. Any fees or charges required to be paid for collection, transport or disposal of waste materials shall be paid by CONTRACTOR.

At its expense, CONTRACTOR will comply with all applicable federal, state, and local laws, ordinances, rules and regulations relating to the work, the site, and any materials and/or equipment provided by CONTRACTOR.

Upon completion of the work under this Contract, the CONTRACTOR shall remove all temporary facilities, temporary infrastructure and equipment. The CONTRACTOR shall remove from the work site all rubbish, unused materials, and leave all areas in good order and condition, subject to the approval of the PROJECT MANAGER.

### **NOXIOUS WEEDS**

In an attempt to mitigate the rampant spread of noxious weeds from one area to another, there will be a mandatory inspection of all equipment to be used during the course of construction at the project site. Prior to inspection, it is the responsibility of the CONTRACTOR to employ whatever cleaning methods are necessary to ensure that all equipment is free of soil, seeds, vegetative matter, or other debris that could contain or hold seeds. Equipment shall be considered clean when a visual inspection determines the equipment free of such material. The CONTRACTOR will be required to notify the PROJECT MANAGER in advance of mobilizing equipment on site to arrange for inspection. Disassembly of equipment components will not be required.

## Measurement and Payment

Payment for Item 1.0 shall be reflected in a lump sum quote price under Item 1.0 on the Bid Schedule. Payment shall include all the CONTRACTOR'S expenses for mobilization of equipment to the site, transportation of the equipment within the project area, employee time, labor and materials necessary to accomplish the requirements of this item, compliance with the conditions and requirements described in this item description, and final clean-up of the work place.

Remobilization, if required, will be paid in accordance with the General Bid Specifications Section 1.4.4.

## ITEM 2.0 PROJECT SAFETY, HEALTH, AND ENVIRONMENTAL ACTION PLAN (SHEAP)

The job will involve working around inactive mine features and hazards, and it is the responsibility of the CONTRACTOR to be aware of all OSHA regulations which apply to this contract. This item includes all the CONTRACTORS expenses for employee time, labor, materials, and safety equipment and safety training necessary for preparing and executing a job safety plan. The Successful Bidder will be required to prepare the Project Safety Plan (SHEAP) and submit it for review and approval to the DRMS. The CONTRACTOR is required to develop and implement a Project Safety Plan in conjunction with project implementation. PROJECT MANAGER must receive the Project Safety Plan within five (5) working days of Notice to Proceed date. It is expected that the Project Safety Plan will be comprehensive and sufficiently detailed so that every member of the work crew (including sub-contractors) on site understands their responsibilities and the responsibilities of CONTRACTOR to ensure a safe and injury free work place.

The Project Safety Plan must be submitted to:

Stephanie Mitchell  
101 S. 3<sup>rd</sup> Street  
Room 301  
Grand Junction, CO 81501  
stephanie.mitchell@state.co.us

At a minimum, the plan **MUST** provide specific list of safety concerns that are likely to present themselves during the course of Project completion. When developing the Project Safety Plan, please list specific types of equipment to be provided by CONTRACTOR, including subcontractor(s), in order to address the safety concern, or specifically state the actions to be taken by CONTRACTOR, including crew and subcontractor(s) order to address the safety concern.

***NOTE that the PROJECT MANAGER may suspend the work, either wholly or in part, for such period or periods as he / she may deem necessary, due to unsafe work practices.***



***The job clock will NOT be stopped in such a circumstance.***

### **Measurement and Payment**

There will be no measurement for payment. Payment for this item will be reflected in a lump sum quote under Item 2.0 on the Bid Schedule. This lump sum quote will cover all costs for developing and implementing the Project Safety Plan or SHEAP, including writing and revising the plan as required, provision and maintenance of safety equipment, conduct of daily safety meetings and all other items necessary and incidental to meeting the specifications of this item and of the Project Safety Plan or SHEAP. Payment shall be made as this item is completed and approved by the PROJECT MANAGER.

**Note:** *If unusually dry conditions exist at or during the execution of the project, or as directed by the PROJECT MANAGER, a twenty (20) pound fire extinguisher and a large round-pointed shovel with an overall length of at least forty-eight (48) inches or equivalent will be required to be on site at all times.*

### **ITEM 3.0 HERBICIDE APPLICATION**

Spray and/or mechanically remove all Scotch Thistle, Musk Thistle, Russian Thistle, Russian Knapweed, Halogeton, Red Stem Filaree, and any additional noxious weeds found on the project area. Approximately 28 acres of spraying is anticipated. Noxious weeds will be sprayed using a backpack sprayer or Boom Sprayer. ATV mounted sprayers will be permitted. Vehicular access is limited to existing roads only.

Note that **CONTRACTOR**, or approved sub-contractor and all applicators must be licensed as required by the Colorado Department of Agriculture. Proof of licensure must be provided to **OWNER** upon issuance of the Notice to Proceed.

The following herbicides (or equivalent) and rates will be used as follows:

- Milestone @ 5-7 oz/acre
- Telar XP @ 1-2 oz/acre
- 2,4D Amine @ 16-24 oz/acre

LIQUID HERBICIDE IS PREFERRED FOR USE IN THIS PROJECT, HOWEVER, IN AREAS WHERE LIQUID APPLICATION BY SPRAYING IS NOT FEASIBLE, POWDERED OR PELLET HERBICIDE MAY BE USED. DYE MUST BE USED THROUGHOUT THE LIQUID APPLICATION PROCESS.

### **Measurement and Payment**

Measurement for this task will be made at the unit prices established in Item 3 of the Bid Schedule. Measurement for payment will be made to the nearest 0.1 acre. The price bid for selective weed spray will cover all costs for completing the activities required under this task. Payment will be approved by the PROJECT MANAGER upon completion of this task. Such payment will be considered full compensation for all labor, materials, equipment, and all other items necessary and incidental to the completion of this bid item. Invoices are to be accompanied by Daily Job Logs summarizing the work included in the invoice.

#### **ITEM 4.0 TAMARISK TREATMENT and/ or REMOVAL**

Spray and/or mechanically remove all Tamarisk. Tamarisk are primarily along the banks of ponds. An estimated 20 tamarisk are over 2" in diameter that will be removed. Tamarisk under 2" diameter trunk can be sprayed with basal bark treatment Garlon 3a. A track hoe with a thumb is required to mechanically remove tamarisk with trunks over 2" in diameter. Mechanically removed tamarisk will be required to be removed off site and disposed of at an appropriate disposal facility. Documentation of certificate of disposal must be provided to the PROJECT MANAGER after disposal.

The following herbicides (or equivalent) and rates will be used for basal bark treatment as follows:

- Garlon 3a @ 2 gallon/acre mixed with oil based surfactant

#### **Measurement and Payment**

There will be no measurement for payment of Item 4 (Removal and disposal of tamarisk at the Union Carbide Bond Forfeiture site). Payment for this Item will be reflected in a lump sum bid under Item 4 on the Bid Schedule.

#### **PROJECT OBSERVATION**

The PROJECT MANAGER will be at the project site periodically to monitor construction activities and ensure that each work item is completed and constructed to design specifications. The PROJECT MANAGER will be available during regular business hours (8:00 A.M. to 5:00 P.M.) on weekdays. Inspections will not be scheduled on weekend days or holidays without prior approval of the PROJECT MANAGER. It is the Contractor's responsibility to schedule inspections with the Project Manager so as not to delay the work.

Return by September 6, 2022 by 4:00 P.M. to: Receipt of Addenda Nos.                       
is hereby acknowledged

Submit Bids via Colorado VSS at the following link:

[Colorado VSS](#)

**Submitting Bids by mail or fax is not permitted.**

**If VSS is *unavailable*, please see Bid Docs for alternative Bid Submittal method.**

UNION CARBIDE BOND FORFEITURE PROJECT  
Bid Schedule  
DQ1-PKAA-2023\*0069

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
1.0	Mobilize/Demobilize	1	Job	\$	\$
2.0	Project Safety, Health and Environmental Action Plan	1	Job	\$	\$
3.0	Herbicide Application	28	Acres	\$	\$
4.0	Tamarisk Treatment/ Removal	1	Job	\$	\$
GRAND TOTAL				\$	

Contractor \_\_\_\_\_ Date \_\_\_\_\_

Signature \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_

**DO NOT AMEND ANY PART OF THIS BID SCHEDULE**

**ALL PAGES OF THIS BID SCHEDULE MUST BE RETURNED**

**ALL LINES ITEMS MUST BE COMPLETED**

### LIST OF EQUIPMENT OFFERED

Under the headings below, list all equipment which you offer to perform the work described in the Bid. Please see "List of Equipment Offered" in the Special Conditions.

ITEM	MAKE	MODEL NUMBER	SERIAL NUMBER	YEAR MANUFACTURED

THIS PAGE MUST BE RETURNED WITH YOUR BID  
OR THE BID MAY BE CONSIDERED NON-RESPONSIVE

PAGE 1 OF 1 PAGE

## **GENERAL CONDITIONS OF THE CONTRACT**

### **Article 1. DEFINITIONS**

#### **A. Contract Documents.** The Contract Documents consist of:

- (a) Agreement and Bid Schedule;
- (b) Performance and Payment Bonds;
- (c) Liability, Automobile and Workmen's Compensation Certificates of Insurance;
- (e) Notice to Proceed;
- (f) General Conditions of the Contract;
- (g) Detailed Special Conditions, including all amendments issued prior to the opening of the bids and including any applicable Standard Work Specifications;
- (h) Maps and drawings, including all amendments issued prior to the opening of the bids;
- (i) Final inspection and certificate of completion;
- (j) Notice of CONTRACTORS Settlement, and
- (k) List of Equipment Offered.

#### **B. Procedural Documents.** The Procedural Documents consist of:

- (a) Advertisement for Bids;
- (b) Bid form;
- (c) Bid Bond;
- (d) Notice of Award;
- (e) MBE/WBE Forms; and
- (f) AML Contractor Ownership and Control Information Package (AVS);
- (g) *Three-Way Agreement for Reclamation Activities*, if required

#### **C. Correlation and Intent of the Documents**

The Contract Documents are complementary; what is called for by any one document shall be as binding as if called for by all. The intention of the documents is to include all labor and materials, equipment and transportation necessary for the proper execution of the work. Materials or work described in words which have a well-known technical or trade meaning shall be held to refer to such recognized standards.

In case of a difference between the contract documents, precedence shall be given in the following respective order: Agreement, Special Conditions, Bid Schedule, Standard Work Specifications, Maps, Drawings, and General Conditions. Amendments shall take precedence in the area of the bid document which they modify or clarify. In the case of any such difference, the matter shall be promptly brought to the attention of the Principal Representative who will make a determination in writing.

#### **D. Words and Terms Used**

**AGREEMENT** - The word *Agreement* means the written Agreement entered into by the State of Colorado acting by and through the Principal Representative and the CONTRACTOR for the performance of the work and payment for the work.

**COLORADO LABOR** - The term *Colorado Labor* shall be defined as provided in Title 8-17-101, et seq. CRS 1973, as amended.

**CONTRACTOR** - The term *CONTRACTOR* means the sole proprietorship, partnership, or corporation entering into a Contract with the State of Colorado.

**DRAWINGS** - The word *Drawings* shall mean all drawings in the Special Conditions.

**PRINCIPAL REPRESENTATIVE OR STATE** - The term Principal Representative means the Director of the State of Colorado, Division of Reclamation, Mining and Safety (DRMS) or his designee. The Colorado Division of Reclamation, Mining and Safety is located at 1313 Sherman Street, Room 215, Denver, Colorado, 80203, telephone (303) 866-3567.

**PROJECT MANAGER** - The term *Project Manager* means the Division of Reclamation, Mining and Safety employee or representative responsible for day to day observation of work at the project site, and general contract administration for the DRMS.

**SUBCONTRACTOR** - A *Subcontractor* is an individual or an entity which has a contract with the CONTRACTOR for the performance of labor at the site of the work regardless of whether supplying of material is part of such contract, but without contractual relationship to the Principal Representative.

**WORK** - The word *Work* means material and/or labor.

## **Article 2. PERFORMANCE AND PAYMENT BONDS**

The CONTRACTOR shall furnish a labor and material payment bond for 100 percent of the original contract price and a performance bond for 100 percent of the original amount of the contract. The bonds are required by State Law, Title 24-105, 202-203, C.R.S. as amended. The bonds shall be submitted using the State forms. A certified or cashiers check or bank money order may be accepted in lieu of the bonds. If a surety other than a bond is used, the State will hold fifty percent (50%) of the surety until the final settlement date and fifty percent (50%) for six (6) months after the final settlement date.

## **Article 3. INSURANCE**

A. The contractor shall obtain at his own expense, and maintain at all times during the term of this contract, insurance listed below. Proof of insurance must be submitted on certificates showing the following minimum coverage:

- 1) Worker's Compensation Insurance as required by state statute, and Employer's Liability Insurance covering all of contractor's employees acting within the course and scope of their employment.
- 2) Commercial General Liability Insurance written on ISO occurrence form CG 00 01 10/93 or equivalent, covering premises operations, fire damage, independent contractors, products and completed operations, blanket contractual liability, personal injury, and advertising liability with minimum limits as follows:
  - a. \$1,000,000 each occurrence;

- b. \$1,000,000 general aggregate;
- c. \$1,000.00 products and completed operations aggregate; and
- d. \$50,000.00 any one fire.

If any aggregate limit is reduced below \$1,000,000 because of claims made or paid, the contractor shall immediately obtain additional insurance to restore the full aggregate limit and furnish to the State a certificate or other document satisfactory to the State showing compliance with this provision.

- 3) Automobile Liability Insurance covering any auto (including owned, hire and non-owned autos) with a minimum limit as follows: \$1,000,000 each accident combined single limit.

The Certificates of Insurance and insurance policies required above shall be subject to the following stipulations:

- B. The State of Colorado shall be named as additional insured on the Commercial General Liability and Automobile Liability Insurance policies (leases and construction contracts will require the additional insured coverage for completed operations on endorsements CG 2010 11/85, CG 2037 or equivalent). Coverage required of the contract will be primary over any insurance or self-insurance program carried by the State of Colorado.
- C. The Insurance shall include provisions preventing cancellation or non-renewal without at least 45 days prior notice to the State by certified mail.
- D. The contractor will require all insurance policies in any way related to the contract and secured and maintained by the contractor to include clauses stating that each carrier will waive all rights of recovery, under subrogation or otherwise, against the State of Colorado, its agencies, institutions, organizations, officers, agents, employees and volunteers.
- E. All policies evidencing the insurance coverages required hereunder shall be issued by insurance companies satisfactory to the State.
- F. The contractor shall provide certificates showing insurance coverage required by this contract to the State within ten days of the notice of award. No later than 15 days prior to the expiration date of any such coverage, the contractor shall deliver the State certificates of insurance evidencing renewals thereof. At any time during the term of this contract, the State may request in writing, and the contractor shall thereupon within 10 days supply to the State, evidence satisfactory to the State of compliance with the provisions of this section.
- G. Subrogation Waiver: All insurance policies secured or maintained by Contractor or its Subcontractors in relation to this Contract shall include clauses stating that each carrier shall waive all rights of recovery under subrogation or otherwise against Contractor or the State, its agencies, institutions, organizations, officers, agents, employees, and volunteers.

Bidders are advised to consult with their insurance carrier concerning these requirements. Submit a bid only if you are prepared to complete these requirements.

#### **Article 4. THREE-WAY AGREEMENT**

If a three-way *Agreement for Reclamation Activities*) is required, the CONTRACTOR shall enter into a three-way agreement between the CONTRACTOR, the State of Colorado and the private landowner, and maintain for the duration of the work, in addition to that specified above, additional insurance coverage of:

- a. Comprehensive General Liability Insurance, which includes operations & premises coverage, products/completed operation coverage, all on an occurrence basis, all with combined single limit of liability of \$1,000,000;
- b. Statutory Worker's Compensation and Occupational Disease Disability Insurance;
- c. Employers' Liability Insurance with limits of \$500,000 each occurrence; and
- d. Automobile Insurance with a combined single limit of liability of \$1,000,000, and furnish evidence of the insurance coverage as prescribed the three-way agreement.

If a three-way *Agreement for Reclamation Activities* is required, the CONTRACTOR will be required to furnish lien waivers to the private landowner. See Number 5 of the sample three-way *Agreement for Reclamation Activities*. The landowner's address will be furnished to the CONTRACTOR with the Notice to Proceed.

#### **Article 5. PROJECT SCHEDULE**

The successful bidder shall, prior to the execution of an Agreement, furnish a plan for construction of the work showing (1) the date(s) he expects to move various pieces of equipment onto the work site, and (2) the dates and period(s) he proposes to perform each phase of the project work.

#### **Article 6. APPLICANT VIOLATOR SYSTEM**

The successful bidder will be required to submit a completed *AML Contractor Ownership and Control Form* and pass a check of the *Applicant Violator System (AVS)*.

Although there are many circumstances under which a bidder might be found "not responsible", any CONTRACTOR who has had direct or indirect association with a firm that has had a permit revoked or a bond forfeited by the Division of Reclamation, Mining and Safety or the Mined Land Reclamation Board will be considered not responsible, and not eligible to be awarded any bid. Any firm listed in the federal Office of Surface Mining's *Applicant Violator System* or who is not confirmed by the Office of Surface Mining will be considered not responsible.

#### **Article 7. MINORITY/WOMEN BUSINESS PARTICIPATION**

The successful bidder is required to complete and return the Minority/Women Business Enterprise Participation Report Form before an Agreement will be executed.

#### **Article 8. NOTICE TO PROCEED**

After the Agreement has been fully-executed, the Principal Representative will issue the Notice to Proceed consistent with the project dates in the Special Conditions. Under no circumstance shall the CONTRACTOR begin work before a Notice to Proceed is issued.

#### **Article 9. ACCIDENT PREVENTION AND SAFETY MEASURES**



The CONTRACTOR shall comply with applicable provisions of OSHA Part 1926, Construction Standards and Interpretations, in effect on the date of Bid Opening. The CONTRACTOR shall continuously maintain, at his expense, adequate protection of the work and the Principal Representative's property, and shall take all practicable precautions in the interest of safety, including: Safety Glasses (when flying debris may be encountered), steel toe boots and hard hats (except when inside operator's cab or inside vehicle cab) are required to be worn at all times. At least two 10 pound A B C rated Dry Chemical type-portable fire extinguishers shall be on site at all times. A First Aid Station meeting MSHA requirements (CFR 75.1713-7, or 77.1707) must be kept in a sanitary condition and must be kept on site during all work operations. An emergency accident and medical evacuation/transportation plan shall be established and posted for the site.

If required by the PROJECT MANAGER, the CONTRACTOR shall prepare a Safety, Health, and Environmental Action Plan (SHEAP) for the project operations prior to beginning work.

If a SHEAP is required, the CONTRACTOR will comply with the following at a minimum:

- **TRAINING REQUIREMENTS:** Prior to working on the site, site-specific hazard training as covered in the SHEAP will be administered to ALL persons working on the project site (both surface and underground), by the CONTRACTOR AND DRMS PROJECT MANAGER, and will be acknowledged on a form attached to the SHEAP to document this training.
- **PROACTIVE SAFETY:** The CONTRACTOR shall designate one person to be responsible for safety and health at the work site. The CONTRACTOR will conduct daily pre-work safety talks with all employees. The CONTRACTOR shall conduct daily work area safety inspections and document the results of these inspections.

Any shafts which were fenced prior to construction activities shall be protected by a temporary fence during non-working hours. Without relieving the CONTRACTOR of its legal or contractual duties to take safety precautions, other openings may be designated by the Principal Representative as requiring fencing due to proximity of houses or visitation by tourists.

Work may involve activities around unprotected hazardous mine shafts, stopes, adits and other openings which may be open to the surface or hidden from view by trash, debris, vegetation, or thin and unstable layers of surficial materials or rock. The CONTRACTOR shall be responsible for thoroughly investigating the site conditions and scheduling and directing his equipment, equipment operations, personnel and safety procedures to prevent accidents and injuries. Failure to comply will be cause for immediate suspension of the work.

All Chemicals, equipment and materials proposed and/or used in the performance of this Contract must conform to the standards required by the William-Stieger Occupational Safety and Health Act of 1970. Bidders must furnish all Material Safety Data Sheets (MSDS) for any regulated chemicals, equipment or hazardous materials at the time of delivery to the job site.

Projects involving work in or around radiological hazards will require special measures to be followed during the project.

## **Article 10. PLANS AND WORKING DRAWINGS**

The drawings if any, included with the Contract Documents are complete and adequate for construction. While every effort has been made to have the plans and drawings free of errors and

ambiguities, any such errors or ambiguities must be brought to the Principal Representative's attention immediately.

#### **Article 11. JOB PROGRESS REPORTS**

The CONTRACTOR will be required to properly complete weekly or daily progress reports, forms for which will be provided by the Principal Representative. Completed reports must be submitted to the Principal Representative prior to or at the time of requests for payment. Payment requests will not be processed until progress reports corresponding to the payment period are received.

#### **Article 12. CORRESPONDENCE FROM THE CONTRACTOR**

All correspondence from the CONTRACTOR to the Principal Representative shall be submitted to the PROJECT MANAGER with a copy to:

Colorado Division of Reclamation, Mining and Safety  
1313 Sherman Street, Room 215  
Denver, Colorado 80203  
(303) 866-3567  
Fax (303) 832-8106

#### **Article 13. MATERIALS**

Unless otherwise stipulated, the CONTRACTOR shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation and other facilities necessary for the execution and completion of the work.

Unless otherwise specified, all materials shall be new and both workmanship and materials shall be of good and uniform quality. The CONTRACTOR shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

#### **Article 14. PREFERENCE OF BIDDERS AND MATERIALS**

The selection of materials and equipment for the work shall be in accordance with the laws of Colorado and the Buy American Act (41 U.S.C. 10) as follows:

A resident bidder shall be allowed a preference against a nonresident bidder from a state or foreign country equal to the preference given or required by the state or foreign country in which the nonresident bidder is a resident. (Title 8-19-101 to 102, CRS, as amended).

The Buy American Act provides that the Government give preference to domestic construction material. The CONTRACTOR agrees that only domestic construction material will be used by the CONTRACTOR, subs, material men and suppliers in the performance of this agreement, except for foreign construction material, if any, listed in this agreement.

*Components*, used in this clause, means those articles, materials, and supplies incorporated directly into construction materials. *Construction material*, as used in this clause, means an article, material or supply brought to the construction site for incorporation into the building or work. Construction material also includes an item brought to the site pre-assembled from articles, materials or supplies. However, emergency life safety systems, such as fire alarm

systems, which are discrete systems incorporated into a public building or work and which are produced as a complete system, shall be evaluated as a single and distinct construction material regardless of when or how the individual parts or component of such systems are delivered to the construction site. *Domestic construction material*, as used in this clause means (a) an unmanufactured construction material mined or produced in the United States, or (b) a construction material manufactured in the United States, if the cost of its components mined produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind as the construction materials determined by the Principal Representative or designee not to be mined, produced or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality, shall be treated as domestic.

#### **Article 15. LABOR AND WAGES**

Title 8-17-101, C.R.S., as amended applies to this contract and states that eighty percent of the laborers employed on each project must be Colorado labor. "Colorado labor" means any person who is a resident of the State of Colorado at the time of employment, without discrimination as to race, color, creed, sex, age or religion."

The Davis Bacon Act Does Not Apply. The rate of wages to be paid for all laborers and mechanics shall be in accordance with the laws of Colorado. The CONTRACTOR shall at all times enforce strict discipline and good order among his employees, and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him.

#### **Article 16. PROJECT MANAGER'S DECISIONS**

The PROJECT MANAGER shall make decisions on all matters relating to the execution and progress of the work or the interpretation of the Contract Documents.

The PROJECT MANAGER is, in the first instance, the judge of the performance of the Contract as it relates to compliance with drawings and specifications, quality of workmanship and material.

#### **Article 17. WORK ACCESS AND INSPECTION**

The Principal Representative shall at all times have access to the work. The CONTRACTOR shall provide proper facilities for such access and for their inspection of the work. If any work should be covered up without approval or consent of the Principal Representative, it must if required, be uncovered for examination at the CONTRACTOR'S expense.

If the Special Conditions, the Principal Representative's instructions, laws, ordinances or any public authority require any work to be specifically tested or approved, the CONTRACTOR shall give the Principal Representative timely notice of its readiness for observation by the Principal Representative or inspection by another authority. If the inspection is by another authority, the CONTRACTOR shall give the Principal Representative timely notice of the date of inspection and copies of certificates of inspection being secured by the CONTRACTOR.

#### **Article 18. PRIME CONTRACTOR**

If several CONTRACTORS propose to join together to perform the work, the Principal Representative will recognize only one bonded prime CONTRACTOR, who will enter into a contract

with the Principal Representative, and who will subcontract the work to such others as are required to perform the work, unless a "joint venture" arrangement between CONTRACTORS satisfactory to the Principal Representative has been executed. In this case, the "joint venture" shall be bonded in accordance with these General Conditions and shall designate a Superintendent with whom the Principal Representative can communicate and who will supervise the work and be fully responsible for the performance of the work.

#### **Article 19. SUPERINTENDENCE OF THE WORK**

The CONTRACTOR shall keep a competent and reliable superintendent on the job at all times that labor is being performed. The superintendent, in the CONTRACTOR'S absence from the site, shall stand in the stead of the CONTRACTOR and any authoritative directions given to the superintendent shall be as binding as if given to the CONTRACTOR.

The CONTRACTOR shall give efficient supervision to the work, using his best skill and attention. He shall carefully study and compare all Drawings, Specifications and other instructions and shall at once report to the Principal Representative any error, inconsistency or omission which he may discover, but he shall not be liable to the Principal Representative for any damage resulting from any errors or deficiencies in the Contract Documents or other instructions by the Principal Representative.

The CONTRACTOR shall see that the work is carried out in accordance with the Contract Documents and in a thorough and first-class manner in every respect. The CONTRACTOR shall establish all lines, levels, grades, and marks necessary to facilitate the operations of all concerned in such CONTRACTOR'S work. He shall lay out the work in a manner satisfactory to the Principal Representative.

#### **Article 20. SUBCONTRACTORS**

The CONTRACTOR shall submit to the Principal Representative, a complete list of subcontractors for the project, including the name of the proposed subcontractor and a description of the work to be subcontracted. The CONTRACTOR shall not, without prior written approval of the Principal Representative, enter into any subcontract covering any part of the work covered by this contract.

If at any time the Principal Representative determines that any subcontractor is incompetent or undesirable, he shall notify the CONTRACTOR accordingly in writing and the CONTRACTOR shall take immediate steps for cancellation of the subcontract.

#### **Article 21. RELATIONS OF CONTRACTOR AND SUBCONTRACTOR**

The CONTRACTOR agrees to bind each subcontractor to the terms of these General Conditions and to the requirements of the drawings and specifications, and any amendments or change orders, and also all the other Contract Documents, so far as applicable to the work of such subcontractor, unless specially noted to the contrary.

Nothing contained in the contract shall create any contractual relationship between any subcontractor and the Principal Representative. Approval by the Principal Representative to any subcontract or any provisions thereof shall not be construed to be a determination of the acceptability of any subcontract price, or of any amount paid under subcontract or to relieve the CONTRACTOR of any responsibility for performing all work covered by this contract.

The CONTRACTOR shall be fully responsible to the Principal Representative for the acts and omissions of his subcontractors and of persons either directly or indirectly employed by them. All instructions or orders in respect to work being done by subcontractors shall be given to the CONTRACTOR.

Subcontracting by subcontractors shall be subject to the above requirements.

## **Article 22. WORK BY OTHERS**

The Principal Representative reserves the right to let other contracts in connection with this work.

The work site is located in a mining area and mining or other construction activities may be occurring at the same time as the work proposed under this contract. It shall be the CONTRACTOR'S responsibility to coordinate his work with those of the landowners, mining companies or other contractors on the site. The CONTRACTOR shall allow other contractors or mining company's reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate his work with theirs.

The CONTRACTOR shall, without charge, permit the landowner, mining companies, and such other contractors to use the roads and other facilities constructed or improved by the CONTRACTOR for the contract work; provided that such usage shall in no way interfere with the contract work of the CONTRACTOR. If any part of the CONTRACTOR'S work depends, for proper execution or results, upon the work of any other contractor, the CONTRACTOR shall inspect and measure work already in place. The CONTRACTOR shall promptly report to the Principal Representative any defects in such work that render it unsuitable for proper execution and results, or any discrepancy between the executed work and the Special Conditions or Drawings. Failure of the CONTRACTOR to so inspect and report shall constitute an acceptance of the other CONTRACTOR'S work as fit and proper for the reception of his work, except as to defects which may develop in the other CONTRACTOR'S work after the execution of the CONTRACTOR'S work.

## **Article 23. MUTUAL RESPONSIBILITY OF CONTRACTORS**

Should the CONTRACTOR cause damage to any separate CONTRACTOR on the work, the CONTRACTOR agrees, upon due notice, to settle with such CONTRACTOR by agreement if he concurs. If such separate CONTRACTOR sues the Principal Representative on account of any damage alleged to have been so sustained, the Principal Representative shall notify the CONTRACTOR, who shall defend such proceedings. If any judgment against the Principal Representative arises therefore, the CONTRACTOR shall pay or satisfy it and pay all costs incurred by the Principal Representative.

## **Article 24. ACCESS AND WORKING AREA**

Access to the sites or to the vicinity of sites is by public roads and private roads as shown on the drawings or as may be located in the field. Some sites may not have adequate access roads for CONTRACTOR'S methods or equipment and construction or improvement of existing roads may be required. Access roads used or constructed by the CONTRACTOR shall be maintained during use and the land reclaimed or restored to pre-existing or better conditions.

The CONTRACTOR shall keep access roads, equipment, the storage of materials and the operation of his workmen to the immediate vicinity of the work sites and shall not unreasonably encumber the premises with his materials and equipment. Caution shall be exercised at all times to avoid blocking roads or in any other way interfering with operations by others or presenting a hazard to personnel, equipment, or to the public.

The CONTRACTOR shall obtain all permits and/or permission required to use public and private roads. The CONTRACTOR shall obey all laws and regulations affecting the use of public thoroughfares.

The CONTRACTOR shall provide such temporary barricades, fences, or warning signs as may be necessary to make temporary or permanent roads safe by night as well as by day. He shall at all times have a sufficient number of watchmen, flagmen, and warning lights to protect traffic where it is interfered with by his operations, where his trucks enter or leave public roads, or where work is being done adjacent to such roads.

## **Article 25. PROTECTION OF WORK AND PROPERTY**

The CONTRACTOR shall continuously maintain adequate protection of all his work and materials protect the property from injury or loss arising in connection with the Contract and adequately protect adjacent property as provided by law and the Contract Documents.

The CONTRACTOR shall make good any damage, injury or loss, except such as may be:

- (a) Directly due to errors in the Contract Documents;
- (b) Caused by agents or employees of the Principal Representative;
- (c) Due to causes beyond the CONTRACTOR'S control and not to his fault or negligence.

The CONTRACTOR shall take all necessary precautions for the safety of employees on the work site, and shall comply with all applicable provisions of Federal, State and Municipal safety laws and building codes to prevent accidents or injury to persons on, about or adjacent to the premises where the work is being performed. He shall erect and properly maintain at all times, as required by the conditions and progress of the work, all necessary safeguards for the protection of workmen and the public and shall post danger signs warning against the hazards created by such features of construction.

The CONTRACTOR shall take due precautions when obstructing sidewalks, streets or other public ways in any manner, and shall provide, erect and maintain barricades, temporary walkways, roadways, trench covers, colored lights or danger signals and any other devices necessary to assure the safe passage of pedestrians and automobiles.

In an emergency affecting the safety of life or posing a threat to adjoining property, the CONTRACTOR, without special instruction or authorization from the PROJECT MANAGER or Principal Representative, is hereby permitted to act, at his discretion, to prevent such threatened loss or injury; and he shall so act, without appeal, if so authorized or instructed. The Principal Representative must be notified as soon as possible in the event of any emergency. Any compensation, claimed by the CONTRACTOR on account of emergency work, shall be determined by agreement for extra compensation.

## **Article 26. HISTORICAL PRESERVATION**

Areas adjacent to the mine sites often contain related artifacts and structures, such as buildings, tipples, ore houses, headframes and foundations that may be historically significant. Care shall be exercised to avoid any effect to these structures and artifacts, in order to preserve their integrity. Existing structures, except shaft timbering, shall not be used as load-bearing devices.

## **Article 27. ELECTRICAL POWER, POTABLE AND CONSTRUCTION WATER**

The CONTRACTOR shall be responsible for providing electrical power and potable and construction water as needed to perform the contract work. If the CONTRACTOR desires to use power other than portable generators, the CONTRACTOR plans for providing such power will be subject to the Principal Representative's prior approval. The cost for providing power and water will not be paid for separately but shall be included in the bid prices of the various work items. The CONTRACTOR shall install and maintain all utilities in such manner as to protect the public and workmen and conform to any applicable laws and regulations. Upon completion of the work he shall remove all such temporary utilities from the site.

## **Article 28. PROTECTION OF EXISTING UTILITIES**

Utilities, both underground and aboveground, may exist which could affect construction work covered under this contract. The CONTRACTOR is responsible for determining the nature and locations of any and all utilities which could affect construction work covered under this contract. The horizontal and vertical locations of utilities may vary. The CONTRACTOR is responsible for excavation and equipment movement without damage to utilities. The CONTRACTOR assumes all responsibility for damages to any utilities he causes under this contract.

When construction crosses highways, railroads, streets or utilities under the jurisdiction of State, County, City or other Public agency, Public Utility or private entity, the CONTRACTOR shall secure proper written permission before executing such construction. The CONTRACTOR will be required to furnish a proper release before final acceptance of the work.

## **Article 29. PERMITS, LICENSES AND REGULATIONS**

Permits and licenses at a Federal, State, County and/or local level, required for prosecution of the work shall be procured and paid for by the CONTRACTOR.

## **Article 30. TAXES**

State of Colorado as purchaser is exempt from all Federal taxes under Chapter 32 of the Internal Revenue Code (Registration No. 84-730123K) and from all State and Local Government Use Taxes (Ref. Colorado Revised Statutes Chapter 39-26.114(a)). **(Our Colorado State and Local Sales Tax Exemption Number is 98-17835). The Contractor is hereby notified that when materials are purchased in certain political subdivisions (for example- the City of Denver), the Contractor may be required to pay sales tax even though the ultimate product or service is provided to the State of Colorado. This sales tax will not be reimbursed by the State.**

### **Article 31. ROYALTIES AND PATENTS**

The CONTRACTOR shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the State of Colorado harmless from loss on account thereof.

### **Article 32. PROJECT PUBLICITY**

The Principal Representative will be sole provider of information about the project work to area residents and special districts, county, state, and federal agencies, and individuals from the media. Any contact with these groups by the CONTRACTOR must be cleared through the Principal Representative.

### **Article 33. TIME OF COMPLETION**

It is hereby understood and mutually agreed, by and between the parties hereto, that the date of beginning, rate of progress and the time for completion of the work to be done hereunder are *Essential Conditions* of the Contract; and it is further understood and agreed that the work embraced in this Contract shall be commenced in the time to be specified in the Notice to Proceed.

It is further agreed that time is of the essence of each and every portion of the Contract and of the specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where under the Contract an additional time is allowed for the completion of any work, the new time limit fixed by such extension shall also be of the essence of the Contract.

The CONTRACTOR agrees that work will be performed with due diligence in accordance with accepted engineering and construction practices to the end that the entire contract work shall be completed within the time specified in the Special Conditions after receipt of the Notice to Proceed. It is expressly understood and agreed, by and between the parties, that the stipulated performance time for completion of the work described is a reasonable time for completion of the work, taking into consideration all factors, including average climatic conditions and usual construction practices prevailing in the area.

### **Article 34. TEMPORARY SUSPENSION OF WORK**

If the CONTRACTOR is responsible for a delay in progress of the work, the CONTRACTOR shall, without additional cost, work overtime and use such additional equipment and manpower as may be necessary to complete the contract work by the stipulated date. Failure to comply will be grounds for termination of this Agreement as stipulated below or assessment of liquidated damages as stipulated under TEMPORARY SUSPENSION OF WORK.

The State, acting by and through the Principal Representative, shall have the authority to suspend the work, either wholly or in part, for such period or periods as he or they may deem necessary due to:

- (a) Unsuitable weather;
- (b) Faulty workmanship;
- (c) Improper superintendence
- (d) CONTRACTOR failure to carry out orders or to perform any provision of the Contract Documents;



- (e) Conditions which may be considered unfavorable for the prosecution of the work.

Additional time will be added to the performance time for the contract for (a) above only.

If it should become necessary to stop work for an indefinite period, the CONTRACTOR shall store all materials in such manner that they will not become an obstruction or become damaged in any way; and he shall take every precaution to prevent damage to or deterioration of the work, provide suitable drainage and erect temporary structures where necessary.

Such Suspend Work Order shall be in writing and the CONTRACTOR shall again proceed with the work when so notified in writing.

### **Article 35. ESTIMATED QUANTITIES**

The CONTRACTOR understands and agrees that:

- (a) The quantities and measurements set forth in the Special Conditions are in no case exact and in some instances the exact quantities and measurements are impossible to determine until after conditions have become known during construction;
- (b) The quantities shown in the Special Conditions are for use as a basis for comparing bids only;
- (c) The Principal Representative does not expressly, or by implication, agree that the actual amount of work performed or material furnished or installed will correspond therewith;
- (d) During the progress of the work the Principal Representative may find it advisable and shall have the right to make changes in locations of portions of the work, to omit portions of the work and to increase or decrease the quantities, as may be deemed necessary or desirable;
- (e) Under no circumstances or conditions will the CONTRACTOR be paid anything on account of anticipated profits upon the work or any portion thereof covered by the Contract which is not actually performed;
- (f) Under no circumstances or conditions will the CONTRACTOR be paid more than the unit price bid for any item of the Bid because the actual quantity is greater or less than the quantity shown in the Bid or Bid Schedule, and
- (g) Measurements of any openings have been made in sufficient detail to establish general shapes and dimensions. The locations and dimensions of vertical and horizontal openings and depths of materials shown on the documents as waste material, soil and unconsolidated material and rock material are approximate measurements only and shall be verified by excavation.

### **Article 36. DIFFERING SITE CONDITIONS**

- (a) The CONTRACTOR shall promptly, and before such conditions are disturbed, notify the Principal Representative of:

- (1) Subsurface or latent physical conditions at the site differing materially from those indicated in the Contract, or
- (2) Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract.

The Principal Representative shall promptly investigate the conditions, and if he finds that such conditions do materially so differ and cause an increase or decrease in the CONTRACTOR'S cost of, or the time required for, performance of any part of the work under this Contract, whether or not changed as a result of such conditions, an equitable adjustment shall be made and the Contract modified in writing accordingly.

- (b) No claim of the CONTRACTOR under this clause shall be allowed unless the CONTRACTOR has given the notice required in (a) above; provided, however, the time prescribed therefore may be extended by the State.

### **Article 37. CHANGES IN THE WORK**

The Principal Representative, without invalidating the Contract, may order extra work, or make any other reasonably related changes by altering adding to or deducting from the work; the contract price and time for completion of the work will be adjusted accordingly by written change order.

All such work shall be executed under the conditions of the original contract except that any claim for extension of time caused by changes authorized in the change order shall be included in the written change order.

The Principal Representative shall have authority to make minor changes in the work, not involving extra cost, and not inconsistent with the purpose of the work, but otherwise, except in an emergency endangering life or property, no extra work or change in the Contract Documents shall be made unless by a change order. No claim by the CONTRACTOR for an equitable adjustment hereunder shall be allowed if asserted after final payment under this Contract, approved by the Principal Representative. No claim for any change to the Contract sum shall be valid unless so ordered.

The value of any extra work or change shall be determined in one or more the following ways:

- (a) By estimate and acceptance in a lump sum;
- (b) By unit prices named in the Contract;
- (c) By actual cost plus a fixed fee, or percentage, the latter agreed upon prior to starting the extra or changed work.

Changed work shall be adjusted and considered separately for the work either added or omitted. The amount of adjustment for work omitted shall be estimated at the time it is authorized, and the agreed adjustment will be deducted from the subsequent monthly progress payments.

### **Article 38. CLAIMS FOR EXTRA COST**

If the CONTRACTOR claims that any instructions, by drawings or otherwise, involve extra cost under this Contract, he shall give the Principal Representative written Notice thereof within a reasonable time after the receipt of such instructions. In any event, before proceeding to execute the work,

except in emergency endangering life or property, the procedure shall be as provided for under Article 35, CHANGES IN THE WORK. No such claim shall be valid unless so made.

In all such cases, the CONTRACTOR shall keep a correct account of the extra cost, in such form as the Principal Representative may direct, and shall present such account, supported by receipts. The Principal Representative shall be entitled to reject any claim for extra cost whenever the foregoing procedure is not followed.

The payments to the CONTRACTOR in respect of such extra costs shall be limited to reimbursement for the current additional expenditure by the CONTRACTOR made necessary by the change in the work, plus a reasonable amount of overhead and profit, determined solely with reference to the additional work, if any, required by the change, at or prior to the time of making the change.

Any claim by the CONTRACTOR arising by virtue of the Contract which is not disposed of by agreement shall be submitted in writing, together with any written and oral evidence in support thereof, to the Principal Representative for decision. Before making a decision the Principal Representative may notify the CONTRACTOR that additional written and/or oral evidence in support of the claim is required. If such notice is given, CONTRACTOR shall provide additional evidence to the Principal Representative within the time specified by the Principal Representative in the notice. The Principal Representative shall make his decision in writing and mail or otherwise furnish a signed copy to the CONTRACTOR. Pending the decision of the Principal Representative, the CONTRACTOR shall proceed diligently with the performance of the Contract.

#### **Article 39. LIQUIDATED DAMAGES**

If the CONTRACTOR shall neglect, fail or refuse to complete the work within the time agreed upon in this Agreement or any extension thereof, the CONTRACTOR shall be liable to the Principal Representative in the amount specified in the Special Conditions for this project for each and every calendar day the completion of the work is delayed beyond the time provided in this Agreement, as fixed and agreed liquidated damages, and not as a penalty. The liquidated damages set forth in the Special Conditions is an amount, agreed to by the CONTRACTOR and the Principal Representative, as reasonably representing additional construction engineering and administration costs incurred by the Principal Representative due to the CONTRACTOR'S delay. If the Principal Representative terminates the CONTRACTOR'S right to proceed, the resulting damage will consist of liquidated damages until such reasonable time as may be required for final completion of the work. If the Principal Representative does not terminate the CONTRACTOR'S right to proceed, the resulting damage will consist of liquidated damages until the work is completed or accepted.

The Principal Representative shall have the right to deduct from and retain out of monies which may be due or which may become due and payable to the CONTRACTOR, the amount of such liquidated damages; and if the amount so retained by the Principal Representative is insufficient to pay in full such liquidated damages, the CONTRACTOR shall pay to the Principal Representative the amount necessary to effect payment in full of such liquidated damages. Any assessment of liquidated damages under this subsection shall not relieve the CONTRACTOR from additional liability for any actual damages or costs resulting from delays to other contractors on the project or other projects caused by a failure of the assessed CONTRACTOR to complete the work within the time provided in this Agreement.

#### **Article 40. DAMAGES**

If either party to this Contract shall suffer damage in any manner because of any wrongful act or neglect of the other party or of anyone employed by him, then he shall be reimbursed by the other party for such damage, except that the Principal Representative shall be responsible for and at his option insure against loss of use of any of his existing property, due to fire or otherwise, however caused.

Claims under this clause shall be made in writing to the party liable within a reasonable time of the first observance of such damage and not later than the time of final payment, except as expressly stipulated otherwise in the case of faulty work or materials.

#### **Article 41. STATE'S RIGHT TO DO THE WORK**

If the CONTRACTOR should neglect to prosecute the work properly or fail to perform any provision of the Contract, the Principal Representative, after seven (7) days' written notice to the CONTRACTOR and the Surety may, without prejudice to any other remedy he may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the CONTRACTOR.

#### **Article 42. STATE'S RIGHTS TO TERMINATE THE CONTRACT**

##### **A. General**

If the CONTRACTOR should be adjudged as bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed to take over his affairs, or if he should fail to prosecute his work with due diligence and carry the work forward in accordance with his work schedule and the time limits set forth in the Contract Documents, or if he should fail to subsequently perform one or more of the provisions of the Contract Documents to be performed by him, the Principal Representative may serve Written Notice on the CONTRACTOR and the Surety on his performance and payment bonds, stating his intention to exercise one of the remedies hereinafter set forth and the grounds upon which the Principal Representative bases his right to exercise such remedy. In such event, unless the matter complained of is satisfactorily cleared within ten (10) days after serving such Notice, the Principal Representative may, without prejudice to any other right or remedy, exercise one of such remedies, at once.

##### **B. Conditions and Procedures**

- (a) The Principal Representative may terminate the services of the CONTRACTOR, which termination shall take effect immediately upon serving notice to the CONTRACTOR and his Surety, whereupon the Surety shall have the right to take over and perform the Contract. If the Surety does not commence performance of the Contract within ten (10) days after service of the notice of termination, *the* Principal Representative may take over the work, take possession of and use all materials, tools, equipment and appliances on the premises and prosecute the work to completion by such means as he shall deem best. In the event of such termination of his service, the CONTRACTOR shall not be entitled to any further payment under his contract until the work is completed and accepted. If the Principal Representative takes over the work and if the unpaid balance of the contract price exceeds the cost of completing the work, including compensation for any damages or expenses incurred by the Principal Representative through the default of the CONTRACTOR, such excess shall be paid to the CONTRACTOR. If, however, the cost, expenses and damages as certified by the

Principal Representative exceed such unpaid balance of the contract price, the CONTRACTOR and his Surety shall pay the difference to the Principal Representative.

- (b) The Principal Representative may take control of the work and either make good the deficiencies of the CONTRACTOR or direct the activities of the CONTRACTOR in doing so, employing such additional help as the Principal Representative deems advisable. In such event the Principal Representative shall be entitled to collect from the CONTRACTOR and his Surety, or to deduct from any payment then or thereafter due the CONTRACTOR, the costs incurred in having such deficiencies made good and any damages or expenses incurred through the default of the CONTRACTOR, provided the Principal Representative approves the amount thus charged to the CONTRACTOR.
- (c) The Principal Representative may require the Surety on the CONTRACTOR'S bond to take control of the work at once and see to it that all the deficiencies of the CONTRACTOR are made good, with due diligence. As between the Principal Representative and the Surety, the cost of making good such deficiencies shall all be borne by the Surety. If the Surety takes over the work, either upon termination of the services of the CONTRACTOR or upon instructions from the Principal Representative to do so, the provisions of the Contract Documents shall govern in respect of the work done by the Surety, the Surety being substituted for the CONTRACTOR as to such provisions, including provisions as to payment for the work and provisions of this Article as to the right of the Principal Representative to do the work or take control of the work.

#### **Article 43. TERMINATION FOR CONVENIENCE OF STATE**

- (a) The performance of work under this Contract may be terminated, in whole or from time to time in part, by the State whenever for any reason the Principal Representative shall determine that such termination is in the best interest of the State. Termination of work hereunder shall be effected by delivery to the CONTRACTOR of a Notice of Termination specifying the extent to which performance of work under the Contract is terminated and the date upon which such termination becomes effective.
- (b) After receipt of the Notice of Termination the CONTRACTOR shall cancel his outstanding commitments hereunder covering the procurement of materials, supplies, equipment and miscellaneous items. In addition, the CONTRACTOR shall exercise all reasonable diligence to accomplish the cancellation or diversion of his outstanding commitments covering personal services and extending beyond the date of such termination to the extent that they relate to the performance of any work terminated by the Notice. With respect to such canceled commitments the CONTRACTOR agrees to:
  - (1) settle all outstanding liabilities and all claims arising out of such cancellation of commitments, with approval or ratification of the Principal Representative, to the extent he may require, which approval or ratification shall be final for all purposes of this clause, and
  - (2) assign to the State, in the manner, at the time, and to the extent directed by the Principal Representative, all of the right, title, and interest of the CONTRACTOR under the orders and subcontracts so terminated, in which case the State shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts.

- (c) The CONTRACTOR shall submit his termination claim to the Principal Representative promptly after receipt of a Notice of Termination, but in no event later than ninety (90) days from the effective date of termination, unless one or more extensions in writing are granted by the Principal Representative upon written request of the CONTRACTOR within such one year period or authorized extension thereof. Upon failure of the CONTRACTOR to submit his termination claim within the time allowed, the Principal Representative may determine, on the basis of information available to him, the amount, if any, due to the CONTRACTOR by reason of the termination and shall thereupon pay to the CONTRACTOR the amount so determined.
- (d) Costs claimed, agreed to, or determined pursuant to (c) above and (e) below shall be in accordance with the provisions of ARTICLE 107 (COST PRINCIPLES) of the Colorado Procurement Code and Rules as in effect on the date of this Contract.
- (e) Subject to the provisions of paragraph (c) above, the CONTRACTOR and the Principal Representative may agree upon the whole or any part of the amount or amounts to be paid to the CONTRACTOR by reason of the termination under this clause, which amount or amounts may include any reasonable cancellation charges thereby incurred by the CONTRACTOR and any reasonable loss upon outstanding commitments for personal services which he is unable to cancel; provided, however, that in connection with any outstanding commitments for personal services which the CONTRACTOR is unable to cancel, the CONTRACTOR shall have exercised reasonable diligence to divert such commitments to his other activities and operations. Any such agreement shall be embodied in an amendment to this Contract and the CONTRACTOR shall be paid the agreed amount.
- (f) The State may from time to time, under such terms and conditions as it may prescribe, make partial payments against costs incurred by the CONTRACTOR in connection with the termination portion of this Contract, whenever, in the opinion of the Principal Representative, the aggregate of such payments is within the amount to which the CONTRACTOR will be entitled hereunder.
- (g) The CONTRACTOR agrees to transfer title and deliver to the State, in the manner, at the time, and to the extent, if any, directed by the Principal Representative, such information and items which, if the Contract had been completed, would have been required to be furnished to the State, including:
  - (1) completed or partially completed plans, drawings and information; and
  - (2) materials or equipment produced or in process or acquired in connection with the performance of the work terminated by the Notice.

Other than the above, any termination inventory resulting from the termination of the Contract may, with written approval of the Principal Representative, be sold or acquired by the CONTRACTOR under the conditions prescribed by and at a price or prices approved by the Principal Representative. The proceeds of any such disposition shall be applied in reduction of any payments to be made by the State to the CONTRACTOR under this Contract or shall otherwise be credited to the price or cost of work covered by this Contract or paid in such other manner as the Principal Representative may direct. Pending final disposition of property arising from the termination, the CONTRACTOR agrees to take such action as may be

necessary, or as the Principal Representative may direct, for the protection and preservation of the property related to this Contract which is in the possession of the CONTRACTOR and in which the State has or may acquire an interest.

- (h) Any disputes as to questions of fact, which may arise hereunder, shall be subject to the provisions of ARTICLE 109 (REMEDIES) of the Colorado Procurement Code.

#### **Article 44. CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE CONTRACT**

If the work shall be stopped under an order of any court or other public authority for a period of three (3) months through no act or fault of the CONTRACTOR or of any one employed by him, then the CONTRACTOR may, on seven (7) days' written Notice to the Principal Representative and the PROJECT MANAGER, stop work or terminate this Contract and recover from the Principal Representative payment for all work executed, any losses sustained on any material, and a reasonable profit.

Any claim by the CONTRACTOR to stop work or terminate the Contract due to an alleged breach by the Principal Representative shall be subject to the provisions of ARTICLE 109 (REMEDIES) of the Colorado Procurement Code

This provision shall not apply to work suspended due to conditions unsatisfactory for the prosecution of the work, including winter weather conditions.

#### **Article 45. CLEANUP**

The CONTRACTOR shall at all times keep the construction area free from accumulations of waste material or rubbish resulting from his work. Upon completion of the work, the CONTRACTOR shall remove from the vicinity of the work and haul all rubbish, trash, garbage, and construction debris to a county-approved disposal site. Additionally, the CONTRACTOR shall remove from the vicinity all unused materials, and the like, belonging to the CONTRACTOR or used under the CONTRACTOR'S direction during construction.

Cleanup is subject to the approval of the Principal Representative.

#### **Article 46. PERIODIC PARTIAL PAYMENTS**

On some occasions, after approval by the Principal Representative, payment may be made on account of materials not incorporated in the work but delivered and suitably stored at the site, or at some other location agreed upon in writing. Such payments shall be conditioned upon submission by the CONTRACTOR of bills of sale or such other procedure as will establish the Principal Representative's title to such material or otherwise adequately protect the Principal Representative's interest, including applicable insurance.

If the bid amount is between \$50,000.00 and \$149,999.00, 10 percent retainage will be withheld until the project has been satisfactorily completed and advertised. If the bid amount is \$150,000.00 or over, 5 percent retainage will be withheld until the project has been satisfactorily completed and advertised.

The Division of Reclamation, Mining and Safety will accept original invoices only. Change order amounts and retainage must be invoiced separately from items included in the original contract. All

invoices, except the final invoice, and the payments thereunder, shall be subject to correction in the next invoice following the discovery of any error. The final payment, or the retainage bill, shall state "Final Bill" on the invoice.

State law and regulations provide that CONTRACTORS will be paid within 45 days after receipt of a correct invoice. A State liability not paid within 45 days is considered delinquent and, unless otherwise agreed to, interest on the unpaid balance shall be paid beginning with the forty-sixth day at the rate of one percent per month on the unpaid balance until paid in full. A liability shall not arise if a good faith dispute exists as to the agency's obligation to pay all or a portion of the liability. CONTRACTORS shall invoice separately for interest on delinquent amounts due. The billing shall reference the delinquent payment, the number of days interest to be paid and the applicable interest rate (24-30-202(24), C.R.S. as amended).

#### **Article 47. PAYMENTS WITHHELD**

The PROJECT MANAGER or the Principal Representative may hold, or, on account of subsequently discovered evidence, nullify the whole or any part of any invoice on account of:

- (a) Defective work not remedied;
- (b) Claims filed or reasonable evidence indicating probable filing of claims;
- (c) Failure of the CONTRACTOR to make payment to subcontractors or for material or labor;
- (d) A reasonable doubt that the Contract can be completed for the balance of the contract price then unpaid;
- (e) Damage to another CONTRACTOR;
- (f) Failure to obtain necessary permits or licenses or to comply with applicable laws, ordinances, codes, rules or regulations;
- (g) Failure to submit weekly progress reports;
- (h) Failure of the CONTRACTOR to keep his work progressing in accordance with his time schedule;
- (i) Failure to keep a superintendent on the work;
- (j) Unauthorized deviations by the CONTRACTOR from the Contract Documents.

When the grounds for such withholding or nullifying are removed, payment shall be made for the amounts withheld.

If the Principal Representative deems inexpedient the correction of damaged work or of work not performed in accordance with the contract, equitable reduction of contract price shall be made.

#### **Article 48. FINAL INSPECTION**

The Principal Representative shall make *final inspection* of the project to determine whether the work has been completed in accordance with the Contract Documents. A final punch list shall be made by the Principal Representative on the *Final Inspection and Certificate of Completion* form in sufficient detail to fully outline to the CONTRACTOR:

- a) Work to be completed, if any;
- b) Work not in compliance with the drawings or specifications, if any;
- c) Unsatisfactory work for any reason, if any.



If any punch-list results from the final inspection, the CONTRACTOR shall promptly rectify all items on it.

#### **Article 49. FINAL INSPECTION AND CERTIFICATE OF COMPLETION**

The *Final Inspection and Certificate of Completion* shall establish the completion date of the project.

#### **Article 50. SETTLEMENT**

The Principal Representative shall not authorize final payment until all items on the punch list have been completed, the *Final Inspection and Certificate of Completion* issued, and the Notice of CONTRACTOR'S Settlement published. Before the Principal Representative may advertise, the CONTRACTOR shall deliver the Principal Representative all guaranties and warranties, and daily or weekly Job Logs.

When the Principal Representative indicates acceptance of the work, the CONTRACTOR may requisition final payment, including retainage, on account of the contract price.

Before such final payment may be made the Principal Representative must comply with Title 38-26-107 C.R.S. as amended, which requires that publication of a notice of final settlement with the CONTRACTOR be made twice for projects over \$120,000.00, and once for projects less than \$120,000.00 in a newspaper of general circulation in the county wherein the Agreement was made (usually Denver County) and the county wherein the work was performed. The date fixed in such notice, before which final payment to the CONTRACTOR may not be made, must be no less than ten days after the publication of the notice.

Any unpaid creditor of the CONTRACTOR who supplied labor and/or material for the work has those ten days in which to file with the Principal Representative a verified statement of the amount due and unpaid. The Principal Representative must withhold from payment to the CONTRACTOR the total amount of such claim for a period of ninety days after the date in the notice fixed for settlement, but the Principal Representative may not directly make payment to the creditor(s). If within those ninety days a creditor does not reach settlement with the CONTRACTOR, he must file with the Principal Representative a notice that he has brought action at law, otherwise the Principal Representative, at expiration of ninety days, will pay the CONTRACTOR for the amount withheld.

#### **Article 51. GUARANTY AND WARRANTIES**

The CONTRACTOR shall furnish the Principal Representative with a written guaranty for one year covering all labor, materials and workmanship incorporated in the work. The CONTRACTOR, in instances of work performed or material or equipment furnished for which warranties are required by the specifications, shall procure such warranties and deliver them to the Principal Representative on completion of the work. Such warranties will in no way lessen the CONTRACTOR'S responsibilities under the Agreement. Whenever warranties or guarantees are required by the specifications for a period longer than one year, such longer period shall govern. Written guaranties must be received by the Principal Representative before final payment will be approved.

#### **Article 52. ASSIGNMENT**

The CONTRACTOR shall not assign the whole or any part of this Contract as any moneys due or to become due hereunder without the written consent of the Principal Representative. No assignment

without said prior approval shall be valid. In case the CONTRACTOR assigns all or part of any moneys due or to become due under this Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any moneys due or to become due to the CONTRACTOR shall be subject to all claims of all persons, firms, and corporations for services rendered or materials supplied for the performance of the work called for in this Contract, whether said service or material were supplied prior to, or after the assignment.

#### **Article 53. LIENS**

There is no right of Mechanic's Lien against publicly-owned property in the State of Colorado. However, as outlined in **Article 50 SETTLEMENT**, unpaid labor and/or materials suppliers for the work are by law provided certain alternate remedies.

#### **Article 54. POST-COMPLETION INSPECTIONS**

Final payment made to the CONTRACTOR on account of the work shall not operate to relieve the CONTRACTOR of responsibility for faulty material or workmanship, and unless otherwise provided the CONTRACTOR shall remedy any defect due thereto and pay for any damages resultant therefrom which shall appear within one year from the date of final acceptance of the work, which date will be that of the Final Inspection and Certificate of Completion.

If the CONTRACTOR fails promptly to correct the punch list items resulting from such inspections, the Principal Representative may correct such defects and deficiencies and backcharge the CONTRACTOR for the cost thereof.

#### **Article 55. ACCESS TO DOCUMENTS**

The CONTRACTOR shall grant access to the State, the Office of Surface Mining Reclamation and Enforcement, the Comptroller General of the United States, or any of their duly authorized representatives to any books, documents, papers and records of the CONTRACTOR which are directly pertinent to this contract for the purpose of audit, examination, excerpts and transcriptions. All required records shall be retained for three years after final settlement and all other matters are closed.

#### **Article 56. CORRUPT INFLUENCES**

The signatories hereto aver that they are familiar with 18-8-301 of seq. (Bribery and corrupt influences) and 18-8-401, et seq. (abuse of Public Office), C.R.S., as amended and that no violation of such provisions is present.

# State of Colorado Purchase Order Terms and Conditions

- 1. Offer/Acceptance.** This Purchase Order, together with these terms and conditions (including, if applicable, Addendum 1: Additional Terms and Conditions for Information Technology, below), and any other attachments, exhibits, specifications, or appendices, whether attached or incorporated by reference (collectively the "PO") shall represent the entire and exclusive agreement between the State and the Vendor. If this PO refers to Vendor's bid or proposal, this PO is an ACCEPTANCE of Vendor's OFFER TO SELL in accordance with the terms and conditions of this PO. If a bid or proposal is not referenced, this PO is an OFFER TO BUY, subject to Vendor's acceptance, demonstrated by Vendor's performance or written acceptance of this PO. Any COUNTER-OFFER TO SELL automatically CANCELS this PO, unless a change order accepting the counter-offer is issued in accordance with §4 accepting a counter-offer. The State shall not be responsible or liable for goods or services delivered or performed prior to issuance of this PO.
- 2. Order of Precedence.** In the event of a conflict or inconsistency within this PO, such conflict or inconsistency shall be resolved by giving preference to the documents in the following order of priority: **(a)** the Purchase Order document; **(b)** these Terms and Conditions (including, if applicable, Addendum 1: Additional Terms and Conditions for Information Technology below); and **(c)** any attachments, exhibits, specifications, or appendices, whether attached or incorporated by reference. Any terms and conditions included on Vendor's forms or invoices not included in this PO are void.
- 3. Safety Information.** All chemicals, equipment, and materials proposed or used in the performance of this PO shall conform to the requirements of the Occupational Safety and Health Act of 1970. Vendor shall furnish all Material Safety Data Sheets (MSDS) for any regulated chemicals, equipment, or hazardous materials at the time of delivery.
- 4. Changes.** Vendor shall furnish goods or services in strict accordance with the specifications and price set forth for each item. This PO shall not be modified, superseded or otherwise altered, except in writing signed by the State and accepted by Vendor. If this PO is for goods only and Vendor has not delivered the goods prior to the expiration of this PO, but Vendor delivers all of the goods to the State only after expiration of this PO, then the State, in its sole discretion, may accept the goods under this PO by extending this PO and delivering the modification to Vendor; however, regardless of anything to the contrary, if the State does not extend this PO for any reason then the goods delivered after expiration of this PO shall be deemed rejected, Vendor shall arrange the return of all delivered goods at Vendor's sole expense, and the State shall have no liability for any such goods.
- 5. Delivery.** Unless otherwise specified in this PO, delivery shall be FOB destination, freight prepaid and allowed. The State is relying on the promised delivery date and any installation or service performance set forth in this PO as material and basic to the State's acceptance. If Vendor fails to deliver or perform as and when promised, the State, in its sole discretion, may cancel its order, or any part thereof, without prejudice to its other rights, return all or part of any shipment so made, and charge Vendor with any loss or expense sustained as a result of such failure to deliver or perform as promised. Time is of the essence.
- 6. Rights to Materials.** *[Not Applicable to POs issued either in whole or in part for Information Technology, as defined in CRS § 24-37.5-102(2); which shall be governed by Addendum 1 §B.]* Unless specifically stated otherwise in this PO, all materials, including without limitation supplies, equipment, documents, content, information, or other material of any type, whether tangible or intangible (collectively "Materials"), furnished by the State to Vendor or delivered by Vendor to the State in performance of its obligations under this PO shall be the exclusive property of the State. Vendor shall return or deliver all Materials to the State upon completion or termination of this PO.
- 7. Reporting.** If Vendor is served with a pleading or other document in connection with an action before a court or other administrative decision making body, and such pleading or document relates to this PO or may affect Vendor's ability to perform its obligations under this PO, Vendor shall, within 10 days after being served, notify the State of such action and deliver copies of such pleading or document to the State. Vendor shall disclose, in a timely manner, in writing to the State all violations of federal or state criminal law involving fraud, bribery, or gratuity violations potentially affecting this PO. The State may impose any remedies available, which may include, without limitation, suspension or debarment.
- 8. Conflicts of Interest.** Vendor acknowledges that with respect to this PO, even the appearance of a conflict of interest is harmful to the State's interests. Absent the State's prior written approval, Vendor shall refrain from any practices, activities, or relationships that reasonably may appear to be in conflict with the full performance of Vendor's obligations to the State hereunder. If a conflict or appearance of a conflict of interest exists, or if Vendor is uncertain as to such, Vendor shall submit to the State a disclosure statement setting forth the relevant details for the State's consideration. Failure to promptly submit a disclosure statement or to follow the State's direction with respect to the actual or apparent conflict constitutes a breach of this PO.
- 9. Warranties.** All provisions and remedies of the Colorado Uniform Commercial Code, CRS, Title 4 ("UCC"), relating to implied or express warranties for goods are incorporated herein, in addition to any warranties contained in this PO.
- 10. Inspection and Acceptance.** The State's final acceptance of goods or services is contingent upon completion of all applicable inspection procedures. All goods delivered shall be newly manufactured and the current model, unless otherwise specified. The State shall have the right to inspect goods or services provided under this PO at all reasonable times and places. The State shall be the sole judge in determining "equals" with regard to conformance with the specifications outlined in this PO for quality, price, and performance. If any of the goods or services do not conform to this PO, the State, at its sole discretion, may require Vendor to either **(a)** replace the goods specified by the State or **(b)** perform the services again, without additional payment from the State. When defects in the quality or quantity of goods or services cannot be corrected by replacement or re-performance, the State may **(c)** require Vendor to take necessary action to ensure that future performance conforms to this PO and **(d)** equitably reduce the payment due Vendor to reflect the reduced value of the goods or services performed. These remedies do not limit the remedies otherwise available in this PO, at law, or in equity.
- 11. Taxes.** The State is exempt from federal excise taxes and from State and local sales and use taxes. The State shall not be liable for the payment of any excise, sales, or use taxes imposed on Vendor. A tax exemption certificate will be made available upon Vendor's request.
- 12. Payment.** The State shall not pay Vendor any amount for performance under this PO in excess of the Document Total set forth on the Purchase Order document. The State shall pay Vendor for all amounts due within 45 days after the State's receipt of goods or services and acceptance of a correct invoice of amount due. Amounts not paid by the State within 45 days of the State's acceptance of the invoice shall bear interest on the unpaid balance beginning on the 45th day at the rate set forth in CRS §24-30-202(24) until paid in full. Interest shall not accrue if a good faith dispute exists as to the State's obligation to pay all or a portion of the amount due. Vendor shall invoice the State separately for interest on delinquent amounts due, referencing the delinquent payment, number of day's interest to be paid, and applicable interest rate. The State may benefit from any early payment discount offered by Vendor by making payment within the timeframes required by Vendor to be eligible for such discount. If Vendor offers an early payment discount, then the discount shall be shown on Vendor's invoices to the State, and if the State makes payment on the invoice within the time frame for the discount, Vendor shall either **(a)** accept the payment amount less the appropriate discount or **(b)** refund the discount back to the State. Except as specifically agreed in this PO, Vendor shall be solely responsible for all costs, expenses, and other charges it incurs in connection with its performance under this PO.
- 13. Assignment.** Vendor's rights and obligations under this PO shall not be transferred or assigned without the prior, written consent of the State and execution of a new PO. Any attempt at assignment or transfer without such consent and new PO shall be void. Any new PO approved by the State shall be subject to the same terms and conditions as those set forth in this PO.
- 14. Subcontracts.** Unless otherwise specified in this PO, Vendor shall not enter into any subcontract in connection with its obligations under this PO without the prior, written approval of the State. Vendor shall submit to the State a copy of each such subcontract upon request by the State. All subcontracts entered into by Vendor in connection with this PO shall comply with all applicable federal and state laws and regulations, shall provide that they are governed by the laws of the State of Colorado, and shall be subject to all provisions of this PO.

**15. Severability.** The invalidity or unenforceability of any provision of this PO shall not affect the validity or enforceability of any other provision of this PO, which shall remain in full force and effect, provided, that the parties can continue to perform their obligations in accordance with the intent of this PO.

**16. Survival of Certain PO Terms.** Any provision of this PO that imposes an obligation on a party after termination or expiration of this PO shall survive the termination or expiration of this PO and shall be enforceable by the other party.

**17. Third Party Beneficiaries.** Except for the parties' respective successors and assigns, this PO does not and is not intended to confer any rights or remedies upon any person or entity other than the parties. Enforcement of this PO and all rights and obligations hereunder is reserved solely to the parties. Any services or benefits which third parties receive as a result of this PO are incidental to this PO, and do not create any rights for such third parties.

**18. Waiver.** A party's failure or delay in exercising any right, power, or privilege under this PO, whether explicit or by lack of enforcement, shall not operate as a waiver, nor shall any single or partial exercise of any right, power, or privilege preclude any other or further exercise of such right, power, or privilege.

**19. Indemnification. [Not Applicable to Inter-governmental POs]** Vendor shall indemnify, save, and hold harmless the State, its employees, agents and assignees (the "Indemnified Parties"), against any and all costs, expenses, claims, damages, liabilities, court awards and other amounts (including attorneys' fees and related costs) incurred by any of the Indemnified Parties in relation to any act or omission by Vendor, or its employees, agents, subcontractors, or assignees in connection with this PO. This shall include, without limitation, any and all costs, expenses, claims, damages, liabilities, court awards and other amounts incurred by the Indemnified Parties in relation to any claim that any work infringes a patent, copyright, trademark, trade secret, or any other intellectual property right or any claim for loss or improper disclosure of any confidential information or personally identifiable information.

**20. Notice.** All notices given under this PO shall be in writing, and shall be delivered to the contacts for each party listed on the Purchase Order document. Either party may change its contact or contact information by notice submitted in writing to the other party without a formal modification to this PO.

**21. Insurance.** Except as otherwise specifically stated in this PO, Vendor shall obtain and maintain insurance as specified in this section at all times during the term of this PO: **(a)** workers' compensation insurance as required by state statute, and employers' liability insurance covering all Vendor employees acting within the course and scope of their employment; **(b)** Commercial general liability insurance written on an Insurance Services Office occurrence form, covering premises operations, fire damage, independent contractors, products and completed operations, blanket contractual liability, personal injury, and advertising liability with minimum limits as follows: \$1,000,000 each occurrence; \$1,000,000 general aggregate; \$1,000,000 products and completed operations aggregate; and \$50,000 any one fire; and **(c)** Automobile liability insurance covering any auto (including owned, hired and non-owned autos) with a minimum limit of \$1,000,000 each accident combined single limit. If Vendor will or may have access to any protected information, then Vendor shall also obtain and maintain insurance covering loss and disclosure of protected information and claims based on alleged violations of privacy right through improper use and disclosure of protected information with limits of \$1,000,000 each occurrence and \$1,000,000 general aggregate at all times during the term of this PO. Additional insurance may be required as provided elsewhere in this PO. All insurance policies required by this PO shall be issued by insurance companies with an AM Best rating of A-VIII or better. This insurance requirement shall not apply if this PO is solely for goods, as determined by the State, unless specifically stated otherwise in this PO or any attachment or exhibit to this PO. If Vendor is a public agency within the meaning of the Colorado Governmental Immunity Act, then this section shall not apply and Vendor shall instead comply with the Colorado Governmental Immunity Act.

**22. Termination Prior to Vendor Acceptance.** If Vendor has not begun performance under this PO, the State may cancel this PO by providing written notice to the Vendor.

**23. Termination for Cause.** **(a)** If Vendor refuses or fails to timely and properly perform any of its obligations under this PO with such diligence as will ensure its completion within the time specified in this PO, the State may notify Vendor in writing of non-performance and, if not corrected by Vendor within the time specified in the notice, terminate Vendor's right to proceed with this PO or such part thereof as to which there has been delay or a failure. Vendor shall continue performance of this PO to the extent not terminated. **(b)** Vendor shall be liable for excess costs incurred by the State in procuring similar goods or services and the State may withhold such amounts as the State deems necessary. **(c)** If after rejection, revocation, or other termination of Vendor's right to proceed under the UCC or this clause, the State determines for any reason that Vendor was not in default or the delay was excusable, the rights and obligations of the State and Vendor shall be the same as if the notice of termination had been issued pursuant to termination under **\$25**.

**24. Termination in Public Interest.** The State is entering into this PO for the purpose of carrying out the public interest of the State, as determined by its Governor, General Assembly, or Courts. If this PO ceases to further the public interest of the State as determined by its Governor, General Assembly, or Courts, the State, in its sole discretion, may terminate this PO in whole or in part and such termination shall not be deemed to be a breach of the State's obligations hereunder. This section shall not apply to a termination for cause, which shall be governed by **\$24**. A determination that this PO should be terminated in the public interest shall not be equivalent to a State right to terminate for convenience. The State shall give written notice of termination to Vendor specifying the part of this PO terminated and when termination becomes effective. Upon receipt of notice of termination, Vendor shall not incur further obligations except as necessary to mitigate costs of performance. For services or specially manufactured goods, the State shall pay **(a)** reasonable settlement expenses, **(b)** this PO price or rate for supplies and services delivered and accepted, **(c)** reasonable costs of performance on unaccepted supplies and services, and **(d)** a reasonable profit for the unaccepted work. For existing goods, the State shall pay **(e)** reasonable settlement expenses, **(f)** the PO price for goods delivered and accepted, **(g)** reasonable costs incurred in preparation for delivery of the undelivered goods, and **(h)** a reasonable profit for the preparatory work. The State's termination liability under this section shall not exceed the total PO price. As a condition for payment under this section, Vendor shall submit a termination proposal and reasonable supporting documentation, and cost and pricing data as requested by the State.

**25. Funds Availability.** Financial obligations of the State payable after the State's current fiscal year are contingent upon funds for that purpose being appropriated, budgeted, and otherwise made available. If this PO is funded in whole or in part with federal funds, this PO is subject to and contingent upon the continuing availability of federal funds for the purposes hereof. The State represents that it has set aside sufficient funds to make payment for goods delivered in a single installment, in accordance with the terms of this PO.

**26. Governmental Immunity.** Liability for claims for injuries to persons or property arising from the negligence of the State, its departments, boards, commissions committees, bureaus, offices, employees and officials shall be controlled and limited by the provisions of the Colorado Governmental Immunity Act, CRS §24-10-101, et seq., the Federal Tort Claims Act, 28 U.S.C. Pt. VI, Ch. 171 and 28 U.S.C. 1346(b), and the State's risk management statutes, CRS §§24-30-1501, et seq. No term or condition of this PO shall be construed or interpreted as a waiver, express or implied, of any of the immunities, rights, benefits, protections, or other provisions, contained in these statutes.

**27. Independent Contractor.** Vendor shall perform its duties under this PO as an independent contractor and not as an employee. Neither Vendor nor any agent or employee of Vendor shall be deemed to be an agent or employee of the State. Vendor shall not have authorization, express or implied, to bind the State to any agreement, liability or understanding, except as expressly set forth herein. Vendor and its employees and agents are not entitled to unemployment insurance or workers compensation benefits through the State and the State shall not pay for or otherwise provide such coverage for Vendor or any of its agents or employees. Vendor shall pay when due all applicable employment taxes, income taxes and local head taxes incurred pursuant to this PO. Vendor shall **(a)** provide and keep in force workers' compensation and unemployment compensation insurance in the amounts required by law, **(b)** provide proof thereof when requested by the State, and **(c)** be solely responsible for its acts and those of its employees and agents.

**28. Compliance with Law.** Vendor shall comply with all applicable federal and state laws, rules, and regulations in effect or hereafter established, including, without limitation, laws applicable to discrimination and unfair employment practices.

**29. Choice of Law, Jurisdiction and Venue. [Not Applicable to Inter-governmental POs]** Colorado law, and rules and regulations issued pursuant thereto, shall be applied in the interpretation, execution, and enforcement of this PO. The UCC shall govern this PO in the case of goods unless otherwise agreed in this PO. Any provision included or incorporated herein by reference, which conflicts with said laws, rules, and regulations shall be null and void. All suits or actions related to this PO shall be filed and proceedings held in the State of Colorado and exclusive venue shall be in the City and County of Denver. Any provision incorporated herein by reference which purports to negate this or any other provision in this PO in whole or in part shall not be valid or enforceable or available in any action at law, whether by way of complaint, defense, or otherwise. Vendor shall exhaust administrative remedies in CRS §24-109-106, prior to commencing any judicial action against the State.

**30. Prohibited Terms.** Nothing in this PO shall be construed as a waiver of any provision of CRS §24-106-109. Any term included in this PO that requires the State to indemnify or hold Vendor harmless; requires the State to agree to binding arbitration; limits Vendor's liability for damages resulting from death, bodily injury, or damage to tangible property; or that conflicts with that statute in any way shall be void ab initio.

**31. Vendor Offset and Erroneous Payments. [Not Applicable to Inter-governmental POs or to POs issued solely for goods]** The State Controller may withhold payment under the State's Vendor offset intercept system for debts owed to State agencies for: **(a)** unpaid child support debts or child support arrearages; **(b)** unpaid balances of tax, accrued interest, or other charges specified in CRS §39-21-101, et seq.; **(c)** unpaid loans due to the Student Loan Division of the Department of Higher Education; **(d)** amounts required to be paid to the Unemployment Compensation Fund; and **(e)** other unpaid debts owing to the State as a result of final agency determination or judicial action. The State may also recover, at the State's discretion, payments made to Vendor in error for any reason, including, but not limited to, overpayments or improper payments, and unexpended or excess funds received by Vendor by deduction from subsequent payments under this PO, deduction from any payment due under any other contracts, grants or agreements between the State and Vendor, or by any other appropriate method for collecting debts owed to the State.

**32. Public Contracts for Services. [Not Applicable to offer, issuance, or sale of securities, investment advisory services, fund management services, sponsored projects, intergovernmental POs, or information technology services or products and services]** Vendor certifies, warrants, and agrees that it does not knowingly employ or contract with an illegal alien who will perform work under this PO and will confirm the employment eligibility of all employees who are newly hired for employment in the United States to perform work under this PO, through participation in the E-Verify Program or the Colorado Department of Labor and Employment ("CDLE") program established pursuant to CRS §8-17.5-102(5)(c). Vendor shall not knowingly employ or contract with an illegal alien to perform work under this PO or enter into a contract or PO with a subcontractor that fails to certify to Vendor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this PO. Vendor shall **(a)** not use E-Verify Program or CDLE program procedures to undertake pre-employment screening of job applicants during performance of this PO, **(b)** notify subcontractor and the State within three days if Vendor has actual knowledge that subcontractor is employing or contracting with an illegal alien for work under this PO, **(c)** terminate the subcontract if subcontractor does not stop employing or contracting with the illegal alien within three days of receiving notice, and **(d)** comply with reasonable requests made in the course of an investigation, undertaken pursuant to CRS §8-17.5-102(5), by CDLE. If Vendor participates in the CDLE program, Vendor shall deliver to the State a written, notarized affirmation that Vendor has examined the legal work status of such employee, and shall comply with all of the other requirements of the CDLE program. If Vendor fails to comply with any requirement of this provision or CRS §8-17.5-101 et seq., the State may terminate this PO for breach and, if so terminated, Vendor shall be liable for damages.

**33. Public Contracts with Natural Persons.** Vendor, if a natural person 18 years of age or older, hereby swears and affirms under penalty of perjury that such person **(a)** is a citizen or otherwise lawfully present in the United States pursuant to federal law, **(b)** shall comply with the provisions of CRS §24-76.5-101 et seq., and **(c)** has produced a form of identification required by CRS §24-76.5-103 prior to the date Vendor delivers goods or begins performing services under the terms of this PO.

## ADDENDUM 1: Additional Terms & Conditions for Information Technology

IF ANY PART OF THE SUBJECT MATTER OF THIS PO IS INFORMATION TECHNOLOGY, AS DEFINED IN CRS § 24-37.5-102 (2), THE FOLLOWING PROVISIONS ALSO APPLY TO THIS PO.

**A. Definitions.** The following terms shall be construed and interpreted as follows: **(a) "Business Day"** means any day in which the State is open and conducting business, but shall not include Saturday, Sunday or any day on which the State observes one of the holidays listed in CRS §24-11-101(1); **(b) "CJI"** means criminal justice information collected by criminal justice agencies needed for the performance of their authorized functions, including, without limitation, all information defined as criminal justice information by the U.S. Department of Justice, Federal Bureau of Investigation, Criminal Justice Information Services Security Policy, as amended, and all Criminal Justice Records as defined under CRS §24-72-302; **(c) "HIPAA"** means the federal Health Information Portability and Accountability Act; **(d) "Incident"** means any accidental or deliberate event that results in or constitutes an imminent threat of the unauthorized access, loss, disclosure, modification, disruption, or destruction of any communications or information resources of the State, pursuant to CRS §§24-37.5-401 et seq.; **(e) "PCI"** means payment card information including any data related to credit card holders' names, credit card numbers, or the other credit card information as may be protected by state or federal law; **(f) "PHI"** means any protected health information, including, without limitation any information whether oral or recorded in any form or medium that relates to the past, present or future physical or mental condition of an individual; the provision of health care to an individual; or the past, present or future payment for the provision of health care to an individual; and that identifies the individual or with respect to which there is a reasonable basis to believe the information can be used to identify the individual including, without limitation, any information defined as Individually Identifiable Health Information by HIPAA; **(g) "PII"** means personally identifiable information including, without limitation, any information maintained by the State about an individual that can be used to distinguish or trace an individual's identity, such as name, social security number, date and place of birth, mother's maiden name, or biometric records, including, without limitation, all information defined as personally identifiable information in CRS §24-72-501; **(h) "State Confidential Information"** means any and all State Records not subject to disclosure under the Colorado Open Records Act, CRS §§24-72-200.1, et seq. ("CORA"), and includes, without limitation, PII, PHI, PCI, Tax Information, CJI, and State personnel records not subject to disclosure under CORA; **(i) "State Records"** means any and all State data, information, and records, regardless of physical form; **(j) "Tax Information"** means federal and State of Colorado tax information including, without limitation, federal and State tax returns, return information, and such other tax-related information as may be protected by federal and State law and regulation, including, without limitation all information defined as federal tax information in Internal Revenue Service Publication 1075; and **(k) "Work Product"** means the tangible and intangible results of the delivery of goods and performance of services, whether finished or unfinished, including drafts.

**B. Intellectual Property.** Except to the extent specifically provided elsewhere in this PO, any State information, including without limitation pre-existing State software, research, reports, studies, data, photographs, negatives or other documents, drawings, models, materials; or Work Product prepared by Vendor in the performance of its obligations under this PO shall be the exclusive property of the State (collectively, "State Materials"). Vendor shall deliver all State Materials to the State upon completion or termination of this PO. The State's exclusive rights in any Work Product prepared by Vendor shall include, but not be limited to, the right to copy, publish, display, transfer, and prepare derivative works. Vendor shall not use, willingly allow, cause or permit any State Materials to be used for any purpose other than the performance of Vendor's obligations hereunder without the prior written consent of the State. The State shall maintain complete and accurate records relating to **(a)** its use of all Vendor and third party software licenses and rights to use any Vendor or third party software granted under this PO and its attachments to which the State is a party and **(b)** all amounts payable to Vendor pursuant to this PO and its attachments and the State's its obligations under this PO or to any amounts payable to Vendor in relation to this PO, which records shall contain sufficient information to permit Vendor to confirm the State's compliance with the use restrictions and payment obligations under this PO or to any third-party use restrictions to which the State is a party. Vendor retains the exclusive rights, title and ownership to any and all pre-existing materials owned by or licensed to Vendor including, but not limited to all pre-existing software, licensed products, associated source code, machine code, text images, audio, video, and third-party materials, delivered by Vendor under this PO, whether incorporated in a Deliverable or necessary to use a Deliverable (collectively, "Vendor Property"). Vendor Property shall be licensed to the State as set forth in a State-approved license agreement: **(c)** entered into as exhibits or attachments to this PO, **(d)** obtained by the State from the applicable third-party Vendor, or **(e)** in the case of open source software, the license terms set forth in the applicable open source license agreement. Notwithstanding anything to the contrary herein, the State shall not be subject to any provision incorporated in any exhibit or attachment attached hereto, any provision incorporated in any terms and conditions appearing on any website, any provision incorporated into any click through or online agreements, or any provision incorporated into any other document or agreement between the parties that **(f)** requires the State or the State to indemnify Vendor or any other party, **(g)** is in violation of State laws, regulations, rules, fiscal rules, policies, or other State requirements as deemed solely by the State, or **(h)** is contrary to this PO.

**C. License or Use Audit Rights.** If this PO includes any license or other right to use Vendor's intellectual property, Vendor shall have the right, at any time during and throughout the term of this PO, but not more than once during any State fiscal year, to request via written notice in accordance with the notice provisions of this PO that the State audit its use of Vendor's intellectual property and certify as to its compliance with any applicable license or use restrictions and limitations contained in this PO (an "Audit Request"). The Audit Request shall specify the time period to be covered by the audit, which shall not include any time periods covered by a previous audit. The State shall complete the audit and provide certification of its compliance to Vendor ("Audit Certification") within 120 days following the State's receipt of the Audit Request. If upon receipt of the State's Audit Certification, the parties reasonably determine that: **(a)** the State's use of licenses, use of software, use of programs, or any other use of intellectual property during the audit period exceeded the use restrictions and limitations contained in this PO ("Overuse") and **(b)** the State would have been or is then required to purchase additional rights to use Vendor's intellectual property ("Additional Rights"), Vendor shall provide written notice to the State in accordance with the notice provisions of this PO identifying any Overuse or required Additional Rights and request that the State bring its use into compliance with such use restrictions and limitations. Notwithstanding anything to the contrary in this PO, or incorporated as a part of Vendor's or any subcontractor's website, click-through or online agreements, third-party agreements, or any other documents or agreements between the parties, the State shall not be liable for the costs associated with any Overuse or Additional Rights, during the audit period regardless of whether the State may have been notified in advance of such costs.

**D. Vendor Records.** Vendor shall maintain a file of all documents, records, communications, notes, and other materials relating to the work (the "Vendor Records"). Vendor Records shall include all documents, records, communications, notes and other materials maintained by Vendor that relate to any work performed by Subcontractors, and Vendor shall maintain all records related to the work performed by Subcontractors required to ensure proper performance of that work. Unless a longer period is required in this PO or any attachment or exhibit to this PO, Vendor shall maintain Vendor Records until the last to occur of: **(a)** the date three years after the date this Purchase Order expires or is terminated, **(b)** final payment under this Purchase Order is made, **(c)** the resolution of any pending Purchase Order matters, or **(d)** if an audit is occurring, or Vendor has received notice that an audit is pending, the date such audit is completed and its findings have been resolved (the "Record Retention Period"). Vendor shall permit the State, the federal government, and any other duly authorized agent of a governmental agency to audit, inspect, examine, excerpt, copy, and transcribe Vendor Records during the Record Retention Period. Vendor shall make Vendor Records available during normal business hours at Vendor's office or place of business, or at other mutually agreed upon times or locations, upon no fewer than two Business Days' notice from the State, unless the State determines that a shorter period of notice, or no notice, is necessary to protect the interests of the State. The State, in its discretion, may monitor Vendor's performance of

its obligations under this Purchase Order using procedures as determined by the State. The State shall monitor Vendor's performance in a manner that does not unduly interfere with Vendor's performance of the work. Vendor shall promptly submit to the State a copy of any final audit report of an audit performed on Vendor's records that relates to or affects this Purchase Order or the work, whether the audit is conducted by Vendor or a third party.

**E. Information Confidentiality.** Vendor shall keep confidential, and cause all subcontractors to keep confidential, all State Records, unless those State Records are publicly available. Vendor shall not, without prior written approval of the State, use, publish, copy, disclose to any third party, or permit the use by any third party of any State Records, except as otherwise stated in this PO, permitted by law, or approved in writing by the State. Vendor shall provide for the security of all State Confidential Information in accordance with all applicable laws, rules, policies, publications, and guidelines. If Vendor or any of its subcontractors will or may have access to any State Confidential Information or any other protected information, Vendor shall comply with all Colorado Office of Information Security (OIS) policies and procedures which OIS has issued pursuant to CRS §§24-37.5-401 through 406, and 8 CCR §1501-5 and posted at <http://oit.state.co.us/ois>, all information security and privacy obligations imposed by any federal, state, or local statute or regulation, or by any industry standards or guidelines, as applicable based on the classification of the data relevant to Vendor's performance under this PO. Such obligations may arise from HIPAA; IRS Publication 1075; Payment Card Industry Data Security Standard (PCI-DSS); Federal Bureau of Investigation Criminal Justice Information Service Security Addendum; Centers for Medicare & Medicaid Services (CMS) Minimum Acceptable Risk Standards for Exchanges; and Electronic Information Exchange Security Requirements and Procedures for State and Local Agencies Exchanging Electronic Information With The Social Security Administration. Vendor shall immediately forward any request or demand for State Records to the State's purchase agent.

**F. Other Entity Access and Nondisclosure Agreements.** Vendor may provide State Records to its agents, employees, assigns and subcontractors as necessary to perform the work, but shall restrict access to State Confidential Information to those agents, employees, assigns, and subcontractors who require access to perform their obligations under this PO. Vendor shall ensure all such agents, employees, assigns, and subcontractors sign agreements containing nondisclosure provisions at least as protective as those in this PO, and that the nondisclosure provisions are in force at all times the agent, employee, assign or subcontractor has access to any State Confidential Information. Vendor shall provide copies of those signed nondisclosure provisions to the State upon execution of the nondisclosure provisions if requested by the State.

**G. Use, Security, and Retention.** Vendor shall use, hold, and maintain State Confidential Information in compliance with all applicable laws and regulations only in facilities located within the United States, and shall maintain a secure environment that ensures confidentiality of all State Confidential Information. Vendor shall provide the State with access, subject to Vendor's reasonable security requirements, for purposes of inspecting and monitoring access and use of State Confidential Information and evaluating security control effectiveness. Upon the expiration or termination of this PO, Vendor shall return State Records provided to Vendor or destroy such State Records and certify to the State that it has done so, as directed by the State. If Vendor is prevented by law or regulation from returning or destroying State Confidential Information, Vendor warrants it will guarantee the confidentiality of, and cease to use, such State Confidential Information.

**H. Incident Notice and Remediation.** If Vendor becomes aware of any Incident, it shall notify the State immediately and cooperate with the State regarding recovery, remediation, and the necessity to involve law enforcement, as determined by the State. Unless Vendor can establish none of Vendor or any of its agents, employees, assigns, or subcontractors are the cause or source of the Incident, Vendor shall be responsible for the cost of notifying each person who may have been impacted by the Incident. After an Incident, Vendor shall take steps to reduce the risk of incurring a similar type of Incident in the future as directed by the State, which may include, but is not limited to, developing and implementing a remediation plan that is approved by the State at no additional cost to the State. The State may adjust or direct modifications to this plan, in its sole discretion and Vendor shall make all modifications as directed by the State. If Vendor cannot produce its analysis and plan within the allotted time, the State, in its sole discretion, may perform such analysis and produce a remediation plan, and Vendor shall reimburse the State for the reasonable actual costs thereof.

**I. Data Protection and Handling.** Vendor shall ensure that all State Records and Work Product in the possession of Vendor or any subcontractors are protected and handled in accordance with the requirements of this PO at all times. Upon request by the State made any time prior to 60 days following the termination of this PO for any reason, whether or not this PO is expiring or terminating, Vendor shall make available to the State a complete and secure download file of all data that is encrypted and appropriately authenticated. This download file shall be made available to the State within 10 Business Days following the State's request, and shall contain, without limitation, all State Records, Work Product, and system schema and transformation definitions, or delimited text files with documents, detailed schema definitions, and attachments in its native format. Upon the termination of Vendor's services under this PO, Vendor shall, as directed by the State, return all State Records provided by the State to Vendor, and the copies thereof, to the State or destroy all such State Records and certify to the State that it has done so. If legal obligations imposed upon Vendor prevent Vendor from returning or destroying all or part of the State Records provided by the State, Vendor shall guarantee the confidentiality of all State Records in Vendor's possession and will not actively process such data. The State retains the right to use the established operational services to access and retrieve State Records stored on Vendor's infrastructure at its sole discretion and at any time.

**J. Compliance with OIS Policies and Procedure.** Vendor shall review, on a semi-annual basis, all Colorado Office of Information Security ("OIS") policies and procedures which OIS has promulgated pursuant to CRS §§24-37.5-401 through 406 and 8 CCR §1501-5 and posted at <http://oit.state.co.us/ois>, to ensure compliance with the standards and guidelines published therein. Vendor shall cooperate, and shall cause its subcontractors to cooperate, with the performance of security audit and penetration tests by OIS or its designee.

**K. Safeguarding PII.** If Vendor or any of its subcontractors will or may receive PII under this PO, Vendor shall provide for the security of such PII, in a manner and form acceptable to the State, including, without limitation, all State requirements relating to non-disclosure, use of appropriate technology, security practices, computer access security, data access security, data storage encryption, data transmission encryption, security inspections, and audits. Vendor shall be a "Third-Party Service Provider" as defined in CRS §24-73-103(1)(i) and shall maintain security procedures and practices consistent with CRS §§24-73-101.

**L. Software Piracy Prohibition.** State or other public funds payable under this PO shall not be used for the acquisition, operation, or maintenance of computer software in violation of federal copyright laws or applicable licensing restrictions. Vendor hereby certifies and warrants that, during the term of this PO and any extensions, Vendor has and shall maintain in place appropriate systems and controls to prevent such improper use of public funds. If the State determines that Vendor is in violation of this provision, the State may exercise any remedy available at law or in equity or under this PO, including, without limitation, immediate termination of this PO and any remedy consistent with federal copyright laws or applicable licensing restrictions.

**M. Information Technology.** To the extent that Vendor provides physical or logical storage of State Records; Vendor creates, uses, processes, discloses, transmits, or disposes of State Records; or Vendor is otherwise given physical or logical access to State Records in order to perform Vendor's obligations under this PO, Vendor shall, and shall cause its subcontractors, to: **(a)** provide physical and logical protection for all hardware, software, applications, and data that meets or exceeds industry standards and the requirements of this PO; **(b)** maintain network, system, and application security, which includes, but is not limited to, network firewalls, intrusion detection (host and network), annual security testing, and improvements or enhancements consistent with evolving industry standards; **(c)** comply with State and federal rules and regulations related to overall security, privacy, confidentiality, integrity, availability, and auditing; **(d)** provide that security is not compromised by unauthorized access to workspaces, computers, networks, software, databases, or other physical or electronic environments; **(e)** promptly report all Incidents, including Incidents that do not result in unauthorized disclosure or loss of data integrity, to a designated representative of the OIS; and **(f)** comply with all rules, policies, procedures, and standards issued by the Governor's Office of Information Technology (OIT), including project lifecycle methodology and governance, technical standards, documentation, and other requirements posted at [www.oit.state.co.us/about/policies](http://www.oit.state.co.us/about/policies). Vendor shall not allow remote access to State Records from outside the United States, including

access by Vendor's employees or agents, without the prior express written consent of OIS. Vendor shall communicate any request regarding non-U.S. access to State Records to the State. The State, acting by and through OIS, shall have sole discretion to grant or deny any such request.





North

Union Carbide Pit  
M-1982-010

Pioneer Ditch  
Grand Army of the Republic Hwy

Grand Army of the Republic Hwy

Grand Army of the Republic Hwy

Pond #1

Pond #2

Legend

Permit Boundary



Pond Outlined by GPS



# Union Carbide Bond Forfeiture Project

Pre Bid Meeting Location

## Legend

-  Pre Bid Meeting Location
-  Sinclair







DATE: August 30, 2022

TO: All Bidders on the Union Carbide Bond Forfeiture Project

FROM: Stephanie Mitchell, Division of Reclamation, Mining and Safety

RE: Amendment No. 01 to DQ1, PKAA, 2023\*069

Thank you for your attendance at the Pre-Bid Meeting. The following clarifications and amendments should be noted and incorporated into the bid documents:

1. The Rifle Transfer Station will accept Tamarisk for disposal. The rate is \$44 per ton and receipts will be provided. The address for the Rifle Transfer Station is 0075 County Road 246.
2. The railroad boundary easement on the northwestern part of the permit boundary should not be crossed.
3. DRMS Project Manager will flag permit boundary and flag tamarisk trees that are over 2" diameter for removal.
4. Russian Olive trees will be included in ITEM 4- Tamarisk Treatment or Removal. Russian Olive trees will be flagged by Project Manager.
5. Peninsula area in Pond #1 will require herbicide treatment.
6. Time of Completion for project has been increased to 40 calendar days. The project is now scheduled for construction between September 19, 2022 and October 28, 2022.
7. Camping is permitted on site during construction with a signed three way agreement.
8. Water is available near the Rifle water treatment plant. The water treatment plant will set up a hydrant meter on a fire hydrant near the site. To coordinate please contact Jesse at 970-456-3364.
9. A three way "Agreement for Reclamation Activities" **is required** for this job. Please see Article 4 of the *General Conditions* for the applicable insurance requirements.
10. ITEM 5- Additional Equipment Time has been added to the Bid Schedule.

#### **ITEM 5.0 ADDITIONAL EQUIPMENT TIME**

This item includes additional machine time for an excavator with thumb including operator to be used for removal of tamarisk as directed by PROJECT



MANAGER. The additional excavator time must utilize the same piece of equipment already being utilized Item 4, and no additional mob/demob may be charged under this Item 5. Equipment time will be accounted for in accordance with Equipment Rental Specifications 19 in the *General Bid Specifications, 2009*. Equipment time will start as directed by PROJECT MANAGER. The hours of additional equipment time in Bid Item 5 is NOT GUARANTEED. The estimated quantity of hours that may be required is 20 hours.

**Measurement and Payment**

Payment for this Item will be reflected under Item 5 of the Bid Schedule as an hourly rate for an Excavator and Operator. Bid hourly rate shall reflect the CONTRACTORS total cost for equipment and personnel per hour to complete the Item. Measurement will be actual hours required to complete work as directed and approved by the PROJECT MANAGER. The hours of additional equipment time in Bid Item 5 are NOT GUARANTEED.

The Bid Submittal will be on September 6, 2022 by 4:00 p.m. The Bid Opening will be 10:00 a.m. on September 7, 2022 in an effort to provide contractors with additional time to adjust costs and account for the change above.

All terms and conditions of the Documented Quote other than as changed by this amendment remain the same.

Receipt and acceptance of this amendment shall be acknowledged on the bid schedule and by submitting the revised Bid Schedule.

Return by September 6, 2022 by 4:00 P.M. to: Receipt of Addenda Nos. is hereby acknowledged

Submit Bids via Colorado VSS at the following link:  
[Colorado VSS](#)

**Submitting Bids by mail or fax is not permitted.**

**If VSS is unavailable, please see Bid Docs for alternative Bid Submittal method.**

UNION CARBIDE BOND FORFEITURE PROJECT  
Bid Schedule  
DQ1-PKAA-2023\*069

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
1.0	Mobilize/Demobilize	1	Job	\$	\$
2.0	Project Safety, Health and Environmental Action Plan	1	Job	\$	\$
3.0	Herbicide Application	28	Acres	\$	\$
4.0	Tamarisk Treatment/ Removal	1	Job	\$	\$
5.0	Additional Equipment Time	20	Hours	\$	\$
GRAND TOTAL				\$	

Contractor \_\_\_\_\_ Date \_\_\_\_\_

Signature \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_

**DO NOT AMEND ANY PART OF THIS BID SCHEDULE**

**ALL PAGES OF THIS BID SCHEDULE MUST BE RETURNED**

**ALL LINES ITEMS MUST BE COMPLETED**



**STATE OF COLORADO**  
Department of Natural Resources

Page 1 of 2

<b>ORDER</b>		<b>*****IMPORTANT*****</b>				
<b>Number:</b>	PO,PKAA,202300005049	The order number and line number must appear on all invoices, packing slips, cartons, and correspondence.				
<b>Date:</b>	10/21/22	<b>BILL TO</b>				
<b>Description:</b>	Union Carbide Bond Forfeiture Project	DIVISION OF RECLAMATION, MINING AND SAFETY 1313 SHERMAN STREET, ROOM 215 Denver, CO 80203				
<b>Effective Date:</b>	10/04/22	<b>SHIP TO</b>				
<b>Expiration Date:</b>	11/18/22	DIVISION OF RECLAMATION, MINING AND SAFETY 1313 SHERMAN STREET, ROOM 215 Denver, CO 80203				
<b>BUYER</b>		<b>SHIPPING INSTRUCTIONS</b>				
<b>Buyer:</b>		<b>Delivery/Install Date:</b> -				
<b>Email:</b>		<b>FOB:</b>				
<b>VENDOR</b>						
H-2 Enterprises, LLC 4626 CR 65 Keenesburg, CO 80643						
<b>Contact:</b>	Sondra Pralle					
<b>Phone:</b>	303-710-1049					
<b>VENDOR INSTRUCTIONS</b>						
<b>EXTENDED DESCRIPTION</b>						
This project is funded 100% through monies made available to the State of Colorado through revocation of bond monies retained by the Division of Reclamation, Mining and Safety for reclamation of this previously permitted mining operation.						
<b>Line Item</b>	<b>Commodity/Item Code</b>	<b>UOM</b>	<b>QTY</b>	<b>Unit Cost</b>	<b>Total Cost</b>	<b>MSDS Req.</b>
1	96273		0	0.00	\$54,062.82	<input type="checkbox"/>
<b>Description:</b> Union Carbide Bond Forfeiture Project						
The project work will include herbicide application at a revoked and forfeited gravel pit. The project work will include selectively spraying for noxious weeds at the Union Carbide Gravel Pit. Weeds to be sprayed include Musk Thistle (Carduus nutans L.), Russian Thistle (Salsola tragus), Russian Knapweed (Rhaponticum Repens), Red Stem Filaree (Erodium Cicutarium), Halogeton (Halogeton glomeratus) and Scotch Thistle (Onopordum acanthium). Spraying will be accomplished by using a boom sprayer or a backpack sprayer. ATV and vehicle access is permitted off of existing roads. Reference attached bid schedule.						
<b>Service From:</b> 10/04/22				<b>Service To:</b> 11/18/22		

Line Item	Commodity/Item Code	UOM	QTY	Unit Cost	Total Cost	MSDS Req.
2	96273		0	0.00	\$7,062.18	<input type="checkbox"/>
Description: Union Carbide Bond Forfeiture Project Sev Tax						
<p>The project work will include herbicide application at a revoked and forfeited gravel pit. The project work will include selectively spraying for noxious weeds at the Union Carbide Gravel Pit. Weeds to be sprayed include Musk Thistle (<i>Carduus nutans</i> L.), Russian Thistle (<i>Salsola tragus</i>), Russian Knapweed (<i>Rhaponticum Repens</i>), Red Stem Filaree (<i>Erodium Cicutarium</i>), Halogeton (<i>Halogeton glomeratus</i>) and Scotch Thistle (<i>Onopordum acanthium</i>). Spraying will be accomplished by using a boom sprayer or a backpack sprayer. ATV and vehicle access is permitted off of existing roads.</p> <p>Reference attached bid schedule.</p>						
Service From: 10/04/22			Service To: 11/18/22			
<b>TERMS AND CONDITIONS</b>						
<a href="https://www.colorado.gov/osc/purchase-order-terms-conditions">https://www.colorado.gov/osc/purchase-order-terms-conditions</a>						
<b>REASON FOR MODIFICATION</b>						
Change Order Number: 1						
CO1 adds \$10,000.00 to the project.						
<b>DOCUMENT TOTAL = \$61,125.00</b>						



October 18, 2022

Doug Dowden  
H2 Enterprises  
4626 WCR 65  
Keensburg, CO 80643

Re: Notice to Proceed, Union Carbide Bond Forfeiture Project

Dear Mr. Dowden:

This is to advise you that the requisite insurance policy and bonds have been approved and that the agreement covering the above named project has been fully executed. In accordance with the Contract, you are hereby authorized to begin work on the subject project as of October 19, 2022. The work shall be completed within 40 calendar days- on or before November 27, 2022.

The Division of Reclamation, Mining and Safety will be sole provider of information about the project work to area residents and special districts, county, state and federal agencies and individuals from the media. Any contact with these groups by the contractor must be cleared through the Division.

STATE OF COLORADO, acting by and through:

By: \_\_\_\_\_  
Division of Reclamation, Mining and Safety Project Manager







## H2

### Site Specific Health, Safety, Security and Environmental Work Plan

**Developed for:** Colorado Division of  
Reclamation Mining and Safety

**Union Carbide Bond  
Forfeiture Project**

**Location:** .75 mile west of the Rifle  
Wastewater Treatment Plant in Rifle,  
Colorado located in Garfield County

**GPS Coordinates:** [39.523149, -107.828679](#)

#### Job Description:

The project work will include herbicide application at a revoked and forfeited gravel pit. The project work will include selectively spraying for noxious weeds at the Union Carbide Gravel Pit. Weeds to be sprayed include Musk Thistle (*Carduus nutans* L.), Russian Thistle (*Salsola tragus*), Russian Knapweed (*Rhaponticum Repens*), Red Stem Filaree (*Erodium Cicutarium*), Halogeton (*Halogeton glomeratus*) and Scotch Thistle (*Onopordum acanthium*). Spraying will be accomplished by using a boom sprayer or a backpack sprayer. ATV and vehicle access is permitted off of existing roads.

In addition, Tamarisk will sprayed with a basal bark treatment of Garlon 4 and 20 Tamarisk over 2" in diameter will be removed and disposed of at the Garfield County Landfill located at 75 CR 246, Rifle, CO.

<b>Project Coordinator:</b> Stephanie Mitchell	<b>Phone:</b> 720-402-9662	<b>Email:</b> <a href="mailto:stephanie.mitchell@state.co.us">stephanie.mitchell@state.co.us</a>
<b>Foreman:</b> Rodney Musgrave	<b>Phone:</b> 970-397-7930	<b>Email:</b> <a href="mailto:rmusgrave@h-2e.com">rmusgrave@h-2e.com</a>
<b>Safety Manager:</b> James Robison	<b>Phone:</b> 303-875-8613	<b>Email:</b> <a href="mailto:jrobison@huwaenterprises.com">jrobison@huwaenterprises.com</a>
<b>Project Manager:</b> Travis Harris	<b>Phone:</b> 303-720-8245	<b>Email:</b> <a href="mailto:tharris@h-2e.com">tharris@h-2e.com</a>
<b>Site Superintendent:</b> Caleb Peters	<b>Phone:</b> 308-737-1820	<b>Email:</b> <a href="mailto:cpeters@h-2e.com">cpeters@h-2e.com</a>

#### Injury and Illness Management

#### Follow flow chart Appendix "A"

- ☐ In the event of medical emergency, H2 employees are trained in First aid and CPR.
- ☐ They also know how to use the 911 emergency medical systems in the Crested Butte area. The local 911 EMS communications system ensures the response of either a ground ambulance and/or air ambulance, for serious injuries.
- ☐ Non-serious injuries will be treated on site or designated area by telephonic nurse triage  
Care-On-Site – (877)-888-8656
- ☐ The program administrator is responsible for posting emergency telephone numbers in each company vehicle, onsite job trailer, or wherever pertinent to job scope and work area.
- ☐ **All injuries will be reported immediately to the designated H2 Superintendent/Foreman and H2 Safety Manager.**

#### First Aid/Minor Treatment Facility:

**On site first aid trained employee; first aid kit**

- **Non-Life-Threatening Emergency beyond First Aid: Care-On-Site**



<b>Emergency Medical Treatment Facility:</b>  Grand River Health  501 Airport Rd.  Rifle, CO 81650  GPS Coordinates:  <a href="#">39.520905, -107.769609</a>		<b>Phone:</b>  <b>970-625-1510</b>
<b>Emergency Transportation Provider: Call 911</b>		<b>Phone: 911</b>
<b>Medical Management Plan Provider (Workers Comp): Everest</b>	<b>Contact: James Robison</b>	<b>Phone: 303-875-8613</b>
<b>Incident Reporting &amp; Investigation Process:</b> <ul style="list-style-type: none"><li><b><u>All injuries will be reported immediately to Client, and H2 Foreman and Safety Manager</u></b></li></ul>		
<b>Incidents that require medical treatment will be handled as follows:</b> <ul style="list-style-type: none"><li>First and foremost is the safety of all personnel</li><li>Always make sure the scene is safe before attempting to help someone. Do not become a victim yourself! If it is safe to render help, then attend to personnel who may be injured!</li><li><b>If the injured are hurt worse than your ability to provide medical care, contact 911: immediately.</b></li><li><b>Know your location; you will need this for the dispatcher when you call for help</b></li><li><b>Immediately notify the on-site company representative.</b></li><li>Establish pre-designated helicopter landing zone</li></ul>		
<b>Incident Reporting Procedures</b> These procedures included Property Damage, Property Damage with injury, Spills/Release and Fires		
<b>H2 Property Damage Only No Injury</b>	<b>See Appendix "B"</b>	
<b>Clients Property Damage- No Injury</b>	<b>See Appendix "C"</b>	
<b>Property Damage with Injury</b>	<b>See Appendix "D"</b>	
<b>Spills/Release</b>	<b>See Appendix "E"</b>	
<b>Fire</b>	<b>See Appendix "F"</b>	



## Job Scope Overview

(Describe the major elements or phases of the project or job. )

Phase	Activity
	<ol style="list-style-type: none"> <li>1. Mobilize Equipment to location</li> <li>2. Herbicide Application</li> <li>3. Tamarisk Treatment / Removal</li> <li>4. De-Mobilization</li> </ol>

## Hazard Communications

(Your plan for communicating the hazards of the chemicals you bring on site, including pre-job review of chemicals used and required precautions and PPE for specific chemicals)

<b>Chemicals brought on site:</b> (By generic use name) <ol style="list-style-type: none"> <li>1. SDS provided by contractor</li> <li>2. Diesel Fuel</li> <li>4. Unleaded gasoline</li> <li>5. Anti-freeze/Coolant</li> <li>6. Oil</li> <li>7. Hydraulic Fluid</li> <li>8. Others as required</li> </ol>	<b>Special PPE or handling requirements:</b> <ol style="list-style-type: none"> <li>1. Specified on SDS</li> <li>SDS books shall be in each job trailer</li> </ol>
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<b>Are SDS's supplied for each chemical brought on site?</b> The SDS's for these chemicals will be reviewed during the pre-job hazard review and will be brought to the job site.	<b>Yes</b> <input checked="" type="checkbox"/>	<b>No</b>	<b>NA</b>
--	--	-----------	-----------

## Check ( ) Safety Programs Directly Involved in Job

ATV Safety	Cranes Hoists	Haz Com	Lead	Respiratory
Asbestos	Electrical Safety	Hazwoper	Lifting/Rigging	Tank Cleaning
JSA	Excavation	Hearing	Lockout/Tagout	Vehicle Safety
Abrasive Blasting	Equip. Inspection	Heat/Cold Stress	Pipeline Repair	Other:
Boat Safety	Fall Protection	Hot work	811 Locates	Other:
Confined Space	Hand Power Tools	H2S	Radiation	Other:

## Required Safety/Work Permit(s) and/or Procedure(s) that Issuing Authority will complete

Hot Work	Excavation Checklist	LO/TO	Pre-Entry Checklist	Construction Permits
Confined Space	One Call	MOC	Lift Plan	Other

## Recognized Hazards

(A) Throughout the job and  
 (B) Hazards unique to each phase of the job to be discussed prior to the start and prior to each job phase.  
 (This is what you think the job hazards are going to be before the start of work. The Authorization to Work (ATW) will be used at the start of work after a site walk through and when conditions change to identify hazards and for required permits.)



<b><u>(A) Throughout the Job:</u></b>	<b><u>Control Methods:</u></b>
<p><b>Equipment Operations:</b> Mini Excavators, Rubber Tire Backhoe, Gator/ UTV, Truck with tank &amp; Boom – Striking other equipment, objects or people – Striking underground lines or surface equipment – Spotters being run over or struck by equipment – Being caught between or crushed in pinch points – Slipping from or off equipment.  <i>Reference: (HSE-25)</i></p>	<p>Qualified operators, perform inspections, spotters wearing safety vests, keep non-essential people out of area and outside of equipment radius; Three-point contact onto or off equipment.          Remain clear of moving equipment. Isolate all energy sources and lock out equipment prior to trouble shooting or maintenance.</p>
<p><b>Herbicide Application:</b> Presence of known chemical during application: All workers must have access to SDS and understand first aid for chemical being used - Slipping or tripping on wet or uneven work surfaces – Having boom or truck strike object or person during use – Spill Hazard – Inspection of tanks prior to use, proper containment and transport of chemical to and from location –Proper handling of chemical and all appropriate PPE to be used while handling   <i>Reference: (HSE-34)</i></p>	<p>Qualified operators on site – Operators must have knowledge and experience in the proper handling of chemical during herbicide application – Qualified Operator when using Mini-Excavator, Vehicles, Gator/UTV           JHA/JSA completed prior to beginning work. Every worker on site must know and understand the where the areas are to be sprayed with Herbicide. Proper signage and notification of others in area that may be affected by chemical application</p>
<p><b>Fall / Trip Hazard:</b> Falling into openings – Tripping on rough or uneven working surface   <i>Reference: (HSE-17)</i></p>	<p>Maintain safe distance from opening and/or ground disturbance caused by removal of Tamarisk removal. Proper footwear for loose / uneven soil caused by ground disturbance. Workers maintain safe distance from equipment while removing Tamarisk.</p>
<p><b>Noise hazards:</b> Noise produced from trucks, heavy equipment, etc  <i>Reference: (HSE-08)</i></p>	<p>Hearing protection required.</p>
<p><b>Severe Weather:</b> Lightning storm, Heavy Rains, and or possible flooding.</p>	<p>In the event of storm cell with lightening, cab up until storm passes, away from any equipment or pipe.  <i>(common rule: wait 30 minutes after last seen strike)</i></p>
<p><b>Heat Stress:</b> Environmental temperature extremes</p>	<p>Drink lots of water; Use sun block; Take necessary breaks from strenuous work activity. Watch for signs or symptoms of heat stress or heat stroke. CPR / First Aid trained personnel on site.</p>



<p><b>Traffic:</b> Being hit or struck by other vehicles – Potentially dangerous intersections – Avoid left turning movements</p> <p><i>Reference: (HSE-26)</i></p>	<p>Discuss particular traffic hazards for employees entering intersections, roadways. <i>(Reflective High Visibility Vest is required for ALL on ROW, exceptions are welders and helpers)</i> Those will be addressed on JSA.</p>
<p><b>Personal lifting:</b> Muscle strains</p> <p><i>Reference: (HSE-23)</i></p>	<p>Use proper personal lifting techniques, ask for assistance with heavy or awkward items, use equipment whenever practical, plan work to minimize necessity for personal lifts.</p>
<p><b>Heavy Trucks:</b> Entering onto or leaving from location. This included dump trailers used for removing Tamarisk from location.</p> <p><i>Reference: (HSE-28)</i></p>	<p>Assess overhead hazards, only remove tarp after assessment on location at dump site, do not pull forward without securing debris bed, assign spotter, remain minimum of ten feet from any fixed object or surface equipment, drivers must wear personal protective equipment when out of truck, seat belts required. Ensure dump bed is seated and locked before departure from dump site.</p>
<p><b>Fire Controls</b></p> <p><i>Reference: (HSE-03)</i></p>	<p>Remove combustible material from area of work. Establish Fire Watch during open flame “Hot Work” operations. Have fire suppression equipment on-site during welding or grinding activity. Utilize grinding boards to arrest sparks. Obtain “Hot Work Permit” prior to initiating activity.</p>
<p><b>Sim Operations:</b> Slips, trips and falls from grade, stepping into holes, Other passing traffic or workers, Disturbing snakes or ground insects while operating trucks or UTV/ATV, smashing hands or fingers between, Back or shoulder strain from lifting or moving spray application hoses on reel, cuts or abrasions, Heat exhaustion / Heat Stroke</p> <p><i>Reference: (HSE-PL112)</i></p>	<p>Assess one call markers – before disturbing vegetation, if necessary, Stop work for passing traffic or for people on foot, Plan movement of equipment, Be aware of disturbing snake or insect nests, remain clear- stop operation and go to cab of vehicle, Rest as necessary to avoid over exertion, Do team lift and perform personal lift properly, wear PPE, Use pliers and hand tools cautiously when needed, Take frequent breaks – drink water – watch for symptoms of heat exhaustion or heat stroke</p>
<p><b>Ground disturbance:</b> Striking buried or unmarked lines</p> <p><i>Reference: (HSE-34)</i></p>	<p>Competent person in ground disturbance place one call &amp; issue permit, follow company Ground Disturbance and Line Encroachment Policy, utilize spotters, Competent person on site. Isolation Plan in place</p>
<p><b>Lifting operations:</b> Dropping load – Crush points between elevated load and surface – Equipment tipping over and striking object or person</p>	<p>Discuss lifting guidelines in detail during tailgate and incorporate into on-site JSA/JHA. Team lifts when appropriate or necessary. Lift objects using proper lifting techniques</p>



Reference:  
(HSE-28)

**Excavation**; Assess for overhead hazards, Line strike below ground, swinging boom into spotter or other object, Other passing traffic or workers, Roll over, Dry grass – Fire Hazard, Hydraulic failure, Disturbing snakes or ground insects

Stay out of swing radius of Mini-Excavator, use spotter when necessary. Competent Person to complete site assessment before removal of Tamarisk. Minimize the disturbance of ground to only what is necessary to complete the scope of work.

**PPE Required Throughout the Job at All Times:**

**HARD HAT, SAFETY TOE BOOTS, SAFETY GLASSES, GLOVES, REFLECTIVE VEST,  
(As Required Items) -Chemical Resistant Gloves, Face Shield, mask**

Reference: (HSE-34)

**Conditions requiring additional PPE:**

All Personnel Close Proximity to Roadway or Moving Equipment	Class II high Visibility Vest
Equipment Spotters	Class II high Visibility Vest
Spray Application	Employees applying herbicide will follow PPE requirements outlined in SDS
Work on uneven / loose terrain	Safety toe work boots above the ankle. Minimize the amount of workers in area while machine operates to remove Tamarisk.
Severe Weather	Appropriate clothing for the environment – breaks, cool downs, or warm up times as necessary
Heavy Equipment Operations	Crew members must have appropriate certifications, trained, and qualified to operate equipment. Includes vehicles and Gators. Use spotters when operating equipment close to other known hazards.
Spotters	Reflective high visibility vests, Hi-Vis gloves if needed, Spotter trained in correct hand signals.

**Wastes Generated and Waste Management Process:**

- Maintain clean and orderly work site. Any waste or trash generated by crew will be removed daily before leaving work site.

**Permit Compliance:** WILL BE ON SITE AT ALL TIMES



- Ground disturbance – issued by Company representative.
- Only competent person(s) shall issue the Daily Excavation Inspection form. Form shall include exact location and how the soil type was determined per OSHA reg.
- Hot work – issued by Company representative.
- Client to perform hazard analysis of work area for any additional permit required work.

#### **Spill Containment:**

- All work must stay within the Temporary Use Area (TUA) area.
- Spill kit on site for equipment leak

#### **Sensitive Area Protection:**

All work must stay within the TUA area.

#### **Communications and Audits to Address the Job Hazards**

1. Before any work commences an initial job site a safety briefing must be held By Safety and the job foreman, crew, and project manager.
2. Before the start of the work each day and whenever conditions change, a JSA “hazard assessment” will be completed by all employees and signed. The JSA will be reviewed with each new worker or visitor to the site each day and signed.
3. H2 Enterprises Foreman will complete the following throughout the job:
  - Safety meetings, daily or at time of work scope change. Refresh JSA
  - Daily Work Permits
  - Forward copy of the daily JSA to MPG Representative
  - H2 Enterprises Superintendent is responsible for daily JSA / PERMITS / MOC

#### **Vehicle Safety**

- ☐ Obey posted speed signs on public roadways, do not drive at an unsafe speed for prevailing conditions and do not exceed Safe Speed on site
- ☐ Park at an egress, position vehicle so first movement is forward
- ☐ Use spotter for backing movements
- ☐ No cell phone use while driving
- ☐ Seatbelts in use at all times when vehicle / equipment is in motion
- ☐ Daily vehicle and equipment inspections required
- ☐ Secure all loads
- ☐ Chock heavy equipment wheels if parked on slopes
- ☐ Identify intersections or areas employees enter roadway and discuss specific traffic hazards
- ☐ Do not leave vehicle running and unattended, place in park and set parking brake.



## DRIVING DIRECTIONS AND GPS:



### Security Measures

(Identify any security requirements or measures to be taken)

### CONTROL OF WORKSITE

PERMIT / JSA and sign- in board at entrance to the location controlled by H2 Enterprises Foreman

Contact Client site representative on site regarding any security concerns or with any land owner inquires.



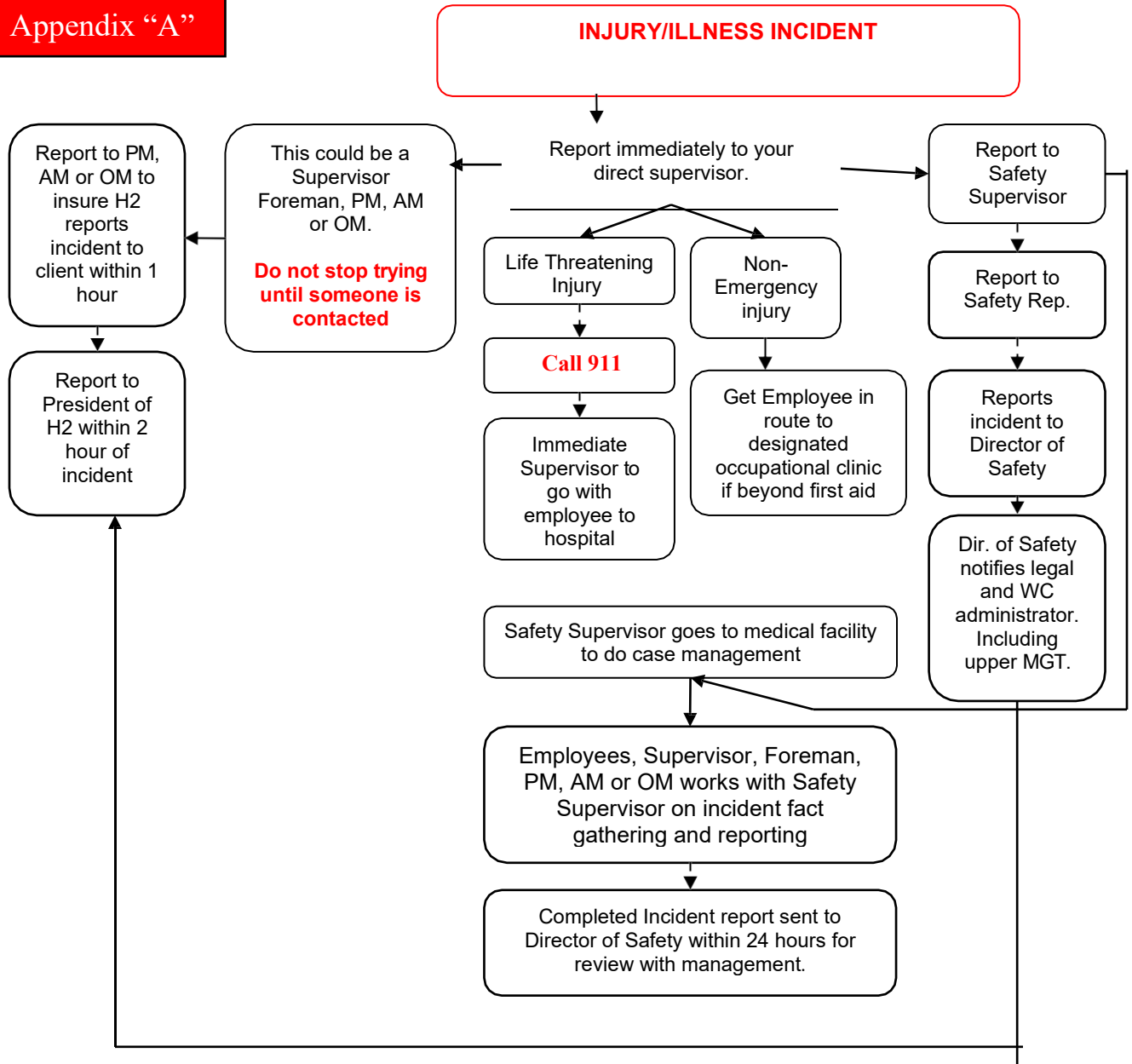


## Site Hazard Awareness

Hazards to be aware of while on the location.

- Any visible sign of wildlife or domestic animals. (do not feed the animals and keep location free of trash.)
- Loose / Un-even terrain caused by ground disturbance
- Unknown buried lines or below ground hazards.
- Do not wonder outside boundaries of worksite as marked.
- Be aware of slip, trip or fall hazards. Uneven terrain or disturbed soil.
- Manage work surfaces and footing. Three-point contact while getting into or out of equipment and vehicles.
- Be aware of crush points. Keep hands and body parts out of line of fire.
- Inspect back-up alarms on heavy equipment. Back-up alarms must be always operational.
- Take precautions and follow all SDS when handling herbicide / chemical
- Be alert and aware of road conditions to and from site, be aware of all the heavy vehicle/truck traffic traveling at all times.

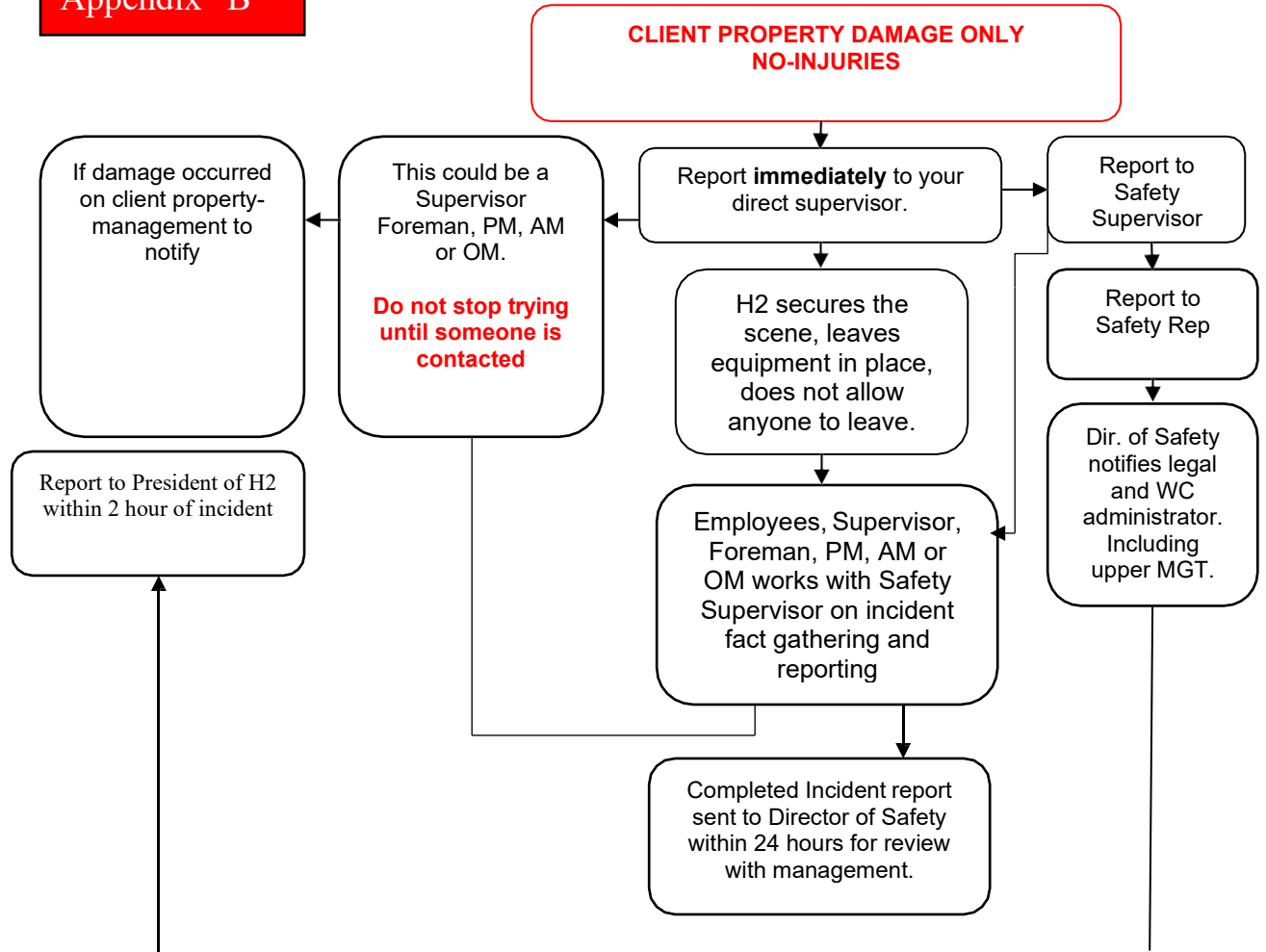
**Appendix "A"**



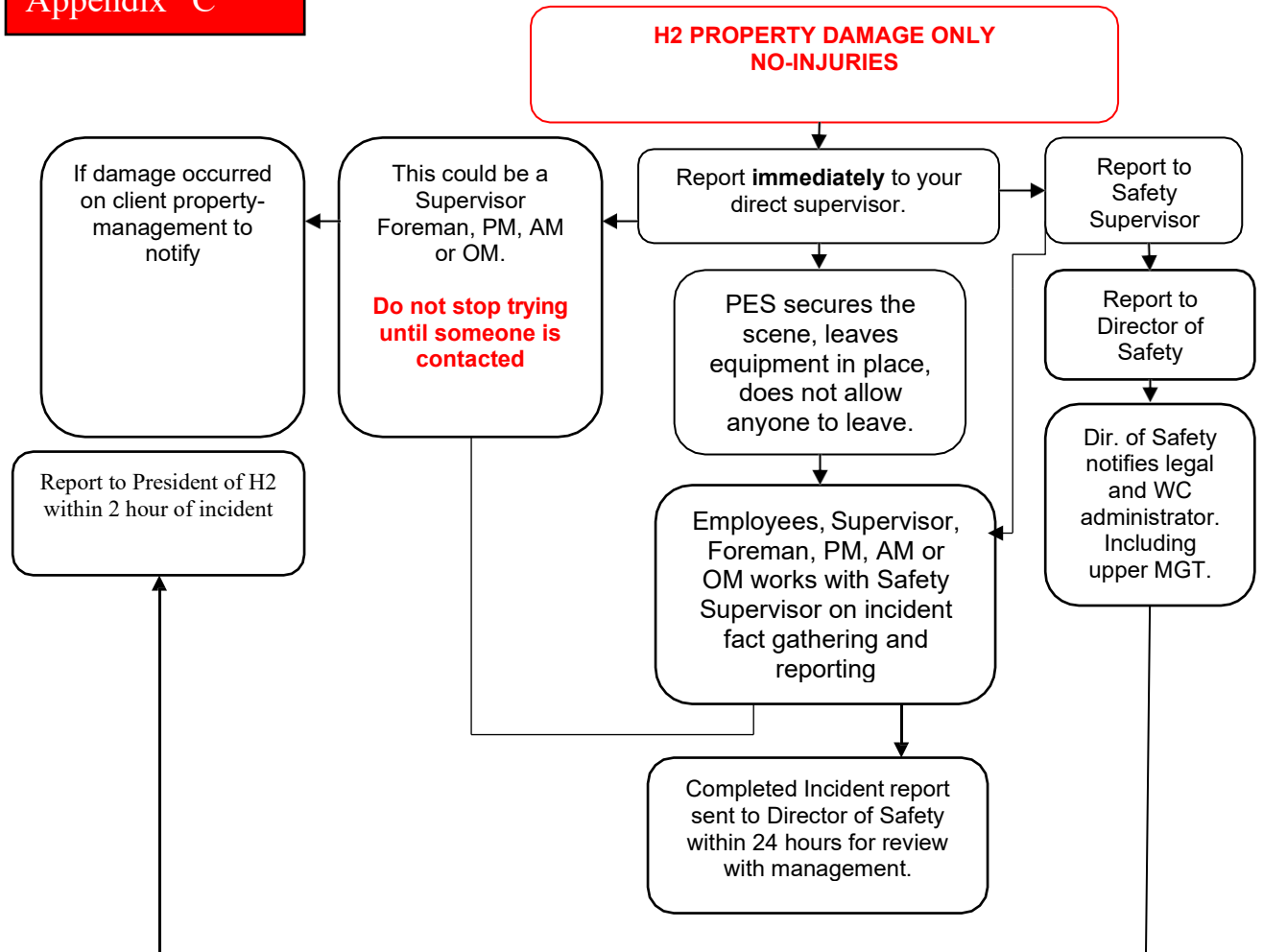


## Site Specific Safety Plan

### Appendix “B”

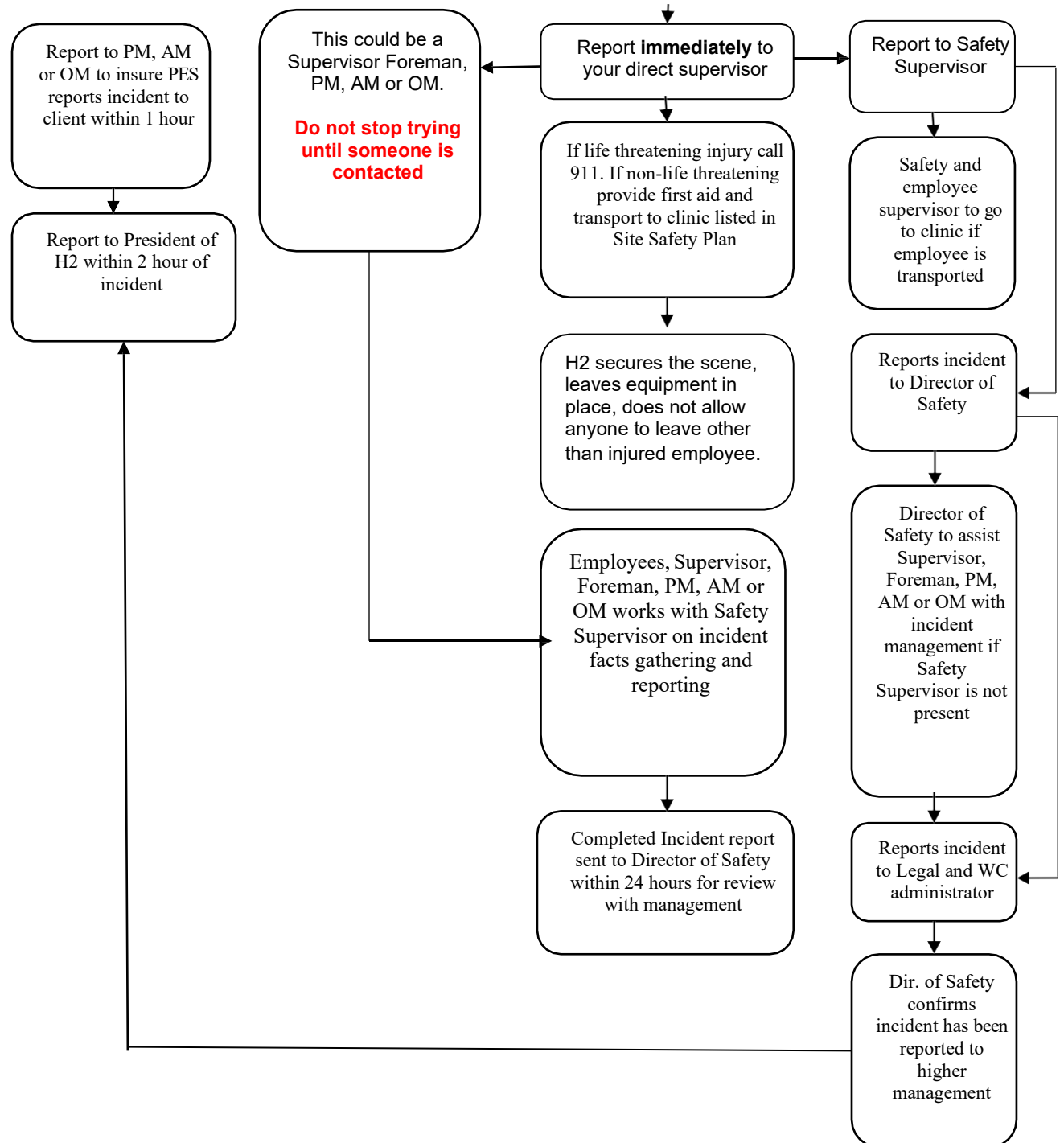


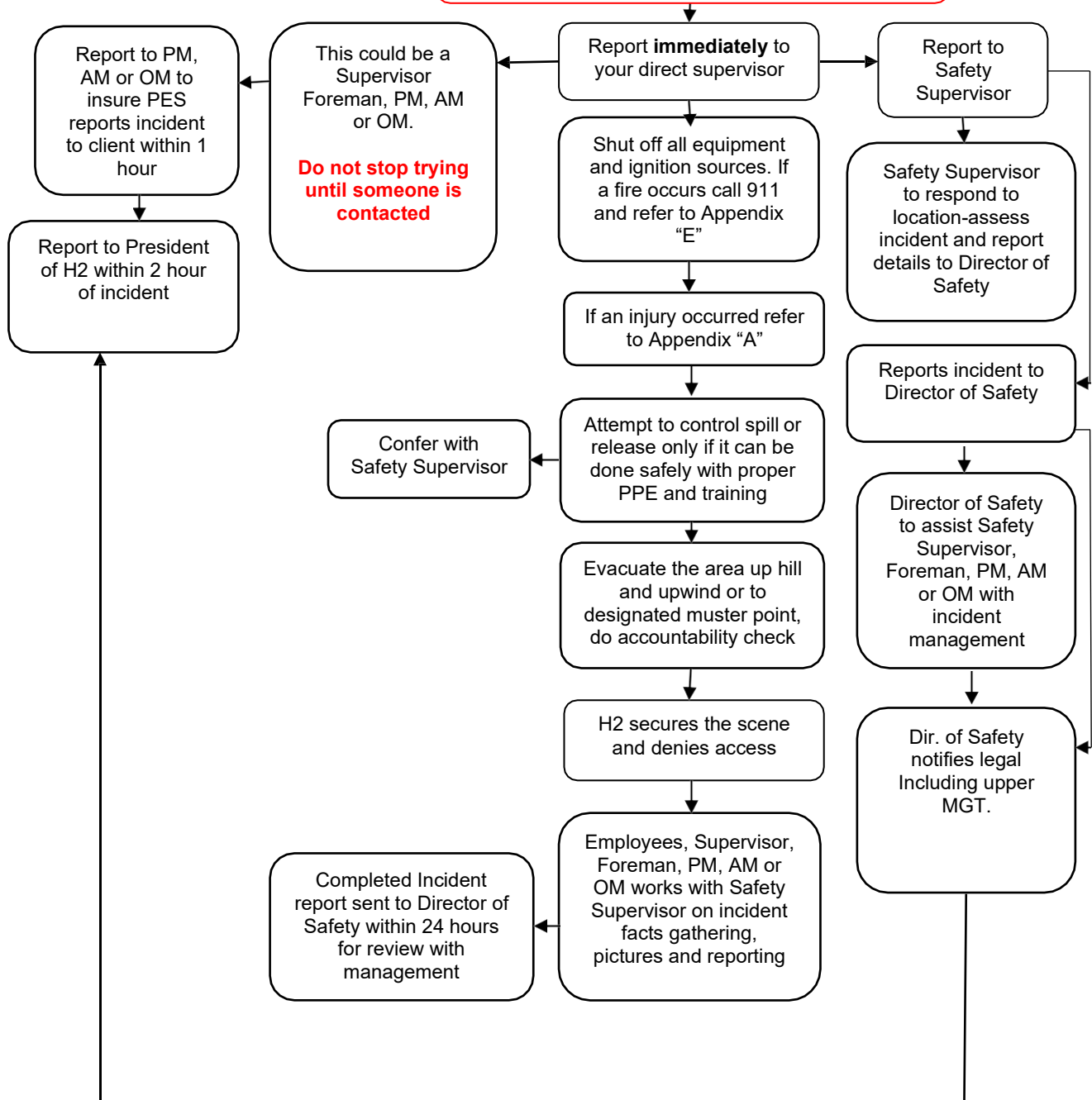
Appendix "C"



**Appendix “D”**

**PROPERTY DAMAGE INCIDENT  
WITH-INJURIES**

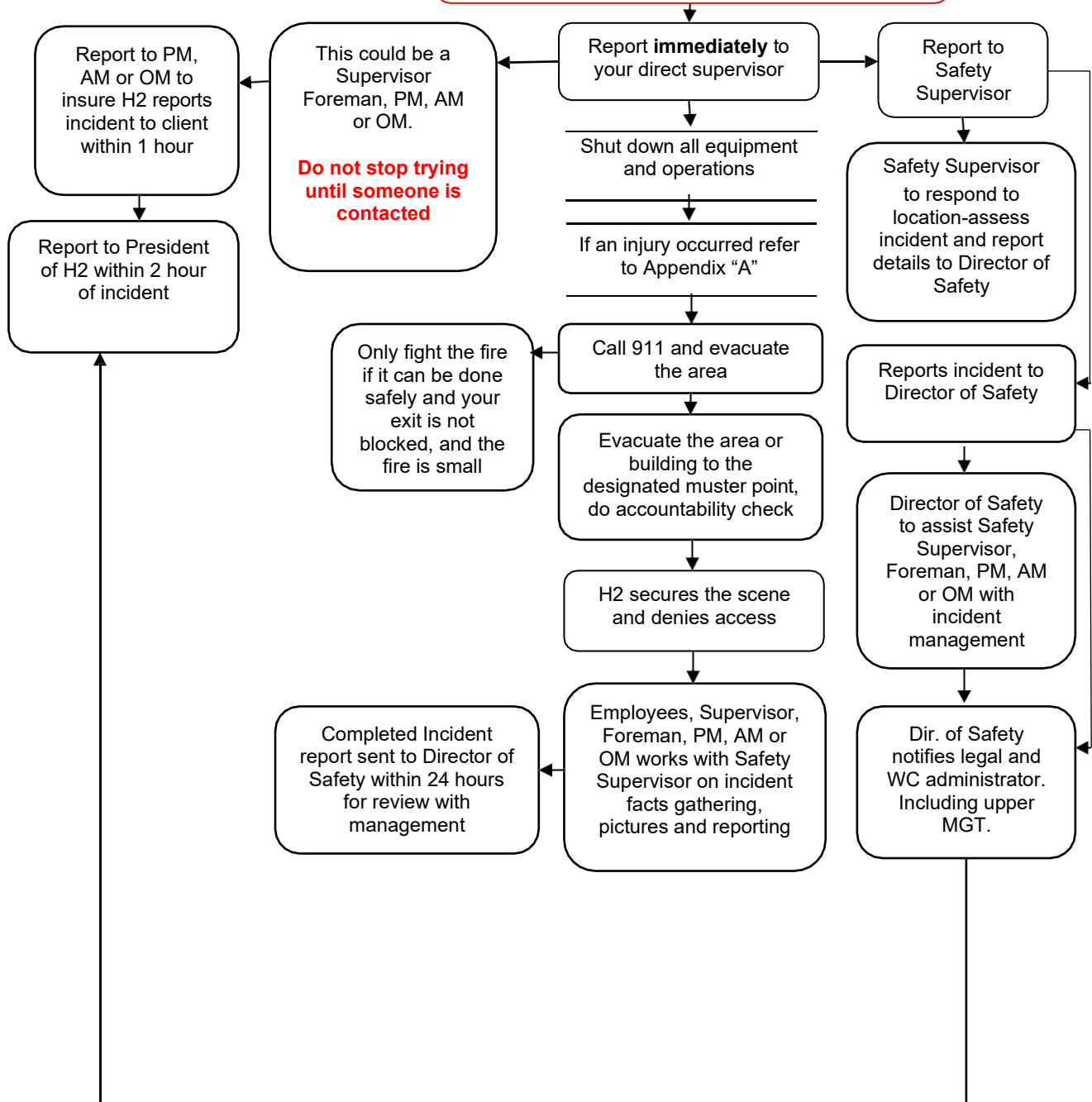




Site Specific Safety Plan

**Appendix “F”**

**FIRE- INCIDENT**



# CNI Select Basal Oil

## Paraffinic Oil / Emulsifier

### PRINCIPAL FUNCTIONING AGENTS

A proprietary blend of paraffinic oil, emulsifiers ..... 100%



### KEEP OUT OF REACH OF CHILDREN DANGER

May be fatal if swallowed and enters airways. Causes serious eye irritation. Keep out of reach of children. Read label before use. Keep container tightly closed. Keep only in original container. Avoid breathing vapors or spray. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves, protective clothing, eye protection and face protection.

### FIRST AID

**Call a poison control center or doctor immediately for treatment advice. Have the product container with you when calling a poison control center or doctor, or going for treatment.**

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do then continue rinsing. Get medical advice or attention.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing and wash it before reuse. Wash with plenty of soap and water for several minutes.

**IF SWALLOWED:** Unless advised otherwise by a poison control center or doctor, have person rinse mouth with water, if able. Do not give anything by mouth to an unconscious person.

**IF INHALED:** Do NOT induce vomiting. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth to mouth if possible.

### GENERAL INFORMATION

**CNI SELECT BASAL OIL** is a non-aromatic paraffinic oil diluent and emulsifier blend that improves the coverage and spreading of basal bark and brush control active ingredients.

### DIRECTIONS FOR USE

Follow the recommendations of the most restrictive active ingredient label.

Tank mixtures should only be applied within the label recommendations of every product in the tank mixture.

Use only if a paraffinic oil and emulsifier are allowed or not excluded on the label.

**CNI SELECT BASAL OIL** does not contain ammonium sulfate.

If the user does not have experience with the mixture being applied, perform a jar test using the order and amounts in the mixture and perform a phytotoxicity test to ensure crop safety.

### Order of addition

Prior to mixing, fill the spray tank with half of the carrier. Start the sprayer and check to make sure that all valves and gauges work and that there is adequate tank agitation.

In general, follow the W-A-L-E-S plan when adding herbicides to a tank mix.

1. Wettable Powders (WP) then Flowables (F, DF)
2. Agitate then add anti-foaming compounds, buffers
3. Liquid and Soluble products
4. Emulsifiable concentrates (EC)
5. **CNI SELECT BASAL OIL** and other adjuvants

### APPLICATION RATES

**CNI SELECT BASAL OIL** can be used at dilution ratios of 1:4 (20%) or 1:3 (25%) when following the herbicide manufacturers' label recommendation for a basal oil diluent.

**CNI SELECT BASAL OIL** is developed specifically for basalbark and cut-surface brush control applications, where triclopyr 4 and imazapyr are used in a premix.

**CNI SELECT BASAL OIL** is formulated for use with 15-20% triclopyr 4 and up to 5% imazapyr v/v.

**NOTE:** Use rates may vary dependent on environmental conditions and applications. Increase rates as necessary for additional wetting and penetration.

### STORAGE AND DISPOSAL

**Storage:** Store in a cool well-ventilated place. Keep in original container tightly closed. Do not reuse empty container. Do not store with food, feed, or other material to be used or consumed by humans or animals. Do not contaminate water supplies. For optimal storage, store between 40° and 90° F.

**Disposal:** Do not contaminate water, food or feed by storage or disposal. Dispose of contents in container to an approved waste disposal facility in accordance with all local, regional, national and international regulations. Triple rinse (or equivalent) adding rinse water to application tank. Offer container for recycling or dispose of in a sanitary landfill or by other procedures approved by local regulations. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at [www.acrcycle.org](http://www.acrcycle.org). Decontaminated containers and materials must be disposed of in a manner allowed by local, state and federal laws and regulations.

**NOTICE TO USERS:** Seller warrants the product conforms to its chemical description and is reasonably fit for the purpose stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, expressed or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.

**NET CONTENTS: 12 U.S. Gallons (45.4 L)**

800 Business Park Dr. , Leesburg, GA 31763, 229-883-7050

**CNI**  
Ag Independent Retailers



# SAFETY DATA SHEET

## DOW AGROSCIENCES LLC

**Product name:** FREELEXX™ Herbicide

**Issue Date:** 03/11/2016

**Print Date:** 03/11/2016

DOW AGROSCIENCES LLC encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

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## 1. IDENTIFICATION

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**Product name:** FREELEXX™ Herbicide

**Recommended use of the chemical and restrictions on use**

**Identified uses:** End use herbicide product

### COMPANY IDENTIFICATION

DOW AGROSCIENCES LLC  
9330 ZIONSVILLE RD  
INDIANAPOLIS IN 46268-1053  
UNITED STATES

**Customer Information Number:**

800-992-5994  
info@dow.com

### EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:** 800-992-5994

**Local Emergency Contact:** 352-323-3500

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## 2. HAZARDS IDENTIFICATION

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### Hazard classification

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Acute toxicity - Category 4 - Oral

Serious eye damage - Category 1

### Label elements

#### Hazard pictograms



Signal word: **DANGER!**

**Hazards**

Harmful if swallowed.

Causes serious eye damage.

**Precautionary statements****Prevention**

Wash skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear eye protection/ face protection.

**Response**

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

**Disposal**

Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

No data available

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

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This product is a mixture.

Component	CASRN	Concentration
2,4-D choline salt	1048373-72-3	56.3%
Propylene glycol	57-55-6	6.3%
Balance	Not available	37.4%

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**4. FIRST AID MEASURES**

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**Description of first aid measures**

**General advice:** First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

**Skin contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Suitable emergency safety shower facility should be available in work area.

**Eye contact:** Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

**Ingestion:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person.

**Most important symptoms and effects, both acute and delayed:** Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

**Indication of any immediate medical attention and special treatment needed**

**Notes to physician:** Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

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## 5. FIREFIGHTING MEASURES

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**Suitable extinguishing media:** Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Do not use direct water stream. May spread fire. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective. Water fog, applied gently may be used as a blanket for fire extinguishment.

**Unsuitable extinguishing media:** No data available

**Special hazards arising from the substance or mixture**

**Hazardous combustion products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.

**Unusual Fire and Explosion Hazards:** Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

**Advice for firefighters**

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Consider feasibility of a controlled burn to minimize environment damage. Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Water fog, applied gently may be used as a blanket for fire extinguishment.

**Special protective equipment for firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

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## 6. ACCIDENTAL RELEASE MEASURES

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**Personal precautions, protective equipment and emergency procedures:** Evacuate area. Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to section 7, Handling, for additional precautionary measures. Only trained and properly protected personnel must be involved in clean-up operations. Keep upwind of spill. Ventilate area of leak or spill. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Spills or discharge to natural waterways is likely to kill aquatic organisms.

**Methods and materials for containment and cleaning up:** Contain spilled material if possible. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Dow AgroSciences for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

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## 7. HANDLING AND STORAGE

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**Precautions for safe handling:** Keep out of reach of children. Do not get in eyes. Do not swallow. Avoid contact with skin and clothing. Avoid breathing vapor or mist. Wash thoroughly after handling. Keep container closed. Use with adequate ventilation. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

**Conditions for safe storage:** Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Propylene glycol	US WEEL	TWA	10 mg/m3

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

### Exposure controls

**Engineering controls:** Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

### Individual protection measures

**Eye/face protection:** Use chemical goggles.

#### Skin protection

**Hand protection:** Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Natural rubber ("latex").

Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Other protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

**Respiratory protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance</b>	
<b>Physical state</b>	Liquid.
<b>Color</b>	Brown
<b>Odor</b>	Amine
<b>Odor Threshold</b>	No data available
<b>pH</b>	4.71 <i>pH Electrode</i>
<b>Melting point/range</b>	Not applicable
<b>Freezing point</b>	No data available
<b>Boiling point (760 mmHg)</b>	No data available
<b>Flash point</b>	<b>closed cup</b> > 100 °C ( > 212 °F) <i>Pensky-Martens Closed Cup ASTM D 93</i>
<b>Evaporation Rate (Butyl Acetate = 1)</b>	No data available
<b>Flammability (solid, gas)</b>	No data available
<b>Lower explosion limit</b>	No data available
<b>Upper explosion limit</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Relative Vapor Density (air = 1)</b>	No data available
<b>Relative Density (water = 1)</b>	No data available
<b>Water solubility</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Decomposition temperature</b>	No data available
<b>Dynamic Viscosity</b>	27.5 mPa.s at 20 °C (68 °F) 11.5 mPa.s at 40 °C (104 °F)

<b>Kinematic Viscosity</b>	No data available
<b>Explosive properties</b>	No
<b>Oxidizing properties</b>	No significant increase (>5C) in temperature.
<b>Liquid Density</b>	1.1883 g/ml at 20 °C (68 °F) <i>Digital density meter</i>
<b>Molecular weight</b>	No data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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## 10. STABILITY AND REACTIVITY

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**Reactivity:** No dangerous reaction known under conditions of normal use.

**Chemical stability:** Stable.

**Possibility of hazardous reactions:** Polymerization will not occur.

**Conditions to avoid:** Exposure to elevated temperatures can cause product to decompose.

**Incompatible materials:** Avoid contact with oxidizing materials.

**Hazardous decomposition products:** Decomposition products depend upon temperature, air supply and the presence of other materials.

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## 11. TOXICOLOGICAL INFORMATION

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*Toxicological information appears in this section when such data is available.*

### Acute toxicity

#### Acute oral toxicity

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

As product:

LD50, Rat, female, >1,200 mg/kg Estimated.

#### Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product:

LD50, Rat, male and female, > 5,000 mg/kg

#### Acute inhalation toxicity

No adverse effects are anticipated from single exposure to mist. Based on the available data, respiratory irritation was not observed.

As product:

LC50, Rat, male and female, 4 Hour, dust/mist, > 5.21 mg/l OECD Test Guideline 403 No deaths occurred at this concentration.

**Skin corrosion/irritation**

Brief contact may cause slight skin irritation with local redness.

**Serious eye damage/eye irritation**

May cause moderate eye irritation which may be slow to heal.

May cause slight corneal injury.

May cause permanent impairment of vision, even blindness.

**Sensitization**

Did not demonstrate the potential for contact allergy in mice.

For respiratory sensitization:

No relevant data found.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

For similar active ingredient(s).

2,4-Dichlorophenoxyacetic acid.

In animals, effects have been reported on the following organs:

Liver.

Kidney.

Muscles.

Observations in animals include:

Gastrointestinal irritation.

Vomiting.

**Carcinogenicity**

For similar active ingredient(s). Various animal cancer tests have shown no reliably positive association between 2,4-D exposure and cancer. Epidemiology studies on herbicide use have been both positive and negative with the majority being negative.

**Teratogenicity**

For similar active ingredient(s). 2,4-Dichlorophenoxyacetic acid. Has been toxic to the fetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

**Reproductive toxicity**

For similar active ingredient(s). 2,4-Dichlorophenoxyacetic acid. In laboratory animals, excessive doses toxic to the parent animals caused decreased weight and survival of offspring.

**Mutagenicity**

For similar active ingredient(s). 2,4-Dichlorophenoxyacetic acid. In vitro genetic toxicity studies were predominantly negative. Animal genetic toxicity studies were predominantly negative.

**Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

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## 12. ECOLOGICAL INFORMATION

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*Ecotoxicological information appears in this section when such data is available.*

### Toxicity

#### 2,4-D choline salt

##### **Acute toxicity to fish**

For similar active ingredient(s).

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

For similar active ingredient(s).

LC50, Poecilia reticulata (guppy), static test, 96 Hour, 8.4 - 70.7 mg/l

##### **Acute toxicity to aquatic invertebrates**

For the active ingredient(s):

LC50, stonefly Pteronarcys californica, static test, 96 Hour, 1.6 - 15 mg/l

##### **Acute toxicity to algae/aquatic plants**

For similar material(s):

EC50, Pseudokirchneriella subcapitata (green algae), static test, 96 Hour, 24.2 mg/l

For similar material(s):

EC50, Lemna gibba, 14 d, 0.58 mg/l

##### **Chronic toxicity to fish**

NOEC, Pimephales promelas (fathead minnow), 32 d, growth, 63.4 mg/l

##### **Chronic toxicity to aquatic invertebrates**

Information refers to the main component.

NOEC, Daphnia magna (Water flea), 21 d, number of offspring, 79 mg/l

##### **Toxicity to Above Ground Organisms**

For similar active ingredient(s).

Material is slightly toxic to birds on an acute basis (LD50 between 501 and 2000 mg/kg).

Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm).

For similar active ingredient(s).

dietary LC50, Colinus virginianus (Bobwhite quail), > 5620mg/kg diet.

For similar active ingredient(s).

oral LD50, Anas platyrhynchos (Mallard duck), > 500mg/kg bodyweight.

For similar active ingredient(s).

oral LD50, Apis mellifera (bees), 94micrograms/bee

#### Propylene glycol

##### **Acute toxicity to fish**

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

LC50, Oncorhynchus mykiss (rainbow trout), static test, 96 Hour, 40,613 mg/l, OECD Test Guideline 203

##### **Acute toxicity to aquatic invertebrates**

LC50, Ceriodaphnia dubia (water flea), static test, 48 Hour, 18,340 mg/l, OECD Test Guideline 202



**Acute toxicity to algae/aquatic plants**

ErC50, Pseudokirchneriella subcapitata (green algae), 96 Hour, Growth rate inhibition, 19,000 mg/l, OECD Test Guideline 201

**Toxicity to bacteria**

NOEC, Pseudomonas putida, 18 Hour, > 20,000 mg/l

**Chronic toxicity to aquatic invertebrates**

NOEC, Ceriodaphnia dubia (water flea), semi-static test, 7 d, number of offspring, 13,020 mg/l

**Balance****Acute toxicity to fish**

No relevant data found.

**Persistence and degradability****2,4-D choline salt**

**Biodegradability:** For similar active ingredient(s). Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD > 40%).

**Propylene glycol**

**Biodegradability:** Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Biodegradation may occur under anaerobic conditions (in the absence of oxygen).

10-day Window: Pass

**Biodegradation:** 81 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 301F or Equivalent

10-day Window: Not applicable

**Biodegradation:** 96 %

**Exposure time:** 64 d

**Method:** OECD Test Guideline 306 or Equivalent

**Theoretical Oxygen Demand:** 1.68 mg/mg

**Chemical Oxygen Demand:** 1.53 mg/mg

**Biological oxygen demand (BOD)**

Incubation Time	BOD
5 d	69.000 %
10 d	70.000 %
20 d	86.000 %

**Photodegradation**

**Atmospheric half-life:** 10 Hour

**Method:** Estimated.

**Balance**

**Biodegradability:** No relevant data found.

#### **Bioaccumulative potential**

##### **2,4-D choline salt**

**Bioaccumulation:** For similar active ingredient(s). Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

##### **Propylene glycol**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** -1.07 Measured

**Bioconcentration factor (BCF):** 0.09 Estimated.

##### **Balance**

**Bioaccumulation:** No relevant data found.

#### **Mobility in soil**

##### **2,4-D choline salt**

For similar active ingredient(s).

Potential for mobility in soil is high (Koc between 50 and 150).

**Partition coefficient(Koc):** 20 - 136 Measured

##### **Propylene glycol**

Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Potential for mobility in soil is very high (Koc between 0 and 50).

**Partition coefficient(Koc):** < 1 Estimated.

##### **Balance**

No relevant data found.

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## **13. DISPOSAL CONSIDERATIONS**

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**Disposal methods:** If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

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## **14. TRANSPORT INFORMATION**

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#### **DOT**

Not regulated for transport

#### **Classification for SEA transport (IMO-IMDG):**

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(2,4-D choline salt)
UN number	UN 3082
Class	9
Packing group	III
Marine pollutant	2,4-D choline salt
Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk

**Classification for AIR transport (IATA/ICAO):**

Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.(2,4-D choline salt)
UN number	UN 3082
Class	9
Packing group	III

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

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## 15. REGULATORY INFORMATION

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**OSHA Hazard Communication Standard**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312**

Immediate (acute) Health Hazard

**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Pennsylvania Worker and Community Right-To-Know Act:**

The following chemicals are listed because of the additional requirements of Pennsylvania law:

<b>Components</b>	<b>CASRN</b>
Propylene glycol	57-55-6

**California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)**

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

**United States TSCA Inventory (TSCA)**

This product contains chemical substance(s) exempt from U.S. EPA TSCA Inventory requirements. It is regulated as a pesticide subject to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requirements.

**Federal Insecticide, Fungicide and Rodenticide Act**

EPA Registration Number: 62719-634

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**DANGER**

Corrosive

Causes irreversible eye damage

Harmful if swallowed, inhaled or absorbed through the skin.

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**16. OTHER INFORMATION**

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**Hazard Rating System****NFPA**

Health	Fire	Reactivity
3	1	0

**Revision**

Identification Number: 102982057 / A211 / Issue Date: 03/11/2016 / Version: 1.1

DAS Code: GF-2654

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

**Legend**

TWA	8-hr TWA
US WEEL	USA. Workplace Environmental Exposure Levels (WEEL)

**Information Source and References**

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

DOW AGROSCIENCES LLC urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with

all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

# SAFETY DATA SHEET

## DOW AGROSCIENCES LLC

**Product name:** GARLON™ 4 Ultra Herbicide

**Issue Date:** 05/04/2015

**Print Date:** 05/17/2015

DOW AGROSCIENCES LLC encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

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## 1. IDENTIFICATION

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**Product name:** GARLON™ 4 Ultra Herbicide

**Recommended use of the chemical and restrictions on use**

**Identified uses:** End use herbicide product

### COMPANY IDENTIFICATION

DOW AGROSCIENCES LLC  
9330 ZIONSVILLE RD  
INDIANAPOLIS IN 46268-1053  
UNITED STATES

**Customer Information Number:**

800-992-5994

[info@dow.com](mailto:info@dow.com)

### EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:** 800-992-5994

**Local Emergency Contact:** 352-323-3500

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## 2. HAZARDS IDENTIFICATION

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### Hazard classification

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Skin sensitisation - Sub-category 1B

### Label elements

**Hazard pictograms**



Signal word: **WARNING!**

**Hazards**

May cause an allergic skin reaction.

**Precautionary statements****Prevention**

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves.

**Response**

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/ attention.

Wash contaminated clothing before reuse.

**Disposal**

Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

no data available

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

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**Chemical nature:** Mixture

This product is a mixture.

Component	CASRN	Concentration
Triclopyr-2-butoxyethyl ester	64700-56-7	60.5%
Ethylene glycol monobutyl ether	111-76-2	0.5%
Balance	Not available	39.0%

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**4. FIRST AID MEASURES**

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**Description of first aid measures**

**General advice:** First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

**Skin contact:** Take off contaminated clothing. Wash skin with soap and plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Wash clothing before reuse. Shoes and other leather items which cannot be decontaminated should be disposed of properly.

**Eye contact:** Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

**Ingestion:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person.

**Most important symptoms and effects, both acute and delayed:** Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

**Indication of any immediate medical attention and special treatment needed**

**Notes to physician:** No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

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## 5. FIREFIGHTING MEASURES

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**Suitable extinguishing media:** Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective. Water fog, applied gently may be used as a blanket for fire extinguishment.

**Unsuitable extinguishing media:** Do not use direct water stream. May spread fire.

**Special hazards arising from the substance or mixture**

**Hazardous combustion products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Hydrogen chloride. Carbon monoxide. Carbon dioxide. Phosgene.

**Unusual Fire and Explosion Hazards:** Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

**Advice for firefighters**

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Water fog, applied gently may be used as a blanket for fire extinguishment. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

**Special protective equipment for firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is



not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

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## 6. ACCIDENTAL RELEASE MEASURES

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**Personal precautions, protective equipment and emergency procedures:** Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

**Methods and materials for containment and cleaning up:** Contain spilled material if possible. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Dow AgroSciences for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

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## 7. HANDLING AND STORAGE

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**Precautions for safe handling:** Keep out of reach of children. Do not swallow. Avoid breathing vapor or mist. Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Wash thoroughly after handling. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

**Conditions for safe storage:** Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Triclopyr-2-butoxyethyl ester	Dow IHG	TWA	2 mg/m <sup>3</sup>
	Dow IHG	TWA	SKIN, DSEN, BEI
Ethylene glycol monobutyl ether	ACGIH	TWA	20 ppm
	OSHA Z-1	TWA	240 mg/m <sup>3</sup> 50 ppm
	ACGIH	TWA	BEI
	OSHA Z-1	TWA	Absorbed via skin

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

### Exposure controls

**Engineering controls:** Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.

**Individual protection measures**

**Eye/face protection:** Use safety glasses (with side shields).

**Skin protection**

**Hand protection:** Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Neoprene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"). Viton. Polyvinyl chloride ("PVC" or "vinyl"). Nitrile/butadiene rubber ("nitrile" or "NBR"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Other protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

**Respiratory protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**


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**Appearance**

<b>Physical state</b>	Liquid.
<b>Color</b>	Yellow
<b>Odor</b>	Mild
<b>Odor Threshold</b>	no data available
<b>pH</b>	3.36 1% <i>pH Electrode</i> (1% aqueous suspension)
<b>Melting point/range</b>	Not applicable
<b>Freezing point</b>	No test data available
<b>Boiling point (760 mmHg)</b>	No test data available
<b>Flash point</b>	<b>closed cup</b> > 100 °C ( > 212 °F) <i>Pensky-Martens Closed Cup ASTM D 93</i>
<b>Evaporation Rate (Butyl Acetate = 1)</b>	No test data available
<b>Flammability (solid, gas)</b>	no data available
<b>Lower explosion limit</b>	No test data available
<b>Upper explosion limit</b>	No test data available
<b>Vapor Pressure</b>	No test data available
<b>Relative Vapor Density (air = 1)</b>	No test data available
<b>Relative Density (water = 1)</b>	1.11 at 20 °C (68 °F) <i>Digital Density Meter (Oscillating Coil)</i>
<b>Water solubility</b>	emulsifies

<b>Partition coefficient: n-octanol/water</b>	no data available
<b>Auto-ignition temperature</b>	> 325 °C (> 617 °F)
<b>Decomposition temperature</b>	No test data available
<b>Dynamic Viscosity</b>	23.4 mPa.s at 20 °C (68 °F) 10.8 mPa.s at 40 °C (104 °F)
<b>Kinematic Viscosity</b>	No test data available
<b>Explosive properties</b>	No
<b>Oxidizing properties</b>	No significant increase (>5C) in temperature.
<b>Liquid Density</b>	1.11 g/cm <sup>3</sup> at 20 °C (68 °F) <i>Digital density meter</i>
<b>Molecular weight</b>	no data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

---

## 10. STABILITY AND REACTIVITY

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**Reactivity:** no data available

**Chemical stability:** Thermally stable at typical use temperatures.

**Possibility of hazardous reactions:** Polymerization will not occur.

**Conditions to avoid:** Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems.

**Incompatible materials:** Avoid contact with: Strong acids. Strong bases. Strong oxidizers.

**Hazardous decomposition products:** Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Hydrogen chloride. Nitrogen oxides. Phosgene.

---

## 11. TOXICOLOGICAL INFORMATION

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*Toxicological information on this product or its components appear in this section when such data is available.*

### Acute toxicity

#### Acute oral toxicity

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

LD50, Rat, female, 3,200 mg/kg

#### Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

LD50, Rat, male and female, > 5,000 mg/kg

**Acute inhalation toxicity**

Prolonged exposure is not expected to cause adverse effects. Based on the available data, respiratory irritation was not observed.

LC50, Rat, male and female, 4 Hour, dust/mist, > 5.05 mg/l No deaths occurred at this concentration.

**Skin corrosion/irritation**

Brief contact may cause moderate skin irritation with local redness.  
May cause drying and flaking of the skin.

**Serious eye damage/eye irritation**

May cause slight eye irritation.  
Corneal injury is unlikely.

**Sensitization**

Has demonstrated the potential for contact allergy in mice.

For respiratory sensitization:  
No relevant data found.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

For the active ingredient(s):  
In animals, effects have been reported on the following organs:  
Kidney.  
Liver.

**Carcinogenicity**

For the minor component(s): In long-term animal studies with ethylene glycol butyl ether, small but statistically significant increases in tumors were observed in mice but not rats. The effects are not believed to be relevant to humans. If the material is handled in accordance with proper industrial handling procedures, exposures should not pose a carcinogenic risk to man. For similar active ingredient(s). Triclopyr. Did not cause cancer in laboratory animals.

**Teratogenicity**

For the active ingredient(s): Has been toxic to the fetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

**Reproductive toxicity**

For similar active ingredient(s). Triclopyr. In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.

**Mutagenicity**

For the active ingredient(s): In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

**Aspiration Hazard**

Based on available information, aspiration hazard could not be determined.

**Carcinogenicity****Component****Ethylene glycol monobutyl ether****List**

ACGIH

**Classification**

A3: Confirmed animal carcinogen with unknown relevance to humans.

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**12. ECOLOGICAL INFORMATION**

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*Ecotoxicological information on this product or its components appear in this section when such data is available.*

**Toxicity****Acute toxicity to fish**

For similar material(s):

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

For similar material(s):

LC50, *Lepomis macrochirus* (Bluegill sunfish), 96 Hour, 0.44 mg/l, OECD Test Guideline 203 or EquivalentLC50, *Oncorhynchus mykiss* (rainbow trout), 96 Hour, 0.984 mg/l, OECD Test Guideline 203 or Equivalent**Acute toxicity to aquatic invertebrates**

For similar material(s):

EC50, *Daphnia magna* (Water flea), 48 Hour, 0.35 mg/l, OECD Test Guideline 202 or Equivalent**Acute toxicity to algae/aquatic plants**

For similar material(s):

EbC50, *Pseudokirchneriella subcapitata* (green algae), 72 Hour, Biomass, 11 mg/l, OECD Test Guideline 201 or Equivalent**Toxicity to Above Ground Organisms**

Based on information for a similar material:

Material is slightly toxic to birds on an acute basis (LD50 between 501 and 2000 mg/kg).

Based on information for a similar material:

oral LD50, *Colinus virginianus* (Bobwhite quail), 1,350 mg/kg**Persistence and degradability****Triclopyr-2-butoxyethyl ester****Biodegradability:** Chemical degradation (hydrolysis) is expected in the environment.

Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Fail

**Biodegradation:** 18 %**Exposure time:** 28 d

**Method:** OECD Test Guideline 301B or Equivalent

**Theoretical Oxygen Demand:** 1.39 mg/mg

**Biological oxygen demand (BOD)**

Incubation Time	BOD
	0.004 mg/mg

**Stability in Water (1/2-life)**

Hydrolysis, half-life, 8.7 d, pH 7, Half-life Temperature 25 °C

**Photodegradation**

**Atmospheric half-life:** 5.6 Hour

**Method:** Estimated.

**Ethylene glycol monobutyl ether**

**Biodegradability:** Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches > 70% mineralization in OECD test(s) for inherent biodegradability).

10-day Window: Pass

**Biodegradation:** 90.4 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 301B or Equivalent

**Theoretical Oxygen Demand:** 2.30 mg/mg

**Chemical Oxygen Demand:** 2.21 mg/g Dichromate

**Biological oxygen demand (BOD)**

Incubation Time	BOD
5 d	5.2 %
10 d	57 %
20 d	72.2 %

**Balance**

**Biodegradability:** No relevant data found.

**Bioaccumulative potential**

**Triclopyr-2-butoxyethyl ester**

**Bioaccumulation:** Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

**Partition coefficient: n-octanol/water(log Pow):** 4.62

**Bioconcentration factor (BCF):** 110 Fish.

**Ethylene glycol monobutyl ether**

**Bioaccumulation:** Bioconcentration potential is low ( $BCF < 100$  or  $\log Pow < 3$ ).

**Partition coefficient: n-octanol/water(log Pow):** 0.81 Measured

**Bioconcentration factor (BCF):** 3.2

#### **Balance**

**Bioaccumulation:** No relevant data found.

#### **Mobility in soil**

##### **Triclopyr-2-butoxyethyl ester**

Calculation of meaningful sorption data was not possible due to very rapid degradation in the soil.

For the degradation product:

Triclopyr.

Potential for mobility in soil is very high ( $Koc$  between 0 and 50).

##### **Ethylene glycol monobutyl ether**

Potential for mobility in soil is high ( $Koc$  between 50 and 150).

**Partition coefficient( $Koc$ ):** 67 Estimated.

#### **Balance**

No relevant data found.

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### **13. DISPOSAL CONSIDERATIONS**

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**Disposal methods:** If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

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### **14. TRANSPORT INFORMATION**

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#### **DOT**

Not regulated for transport

#### **Classification for SEA transport (IMO-IMDG):**

<b>Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Triclopyr-2-butoxyethyl ester)
<b>UN number</b>	UN 3082
<b>Class</b>	9
<b>Packing group</b>	III
<b>Marine pollutant</b>	Triclopyr-2-butoxyethyl ester
<b>Transport in bulk according to Annex I or II of MARPOL 73/78 and the</b>	Consult IMO regulations before transporting ocean bulk

**IBC or IGC Code****Classification for AIR transport (IATA/ICAO):**

<b>Proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s.(Triclopyr-2-butoxyethyl ester)
<b>UN number</b>	UN 3082
<b>Class</b>	9
<b>Packing group</b>	III

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

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**15. REGULATORY INFORMATION**

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**OSHA Hazard Communication Standard**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312**

Acute Health Hazard  
Chronic Health Hazard

**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)**

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

**Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:**

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

**Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous Substances List:**

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

**United States TSCA Inventory (TSCA)**



This product contains chemical substance(s) exempt from U.S. EPA TSCA Inventory requirements. It is regulated as a pesticide subject to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requirements.

**Federal Insecticide, Fungicide and Rodenticide Act**

EPA Registration Number: 62719-527

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**CAUTION**

Causes moderate eye irritation

Harmful if swallowed

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

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**16. OTHER INFORMATION**

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**Hazard Rating System****NFPA**

Health	Fire	Reactivity
2	1	0

**Revision**

Identification Number: 101188950 / A211 / Issue Date: 05/04/2015 / Version: 7.0

DAS Code: GF-1529

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

**Legend**

Absorbed via skin	Absorbed via skin
ACGIH	USA. ACGIH Threshold Limit Values (TLV)
BEI	Biological Exposure Indices
Dow IHG	Dow Industrial Hygiene Guideline
OSHA Z-1	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
SKIN, DSEN, BEI	Absorbed via Skin, Skin Sensitizer, Biological Exposure Indice
TWA	8-hour, time-weighted average

**Information Source and References**

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

DOW AGROSCIENCES LLC urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ

between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

# SAFETY DATA SHEET

## DOW AGROSCIENCES LLC

**Product name:** MILESTONE™ Herbicide

**Issue Date:** 05/26/2015

**Print Date:** 05/26/2015

DOW AGROSCIENCES LLC encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

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## 1. IDENTIFICATION

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**Product name:** MILESTONE™ Herbicide

**Recommended use of the chemical and restrictions on use**

**Identified uses:** End use herbicide product

### COMPANY IDENTIFICATION

DOW AGROSCIENCES LLC  
9330 ZIONSVILLE RD  
INDIANAPOLIS IN 46268-1053  
UNITED STATES

**Customer Information Number:**

800-992-5994

[info@dow.com](mailto:info@dow.com)

### EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:** 800-992-5994

**Local Emergency Contact:** 352-323-3500

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## 2. HAZARDS IDENTIFICATION

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### Hazard classification

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

### Other hazards

no data available

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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

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This product is a mixture.

Component	CASRN	Concentration
Aminopyralid Triisopropanolamine Salt	566191-89-7	40.6%

Triisopropanolamine	122-20-3	1.5%
Balance	Not available	57.9%

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## 4. FIRST AID MEASURES

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### Description of first aid measures

**General advice:** If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

**Skin contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**Eye contact:** Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

**Ingestion:** No emergency medical treatment necessary.

**Most important symptoms and effects, both acute and delayed:** Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

### Indication of any immediate medical attention and special treatment needed

**Notes to physician:** No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

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## 5. FIREFIGHTING MEASURES

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**Suitable extinguishing media:** To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam.

**Unsuitable extinguishing media:** no data available

### Special hazards arising from the substance or mixture

**Hazardous combustion products:** Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Combustion products may include and are not limited to: Nitrogen oxides. Hydrogen chloride. Carbon monoxide. Carbon dioxide.

**Unusual Fire and Explosion Hazards:** This material will not burn until the water has evaporated. Residue can burn.

### Advice for firefighters

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

**Special protective equipment for firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

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## 6. ACCIDENTAL RELEASE MEASURES

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**Personal precautions, protective equipment and emergency procedures:** Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

**Methods and materials for containment and cleaning up:** Contain spilled material if possible. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Dow AgroSciences for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

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## 7. HANDLING AND STORAGE

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**Precautions for safe handling:** Keep out of reach of children. Do not swallow. Avoid breathing vapor or mist. Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Wash thoroughly after handling.

**Conditions for safe storage:** Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Triisopropanolamine	Dow IHG	TWA	10 mg/m3

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

### Exposure controls

**Engineering controls:** Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

**Individual protection measures**

**Eye/face protection:** Use safety glasses (with side shields).

**Skin protection**

**Hand protection:** Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized.

**Other protection:** No precautions other than clean body-covering clothing should be needed.

**Respiratory protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator.

The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**


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**Appearance**

<b>Physical state</b>	Liquid.
<b>Color</b>	Brown
<b>Odor</b>	Mild
<b>Odor Threshold</b>	no data available
<b>pH</b>	7.3 <i>pH Electrode</i>
<b>Melting point/range</b>	Not applicable
<b>Freezing point</b>	< -10 °C ( < 14 °F)
<b>Boiling point (760 mmHg)</b>	no data available
<b>Flash point</b>	<b>closed cup</b> > 100 °C ( > 212 °F) <i>Pensky-Martens Closed Cup ASTM D 93</i>
<b>Evaporation Rate (Butyl Acetate = 1)</b>	no data available
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Lower explosion limit</b>	no data available
<b>Upper explosion limit</b>	no data available
<b>Vapor Pressure</b>	no data available
<b>Relative Vapor Density (air = 1)</b>	no data available
<b>Relative Density (water = 1)</b>	1.14 at 20 °C (68 °F)
<b>Water solubility</b>	Soluble
<b>Partition coefficient: n-octanol/water</b>	no data available
<b>Auto-ignition temperature</b>	none below 400 degC
<b>Decomposition temperature</b>	No test data available
<b>Dynamic Viscosity</b>	12.2 cP at 20 °C (68 °F) <i>EPA OPPTS 830.7100 (Viscosity)</i>
<b>Kinematic Viscosity</b>	no data available
<b>Explosive properties</b>	no data available
<b>Oxidizing properties</b>	no data available

<b>Liquid Density</b>	1.140 g/cm <sup>3</sup> at 20 °C (68 °F) <i>Digital density meter</i>
<b>Molecular weight</b>	no data available
<b>Surface tension</b>	54.4 mN/m at 20 °C (68 °F)

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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## 10. STABILITY AND REACTIVITY

---

**Reactivity:** No dangerous reaction known under conditions of normal use.

**Chemical stability:** Thermally stable at typical use temperatures.

**Possibility of hazardous reactions:** Polymerization will not occur.

**Conditions to avoid:** Some components of this product can decompose at elevated temperatures.

**Incompatible materials:** Avoid contact with: Strong oxidizers.

**Hazardous decomposition products:** Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Hydrogen chloride. Nitrogen oxides.

---

## 11. TOXICOLOGICAL INFORMATION

---

*Toxicological information appears in this section when such data is available.*

### Acute toxicity

#### Acute oral toxicity

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

As product:

LD50, Rat, male and female, > 5,000 mg/kg

#### Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product:

LD50, Rat, male and female, > 5,000 mg/kg

#### Acute inhalation toxicity

No adverse effects are anticipated from single exposure to mist. Based on the available data, respiratory irritation was not observed.

As product:

LC50, Rat, male and female, 4 Hour, dust/mist, > 5.79 mg/l

### Skin corrosion/irritation

Essentially nonirritating to skin.

**Serious eye damage/eye irritation**

Essentially nonirritating to eyes.  
Corneal injury is unlikely.

**Sensitization**

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:  
No relevant data found.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

**Carcinogenicity**

For similar active ingredient(s). Aminopyralid. Did not cause cancer in laboratory animals.

**Teratogenicity**

Did not cause birth defects or any other fetal effects in laboratory animals.

**Reproductive toxicity**

For similar active ingredient(s). Aminopyralid. In animal studies, did not interfere with reproduction.

**Mutagenicity**

In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

**Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

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**12. ECOLOGICAL INFORMATION**

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*Ecotoxicological information appears in this section when such data is available.*

**Toxicity****Acute toxicity to fish**

Material is practically non-toxic to aquatic organisms on an acute basis  
(LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

LC50, *Oncorhynchus mykiss* (rainbow trout), static test, 96 Hour, 360 mg/l, OECD Test  
Guideline 203 or Equivalent

LC50, *Cyprinodon variegatus* (sheepshead minnow), static test, 96 Hour, > 100 mg/l

**Acute toxicity to aquatic invertebrates**

EC50, *Daphnia magna* (Water flea), static test, 48 Hour, > 460 mg/l

LC50, saltwater mysid *Mysidopsis bahia*, static test, 96 Hour, > 104 mg/l

**Acute toxicity to algae/aquatic plants**



ErC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, Growth rate inhibition, > 1,000 mg/l, OECD Test Guideline 201 or Equivalent

**Toxicity to Above Ground Organisms**

Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg).

Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm).

dietary LC50, Colinus virginianus (Bobwhite quail), > 21422mg/kg diet.

oral LD50, Colinus virginianus (Bobwhite quail), > 10,000 ppm

oral LD50, Apis mellifera (bees), > 460micrograms/bee

contact LD50, Apis mellifera (bees), > 460micrograms/bee

**Toxicity to soil-dwelling organisms**

LC50, Eisenia fetida (earthworms), 14 d, survival, > 10,000 mg/kg

**Persistence and degradability****Aminopyralid Triisopropanolamine Salt**

**Biodegradability:** For similar material(s): Aminopyralid. Material is not readily biodegradable according to OECD/EEC guidelines.

**Triisopropanolamine**

**Biodegradability:** Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD > 40%). Biodegradation rate may increase in soil and/or water with acclimation. Material is not readily biodegradable according to OECD/EEC guidelines.

10-day Window: Fail

**Biodegradation:** 0 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 301F or Equivalent

**Theoretical Oxygen Demand:** 2.35 mg/mg

**Photodegradation**

**Test Type:** Half-life (indirect photolysis)

**Sensitizer:** OH radicals

**Atmospheric half-life:** 3 Hour

**Method:** Estimated.

**Balance**

**Biodegradability:** No relevant data found.

**Bioaccumulative potential****Aminopyralid Triisopropanolamine Salt**

**Bioaccumulation:** For similar active ingredient(s). Aminopyralid. Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Triisopropanolamine**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** -0.015 at 23 °C Measured

**Bioconcentration factor (BCF):** < 0.57 Fish. 42 d Measured

#### **Balance**

**Bioaccumulation:** No relevant data found.

#### **Mobility in soil**

##### **Aminopyralid Triisopropanolamine Salt**

For similar active ingredient(s).

Aminopyralid.

Potential for mobility in soil is very high (Koc between 0 and 50).

##### **Triisopropanolamine**

Potential for mobility in soil is very high (Koc between 0 and 50).

**Partition coefficient(Koc):** 10 Estimated.

#### **Balance**

No relevant data found.

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### **13. DISPOSAL CONSIDERATIONS**

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**Disposal methods:** If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

---

### **14. TRANSPORT INFORMATION**

---

#### **DOT**

Not regulated for transport

#### **Classification for SEA transport (IMO-IMDG):**

**Transport in bulk  
according to Annex I or II  
of MARPOL 73/78 and the  
IBC or IGC Code**

Not regulated for transport

Consult IMO regulations before transporting ocean bulk

#### **Classification for AIR transport (IATA/ICAO):**

Not regulated for transport

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

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## 15. REGULATORY INFORMATION

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### **OSHA Hazard Communication Standard**

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### **Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312**

No SARA Hazards

### **Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### **California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)**

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

### **Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:**

The following product components are cited in the Pennsylvania Hazardous Substance List and/or the Pennsylvania Environmental Substance List, and are present at levels which require reporting.

#### **Components**

#### **CASRN**

Triisopropanolamine

122-20-3

### **Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous Substances List:**

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

### **United States TSCA Inventory (TSCA)**

This product contains chemical substance(s) exempt from U.S. EPA TSCA Inventory requirements. It is regulated as a pesticide subject to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requirements.

### **Federal Insecticide, Fungicide and Rodenticide Act**

EPA Registration Number: 62719-519

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

## CAUTION

Causes moderate eye irritation

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**16. OTHER INFORMATION**

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**Hazard Rating System****NFPA**

Health	Fire	Reactivity
1	1	0

**Revision**

Identification Number: 101209315 / A211 / Issue Date: 05/26/2015 / Version: 9.0

DAS Code: GF-871

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

**Legend**

Dow IHG	Dow Industrial Hygiene Guideline
TWA	Time Weighted Average (TWA):

**Information Source and References**

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

DOW AGROSCIENCES LLC urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

## DEPARTMENT OF NATURAL RESOURCES CONSTRUCTION CHANGE ORDER

<b>Date:</b> 10/19/2022	<b>Is this a Final Modification?</b> Yes	<b>Change Order #:</b> 1
----------------------------	---	-----------------------------

### Project Summary

<b>State Agency</b> Department of Natural Resources Division of Reclamation, Mining and Safety 1313 Sherman Street; Rm 215 Denver, Colorado 80203	<b>Project Title</b> Union Carbide Bond Forfeiture Project
	<b>CORE ID</b> PO 2023*5049
<b>Contractor</b> H2 Enterprises 4626 CR 65 Keenesburg, CO 80643	<b>Original Contract CMS (N/A for POs)</b>  N/A

### Change Order Summary

Original Contract Value:	\$51,125.00	Original Contract Performance Time	40 Days
Cumulative Value of all Prior Change Order Cost Adjustments:	\$	This Change Order's adjustment to the Performance Time	NA
This Change Order Cost Adjustment*:	\$10,000		
Current Contract Value:	\$61,125.00		

\*Change Orders that exceed of twenty percent (20%) of the current Contract Maximum Amount require an advance email notification to the DNR Purchasing Director at [lon.cotsapas@state.co.us](mailto:lon.cotsapas@state.co.us), including a summary of the change and the justification.

Will the modified services described in this Change Order begin prior to the execution of a formal contract amendment? **Yes**

If "Yes" explain the justification:

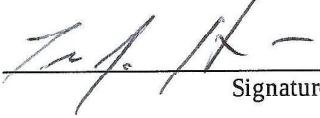

Process time of the corresponding contract amendment will result in unacceptable delays and/or significant cost increases to the Project

Bid or New Item #	Description of and Fair & Reasonable Cost Determination for each Change		Cost Adjustment
	Type of Modification:	Increasing current quantity	\$10,000
	Item Name / Description	Task 4- Tamarisk Removal	
	Reason for Modification:	Increase in Tamarisk trees on site	
	Basis for Fair & Reasonable cost determination:	Quantity adjustment based on a previously established rate	
	Type of Modification:	Choose an item.	
	Item Name / Description		
	Reason for Modification:		
	Basis for Fair & Reasonable cost determination:	Choose an item.	
	Type of Modification:	Choose an item.	
	Item Name / Description		
	Reason for Modification:		
	Basis for Fair & Reasonable cost determination:	Choose an item.	
	Type of Modification:	Choose an item.	
	Item Name / Description		
	Reason for Modification:		
	Basis for Fair & Reasonable cost determination:	Choose an item.	

Bid or New Item #	Description of and Fair & Reasonable Cost Determination for each Change		Cost Adjustment
	Type of Modification:	Choose an item.	
	Item Name / Description		
	Reason for Modification:		
	Basis for Fair & Reasonable cost determination:	Choose an item.	
	Type of Modification:	Choose an item.	
	Item Name / Description		
	Reason for Modification:		
	Basis for Fair & Reasonable cost determination:	Choose an item.	
	Type of Modification:	Choose an item.	
	Item Name / Description		
	Reason for Modification:		
	Basis for Fair & Reasonable cost determination:	Choose an item.	
	Type of Modification:	Choose an item.	
	Item Name / Description		
	Reason for Modification:		
	Basis for Fair & Reasonable cost determination:	Choose an item.	
	Type of Modification:	Choose an item.	
	Item Name / Description		
	Reason for Modification:		
	Basis for Fair & Reasonable cost determination:	Choose an item.	

## Authorization Page

The Parties hereto agree to the description of the modifications to the Project detailed in this Change Order Form. Persons signing on behalf of the Contractor hereby swear and affirm that they are duly authorized to act on the Contractor's behalf and acknowledge that the State is relying on their representations to that effect. In accordance with §24-30-202 C.R.S., the State can make no payments for the modified services described in this Change Order until the execution of an amendment to the contract that is signed and dated by the State Controller or an authorized delegate.

CONTRACTOR - Project Manager / Representative	STATE - Project Manager / Representative
 Signature	 Signature
Travis S. Harris Printed Name	Stephanie Mitchell Printed Name
General Superintendent Title of Signatory	Project Manager Title of Signatory
Date: 10/19/22	10/19/2022 Date:

A separate formal amendment to the Contract or Purchase Order corresponding to this Change Order to follow.





## COLORADO

Division of Reclamation,  
Mining and Safety

Department of Natural Resources

1313 Sherman St, Room 215  
Denver, CO 80203  
Ph. 303.866.3567  
Fax 303.832.8106

### DAILY SITE REPORT

SHEET 1 OF       

DATE: 10/18/22 DAY OF WEEK: M Ⓟ W Th F Sa Su

PROJECT NO.        PROJECT: Union Carbide Project

LOCATION: Rifle WEATHER: 70°

CONTRACTOR: H2 Enterprises ENGINEER:       

ARRIVED AT SITE: 5:00 p.m. DEPARTED SITE: 5:30 p.m.

#### SITE ACTIVITY

Mabbed from Keenesburg to Rifle (Union Carbide site)

~~data~~ Unhooked trailer outside fence

SEE REVERSE ☐

SAFETY ITEMS DISCUSSED OR ADDRESSED: Traffic, defensive driving,  
Hauling loads in the mountains.

#### LABOR FORCE & EQUIPMENT:

2 pkps; trailers  
5 personnel

Dray Dwyer, Project Mgr



**COLORADO**  
Division of Reclamation,  
Mining and Safety  
Department of Natural Resources

1313 Sherman St, Room 215  
Denver, CO 80203  
Ph. 303.866.3567  
Fax 303.832.8106

**DAILY SITE REPORT**

SHEET 2 OF       

DATE: 10/19/22 DAY OF WEEK: M T (W) Th F Sa Su

PROJECT NO.        PROJECT: Union Carbide Project

LOCATION: Cifle WEATHER: 85°-68° 18° humidity

CONTRACTOR: H-2 Enterprises ENGINEER:       

ARRIVED AT SITE: 6:00 A.M. DEPARTED SITE: 6:30 p.m.

**SITE ACTIVITY**

- Used excavator + skidsteer to clear Tamarisk.
- skidsteer loader Dump trailer with Debris
- Hauled to Landfill with PKP + Dump trailer 3 loads
- 1:00 started spraying Tamarisk around ponds with Gator/sprayer and PKP with sprayer
- Hand sprayed and Broadcast sprayed

SEE REVERSE ☐

SAFETY ITEMS DISCUSSED OR ADDRESSED: Sheep reviewed started with SSA as well. slopes, footing, safety w/ll machines running. Make sure operators know where people on foot are. Proper PPE for spraying

**LABOR FORCE & EQUIPMENT:**

<u>PKP w- sprayer</u>	<u>skidsteer</u>
<u>Gator w- sprayer</u>	<u>PKP + Dump trailer</u>
<u>Excavator</u>	<u>5 persons</u>

Doug Dondan, Project Mgr



**COLORADO**  
Division of Reclamation,  
Mining and Safety  
Department of Natural Resources

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Denver, CO 80203  
Ph. 303.866.3567  
Fax 303.832.8106

**DAILY SITE REPORT**

SHEET 3 OF       

DATE: 10/20/22 DAY OF WEEK: M T W (Th) F Sa Su

PROJECT NO.                      PROJECT: Union Carbide Project

LOCATION: Rifle WEATHER: 30°-70° 22%-50%

CONTRACTOR: H-2 Enterprises ENGINEER:                     

ARRIVED AT SITE: 6:30 A.M. DEPARTED SITE: 6:00 p.m.

**SITE ACTIVITY**

- Finished hauling to land fill - 1 load
- Removed the last of the Tamarisk -
- Finished spraying slopes around edges of ponds -
- Sprayed with gator & pkp - Hand sprayed and Broadcast where access allowed
- Sprayed Broadcast Noxious mix over the rest of site
- Spot and Broadcast sprayed weed over entire area

SEE REVERSE ☐

SAFETY ITEMS DISCUSSED OR ADDRESSED: Reviewed Items on Shop  
Discussed Driving UTV on slopes - Be aware of all crew working  
in the area.

**LABOR FORCE & EQUIPMENT:**

<u>PKP - Dump trailer</u>	<u>Skid steer</u>
<u>PKP - w sprayer</u>	<u>excavator</u>
<u>UTV - w sprayer</u>	<u>5 personnel</u>

Doug Dandrea, Project Mgr





**COLORADO**  
Division of Reclamation,  
Mining and Safety  
Department of Natural Resources

1313 Sherman St, Room 215  
Denver, CO 80203  
Ph. 303.866.3567  
Fax 303.832.8106

**DAILY SITE REPORT**

SHEET 4 OF       

DATE: 10/21/22 DAY OF WEEK: M T W Th (F) Sa Su

PROJECT NO.        PROJECT: Carbide Project

LOCATION: Rifle WEATHER: 32°

CONTRACTOR: H-2 Enterprises ENGINEER:       

ARRIVED AT SITE: 6:30 DEPARTED SITE: 7:45

**SITE ACTIVITY**

- Arrived on site loaded all equipment  
mashed home

SEE REVERSE ☐

SAFETY ITEMS DISCUSSED OR ADDRESSED: Traffic, pinch point  
load securement, proper placement of equipment on trailers

LABOR FORCE & EQUIPMENT:

2 pks r Trailers

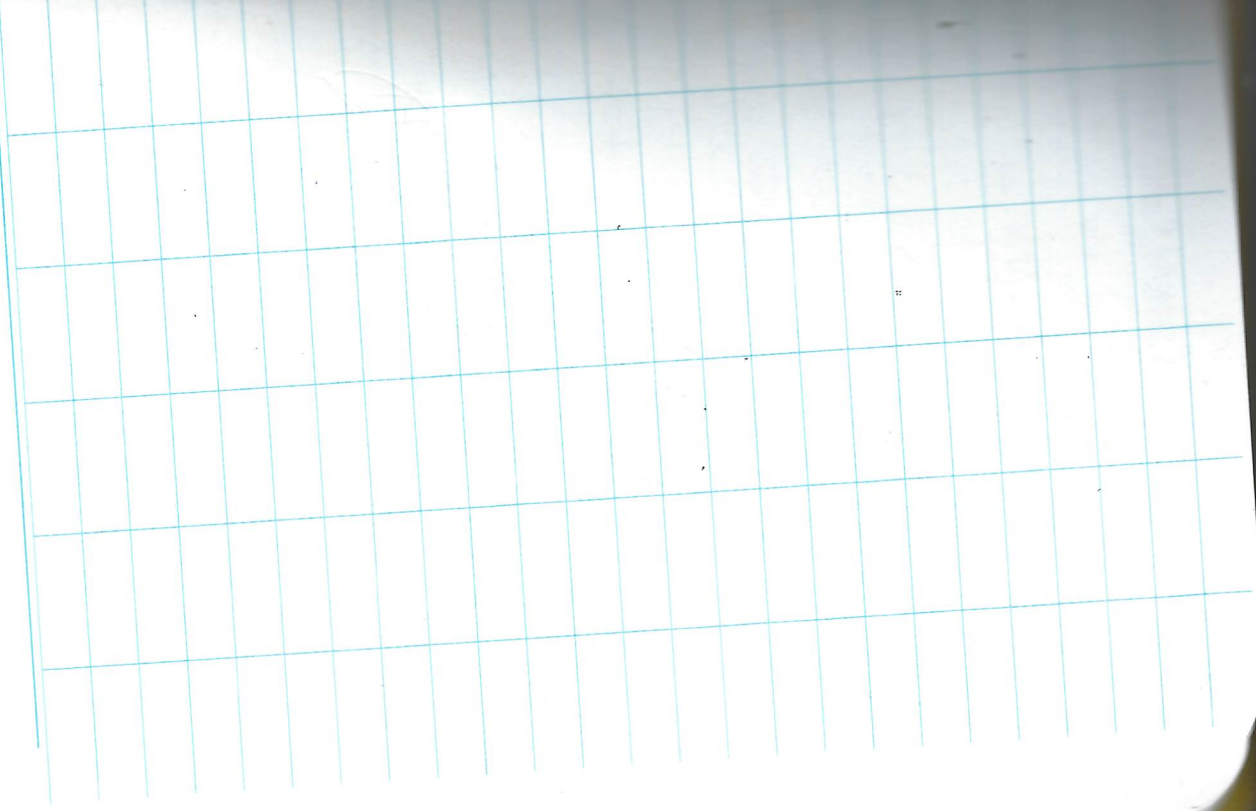
3 persons

Doug Bowden, Project Mgr

Location \_\_\_\_\_

Date \_\_\_\_\_

Project / Client \_\_\_\_\_



Location \_\_\_\_\_

Project / Client \_\_\_\_\_

Scale \_\_\_\_\_

Location Wagon cabild <sup>25</sup> 10/19/22

Project / Client NTP issued 10/18/22

arrived on site 2pm

Travis Harris

Issac

Anthony

Calen

drive - Rodney

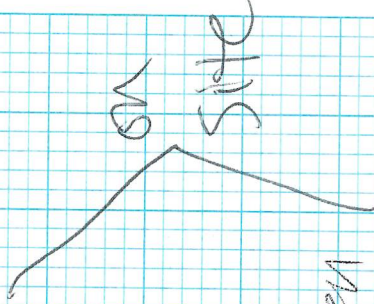
Wagon 915  
Excavator

and steel

#105 tree

pulled

left @ 4pm





10/20 Union Carbide

arrived on site @

1:15

clear.

All trees taken to

dump. 105

spraying - w/ Dye

left 4 pm

receipts received  
from contractor  
for disposal  
of trees

change order signed  
add \$10 k for 75 extra

10/21 Union Carbide

arrived on site

@ 8am.

Contractor moved  
equipment  
out early am.

site clean, no litter  
all sprayed

will monitor

cert of completion  
sent 10/24

[illegible]

Feature Closure Summary - Project Name													
			From Bid Schedule										
ID#	Feature Type	Total Invoiced	Closure Type	Install add'l Backfill	Install add'l Hand Backfill	Install add'l PUF	Add'l Equip Time w/Operator	Sediment Control Plan	Sheap	Mob Cost	Final Feature Cost	County	Funding Source
Portals													
Feature ID	Portals	\$ -	What	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Where	Who
Feature ID	Portals	\$ -	What	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Where	Who
Feature ID	Portals	\$ -	What	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Where	Who
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Vertical Openings													
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Deleted													
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Union Carbide BFCFS													

OSM	Maint	Boulder Co (50/50)	BLM	Sev Tax	Total Pd Per Feature
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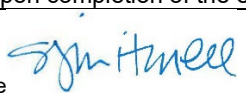
Feature Closure Summary - Project Name																				
			From Bid Schedule												OSM	Maint	Boulder Co (50/50)	BLM	Sev Tax	Total Pd Per Feature
ID#	Feature Type	Total Invoiced	Closure Type	Install add'l Backfill	Install add'l Hand Backfill	Install add'l PUF	Add'l Equip Time w/Operator	Sediment Control Plan	Sheap	Mob Cost	Final Feature Cost	County	Funding Source							
Features partially closed- but will need to re-bid																				
Feature ID	VO											Where	Who							
Feature ID	VO											Where	Who							
Feature ID	VO											Where	Who							
Total	41	\$ -		\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				0.00	0.00	0.00	0.00	0.00	0.00
															figures above this cell must match the figures below this					
															\$-	\$ -	\$ -	\$-	\$ -	\$ -

# FINAL INSPECTION AND CERTIFICATE OF COMPLETION

COLORADO DIVISION OF  
RECLAMATION, MINING AND SAFETY  
1313 Sherman St., Rm. 215  
Denver, CO 80203-2273  
(303) 866-3567

Project Name Union Carbide Bond Forfeiture Project	Date 10/26/2022
Contractor Name H2 Enterprises- Doug Dowden	Bid # PO 2023-5049
Contractor Address 4626 CR 65	Project #
Keenesburg, CO 80643	PO or Contract # PO 2023-5049
Project Manager Stephanie Mitchell	

This is to certify that all work under the above Agreement was ready for final inspection on (date) 10/26/2022; that the work was completed in accordance with the requirements of the agreement **with the following exceptions:**

(attach additional pages, if required)	
and it is recommended that, upon completion of the exceptions listed above, the work under this Agreement be accepted.	
DRMS Project Manager Signature 	The above exceptions were completed on (date):
	DRMS Project Manager Stephanie Mitchell