UNION CARBIDE CORPORATION
CAPITAL PROJECT PROPOSAL
ESAH CHECKLIST

ENVIRONMENTAL	YES	NO	OTHER	COMMENTS:
1 General				
1.1 Does the geographic location of the project present any potential interface or international air pollution liabilities or unusual water pollution liabilities?	☒	☐	☐	1.1 Asbestos is a hazardous material. Location of plant in urban area is a positive factor since it is within reasonable commuting distance of most employees. Permits will be required for construction and operation.
1.2 Is the proposed project or site to be located within 1/2 mile of any existing or potential drinking water source?	☒	☐	☐	Proper precautions for control of emissions will be required to minimize exposure considerations. Monitoring will be performed to comply with regulations.
1.3 Will the project have an adequate buffer zone between the air emissions sources and offsite residences or facilities?	☑	☐	☐	1.3 - See 1.1 above.
1.4 Will the facility be staffed, or have readily available, personnel fully aware of the environmental consequences of operational problems and trained to implement timely and proper response actions?	☑	☐	☐	
1.5 Are any of the residuals from either environmental discharges or disposal wastes resulting from operation of the completed project believed to be a potential subject of future governmental rulemaking that would cause future unfavorable economic or publicity for the project, location, or Corporation?	☐	☑	☐	
2 Health				
2.1 Is process technology design derived from either proven commercial-scale facilities or six months or more of successful pilot-scale operation?	—	☐	☒	2.1 - NA
2.2 Will proposed air emissions require offsets or exceed available increments in the Air Quality Control Region?	☐	☑	☐	2.2 NA
2.3 Will wastewater discharges be restricted by water quality limits of the receiving stream or by the capacity of a Publicly-Owned Treatment Works (POTW)?	☐	—	☒	

Any answer in brackets requires explanation under "Comments" (continued on separate page if necessary). The "NA" where question is not applicable.

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PLAINTIFF'S EXHIBIT

UC-2132

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		YES	NO	OTHER
2.4	Are there any plans to dispose of wastewater by underground injection?	☐	☑	☐
2.5	Have all hazardous waste conservation/minimization alternatives been reviewed and used where feasible?	☑	☐	☐
2.6	Are there any treatment, storage, disposal design plans that have not been reviewed to assure conformance with Federal, State, and Local regulations?	☑	☐	☐
2.7	Has facility design minimized the generation of air and water pollution and residue streams to the extent consistent with "best available technology" as defined by EPA or, where more stringent, UCC guidelines?	☑	☐	☐
2.8	Has the design inventory of hazardous and toxic chemicals been minimized to the extent practicable?	☐	☐	☑
2.9	Does the project design satisfy the restrictions imposed by the UCC Air Toxics Control Policy for both continuous emissions and episodic releases?	☑	☐	☐
2.10	Will secondary containment be provided for all new oil and chemical handling or storage areas?	☐	☐	☑
2.11	Will underground storage tanks be used for this project?	☐	☑	☐
3	**Wastes, Emissions**			
3.1	Have all significant air emissions and water discharges been identified and described with respect to quantity and composition? (Consider start-up and shut-down conditions and abnormal operating conditions.)	☑	☐	☐
3.2	Have all proposed hazardous waste streams been identified?	☐	☐	☑
3.3	Do proposed air emissions contain any material classified as hazardous under federal, state, or local regulations?	☑	☐	☐

COMMENTS:

2.6 - OSHA regs have been reviewed. Plan does not discuss NESHAPS. State regs (esp. 15-) require notification, State APC.

2.8 NA

2.10 NA

3.2 NA

3.3 [Sec. 1.1 and 2.6] Regulations have been reviewed and Project Work Plans specifies compliance tasks except for notification of WV APC and WV DNR prior to landfilling.

Any answer in brackets requires explanation under "Comments" (continued on separate pages if necessary). Use "NA" where question is not applicable.

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		YES	NO	OTHER	COMMENTS:
3.4	Do proposed wastewater discharges contain any substances on EPA's priority pollutant list or on EPA's list of toxic materials?	☐	—	☑	3.4 NA
3.5	Are any proposed wastes classified as hazardous under Federal, State, or Local regulations?	☑	—	☐	3.5 See 1.1, 2.6, and 3.3
3.6	Will the total quantity of hazardous waste generated at the site be more than 100 kilograms per month?	☐	✓	☐	3.6 Work will generate intermittent amounts of waste over a 3-year period. None to follow.
3.7	Is there a high degree of confidence that the predicted composition and quantities of air and water pollutants and residues generated from operation of the project has not omitted any chemical more toxic than those listed and has not understated any quantities by more than 50%?	✓	☐	☐	
3.8	Do the discharges which reach the air or receiving water from this project constitute a predicted increase of more than 10% in the present environmental level of any hazardous or regulated constituent and/or to more than 50% of the acceptable environmental level?	☐	✓	☐	3.8 Project work plan specifies pollutant release minimization activities and air monitoring during work.
4	**Compliance**				
4.1	If the project is associated with an existing facility, has the facility experienced any incidents of non-compliance with air emission permits or with waste-water discharge permit requirements or received any air pollution related citizen complaints in the past 12 months?	☐	—	☑	4.1 None that apply to this project
4.2	Are there any Compliance Orders or other legal actions that effect the existing site or operation?	☐	—	☑	4.2 " " " " " "
4.3	Will the predicted air and water discharges from operation of the completed project comply with all applicable governmental rules?	✓	☐	☐	
4.4	Will the planned storage, treatment and disposal of hazardous wastes comply with all applicable governmental rules or, where more stringent, UCC guidelines?	✓	☐	☐	4.4 Provisions are outlined in Project work plan.
4.5	Are modifications to an existing or an entirely new Spill Prevention, Control, and Containment (SPCC) Plan required?	☐	✓	☐	5.1 No modifications required.
5	**Permits**				
5.1	Have all required air emission and wastewater discharge permits and permit modifications been identified?	✓	☐	☐	

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		YES	NO	OTHER	COMMENTS:
5.2	Will a RCRA Part B Permit Application or modification of an existing Part B Permit be necessary?	☐	☑	☐	
5.3	Are any delays in construction or operation startup likely due to permitting requirements?	☐	☑	☐	
6	**Monitoring**				
6.1	Is ambient or background air quality monitoring data available for the past 12 months at the project site or facility?	☑	☐	☐	6.1 Not applicable to this project
6.2	If there are proposed wastewater discharges to surface water, is background water quality data available?	☑	☐	☐	6.2 no proposed waste water discharges are associated with the work with the exception of some possible wash waters — this water is not regulated.
6.3	Is there presently any known or suspected ground water contamination at the project site or facility?	☐	—	☑	6.3 Not applicable
6.4	Would additional soil or ground water monitoring be required to demonstrate that the project site or facility is not a source of contamination?	☐	—	☑	6.4 NA
7	**Control Systems**				
7.1	Are air and water pollution or hazardous waste control and treatment facilities designed to meet applicable governmental technological levels or, where more stringent, BCC requirements?	☑	☐	☐	
7.2	Do any proposed air emissions sources or wastewater discharges require new control systems or upgrading of existing systems?	☐	☑	☐	

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		YES	NO	OTHER	COMMENTS:
7.3	Will the project necessitate the treatment, storage, or disposal of hazardous waste, either onsite or offsite?	☑	☐	☐	7.3 Removed material will be disposed of at Goff Mountain Landfill. All applicable DOT regs for transporting material and OSHA regs will be followed.
8	**Plant Site Expansion**				
8.1	Are there any inactive or active waste storage, treatment or disposal facilities located on the new plot?	☐	☑	☐	Need to specify 40CFR 61.152.b + 61.156
8.2	Are there on-going or past site investigations and/or remedial actions for present and past solid and hazardous waste units that pose(d) a significant threat of release of hazardous constituents to the environment?	☐	☑	☐	8.3 NA
8.3	Is there any material containing PCBs located on the new plot?	☐	☐	☑	8.4 NA
8.4	Are underground storage tanks located on the new plot?	☐	☐	☑	8.6 No buildings razed; asbestos will be removed and replaced or immobilized.
8.5	Does the new plot contain U.S. Coast Guard designated wetlands?	☐	☑	☐	
8.6	Are buildings or other structures containing asbestos going to be razed?	☐	☑	☐	

L. K. Schell
Reviewer

10/24/86
Date

01720

Any answer in brackets requires explanation under "Comments" (continued on separate pages if necessary). Use "NA" where question is not applicable.

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UNION CARBIDE CORPORATION
CAPITAL PROJECT PROPOSAL
HS&E CHECKLIST

SAFETY AND HEALTH		YES	NO	OTHER	COMMENTS:
1.	**General**				1.1 Asbestos will be handled in the construction
1.1	Will toxic, flammable, corrosive, or otherwise hazardous substances be transported, stored, processed, or produced as the result of this project.	(✓)	___	(__)	phase of this project. Asbestos is a carcinogen.
1.2	Will any unusual physical hazards be present in the facility?	(__)	✓	(__)	
1.3	Are any substances handled that could cause an explosion if heated, contaminated, concentrated, or otherwise mishandled?	(__)	✓	(__)	
1.4	Is all necessary safety and health data known for each substance handled?	✓	(__)	(__)	
1.5	Do up-to-date Material Safety Data Sheets exist for each substance handled?	✓	(__)	(__)	
1.6	Will this project introduce new chemicals that are highly reactive with other chemicals already handled in the plant?	(__)	✓	(__)	
2.	**Compliance**				2.1 OSHA has recently revised its regulations
2.1	Will any additional safety or health programs be required under OSHA regulations?	(✓)	___	(__)	regarding handling of asbestos insulation. These
2.2	Have all Department of Transportation requirements been identified for all substances that will be shipped?	___	(__)	(✓)	should be incorporated into the procedures.
2.3	Are there any proposed changes to safety and health regulations that could impact this new activity?	(__)	✓	(__)	2.2 Not applicable
2.4	Will any of the following be required to comply with safety and health regulations:				2.4 OSHA 29 CFR Part 1910.1001 requirements
	a) exposure monitoring?	(✓)	___	(__)	must be followed in the execution of the
	b) engineering controls?	(__)	✓	(__)	construction phase of this project.

Any answer in brackets requires explanation keyed to the question number under "Comments" (continued on separate pages if necessary). Use "NA" where question is not applicable.

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		YES	NO	OTHER	COMMENTS:
	c) personal protective equipment?	(✓)	___	(__)	
	d) special medical examinations or surveillance activities?	(__)	✓	(__)	
	e) special safety operating or maintenance procedures?	(✓)	___	(__)	
2.5	Will employees need supplemental training beyond normal corporate programs to assure safe operation?	(__)	✓	(__)	
2.6	Will any variances to UCC Safety/Health Standard Practices be required?	(__)	✓	(__)	
2.7	Are there any state or local regulations that supercede federal safety and health regulations?	(__)	✓	(__)	
2.8	Are all chemicals handled included in the Toxic Substances Control Act inventory?	✓	(__)	(__)	
3.	Public Impact				
3.1	Are relief device discharges controlled such that no releases to the atmosphere can occur that would have adverse impact on the public?	___	(__)	(✓)	3.1, 3.2, 3.3 Not applicable.
3.2	Could any process upset or other emergency situation occur in this facility (explosion, spill, etc.) that would impact on the health and safety of the public?	(__)	___	(✓)	
3.3	Are the existing or planned monitoring, detection, and/or alarm systems for release of toxic chemicals adequate?	___	(__)	(✓)	
4.	Facility Design				
4.1	Will chemicals or other hazardous materials be handled under extremes of temperature or pressure (i.e. temperatures above 400°C or pressure over 500 psi)?	(__)	✓	(__)	
4.2	Will there be any potential ignition sources associated with this project?	(__)	✓	(__)	

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		YES	NO	OTHER	COMMENTS:
4.3	Will recognized industry practices be followed in the layout of the facility?	___	(_)	(✓)	4.3, 4.4 Not applicable
4.4	Will pressure vessels and storage tanks meet all performance standards and federal, state, and local laws and regulations and will all piping, valves, safety valves, and fittings meet all recognized industry standards?	___	(_)	(✓)	4.5 Not applicable 4.6 Not required
4.5	Will all normal project safety and health reviews be performed?	___	(_)	(✓)	
4.6	Has the need for any process risk studies been determined?	(✓)	(_)	(_)	
4.7	Would the loss of any utility create a possible hazardous situation?	(_)	✓	(_)	4.8, 4.9, 4.10 Not applicable
4.8	Has the need for flammable gas detectors been determined?	(_)	(_)	(✓)	
4.9	For reaction systems, is any reaction sufficiently exothermic to result in a runaway reaction under any conceivable operating conditions?	(_)	___	(✓)	
4.10	Is this a new process or does it incorporate process technology new to this plant site?	(_)	___	(✓)	

Any answer in brackets requires explanation keyed to the question number under "Comments" (continued on separate pages if necessary). Use "NA" where question is not applicable.

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		YES	NO	OTHER	COMMENTS:
4.11	Are process monitoring and control devices adequate?	___	(_)	(✓)	4.11 thru 5.2 Not applicable
4.12	Can the use of automation or advanced process control be increased to reduce the risks of employee exposures?	(_)	___	(✓)	
4.13	Will water spray protection be provided for processing, storage, and distribution areas in accordance with UCC criteria?	___	(_)	(✓)	
4.14	Are fire water supplies and distribution systems adequate to provide sufficient fire water to this facility?	___	(_)	(✓)	
5.	Emergency Response				
5.1	Will special fire and emergency response equipment, personnel, or procedures be required for this facility?	(_)	___	(✓)	
5.2	Will this project require any changes in Community Evacuation plans?	(_)	___	(✓)	

H. W. Wagert
Reviewer

10-24-86
Date

0738C/0739C

11-10

Any answer in brackets requires explanation keyed to the question number under "Comments" (continued on separate pages if necessary). Use "NA" where question is not applicable.

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