



# भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय)

## National Highways Authority of India

(Ministry of Road Transport & Highways)

कार्यालय क्षेत्रीय अधिकारी, आंध्रप्रदेश क्षेत्र

Office of the Regional Officer, Andhra Pradesh Region

प्लॉट.क्र.२१, टीचर्स कॉलोनी, गुरुनानक नगर मार्ग, विजयवाड़ा-५२० ००८. आंध्रप्रदेश

Plot No.21, Teacher's Colony, Gurunanak Nagar Road, Vijayawada-520 008. A.P.

Lr.No NHAI/RO-VJA/11045/NOC/2020-21/ 979

टेली / Tele : 0866-2483910

ई-मेल / E-mail : rovijayawada@nhai.org  
nhairovja@gmail.com



भारतमाला  
प्रगति के पथ पर अग्रसर  
BHARATMALA  
ROAD TO PROSPERITY

Dt.04.05.2021

### INVITATION OF PUBLIC COMMENTS

Sub: RO - Vijayawada - Grant of permission for laying of 18" dia Natural Gas Pipeline by M/s. GAIL (India) Limited along with 6" dia OFC by standard HDD method using bundle for carrier pipe and OFC across NH-16 at Km.585.700 for a length of 60mt - Public comments - Reg.

The Project Director, PIU - Visakhapatnam submitted a proposal of GAIL (India) Ltd. for laying of 18" dia Natural Gas Pipeline along with 6" dia OFC by standard HDD method across NH-16 at Km.585.700 in Gundivillipeta Village, Narasannapeta Mandal of Srikakulam District for a length of 60mt.

As per MORTH guidelines vide letter No. RW/NH-33044/29/2015/S&R® dated 22<sup>nd</sup> November 2016, the Highway Administration will put out the application in the Ministry's website for 30 days seeking claims and objections (on grounds of public inconvenience, safety and general public interest).

In view of the above, the comments of public, if any, on the above mentioned proposal is invited on below mentioned address.

Regional Officer - Vijayawada,  
National Highways Authority of India,  
Plot No.21, Teachers' Colony, Gurunanak Nagar Road,  
Vijayawada, Andhra Pradesh. Pin: 520 008.  
Email: [rovijayawada@nhai.org](mailto:rovijayawada@nhai.org)

(R.K. Singh),  
Regional Officer  
RO - Vijayawada



# भारतीय राष्ट्रीय राजमार्ग प्राधिकरण National Highways Authority of India

(सड़क परिवहन और राजमार्ग मंत्रालय)

(MINISTRY OF ROAD TRANSPORT & HIGHWAYS)

परियोजना कार्यान्वयन इकाई (जि क्यू), भा.रा.रा.पा. एन्क्लेव, कि.मी.2/8 रा.रा.5.,  
Project Implementation Unit (GQ), NHAI Enclave, KM 2/8 NH-16

हनुमन्तवाका, विशाखपट्टणम - 530 040, ए.पि., भारत  
Hanumanthavaka, Visakhapatnam - 530 040, A.P., India



भारतमाला  
प्रगति के पथ पर अग्रसर  
BHARATMALA  
ROAD TO PROSPERITY

दूरभाष / Phone : 0891-2707600  
2714119

फाक्स / Fax No. : 0891-2714118

ई-मेल / E-mail : vis@nhai.org

NHAI/PIU-VSP/GAIL/2020-21/ 7495

Date:06.04.2021

To

The Regional Officer,  
National Highways Authority of India,  
Regional Office, Gurunanak Nagar,  
Teachers Colony,  
VIJAYAWADA.



Sub: NHAI - PIU, Visakhapatnam - Srikakulam - Angul Natural Gas Pipeline Project: -  
Request for granting permission to lay 18" dia Natural Gas pipeline along with  
OFC by Standard HDD method and OFC across National Highway-16 at 585.700  
km in Gundivillipeta Village Narasannapeta Mandal Srikakulam  
District,AndhraPradesh-Approval Request-Reg.

- Ref: 1. M/s. GAIL Lr No. SAPL/SAPL/NH/NHAI/2020, dated 02.02.2021.  
2. Lr. No. NHAI/PIU-VSP/GAIL-OF&GPL/2021/7156, dated: 22.02.2021.  
3. Lr. No. LION/IE-0418/2018/NHAI-APCO-NR/1491, dated: 02.03.2021.  
4. This office e-mail dated 13.03.2021  
5. M/s. GAIL Lr No. SAPL/SAPL/NH/NHAI/2020/06/5106, dated 16.03.2021.

Sir,

Vide letter 01st cited, M/s GAIL(India)Limited, has applied for permission to lay 18" dia Natural Gas pipeline along with OFC by Standard HDD method and OFC across National Highway-16 at 585.700 km in Gundivillipeta Village Narasannapeta Mandal SrikakulamDistrict,Andhra Pradesh

The proposal has been inspected and verified by M/s The Lion Engineering Consultants and raised some observation vide their letter under 3<sup>rd</sup> reference (copy enclosed) as per the guidelines the same has communicated to the agency vide under reference 4<sup>th</sup> cited. The agency has complied the observation and submitted the relevant documents.

The following documents are submitted by the Agency duly complying provision for access permission for laying of utility services across the National Highways as per circular No.RW/NH-33044/29/2015/S&R(R) dt 22.11.2016

- Proposal letter.
- Check List.
- Licence fee estimate.
- Specification report.
- Licensed lease agreement.
- UndertakingCertificate.
- Certificate.

Building a Nation, Not Just Roads

निगमित कार्यालय : जी-5, एवं.6, सेक्टर-10, द्वारका, नई दिल्ली-110 075. वेब साइट : <http://www.nhai.org>

Corporate Office : G-5 & 6, Sector-10, Dwaraka, NEW DELHI - 110 075, Website : <http://www.nhai.org>

- (h) Standard Technical Specifications for pipeline crossings using HDD (Horizontal Directional Drilling Method).
- (i) Location plan.
- (j) Typical profile for NH-16 crossing by HDD Method.
- (k) Cadastral Map

In view of the recommendations of the Consultants, the proposal submitted by M/s GAIL(India)Limited, for permission for crossing of Kakinada to Srikakulam Natural Gas Pipeline along with OFC duct across NH-16 at Km.537.890 is herewith recommended for communicating the approval of Competent Authority.

**Encl:** Proposal in two sets  
(01 Original + 01 Duplicate)

Yours truly,


  
(P. Siva Sankar)  
GM(T) & Project Director

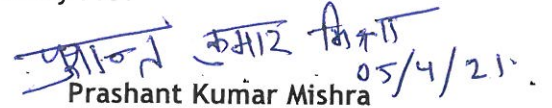
6/4/21



## CERTIFICATE

- 1 It is certified that the proposal for "M/s GAIL(India)Limited, has applied for permission to lay 18" dia Natural Gas pipeline along with OFC by Standard HDD method and OFC across National Highway-16 at 585.700 km in Village - Gundivillipeta-Narasannapeta-District- Srikakulam, State-AndhraPradesh" is confirming of all the standard conditions / guidelines issued vide Ministry circular No. RW/NH-33023/19/99-DO-III dt.24.07.2013 and No. RW/NH-33044/29/2015/S&R(R) dt. 22.11.2016.
- 2 It is certified that any other location of the Gas pipeline would be extremely difficult and unreasonable costly and the installed of gas pipeline within ROW will not adversely affect the design, stability & Traffic safety of the Highway nor the likely future improvement such as widening of the carriageway, easing of curve,
- 3 The six-laning works are already in progress and the concessionaire has given their recommendation.
- 4 It is certified that the details of the proposed permission shall be entered in the Register of Records of the Permission maintained by PIU.

  
(P. Siva Sankar)  
GM (T) & Project Director  
NHAI, PIU, Visakhapatnam

  
Prashant Kumar Mishra  
Dy Manager(Tech)  
05/4/21



## Calculation of License Fees & Performance Bank Guarantee Amount

Request for granting permission to lay 18" dia Natural Gas pipeline along with OFC by Standard HDD method using bundle for carrier pipe and OFC across NH- 16 at 585.700 Km at Village - Gundivillipeta Taluka – Narasannapeta, District – Srikakulam in the state of Andhra Pradesh.

Sl. No.	Name of Village	Chainage		Length route Mtrs.	Width Mtrs. Utilised land	Utilized NH Land Area Sq. Mtrs.	Prevailing Circle rate of Land in Rs./Sq.meters (As per Revenue Records)	Amount Rs.	Remarks	
		from km	to km							
1	Gundivillipeta Taluka – Narasannapeta, District – Srikakulam District.		Km. 585.700	60.00	1.010	61	1,316	79,750	For natural gas Main pipe line	
<b>Total Amount</b>										
						79,750	/10x12	665		
						665	x12x5	21,300		
<b>Total License Fees payable by GAIL India Ltd. Laying of natural gas pipeline srikakulam angul pipeline project</b>										
The Licence fee for public utilities shall be 33% of the fee prescribed for Industrial utilities as per point 5 of MoRTH guidelines vide Lr.No. RW/NH/33044/29/2015/S&R(R) dt. 22.11.2016										
<b>Performance Bank Guarantee Amount calculation</b>										
Amount of Performance Bank Guarantee to be submitted = Total No. of route meters x Rs. 500/- per route meter ( > 1000 mm dia/width)										
i.e. 60 x Rs. 500/- = 30000/-										
<b>Performance Bank Guarantee Amount =30,000/-</b>										

*Handwritten signature and date: 22/11/2016*

*Handwritten signature and stamp:*  
 GM(PT) & Project Director  
 PIU-Misakhatnam



# LION ENGINEERING CONSULTANTS PVT. LTD.

"Contributing in Building the Infrastructure of the Nation"

CIN No. U74999MP2020PTC050788

Sri Sobha Rani Nilayam,  
1st Floor, Satyanarayana Nagar,  
Opp. Durga Temple, Kusalapuram (Village),  
Fareed Peta (Post), Etcherla (Mandal),  
Srikakulam (District), Andhra Pradesh-532405,  
Tel: 08942-270000 Fax: 02.03.2021.

Letter No. LION/IE-0418/2018/NHAI-APCO-NR /1491

To,

The Project Director  
Project Implementation Unit (GQ),  
National Highways Authority of India (NHAI) Enclave,  
KM 2/8 NH-16, Hanumanthavaka, Visakhapatnam- 530 040, A.P., India  
Email: [vis@nhai.org](mailto:vis@nhai.org) [nhaipiuvsp@gmail.com](mailto:nhaipiuvsp@gmail.com).



Sub : Independent Engineer Services for Supervision of Six Laning of Narsannapeta-Ranastalam Section of NH-16(Old NH-5) from design km 580.671 (Existing km 580.700) to design km 634.861(Existing length 634.000) (Design Length=54.19 km) in the State of Andhra Pradesh under NHDP Phase-V on Hybrid Annuity Mode. "Permission to lay 18" dia Natural Gas pipeline along with OFC by standard HDD method using bundle for carrier pipe and OFC across NH-16 at Km 585.700 - Report furnished- Reg.

- Ref: 1. your office letter no. NHAI/PIU-VSP/GAIL-OFC& GPL/2021/7156 dated 22.02.2021.
2. GAIL (India) Limited letter no. GAIL/SAPL/NH/NHAI/2020/06/5105 Dated 02.02.2021 addressed to PD/NHAI/PIU- Visakhapatnam.
3. This office letter No. LION/IE-0418/2018/NHAI-APCO-NR /1331 dated 30.11.2020.

NHAI PIU	VSP
Mgr (T)	
Asst. M (T)	✓
Asst. (MLN)	
Asst. (RVG)	
CCTS	
IE-1	
IE-2	
IE-3	

4. Your office letter no. NHAI/PIU-VSP/TOT-Access Permissions/2019/6343 Dated 03.08.2020.
5. GAIL (India) Limited letter no. GAIL/SAPL/NH/NHAI/2020/06 Dated 23.09.2020 addressed to PD/NHAI/PIU- Visakhapatnam.
6. Policy Guidelines/Norms for Accommodation of Public and Industrial Utility services along and across National Highways, issued by MoRTH, S&R@ ZONE vide F.No. RW/NH-33044/29/2015/S&R(R) Dated 22.11.2016.

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This has reference to the above subject, vide under reference 2<sup>nd</sup> cited above therewith submitted on the compliance of this office vide letter under reference 3<sup>rd</sup> cited above, a revised proposal from M/s GAIL(INDIA) LIMITED for laying 18" dia Natural Gas Pipeline along with 6" dia OFC by standard HDD method using bundle for carrier pipe and OFC across NH-16 at Km 585.700 in Gundivillipeta village , Narasannapeta Mandal, Srikakulam District in the state of Andhra Pradesh received through PIU, NHAI, Visakhapatnam vide letter under reference 1<sup>st</sup> cited above.

2. In this regard, the above proposal has been examined and the following are the observations.
- The ROW details as per the Schedule -A of Concession agreement is 60mts (LHS 30m + RHS 30m) at Km 585.
  - The Check List submitted for Crossing of the M/s GAIL(INDIA) Limited as per latest MoRTH guide lines dated 22.11.2016 by the individual is duly verified for relevant information against each item and are found to be in order of specified MORTH guidelines.

*S. Basu* 02/03/2021

- III. Proof of Grant of Project to Gail (India) Limited has not submitted and the same is to be submitted by the applicant.
- IV. Power of Attorney has not been submitted in support of Authorized Signatory signing and submitting the proposals and the same is to be submitted by the applicant.
- V. In the Draft license Agreement regarding Granting of Right of Way permission for laying/Crossing of Utility Services on National Highways, witnesses signatures has not signed and the same is to be signed.
- VI. The applicant has not submitted any documents showing the various safety clearances from the respective Authorities such as Directorate of Electricity, Chief Controller of Explosives, Petroleum and Explosives Safety Organization, Oil Industry, Safety Directorate, State/Central Pollution Control Board and any other statutory clearances as applicable, which must be obtained by the Applicant before applying to the Highways Administration as per Para 4 of MoRTH guidelines vide under reference 3<sup>rd</sup> cited above.
- VII. The revised Strip plan, location plan and Cross section details has not Submitted by the applicant.
- VIII. The applicant has not submitted the land valuation certificate required from the Concerned Authority for calculating the Charges for granting license for use of highway land and the same is to be submitted by the applicant.

3. In View of the above, the proposal submitted by the GAIL (India) Limited return back and requested to resubmit the proposals duly attending all the above observations by the applicant.

This is submitted for favour of information and necessary action please.

Thanking You,

Yours sincerely,

For & On Behalf of M/s Lion Engineering Consultants Private limited.

  
(S Baswardju)  
(Resident Cum-highway Engineer)  
Acting Team Leader

Copy for information: -

1. Lion Engineering Consultants Pvt Ltd, Corporate office, Bhopal.





गेल (इंडिया) लिमिटेड

(भारत सरकार का उपक्रम - महारत्न कंपनी)

**GAIL (India) Limited**

(A Govt. of India Undertaking - A Maharatna Company)

गेल जुबली टॉवर,  
बी - 35 एवं 36, सेक्टर - 1, नोएडा - 201301  
जिला गौतम बुद्ध नगर (यू.पी.), इंडिया

GAIL JUBILEE TOWER,  
B - 35 & 36, SECTOR - 1, NOIDA - 201301  
DISTT GAUTAM BUDH NAGAR (UP), INDIA

फोन/PHONE : +91-120-2446400, 4862400

फैक्स/FAX : +91-011-26185941

**GAIL/SAPL/NH/NHAI/2020/06/5106**

**Dt: 16.03.2021**

To,  
Prashant Kumar Mishra,  
Dy. Manager (Tech)  
NHAI, PIU, Hanumanthavaka,  
Visakhapatnam, Andhra Pradesh.



**SUBJECT:** Request for Granting Permission to lay 18" dia Natural Gas Pipeline along with OFC by Standard HDD method using bundle for carrier pipe and OFC across NH-16 at Km 585.700

**Ref no:** 1. GAIL/SAPL/NH/NHAI/2020/06/ dated: 23/09/2020  
2. NHAI/PIU/-VSP/GAIL-OFC & GPL/2020/6833

Dear Sir,

With reference above and as per joint visit with your representative, we would like to submit herewith the amended application for granting permission to lay the Natural gas pipeline along with the OFC by standard HDD method across NH-16 at km 585.700 in the village – Gundivillipeta, Taluka- Narasannapeta, District- Srikakulam, Andhra Pradesh.

The amendment of the proposal prepared with revision of crossing location incorporated in drawings and other relevant documents as per guidelines issued by MORTH vide circular dated 22/11/2016 for your further necessary action

GAIL (India) Limited, shall take all necessary safety precautions as per PNGRB Guidelines, safety standards and relevant government norms during and after laying of the pipeline.

We are willing to fulfil all the requisite formalities including submission of application as per your prescribed format, we prepared the correction in an application letter, checklist, stamp duty, undertakings, execution of the agreement, license fee etc., to get your expeditious approval to lay the pipeline.

We solicit your kind cooperation and help for appropriate early action for processing our request.

पंजीकृत कार्यालय :  
गेल भवन, 16 भीकाएजी कामा प्लेस  
नई दिल्ली-110066, इंडिया

REGD. OFFICE :  
GAIL BHAWAN, 16 BHIKAJI CAMA PLACE  
NEW DELHI-110066, INDIA

आर. के. वर्मा / R. K. VERMA  
उप महाप्रबंधक (सर्वे एवं भू अगि)/Dy. General Manager (S&LR)  
गेल (इंडिया) लिमिटेड/GAIL (India) Limited  
8वां तल, गेल जुबली टॉवर बी-35-36, सेक्टर-1, नोएडा (उ.प्र.)  
8<sup>th</sup> Floor, GAIL Jubilee Tower B-35-36, Sec.-1, Noida (U.P.)

सीआईएन/CIN


L40200DL1984GOI018976

Website : www.gailonline.com

This pipeline project is of national importance and is being implemented in a time-bound manner. This ambitious project is being monitored closely by the highest levels in the Govt. of India. Natural gas Pipeline infrastructure development will also contribute to national prosperity for Socioeconomic needs. Therefore, most expeditious actions are requested

Thanking you,

Yours sincerely,  
For GAIL (India) Limited



**R.K Verma**  
**DGM (S&LR)**

आर. के. वर्मा / R. K. VERMA  
उप महाप्रबंधक (सर्वे एवं नू. अति.) / Dy. General Manager (S&LR)  
गैल (इंडिया) लिमिटेड / GAIL (India) Limited  
8वां तल, गैल जुबली टॉवर बी-35-36, सेक्टर-1, नोएडा (उ.प्र.)  
8<sup>th</sup> Floor, GAIL Jubilee Tower B-35-36, Sec.-1, Noida (U.P.)





गेल (इंडिया) लिमिटेड

(भारत सरकार का उपक्रम - महारत्न कंपनी)

**GAIL (India) Limited**

(A Govt. of India Undertaking - A Maharatna Company)

गेल जुबली टॉवर,  
बी - 35 एवं 36, सेक्टर - 1, नोएडा - 201301  
जिला गौतम बुद्ध नगर (यू.पी.), इंडिया

GAIL JUBILEE TOWER,  
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DISTT GAUTAM BUDH NAGAR (UP), INDIA

फोन/PHONE : +91-120-2446400, 4862400  
फैक्स/FAX : +91-011-26185941

GAIL/SAPL/NH/NHAI/2020/06/5105

Date:02.02.2021

To,  
Project Director,  
NHAI, PIU Visakhapatnam,  
Near VIMS Hospital, Hanumanthavaka,  
Visakhapatnam, Andhra Pradesh 530040.



**Subject: Srikakulam - Angul Natural Gas Pipeline Project: - Request for granting permission to lay of 18" dia Natural Gas pipeline along with OFC by Standard HDD method using bundle for carrier pipe and OFC across National Highway-16 at 585.700 km in Village-Gundivillipeta, Mandal – Narasannapeta, District- Srikakulam.**

Dear Sir,

GAIL (India) Limited, a Maharatna Company, under the aegis of Ministry of Petroleum & Natural Gas, Govt. of India, has engaged in transportation and distribution of Natural gas to various Fertilizer, Power, Steel, Petrochemical Plants, Industrial Units and also facilitate Natural Gas in the form of CNG and PNG. Presently GAIL is having a huge pipeline network of more than 13000 Km across India. GAIL is contributing a major role in India's energy requirement & distribution through continual expansion of its pipeline network.

GAIL (India) Limited has received Authorization from PNGRB (Petroleum and Natural Gas Regulatory Board), the regulatory body set up by Govt. of India, to Lay, Build and Operate a cross country Srikakulam - Angul (SAPL) Natural gas pipeline project and it shall not only enable the utilization of natural gas/ regasified LNG by various industrial consumers viz. Fertilizer, Power, Steel & Coal Sectors but also pave the way for Development of multiple City Gas Distribution networks on the way for distribution of gas by Various City Gas Companies for distribution to smaller industrial, commercial and domestic consumers as well as for construction of CNG stations for Vehicular traffic in various towns. This 700 km long Natural Gas pipeline started from Angul in state of Odisha and terminated to Srikakulam in state of Andhra Pradesh. Copy of Authorization letter by PNGRB is enclosed as Annexure-A. This is an energy infrastructure project of National importance.

The proposed 18" diameter, Carbon steel, API 5L Grade X-70, PSL-2, pipeline is intended to cross the National Highways No. 16 at Ch. 585.700 km in Village Gundivillipeta, Mandal- Narasannapeta, District - Srikakulam, which is under your jurisdiction, in the state of Andhra Pradesh.

पंजीकृत कार्यालय :

गेल भवन, 16 भीकाएजी कामा प्लेस  
नई दिल्ली-110066, इंडिया

REGD. OFFICE :

GAIL BHAWAN, 16 BHIKAIJI CAMA PLACE  
NEW DELHI-110066, INDIA

उत्तर के. ए. ए. वेरमा  
उप महाप्रबंधक (संयोजित)  
गेल (इंडिया) लिमिटेड  
8वां तल, नोएडा  
8<sup>th</sup> Floor, GAIL Jubilee Tower, Sector-1, Noida (UP), India  
E-mail: gail@vsnl.com  
CIN: L40200DL1984GOI018976  
Website : www.gailonline.com



In addition to above, OFC cable is also proposed to be laid across NH-16, envisaged to carry OFC cables for Supervisory Control and Data Acquisition (SCADA) system.

The pipeline shall be laid by Standard HDD method using bundle for carrier pipe and OFC as under latest OSID & API standards and company shall follow all the best standard of safety as prevailing in gas distribution industries and norms of PNGRB. Pipeline will be laid at a minimum depth of 2.0 m below the natural ground level across the location, detailed as below:

Sl. No	Particulars	GAIL's PL Chainage (Km)	NH Chainage (Km)	Location of Crossing
1	National Highway- 16	406+259.65	585.700	Village - Gundivillipetai, Taluka - Narasannapeta, District - Shrikakulam.

The following drawings /documents are enclosed herewith for your ready reference.

1. Authorization granted by PNGRB for laying pipeline
2. Route map showing pipeline alignment
3. Cross Section Drawing.
4. Checklist along with relevant drawing/documents as per MoRTH guidelines for obtaining crossing permission.

We are willing to fulfill all requisite formalities including submission of applications as per your prescribed format, payment of fee, execution of agreement, if any, etc. to get your expeditious approval to lay the pipeline.

We solicit your kind cooperation and help for an appropriate early action for processing our request.

This pipeline project is of National importance and is being implemented in a time bound manner. This ambitious project is being monitored closely by the highest levels in the Govt. of India. Natural gas Pipeline infrastructure development will also contribute to national prosperity for Socio-economic needs. Therefore, most expeditious actions are requested

Thanking you,

Yours sincerely,  
For GAIL (India) Limited



**R.K. Verma**  
**Deputy General Manager**

आर. के. वर्मा/ R. K. VERMA

उप महाप्रबंधक (सर्वे एवं भू. अभि.)/Dy. General Manager (S&LR)  
गेल (इंडिया) लिमिटेड/GAIL (India) Limited  
8वां तल, गेल जुबली टॉवर बी-35-36, सेक्टर-1, नौएडा (उ.प्र.)  
8<sup>th</sup> Floor, GAIL Jubilee Tower B-35-36, Sec.-1, Noida (U.P.)

Enclosures: As above



गेल (इंडिया) लिमिटेड

(भारत सरकार का उपक्रम - महारत्न कंपनी)

**GAIL (India) Limited**

(A Govt. of India Undertaking - A Maharatna Company)

गेल जुबली टॉवर,  
बी - 35 एवं 36, सेक्टर - 1, नोएडा - 201301  
जिला गौतम बुद्ध नगर (यूपी.), इंडिया

GAIL JUBILEE TOWER,  
B - 35 & 36, SECTOR - 1, NOIDA - 201301  
DISTT GAUTAM BUDH NAGAR (UP), INDIA

फोन/PHONE : +91-120-2446400, 4862400  
फैक्स/FAX : +91-011-26185941

**Ref: - GAIL/SAPL/NH/NHAI/2020/**

**Dated: 02.02.2021**

To,  
Prashant Kumar Mishra,  
Dy.Manger(Tech)  
NHAI, PIU, Hanumanthavaka,  
Visakhapatnam, Andhra Pradesh.

**SUBJECT:** Request for Granting Permission to lay 18" dia Natural Gas Pipeline along with OFC by Standard HDD method using bundle for carrier pipe and OFC across NH-16 at Km 585.700

**Ref no:** 1. GAIL/SAPL/NH/NHAI/2020/06/ dated: 23/09/2020  
2. NHAI/PIU/-VSP/GAIL-OFC & GPL/2020/6833

Dear sir,

With reference above and as per joint visit with your representative, we would like to submit here with the amended application for granting permission to lay the Natural gas pipeline along with the OFC by standard HDD method across NH-16 at km 585.700 in village – Gundivillipeta, Taluka-Narasannapeta, District- Srikakulam, Andhra Pradesh.

The amendment of proposal prepared with revision of crossing location incorporated in drawings and other relevant documents as per guidelines issued by MORTH vide circular dated 22/11/2016 for your further necessary action

GAIL(INDIA) LIMITED, shall take all necessary safety precautions as per PNGRB Guidelines, safety standards and relevant government norms during and after laying of the pipe line.

We are willing to fulfill all the requisite formalities including submission of application as per your prescribed format, we prepared the correction in application letter, checklist, stamp duty, undertakings, execution of agreement, license fee etc., to get your expeditious approval to lay the pipeline.

We solicit your kind cooperation and help for an appropriate early action for processing our request.

पंजीकृत कार्यालय :  
गेल भवन, 16 भीकाएजी कामा प्लेस  
नई दिल्ली-110066, इंडिया

REGD. OFFICE :  
GAIL BHAWAN, 16 BHIKAJI CAMA PLACE  
NEW DELHI-110066, INDIA

आर. के. वर्मा / R.K. VERMA

उप महाप्रबंधक (सर्वे एवं भू अति.) / Dy. General Manager (S&LR)

गेल (इंडिया) लिमिटेड / GAIL (India) Limited

8वां तल, गेल जुबली टॉवर बी-35-36, सेक्टर-1, नोएडा (यूपी.)  
8<sup>th</sup> Floor, GAIL Jubilee Tower B-35-36, Sec-1, Noida (U.P.)

Website : www.gailonline.com

This pipeline project is of National importance and is being implemented in a time bound manner. This ambitious project is being monitored closely by the highest levels in the Govt. of India. Natural gas Pipeline infrastructure development will also contribute to national prosperity for Socio-economic needs. Therefore, most expeditious actions are requested

Thanking you,

Yours sincerely,  
For GAIL (India) Limited



**R.K. Verma**  
**Deputy General Manager**

आर. के. वर्मा / R. K. VERMA  
उप महाप्रबंधक (सर्वे एवं भू. अभि.) / Dy. General Manager (S&LR)  
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8<sup>th</sup> Floor, GAIL Jubilee Tower B-35-36, Sec.-1, Noida (U.P.)



### CHECK – LIST

**Guidelines for Project Directors for processing the proposal for laying of Gas Pipeline in the land along National Highways vested with NHAI.**

**· Relevant circulars of Ministry of Road Transport and Highways**

1) Circular No. RW/NH-33044/29/2015/S&R (R) dated 22.11.2016

#### Check list for getting approval for laying of Gas pipeline on NH land (To be filled by the PIU).

The permission for laying of Gas pipe Line shall be considered for approval / rejection based on the Ministry Circulars mentioned as above.

(a) Carrying of sewage /gas pipelines on highway Bridges shall not be permitted as Furmes/gases pipes can accelerate the process of corrosion or may cause explosions, thus, being much more

(b) Services are not being allowed indiscriminately on the parapet/any part of the bridges, Safety of the bridges has to be kept in view while permitting various services along bridge.

S.NO	Item	Information/Status	Remarks
1	General Information		
1.1	Name and Address of the Applicant/Agency	GAIL(INDIA) Limited, Jubilee Tower B-35 & 36, Sector – 1 Noida (U.P.) – 201301	
1.2	National Highway Number	NH-16	
1.3	State	Andhra Pradesh	
1.4	Location	At Village - Gundivillipeta , Taluka - Narasannapeta, District - Shrikakulam.	
1.5	(Chainage in km)	585.700 Km	
1.6	Length in Meters	60 m	Crossing
1.7	Width of available ROW		
	(a) Left side from center line towards increasing chainage/km direction	30 m	Crossing
	(b) Right side from center line towards increasing chainage/ km direction	30 m	Crossing
1.8	Proposal to lay underground electrical cable/OFC		
	(a) Left side from center line towards increasing chainage/km direction.	NA	
	(b) Right side from center line towards increasing chainage/km direction.	NA	
1.9	Proposal to acquire land		
	(a) Left side from center line.	NA	
	(b) Right side from center line.	NA	
1.10	Whether proposal is in the same side where land is not to be acquired	NA	
	If not then where to lay the cable.	NA	
1.11	Details of already laid services, If any, along the proposed route	NA	
1.12	Number of existing lanes (2/4/6/8 lanes)	6 lanes	
1.13	Proposed Number of lanes (2 lanes with paved shoulders/4/6/8 lanes)	NA	
1.14	Service road existing or not	Existing	
	If yes then which side		
	(a) Left side from centre line	Existing	
	(b) Right side from centre line	Existing	
1.15	Proposed service road	Not exist	
	(a) Left side from center line		
	(b) Right side from center line		
1.16	Whether proposal to lay Gas pipeline is after the service road or between the service road and main carriageway	NA	

प्रशासनिक अधिकारी  
Dy.M(7)

Project Director  
National Highways Authority of India  
P.I.U. VISAKHAPATNAM

आर. के. वर्मा R. K. VERMA  
उप महाप्रबंधक (सर्वे एवं भू. अभि.)/Dy. General Manager (S&LR)  
गैल (इंडिया) लिमिटेड/GAIL (India) Limited  
8वां तल, गैल जुबिली टॉवर बी-35-36, सेक्टर-1, नोएडा (उ.प्र.)  
8<sup>th</sup> Floor, GAIL Jubilee Tower B-35-36, Sec.-1, Noida (U.P.)

1.17	Whether carrying of sewage / Gas pipeline has been proposed on highway bridges. If yes, then mention the methodology proposed for the same.	NA	
1.18	Whether carrying of sewage / Gas pipeline has been proposed on the parapet/any part of the bridges. If yes, then mention the methodology proposed for the same.	NA	
1.18	<b>If crossing of the road involved</b> if yes, it shall be either encased in pipes or through structure or conduits specially built for that purpose at the expenses of the agency owning the line	Crossing will be done by Standard HDD Method using bundle for carrier pipe and OFC	
	(a) Whether existing drainage structures are allowed to carry sewage / Gas pipeline	NA	
	(b) Is it on a line normal to NH	NA	
	(c) What is the distance of crossing the sewage/ Gas pipelines from the existing structures. Crossings shall not be too near the existing structures on the National Highway, the minimum distance being 15 meter.	More than 15 m	
	(d) The casing pipe (or conduit pipe in the case of electric / OFC cable ) carrying the utility line shall be of steel, cast iron, or reinforced cement concrete and have adequate strength and be large enough to permit ready withdrawal of the carrier pipe/cable. Mention type of casing.	Steel	
	(e) Ends of the casing/conduit pipe shall be sealed from the outside, so that it does not act as a drainage path.	Yes	
	(f) The casing/conduit pipe should, as minimum extend from drain to drain in cuts and toe of slope in the fills.	Yes	
	(g) The top of the casing/conduit pipe should be at least 1.2meter below the surface of the road subject to being at least 0.3 m below the drain inverts. Mention the proposed details.	2.0 Mtr below the lowest ground level.	
	(h) Mention the methodology proposed for crossing of road for the proposed sewage / pipeline. Crossing shall be by boring method (HDD) [Trench-less Technology] especially where the existing road pavement is of cement concrete or dense bituminous concrete type.	Crossing will be done by Standard HDD Method using bundle for carrier pipe and OFC	
	(I) The casing/conduit pipe shall be installed with an even bearing throughout its length and in such a manner as to prevent the formation of a waterway along it.	Yes	
2	<b>Document / Drawings to be enclosed with the proposal.</b>		
2.1	Cross section showing the size of trench for open trenching method (Is it normal size of 1.2m deep X 0.3m wide) (i) Should not be greater than 60 cm wider than the outer diameter of the pipe. (ii) Located as close to the extreme edge of the right-of-way as possible but not less than 15 meter from the centre-lines of the nearest carriageway. (iii) Shall not be permitted to run along the National Highways when the road formation is situated in double cutting. Nor shall these be laid over the existing culverts and bridges. (iv) These should be so laid that their top is at least 0.6 meter below the ground level so as not to obstruct drainage of the road land.	NA	

प्रशासनिक प्रतिक्रिया

Project Director  
National Highways Authority of India  
P.I.U. VISAKHAPATNAM

आर. के. वर्मा R.K. VERMA  
उप महाप्रबंधक (सर्वे एवं प्रशासन) Dy. General Manager (S&LR)  
गेल (इंडिया) लिमिटेड/GAIL (India) Limited  
8वां तल, गेल जुबिली टॉवर बी-35-36, सेक्टर-1, नोएडा (उ.प्र.)  
Floor, GAIL Jubilee Tower B-35-36, Sec.-1, Noida (U.P.)



2.2	Cross section showing the size of pit and location of cable for HDD method.	Yes	Location of cable is shown. Pit is outside Row.
2.3	Strip plan / Route Plan showing Gas pipe line, Chainage, width of ROW, distance of proposed Gas pipeline with OFC from the edge of ROW, important mile stone, intersections, cross drainage works etc.	Incorporated in the Drawing	
2.4	Methodology for laying of Gas pipe line.		
2.4.1	Open trenching method. (May be allowed in utility corridor only where pavement is neither cement concrete nor dense bituminous concrete type. If yes, What is the Methodology of refilling of trench.	Crossing will be done by Standard HDD Method using bundle for carrier pipe and OFC	
	(a) The trench width should be at least 30 cm, but not more than 60 cm wider than the outer diameter of the pipe.	NA	
	(b) For filling of the trench, Bedding shall be to a depth of not less than 30 cm. It shall consist of granular material free of lumps, clods and cobbles and graded to yield a firm surface without sudden change in the bearing value. Unsuitable soil and rock edged should be excavated and replaced by selected material.	NA	
	(c) The backfill shall be completed in two stages (i) side fill to the level of the top to the pipe and (ii) overfill to the bottom of the road crust.	NA	
	(d) The side fill shall consist of granular material laid in 15cm layers each consolidated by mechanical tampering and controlled addition of moisture to 95% of the Proctor's Density. Over fill shall be compacted to the same density as the material that had been removed. Consolidation by saturation or pending will not be permitted.	NA	
	(e) The road crust shall be built to the same strength as the existing crust on either side of the trench. Care shall be taken to avoid the formation of a dip at the trench.	NA	
	(f) The excavation shall be protected by flagman, signs and barricades, and red lights during night hours.	NA	
	(g) If required, a diversion shall be constructed at the expenses of agency owning the utility line	NA	
2.4.2	Horizontal Directional Drilling (HDD) Method	Yes	
2.4.3	Methodology for laying of Gas pipe Line through CD works and method of laying. In cases where the carrying of Gas pipeline on the bridge becomes inescapable.	NA	
3	Draft License Agreement signed by two witnesses	Yes	
4	Performance Bank Guarantee in favour of NHAI has to be obtained @ Rs 50/- per running meter (parallel to NH) and Rs1,00,000/-per crossing of NH, for a period of one year initially (extendable if required till satisfactory completion of work )as a security for ensuring/making good the excavated trench for laying the Gas pipeline with OFC /ducts by proper filling and compaction, clearing Debris/loose earth produced due to execution of trenching at least 50m away from the edge of the right of way. No payment shall be payable by the NHAI to the licensee for clearing debris /loose earth. Performance BG as per above is to be obtained.		Undertaking has been attached. The PBG shall be provided by agency after getting approval.
4.1	Confirmation of BG has been obtained or not as per NHAI guidelines	yes NA	

प्रशासनिक कक्षा  
Dym(7)

Project Director  
National Highway Authority of India  
P.O. VISAKHAPATNAM

आर. के. वर्मा  
R.K. VERMA  
उप महाप्रबंधक (सर्व एवं सू अफि), Dy. General Manager (S&LR)  
गैल (इंडिया) लिमिटेड/GAIL (India) Limited  
8<sup>th</sup> Floor, GAIL Jubilee Tower B-35-36, Sec-1, Noida (U.P.)



5	<b>Affidavit / Undertaking from the Applicant for the following is to be furnished.</b>		
5.1	Not to Damage to other utility, if damaged then pay the losses either to NHAI or to the concerned agency	Yes, Enclosed	
5.2	For Renewal of Bank Guarantee	Yes, Enclosed	
5.3	For Confirming all standard condition of Ministry Circulars and NHAI's guideline	Yes, Enclosed	
5.4	For Shifting of Gas pipe line as and when required by NHAI at their own cost	Yes, Enclosed	
5.5	For Shifting of Gas pipeline due to 6 lanning / widening of NH	Yes, Enclosed	
5.6	For Indemnity against all damages and claims	Yes, Enclosed	
5.7	For Traffic movement during laying of Gas pipe line to be managed by the applicant.	Yes, Enclosed	
5.8	If any claim is raised by the Concessionaire then the same has to be paid by the applicant.	Yes, Enclosed	
5.9	Prior approval of the NHAI shall be obtained before undertaking any work if installation, shifting or repairs, or alterations to the Gas pipe line/any other utility located in the National Highway right-of-ways.	Yes, Enclosed	
5.10	Expenditure, if any, incurred by NHAI for repairing any damage caused to the National Highway by the laying, maintenance or shifting of the Gas pipe line will be borne by the applicant agency owning the line.	Yes, Enclosed	
5.11	If the NHAI considers it necessary in future to move the utility line for any work of improvement or repairs to the road, it will be carried out as desired by the NHAI at the cost of the agency owning the utility line within a reasonable time (not exceeding 60 days) of the intimation given.	Yes, Enclosed	
5.12	Certificate from the applicant in the following format		
	(i) Laying of Gas pipe line will not have any deleterious effects on any of the bridge components and roadway safety for traffic.	Yes, Enclosed	
	(ii) "We do undertake that I will relocate service road/approach road/utilities at my own cost notwithstanding the permission granted within such time as will be stipulated by NHAI" for future six-lanning or any other development."	Yes, Enclosed	
6	Who will sign the agreement on behalf of Gas pipe line agency?	Deputy General Manager on behalf of Gail (India) Limited	
	Power of Attorney to sign the agreement is available or not	Yes, Enclosed	
7	<b>The Project Director, will submit the following Certificates.</b>		
7.1	Certificate for proposal for confirming of all standard condition issued vide Ministry of Road Transport and Highways Circular No. NH-III /P /66 /76 dated 18/19.11.1976, RW/NH-III/P/66/76 dated 11.5.1982, RW/NH-11037/1/86/DOI (ii) dated 28.7.1993, RW/NH-11037/1/86/DOI dated 19.1.1995, RW/NH-34066/2/95/S&R dated 25.10.1999, Circular No. RW/NH-34066/7/2003 S&R (B) dated 17.9.2003, RW/NH-33044/27/2000-S&R (R) dated 21.03.2006 and RW/NH-33044/29/2015/S&R (R) dated 22.11.2016	Attached	
7.2	Certificate from PD in the following format (i) " It is certified that any other location of the Gas pipeline would be extremely difficult and unreasonable costly and the installation of Gas pipeline within ROW will not adversely affect the design, stability & traffic safety of the highway nor the likely future improvement such as widening of the carriageway, easing of curve etc".	Attached	

प्रमाणित  
श्री अशोक  
DYM (7)

Project Director

National Highways Authority of India  
P.O. MUMBAI

आर. के. वर्मा R. K. VERMA  
जन महाप्रबोधक (सर्व एच एच डी) General Manager (S&LR)  
गैल (इंडिया) लिमिटेड/GAIL (India) Limited  
आनंद गैल टॉवर जुबली टॉवर बी-35-36, सेक्टर-1, नोएडा (उ.प्र.)  
8<sup>th</sup> Floor, GAIL Jubilee Tower B-35-36, Sec-1, Noida (U.P.)

	(ii) for 6-laning (a) Where feasibility is available "I do certify that there will be no hindrance to proposed six-laning based on the feasibility report considering proposed structure at the said location". (b) In case feasibility report is not available "I do certify that sufficient ROW is available at site for accommodating proposed six-laning".		
8	If NH section proposed to be taken up by NHAI on BOT basis – a clause is to be inserted in the agreement."The permitted Highway on which Licensee has been granted the right to lay Gas pipeline with OFC/duct has also been granted as a right of way to the concessionaire under the concession agreement for up-gradation of [----- Section from Km ----- to Km ----- of NH No.----- on Build, Operate and Transfer basis] and therefore, the licensee shall honour the same."	N/A.	
9	Who will supervise the work of laying of Gas pipe line		
	(a) On behalf of the Applicant	Officer of Gail (India) Limited	
	(b) On behalf of NHAI	IE/Concessionaire on behalf of NHAI	
10	Who will ensure that the defects in road portion after laying of Gas pipe line are corrected and if not corrected then what action will be taken		
	(a) On behalf of the Applicant	Officer of Gail (India) Limited	
	(b) On behalf of NHAI	IE/Concessionaire on behalf of NHAI	
11	Who will pay the claims for damages done/disruption in working of Concessionaire if asked by the Concessionaire?		
	On behalf of the Applicant	Gail (India) Limited	
12	A certificate from PD that he will enter the proposed permission in the register of records of the permissions in the prescribed proforma (copy enclosed).	Enclosed	
13	If any previous approval is accorded for laying of underground Gas pipeline then Photocopy of register of records of permissions accorded as maintained by PD then copy be enclosed	Not accorded any pervious approval	

पुनरीक्षण के लिए  
DGM (7)

3

आर. के. वर्मा / R. K. VERMA  
उप महाप्रबंधक (सर्व एवं सू. उभि.) / Dy General Manager (S&LR)  
गैल (इंडिया) लिमिटेड / GAIL (India) Limited  
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8<sup>th</sup> Floor, GAIL Jubilee Tower B-35-36, Sec.-1, Noida (U.P.)

Project Director  
National Highways Authority of India  
P.J.U. VIDYASAGAR



## SPECIFICATION REPORT

Specification report to accompanying the estimate towards "License Fee" for Laying of 18" dia Natural Gas pipeline along with OFC by Standard HDD method using bundle for carrier pipe and OFC across NH- 16 at 585.700 Km at Gundivillipeta Village, Narasannapeta Mandal, Srikakulam District in the state of Andhra Pradesh by M/s Gail (India) Limited.

Estimate Amount: Rs. 15000


The Deputy General Manager, Gail (India) Limited, Srikakulam- Angul Natural Gas Pipeline Project has requested to give permission for Laying of Natural Gas pipeline with OFC across NH- 16 at 585.700 Km at Gundivillipeta Village, Narasannapeta Mandal, Srikakulam District in the state of Andhra Pradesh.

The rate of land abutting NH/SHZPP/MPP are not available rates of Local Land rates is used for calculation of license fee.

Sl No.	Description	Chainage	Length (m)	Rate of Land Abutting NH	
				Per Acre	Per Sq.m
1	<b>National Highway-16 (Gundrvillipeta to Narasannapeta, between KMS-585 &amp; KMS-586</b>	Road Crossing at Km 585.700	60.00	5,324,000	1316

The land rate corresponding to the chainage is used for calculation of License fee.

Hence the license fee estimate prepared as per MORTH Circular Memo No. RW/NH/33044/29/2015/S&R(R), dated: 22.11.2016.

  
आर. के. वर्मा / R. K. VERMA  
उप महाप्रबंधक (सर्वे एवं भू. अभि.)/Dy. General Manager (S&LR)  
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# CROSS SECTION OF NH-16 CH.406+259.65KM



(NOT TO SCALE)

Lakhimera



0.82km

ROU Limit  
PRO. ASPL

Row Limit

To Narasannapeta  
2.99km

ROU Limit  
TO SRIKAKULAM  
TP655

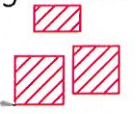
KMS-585

Rec Drain  
Service Road  
NH-16

Dividee  
793.47M

Row Limit

Borigivalasa



Row Limit  
Row Limit  
Row Limit

1.54km

90°

IP654/1

Well

To Gundryillipeta  
0.41km  
KMS-586

Service Road  
Rec Drain  
206.53M

0.77km

FROM ANGUL  
TP654



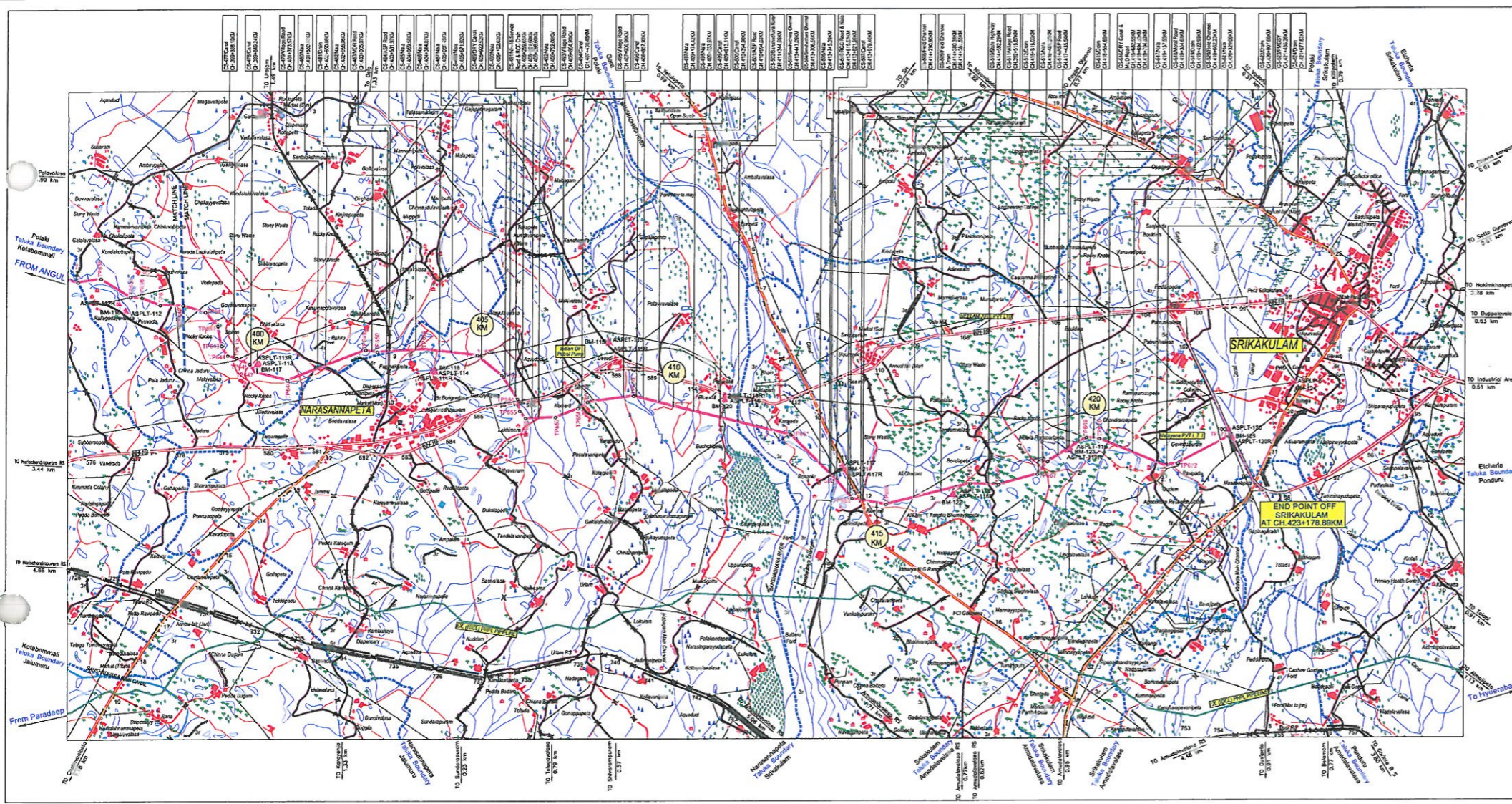
Gundryillipeta

आर. के. वर्मा / R. K. VERMA

महाप्रबंधक (सर्वे एवं मू. उ. वि.) / Dy. General Manager (S&LR)  
रेल (इंडिया) लिमिटेड / GAIL (India) Limited  
8वां तल, गेल जुबली टॉवर बी-35-36, सेक्टर-1, नौएडा (उ.प्र.)  
8<sup>th</sup> Floor, GAIL Jubilee Tower B-35-36, Sec.-1, Noida (U.P.)







TP STATEMENT				CROSSING DETAILS		
TP	EASTING	NORTHING	CHANGING	TP ANGLE	CS ANGLE	CS ANGLE
TP60	191148.79	203891.24	397464.18	167.297	477	191559.17
TP61	192566.44	203876.47	398144.90	314.258	478	191063.53
TP62	192178.91	203899.28	398454.3	307.278	479	189887.19
TP63	191481.83	203915.18	398982.85	197.281	480	189761.44
TP64	191659.45	203930.80	399233.25	411.937	481	189646.39
TP65	191465.37	203927.54	399436.18	82.9317	482	189795.82
TP66	191141.60	203928.71	399767.77	33.9547	483	188751.04
TP67	190965.44	203912.55	399457.90	432.137	484	188322.38
TP68	190287.18	203905.82	400070.19	35.2541	485	187864.27
TP69	189206.17	203764.85	402478.98	30.4838	486	187634.74
TP70	188979.58	203745.84	402933.33	13.2291	487	187634.74
TP71	188158.80	203694.66	403733.05	87.2278	487	186945.61
TP72	187122.30	203646.53	404882.21	33.1778	488	186351.76
TP73	186442.83	203567.00	405567.33	215.4127	489	186133.30
TP74	185931.11	203484.82	406154.34	153.4218	490	185976.31
TP75	185711.38	203404.68	406436.10	38.9371	490	185976.31
TP76	185518.41	203371.32	406832.17	411.0291	491	185872.69
TP77	184948.82	203287.84	407283.56	197.281	491	185342.13
TP78	184578.83	203236.61	407811.14	12.4373	491	184905.39
TP79	184577.17	203206.66	408402.48	20.2218	492	184535.68
TP80	183774.17	203139.12	409108.21	219.2010	493	184242.14
TP81	182499.17	203041.57	412549.07	30.2843	494	183964.20
TP82	179192.82	203033.77	413888.00	4.58473	495	184640.15
TP83	178848.26	203046.25	414458.91	39.4621	496	183964.20
TP84	177848.26	203046.25	414458.91	39.4621	496	183964.20
TP85	176564.48	203185.31	417463.20	187.8273	497	183711.15
TP86	176140.32	203280.81	417872.79	17.2818	498	183654.46
TP87	175558.68	203248.57	418531.90	35.1051	499	183293.60
TP88	175104.36	203162.20	419447.14	38.3339	501	182615.77
TP89	174884.40	203096.13	420121.88	18.2737	502	181605.77
TP90	173911.76	203047.84	421303.87	30.9351	503	181388.97
TP91	173153.86	203048.35	421815.43	19.1930	504	181341.95
TP92	172906.41	203037.68	423178.89	-	505	181337.69
TP93	172906.41	203037.68	423178.89	-	506	181337.69
TP94	172906.41	203037.68	423178.89	-	507	181337.69
TP95	172906.41	203037.68	423178.89	-	508	181337.69
TP96	172906.41	203037.68	423178.89	-	509	181337.69
TP97	172906.41	203037.68	423178.89	-	510	181337.69
TP98	172906.41	203037.68	423178.89	-	511	181337.69
TP99	172906.41	203037.68	423178.89	-	512	181337.69
TP100	172906.41	203037.68	423178.89	-	513	181337.69

BM POINT STATEMENT			
BM No	EASTING	NORTHING	R.L.(M)
BM-117	191004.40	203917.54	38.126
BM-118	187707.71	203752.78	20.119
BM-119	184895.17	203476.21	17.255
BM-120	816148.09	203430.25	17.449
BM-121	813251.83	2034184.21	18.823
BM-122	810926.82	2033394.21	22.187
BM-123	808432.59	2031160.68	48.855
BM-124	808189.10	2027268.85	18.134
BM-125	806198.10	2027268.85	20.445

### KEY MAP

### TOPOSHEET ORIENTATION

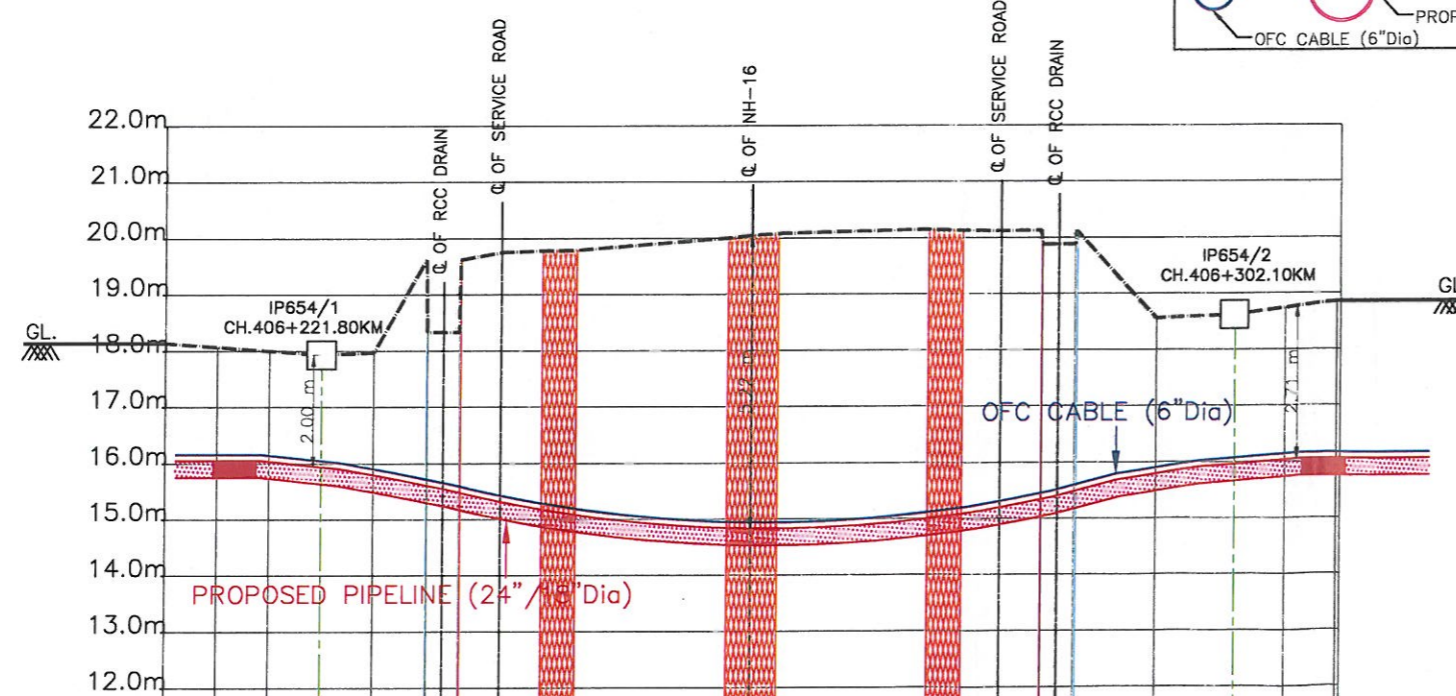
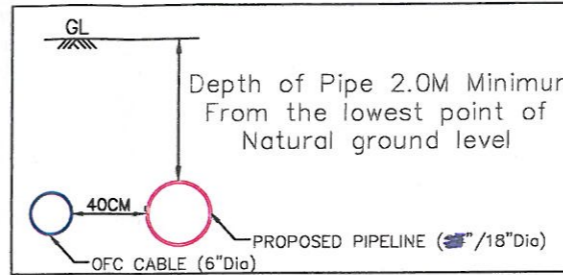
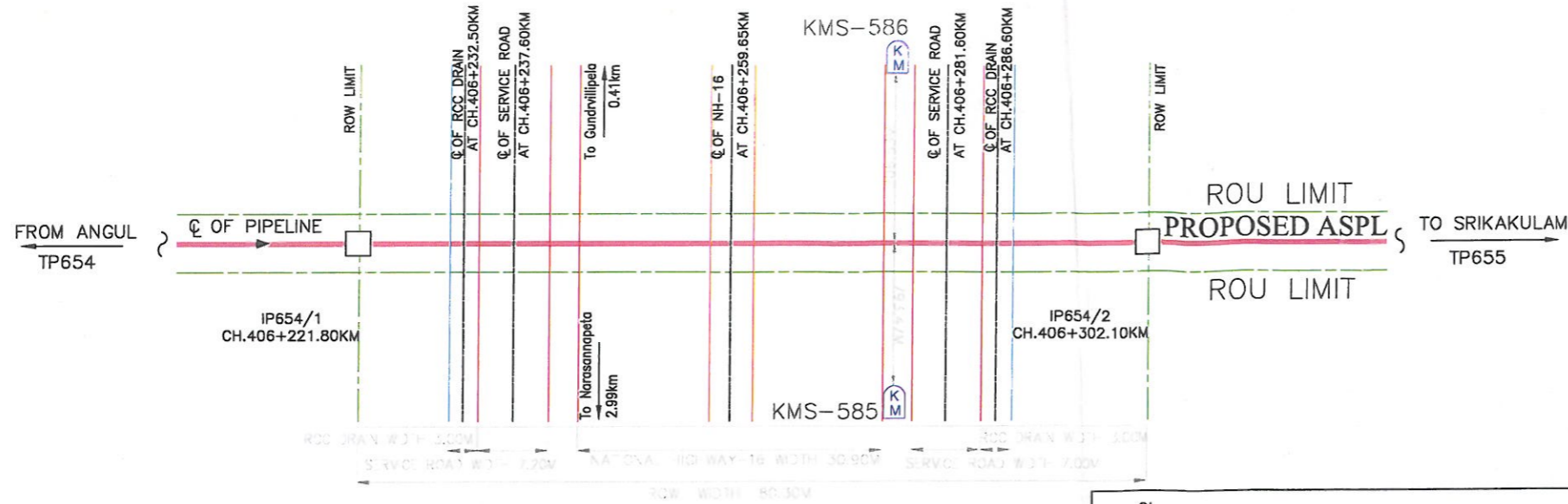
5	9	13	1	5	9	13	1
10	14	2	6	10	14	2	6
15	3	7	11	15	3	7	11
16	4	8	12	16	4	8	12
17	11	15	3	7	11	15	3
18	2	16	4	8	12	16	4
19	13	1	5	9	13	1	5
20	14	2	6	10	14	2	6
21	15	3	7	11	15	3	7
22	16	4	8	12	16	4	8
23	17	11	15	3	7	11	15
24	18	2	16	4	8	12	16
25	19	13	1	5	9	13	1
26	20	14	2	6	10	14	2
27	21	15	3	7	11	15	3
28	22	16	4	8	12	16	4
29	23	17	11	15	3	7	11
30	24	18	2	16	4	8	12

### SHEET INDEX

NO.	DATE	FOR APPROVAL	BY	CHKD.	APRD.	PROJ ENR.
0	22.08.20	FOR APPROVAL	MDR.	MAKESH		
<b>CLIENT</b> <b>GAIL (INDIA) LIMITED</b> (A Govt. of India Undertaking) <b>NOIDA</b>						
<b>PROJECT</b> SURVEY USING HRSI AND OTHER PROJECT ACTIVITIES INCLUDING OBTAINING OBSTACLES CROSSING PERMISSIONS, ROU ACQUISITION, LAND PURCHASE, ETC., FOR SRIKAKULAM ANGUL PIPELINE PROJECT						
<b>SURVEY AGENCY</b> <b>S.K.P. PROJECTS PVT. LTD.</b> 201-205, Sri Sanarth Complex, Near Manasa Crossing, Makapura Road, Vidodara - 390019. Phone = 7226402071, 722640262 (AN ISO 9001:2015 CERTIFIED COMPANY)						
<b>TITLE</b> ANGUL TO SRIKAKULAM PIPELINE CHAINAGE : 397+647.18 KM TO 423+178.89 KM						
<b>SCALE</b>		<b>DRAWING NO.</b>		<b>SHEET NO.</b>		<b>REV.</b>
1:50,000		SKP/GAIL/ASPL/RM-14		14 OF 14		0

**आर. क. वर्मा / R. K. VERMA**  
 उप महाप्रबंधक (सर्वे एवं भू अंमि) / Dy. General Manager (S&LR)  
 गैल (इंडिया) लिमिटेड / GAIL (India) Limited  
 8वां फ्लोर, गैल बिल्डिंग, नोएडा  
 8<sup>th</sup> Floor, GAIL Building, Noida





DATUM 11.00M	
GROUND LEVEL IN METRES	18.14 18.07 18.00 17.93 17.97 18.62 18.33 18.32 18.62 19.75 19.78 19.79 20.00 20.05 20.08 20.15 20.13 20.12 20.13 18.88 18.88 19.88 20.12 18.56 18.62 18.74 18.86
DISTANCE BETWEEN LEVEL POINTS IN METRES	4.58 4.58 4.56 4.58 4.62 0.18 1.48 0.18 3.60 3.60 3.00 13.30 2.15 2.25 13.20 3.00 3.50 3.50 0.18 1.48 0.18 6.98 7.02 4.58 4.58
HORIZONTAL DISTANCE IN METRES	50.0 45.0 40.0 35.0 30.0 25.0 20.0 15.0 10.0 05.0 0.0 05.0 10.0 15.0 20.0 25.0 30.0 35.0 40.0 45.0 50.0

NAME OF ROAD : NATIONAL HIGHWAY-16  
 CLASSIFICATION : ASPHALTED ROAD  
 JURISDICTION : PROJECT DIRECTOR, NHAI, PIU , VISAKHAPATNAM

NAME OF CROSSING	VILLAGE	TEHSIL	DISTRICT	STATE	CROSSING CHAINAGE IN METRES
NH-16	SRIRAMPURAM	NARASANNAPETA	SHRIKAKULAM	ANDHRA PRADESH	AT CH.406259.65M

REFERENCE DRAWINGS	
DRAWING TITLE	DRAWING NO
ROUTE MAP	DWG.NO.SKP/GAIL/ASPL/RM-14
ALIGNMENT SHEET	DWG.NO.SKP/GAIL/ASPL/ALN-233

**KEY PLAN (NOT TO SCALE)**  
 CROSS SECTION OF NH-16 CH.406+259.65KM

SR. NO.	PARTICULARS	DETAILS
1	Origin-Destination	Gundryllipeta To Narasannapeta
2	Road Name As Per Authority	NH-16
3	Road Chainage (km)	CH.585+793.47KM
4	Nearest TP or IP a) Before Crossing b) After Crossing	IP654/1 IP654/2
5	Crossing Angle	90°
6	ROW Width of Crossing in 'm'	80.30M
7	Crossing Control Point	E 185857.063 N 2036919.393

NOTES: -  
 1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE MENTIONED.  
 2. ALL LEVELS ARE WITH RESPECT TO MEAN SEA LEVEL.

REV	DATE	INITIAL	SIGN	INITIAL	SIGN	INITIAL	SIGN	SUB OF REV
	27.08.20		Harim					

CLIENT	<b>GAIL (INDIA) LIMITED</b> (A Govt. of India Undertaking) NOIDA
SURVEYED & PREPARED BY	<b>S.K.P. PROJECTS PVT. LTD.</b> 201 - 205, Sri Samarth Complex, Near Manaji Crossing, Makarpura Road, Vadodara - 390010. Phone = 7228940501/502 (AN ISO 9001:2015 CERTIFIED COMPANY)
PROJECT	SURVEY USING HRSI AND OTHER PROJECT ACTIVITIES INCLUDING OBTAINING OBSTACLES CROSSING PERMISSIONS, ROU ACQUISITION, LAND PURCHASE, ETC., FOR SRIKAKULAM ANGUL PIPELINE PROJECT
JOB NO.	SHEET OF : 491 OF 524
DWG TITLE	CROSS SECTION
SECTION	ANGUL TO SRIKAKULAM PIPELINE
DETAILS OF	NH-16 CROSSING AT CH.406+259.65KM
SCALE	DRAWING NO.
HOR 1:100 VER 1:100	DWG.NO.SKP/GAIL/ASPL/CS-491